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**ACCESS TO CREDIT:
LENDING PRIORITIES AND SMES**

**VOLUME II
EMPIRICAL FINDINGS FROM SURVEY DATA**

**George Haines, Jr., Carleton University
Allan L. Riding, Carleton University**

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VOLUME II**

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EMPIRICAL FINDINGS FROM SURVEY DATA

Executive Summary

This report provides the findings of an investigation regarding the alleged "credit crunch", a hypothesis that lending institutions have reduced access to credit for SMEs over the 1990 through 1994 period. This study brings to bear systematic and rigorous statistical treatment of newly-collected primary data. It reports on investigations of these data that are intended to specify further the nature of the "credit crunch" problem. This takes two forms. First, the data from CFIB surveys from 1987, 1990, and 1994 are compared as to:

- rates of loan turndowns;
- interest rates charged on loans;
- empirical models of lending decisions; and,
- other aspects of small firms' borrowing experiences.

Second, data extracted in 1990 and 1994 from bank loan files are also compared to arrive at a profile of small business borrowers and to determine the extent to which terms of credit may have shifted between 1990 and 1994.

Findings from this investigation include:

- turndown rates for loan requests in 1994 are higher than in 1990 and 1987;
- turndown rates are higher for smaller firms and are subject to regional disparities, disparities that correlate with geographic levels of prosperity;
- the level of technology is not a major factor in loan turndowns nor in determination of interest rates;
- the primary reason for loan turndowns is an inadequate debt-equity balance;
- determinants of the three types of loan decisions have altered significantly. By 1994, more factors are significant determinants of loan turndowns, and some of which are new. Turndowns were found to be more common if firms had had to deal with multiple account managers, other factors being held constant.
- the size of the borrower correlates strongly and inversely with interest rates charged on loans;
- according to CFIB data, interest rates on term loans appear to have increased significantly between 1990 and 1994; however, bank loan file data, selected randomly, did not support this finding.
- interest rates displayed regional disparities that correlate with economic conditions;

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- the ratios of collateral to loan have not changed between the 1990 and 1994 surveys;
- "banks actions" such as requiring more collateral etc. appear to be most common for firms that have a record of declining sales and for firms whose sales are rapidly growing;

These results suggest that account managers appear to be more sophisticated in their decisions. Small business owners may perceive this as a change to historical 'groundrules'. The situation is exacerbated by the economics of small business lending and account manager rotation.

On the basis of these findings, there are elements of banks' business practices with SMEs that are open to criticism. Some of these represent failures (or inabilities) to communicate. Banks ought to explain fully reasons for loan turndowns and "bank actions" to their small business customers. Ideally, account managers should deal with fewer clients so that good relationships and open lines of communication can be maintained. To the extent that small business owners can acquire an understanding of the (changing) bank decision process, greater client satisfaction may be obtained

Perhaps the major obstacle in this regard is the inefficiency and the small margins that result from small lending balances. On the whole, it is the very smallest of bank business borrowers that face the most difficult situation, a situation that has a "vicious circle" aspect to it. The small borrowing balance and low margin make it difficult for the account manager to provide much remediation. Failure of the firm reinforces the sense that "smaller is riskier". One means of attending to this problem is to permit Credit Unions, Co-operative Banking firms, and Caisses Populaires to participate in the business loan market, perhaps up to a legislated loan ceiling. The experience in Quebec and Saskatchewan with these lenders has been positive.

The research does not support the hypothesis of a "credit crunch". Only two elements of evidence favour the "credit crunch" hypothesis: increases in loan turndown rates and increases in the average rates of interest on term loans. However, both aspects have alternative explanations that seem reasonable.

ACKNOWLEDGEMENTS

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The cooperation and support of members of the banking industry were also fundamental to this work. In particular, we wish to mention Joanne de Laurentiis, Richard Munro, and Michael Greene of the Canadian Bankers Association. Of special mention was the active and unreserved cooperation of Murray Sutherland and Antionette Vita of the Bank of Montreal, Warren Walker and Gerry Chamberlain of the Bank of Nova Scotia, Gerry Lukassen of the Canadian Imperial Bank of Commerce, Gervais Lafferrière of the Banque Nationale, Glen Kelsey and Diana Price of the Royal Bank of Canada, and J. A. Cotton of the Toronto Dominion Bank.

The authors wish to acknowledge then seminal work of Larry Wynant and James Hatch of the University of Western Ontario. Without their benchmark findings, several of the most important conclusions found here would be attainable. Moreover, the helpful comments and suggestions of our colleagues, particularly those of Barbara Orser and Roland Thomas, are very much appreciated.

In spite of all this assistance, errors and omissions may have crept into the work: the authors are fully responsible for them.

ACCESS TO CREDIT: LENDING PRIORITIES AND SMES

VOLUME II EMPIRICAL FINDINGS FROM SURVEY DATA

Section 1

1.1 Introduction

This report addresses the hypothesis that Canadian banks have been restricting credit to SMEs during the 1990 through 1994 period: the allegation of a "credit crunch". Under the sponsorship of the Federal Department of Finance, the Conference Board recently released a review of published international research regarding the "credit crunch" topic. The report concluded, *inter alia*, that the most useful evidence regarding the "credit crunch" hypothesis would derive from longitudinal analysis of access to, and terms of, credit. However, appropriate longitudinal data do not exist. This report documents research that moves a step towards this ideal. Accordingly, this report provides findings of the analysis of two sets of surveys. Each of the two sets deal with small business lending experiences in both 1990 and 1994, thereby providing longitudinal "snapshots" of SMEs borrowing experiences.

The two categories of survey results are:

- those conducted by the Canadian Federation of Independent Business (CFIB) in 1987, 1990, and 1994. The 1987 and 1990 surveys represent the responses of more than 2,700 and 3,200 members respectively; approximately 11,000 members responded to the 1994 survey. Findings from these surveys are reported in Section 2 of this volume.
- A random selection of bank loan files carried out in the summer of 1994 by the research team associated with this study. The results of this survey of 1,393 bank loan files are compared with the 1990 survey of bank loan files conducted by Wynant and Hatch. Findings from this step are reported in Section 3 of this volume.

These two sets of survey data were designed to be as comparable over time as possible. As such, they provide "before" and "after" perspectives on the terms of, and access to, bank credit across the survey dates. These perspectives are from the standpoints of small business borrowers (CFIB surveys) and bank lenders (bank file surveys), respectively.

Therefore, the purpose of study is to bring to bear both systematic and rigorous statistical treatment of newly-collected primary data. This report focuses exclusively on analysis of these primary data. It reports on investigations of these data that are intended to specify further the nature of the "credit crunch" problem. This takes two forms. First, the data from CFIB surveys from 1987, 1990, and 1994 are compared as to:

- rates of loan turndowns;
- interest rates charged on loans;
- empirical models of lending decisions; and,
- other aspects of small firms' borrowing experiences.

Second, data extracted in 1990 and 1994 from bank loan files are compared to arrive at a profile of small business borrowers and to determine the extent to which terms of credit may have shifted between 1990 and 1994.

Overview of Report

Following this introductory comment is a short description of the background to this study and a rationale for it. Section 2 focuses on the findings from the CFIB survey data. Subsections of section 2 focus on empirical research that:

- attempts to identify factors associated with decisions to turn down requests for term loans, lines of credit, and increases in lines of credit;
- measures trends in and determinants of rates of interest for small business bank borrowers, and the quantity of credit granted;
- examines other potential changes in the bank/small firm interface related to the "credit crunch" issue. These include collateral to loan ratios and factors associated calling loans etc.

These findings provide a first perspective on the extent to which, if any, that these factors have shifted between 1990 and 1994.

Findings from this section include:

- turndown rates on all types of bank lending appear to have increased between 1990 and 1994;
- interest rates on term loans (but not on operating loans) seem to have increased between 1990 and 1994;

- bank account managers appear to have become more sophisticated and now take more factors systematically into account. This change may be perceived by small business owners as a "change in the rules";
- the lending decision may be successfully modeled as a simultaneous rate/quantity decision process.

The third section provides a second perspective on these issues. It presents an analysis of data from the sample of 1,393 bank loan files. These include comparisons of interest rates in 1994 with those reported by Wynant and Hatch (1990) and comparative assessments of other aspects of the bank/SME relationship. Results from this section include:

- development of a profile of small business borrowers;
- a finding, contrary to that based on CFIB data, that interest rates on all types of loans to SME borrowers have not increased during the 1990-1994 interim.

A companion volume explores issues related to the Small Business Loans Act (SBLA), issues that include development of a profile of SBLA borrowers, findings regarding the incrementality of SBLA lending, and investigation of a risk profile of SBLA borrowing.

1.2 Background to the Investigation

The "Credit Crunch" Issue

The new Liberal government has set as a priority that SMEs have adequate access to capital, particularly to debt capital. This is because growth of SMEs has been viewed as a principal mechanism by which new employment and prosperity are enabled. Capital is necessary for such expansion. Thus, access to capital is a requisite for economic development and job creation.

With the focus on SME's as a primary element of economic development, Canadian lending institutions find themselves under pressure from the media and governments to augment the supply of capital to SMEs. For example, data presented in the 1994 federal budget, points to a decline in the quantity of small loans from Canadian banks.¹ The apparent decline of almost \$4 billion in small business loans has raised concerns regarding the lending practices of Canadian chartered banks.

A second source of allegations of restrictions on credit to small business clients lie in the anecdotal accounts advanced by small business owners. Some laments have been documented in the popular press; others have been brought forward by witnesses to the Standing Committee on Industry of the Federal Government. If the supply of lending to SME's has shifted such that less credit is available, on a *ceteris paribus* basis, then the claim of a "credit crunch" would be sustained.

¹ Loans of less than \$500,000.

However, neither anecdotal evidence nor existing documentation on the amount of loans outstanding suffice to support these claims. One alternative is simply that demand has been reduced. Lending constitutes the confluence of *both* supply and demand. It can be argued that during the 1990-1993 period businesses did not face, to the same extent as before, the profitable expansion opportunities that might have prompted a need for capital. The recession and structural change in the economy are arguably factors in the decrease in loans to SMEs. Anecdotal evidence is also insufficient in and of itself. The majority of small business bank customers are satisfied with their respective banking relationships. While borrowers are free to articulate their grievance, confidentiality restricts the banks' ability to respond. It is not always clear, for example, whether or not a loan turnaround or a requirement for more security is simply a capricious act on the part of a banker or an act that is justified by the fundamentals of the firm. Likewise, anecdotal evidence may misrepresent a given situation.

Previous Research

The reader is referred to the comprehensive outline of previous research compiled by the Conference Board of Canada. One study worth of a brief note is that carried out by Kelly Bordian (1992, Department of Finance), who addressed the question of a credit crunch in a Canadian context. Bordian examined the issue in two ways. One approach was based on the argument that lenders may restrict capital by increasing price. Hence, Bordian examined the spreads between the rates which lenders pay for funds and the rates at which they lend funds. The second approach was based on the supposition that lenders could ration credit through non-price mechanisms. Neither avenue of investigation found for the hypothesis a "credit crunch".

Bordian's analysis was inconclusive, particularly with respect to bank lending to SME's, for three reasons:

- Bordian used only the prime rate as a measure of the lending rate. This measure was inappropriate because lenders could either increase risk premia or increase the number of clients who pay more than the prime rate.
- Bordian's analysis of alternatives to debt financing was valid only for those firms that are large enough to be able to use short term paper, bonds, and stocks as alternatives to institutional borrowing. This excludes virtually all SMEs.
- Bordian's analysis was carried out at a high level of aggregation and did not speak to the special case of SME's.²

In summary, there does not appear to be conclusive evidence regarding the hypothesis of a "credit crunch" in the existing research literature. Accordingly, this study seeks to add to our understanding of the issues involved so that policy may be guided by rigorous and comprehensive research findings.

² Bordian observed for 1992 that demand loans of less than \$5 million "have had a steady, albeit negative, growth rate for over a year" (p.15), a year in which larger loans had experienced positive growth rates in lending.

Potential Factors Impacting Supply of and Demand for Credit

In examining the level of credit extended to SME's it is necessary to distinguish supply-related factors from demand-based effects. By definition, the recession of the early 1990's has limited demand for products, reduced the scope for profitable business investment, and thereby has provided fewer attractive investment opportunities. Firms may not have needed as much capital as in the 1988-1990 period. What appears to be a contraction of lending to small firms could arguably result from the normal cycle of the economy.

To some extent, the appearance of a contraction in the supply of credit may also be an inflation-induced artifact. Since 1981, the level of lending to "small" firms was defined as the (nominal) dollar volume of loans that fall below \$500,000 (1981\$). Based on inflation (as measured by the GNP deflator) the equivalent of this ceiling in \$1994 would be more than \$700,000. This begs the need for an alternative measure of the supply of credit to SME's.

Moreover, a credit crunch is defined as *a reduction in the supply of credit assuming the quality of borrowers remains stable*. It is not clear that the assumption of constancy of quality of borrowers has held. The economic cycle affects SME's in particular and business bankruptcies have increased. Certainly this characteristic, together with the April 1993 amendments to the Small Business Loans Act (SBLA), could provide one rationale both for the expansion of the SBLA portfolio as well as for the overall apparent reduction in lenders' small loans portfolio.

SMEs have higher levels of systematic risk. Even if small businesses risk profiles haven't changed, they are less able to cover additional financial leverage during recessions. This is because the cost structures of SMEs tend to reflect higher degrees of operating and financial leverage than do larger firms. That is, fixed costs (including the costs of debt servicing) tend to be proportionately higher for smaller firms, other things being equal. This renders SME's more sensitive to the vagaries of the business cycle than large. To the extent that SME's are more risky, it would be logical for lending institutions to be more cautious about advancing loans to SME's during recessions.

Longitudinal empirical evidence must address these contentions. The following sections report on the findings of several analyses of primary data, findings that help narrow the issues.

Section 2

Findings from CFIB Survey Data

Sources of Data

This section compares SME banking experiences over the 1987 - 1990 - 1994 periods according to responses to CFIB surveys. Access to, and terms of, credit are compared longitudinally to address the contention that lenders have restricted credit during the 1990-1994 period. Appendix A describes the particulars of the CFIB surveys and includes copies of the survey forms.

2.1 Access to Capital

An Overview of Loan Turndown Findings

All three CFIB surveys asked respondents about their bankers' decision about the firms most recent application for a loan. Respondents could reply with one of:

- the application had been accepted;
- the application had been rejected;
- no decision had yet been reached;
- the application was accepted in a modified form (1994 only).

A "turndown" was defined as a positive response to "application had been rejected". Accordingly, turndowns are premised on the perspective of the business owner. These turndowns would include both formal and informal turndowns. Findings with respect to overall turndown rates, the influence of size of firm, level of technology, and geographic disparities follow.

Overall Turndown Rates

From Table 1, it is seen that the success rate is higher consistently for term loans than for either new lines of credit or increases in lines of credit. This observation reflects a characteristic of term loans: that they tend to be more readily guaranteed or secured than the other types of loans. For comparison, the turndown rates from the 1990 and 1994 are also shown here. It may be noted that rejection rates for loan requests in 1994 are higher than in 1990 and 1987.

It was also noted that the level, within the bank, of approval authority for a loan traditionally depends on the size of the loan request. Yet the rate of rejection of loan requests does not differ across the various levels

of authority.³ The purpose for running this particular test was to determine whether or not specialized branches might be better able to investigate the likelihood of a loan being supported by the client. The relationship between bank organizational attributes and treatment of SME clients is one that will be further developed in this report.

Table 1
Overall Turndown Rates
1987, 1990, 1994

Year	Type of Loan Application	Number of Cases	Number of Turndowns	Turndown Rate (%)
1987	Term Loans	1,034	80	7.74
	New Lines of Credit	409	60	14.67
	Increases in Lines of Credit	587	67	11.41
1990	Term Loans	563	38	6.75
	New Lines of Credit	591	43	7.28
	Increases in Lines of Credit	607	50	8.24
1994	Term Loans	2,185	297	13.59
	New Lines of Credit	2,396	370	15.44
	Increases in Lines of Credit	1,741	257	14.76

Loan Turndowns by Size of Business and Level of Technology

In Table 2, turndown rates are compared across the 1990 and 1994 periods and are broken down by firm size and (for 1994 data) by level of technology. Data indicate that access to credit is a strong function of firm size. Turndown rates are far higher for smaller firms.

Tables 1 and 2 both suggest that turndown rates for 1994 are significantly higher than in 1990, and also than they had been 1987. Table 2 also shows that the level of technology does not appear to be a major factor in determining the frequency of turndowns, with the possible exception of applications for new lines of credit. This conclusion is necessarily guarded at this stage because it is likely that a variety of factors govern the turndown decision. It is quite possible that the lack of technology factor might subsume or be subsumed by other factors such as industry sector, size of firm, or even location.

³ This conclusion was borne out by a standard Chi-square test of the hypothesis that the rate of approval of loans is independent of the level of authority.

Table 2

Turndown Rates by Size of Firm
and Level of Technology

No. of Employees		<5	6 to 19	20 to 49	50 to 99
		1990			
Term Loans	N Cases	298	205	67	15
	Rejections	23	15	4	
	Rejection Rate	7.7%	7.3%	6.0%	0.0%
Lines of Credit	N Cases	287	229	75	22
	Rejections	30	15	4	0
	Rejection Rate	10.5%	6.6%	5.3%	0.0%
Line of Credit Increases	N Cases	192	272	108	41
	Rejections	21	21	10	2
	Rejection Rate	10.9%	7.7%	9.3%	4.9%
1994					
Term Loans					
Low Tech	N Cases	443	673	31	20
	Rejections	76	85	2	2
	Rejection Rate	17.2%	12.6%	6.5%	10.0%
Medium Tech	N Cases	340	528	31	20
	Rejections	62	59	0	2
	Rejection Rate	18.2%	11.2%	0.0%	10.0%
High Tech	N Cases	70	104	8	2
	Rejections	8	7	1	0
	Rejection Rate	11.4%	6.7%	12.5%	0.0%
Overall		17.1%	11.6%	4.3%	9.5%
Lines of Credit					
Low Tech	N Cases	474	641	38	17
	Rejections	85	102	1	1
	Rejection Rate	17.9%	15.9%	2.6%	5.9%
Medium Tech	N Cases	374	634	32	20
	Rejections	75	56	3	0
	Rejection Rate	20.1%	8.8%	9.4%	0.0%
High Tech	N Cases	81	132	9	1
	Rejections	21	28	1	0
	Rejection Rate	25.9%	21.2%	11.1%	0.0%
Overall		19.5%	13.2%	6.3%	2.6%
Line of Credit Increases					
Low Tech	N Cases	257	528	34	16
	Rejections	42	75	5	4
	Rejection Rate	16.3%	14.2%	14.7%	25.0%
Medium Tech	N Cases	193	555	29	11
	Rejections	29	78	2	3
	Rejection Rate	15.0%	14.1%	6.9%	27.3%
High Tech	N Cases	44	126	13	6
	Rejections	7	17	2	1
	Rejection Rate	15.9%	13.5%	15.4%	16.7%
Overall		15.8%	14.1%	11.8%	24.2%
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Turndowns by Geographic Region

Table 3 categorizes turndowns by geographic region. It is seen here that **turndown rates are a function of geographic region.** As noted in Volume 1 of this report, most of the \$4 billion national decrease in outstanding loans was accounted for in Ontario. The high turndown rates recorded in Ontario are consistent with that observation. It may be argued that the high incidence of business bankruptcy observed in Ontario has prompted caution in lending that has a regional basis.

Charts 1, 2, and 3 summarize the geographic distribution of loan turndowns. Clearly, turndown decisions are influenced by a variety of factors. To model the relative importance of potential factors, multivariate analysis is required

Models of Bank Lending Decision Making

This phase of the study attempts to model statistically risk-based determinants of bank lending decisions to small businesses. Risk-based models of the determinants of loan turndowns were derived in an attempt to address the ambiguous findings of previous research on this topic. Three possible sources of difficulties in previous research are:

- potential shortcomings in statistical procedures;
- the combination of term loans, new lines of credit, and increases in existing lines of credit as a single dependent variable; and,
- the possible absence of any consistent relationship between lending decisions and corporate variables.

In order to address these issues, three databases are employed together with statistical procedures that are both more robust to underlying assumptions about the nature of the data and are more appropriate to the task at hand. Logistic regression is the technique of choice for this purpose.⁴ In addition, the analysis of the corporate determinants of lending decisions is carried out separately for the three types of loans.

The specifics of this step are described in Appendix B in some detail. Table 4 summarizes the findings of the logistic regression modeling of bank decision making. **The most obvious finding is the structural change in decision-making that has occurred in this market.** The determinants of the three types of loan decisions have altered significantly since 1987. By 1994, more factors are significant determinants of loan turndowns, and some of these are new factors. In particular, regional effects, line of industry effects, and the effect of turnover in account managers are worth noting.

⁴ Appendix B contains a short outline of the logistic regression technique, including a rationale for its use in this context.

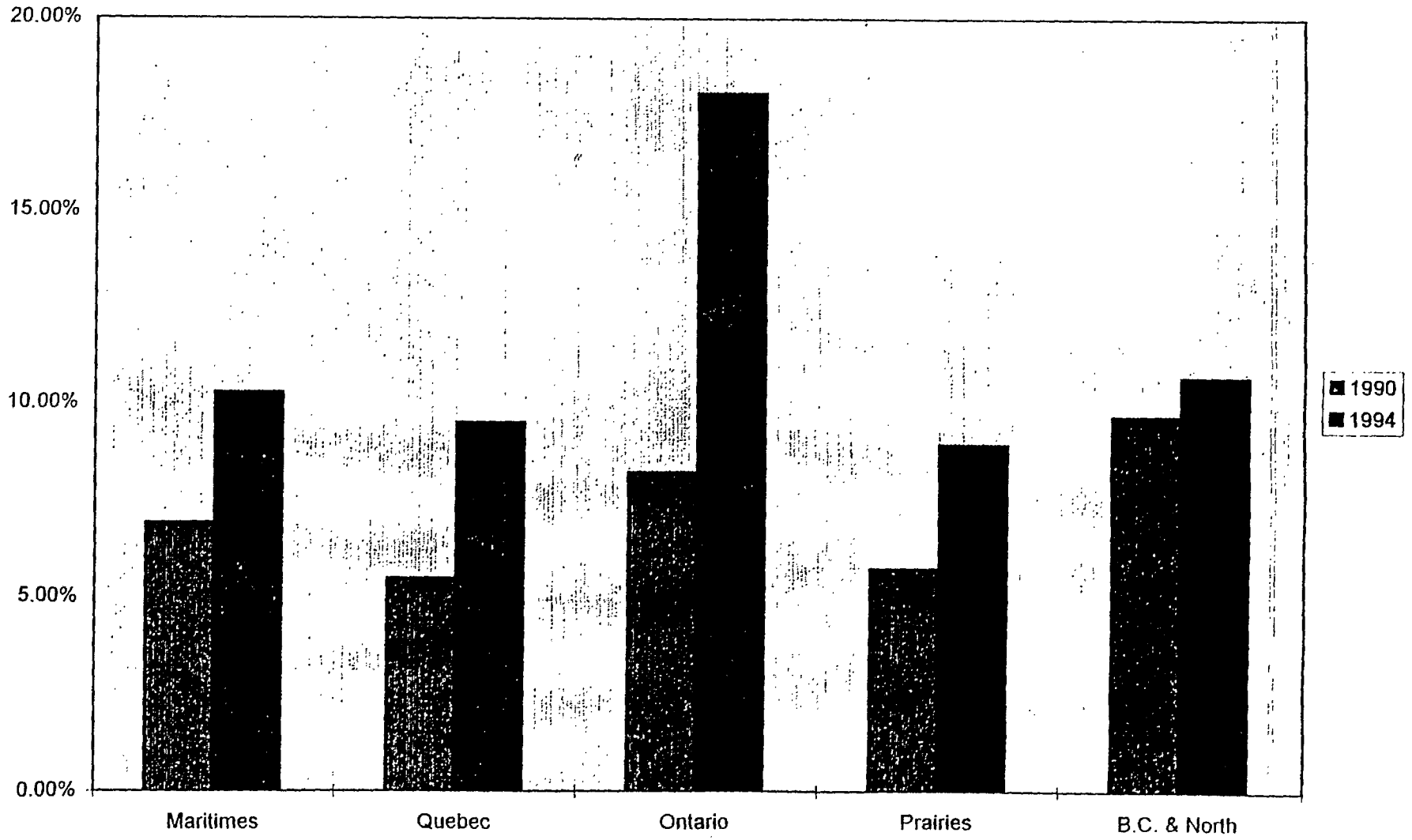
Table 3
 Turndown Rates
 by Geographic Region

Region	1990		
	<i>Term Loans</i>	<i>New Lines of Credit</i>	<i>LC Increases</i>
Maritimes	6.90%	4.65%	2.17%
Quebec	5.48%	2.44%	10.00%
Ontario	8.21%	8.97%	9.87%
Prairies	5.74%	10.34%	7.84%
B.C. & North	9.68%	10.71%	8.54%
Total	7.39%	8.19%	8.79%

Region	1994		
	<i>Term Loans</i>	<i>New Lines of Credit</i>	<i>LC Increases</i>
Maritimes	10.28%	18.94%	16.20%
Quebec	9.51%	11.41%	10.84%
Ontario	18.06%	16.85%	17.71%
Prairies	8.94%	10.90%	10.83%
B.C. & North	10.69%	15.27%	11.45%
Total	13.23%	15.13%	13.59%

Chart 1

Term Loan Turndowns: 1990-1994

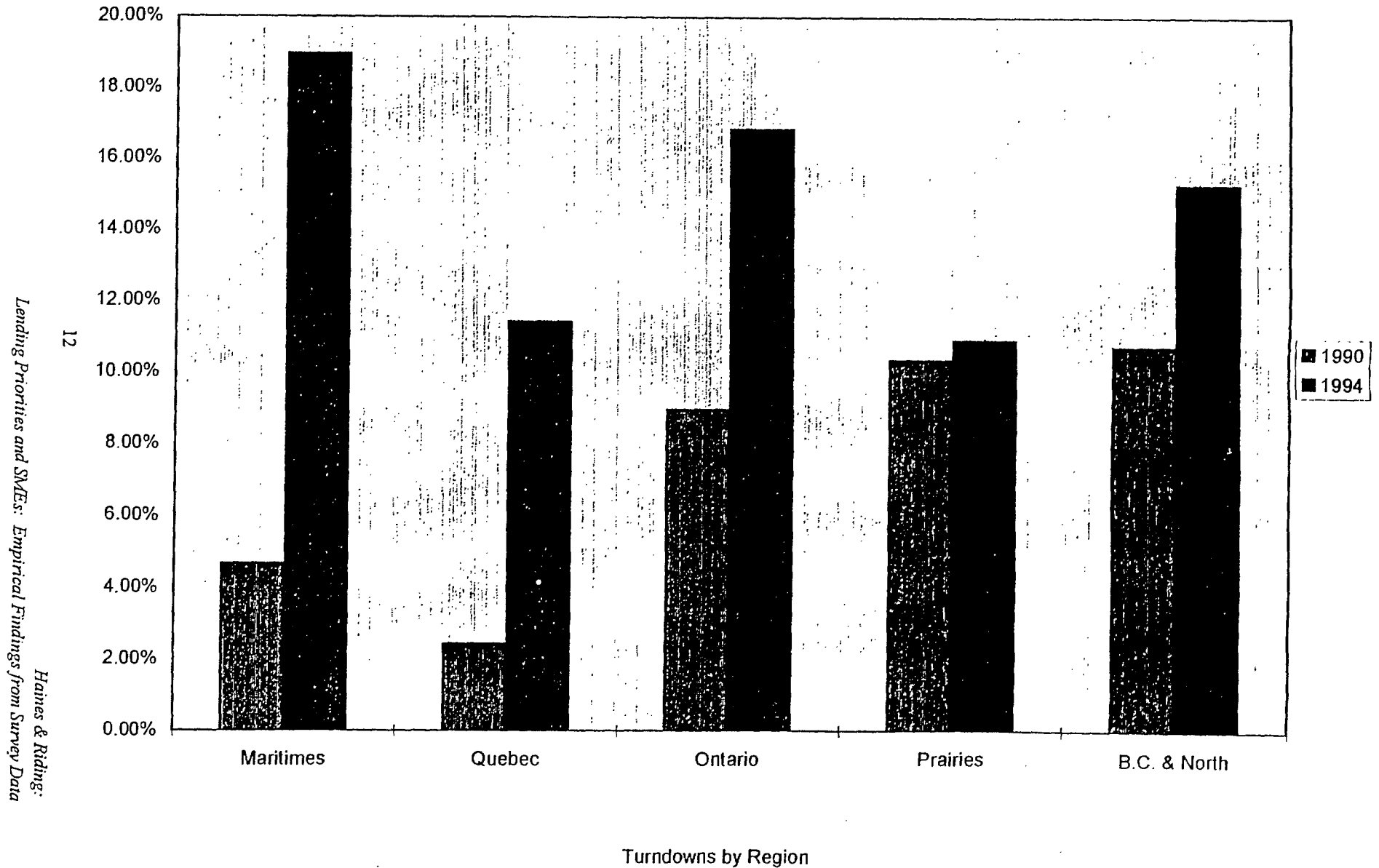


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Turndowns by Region

Chart 2

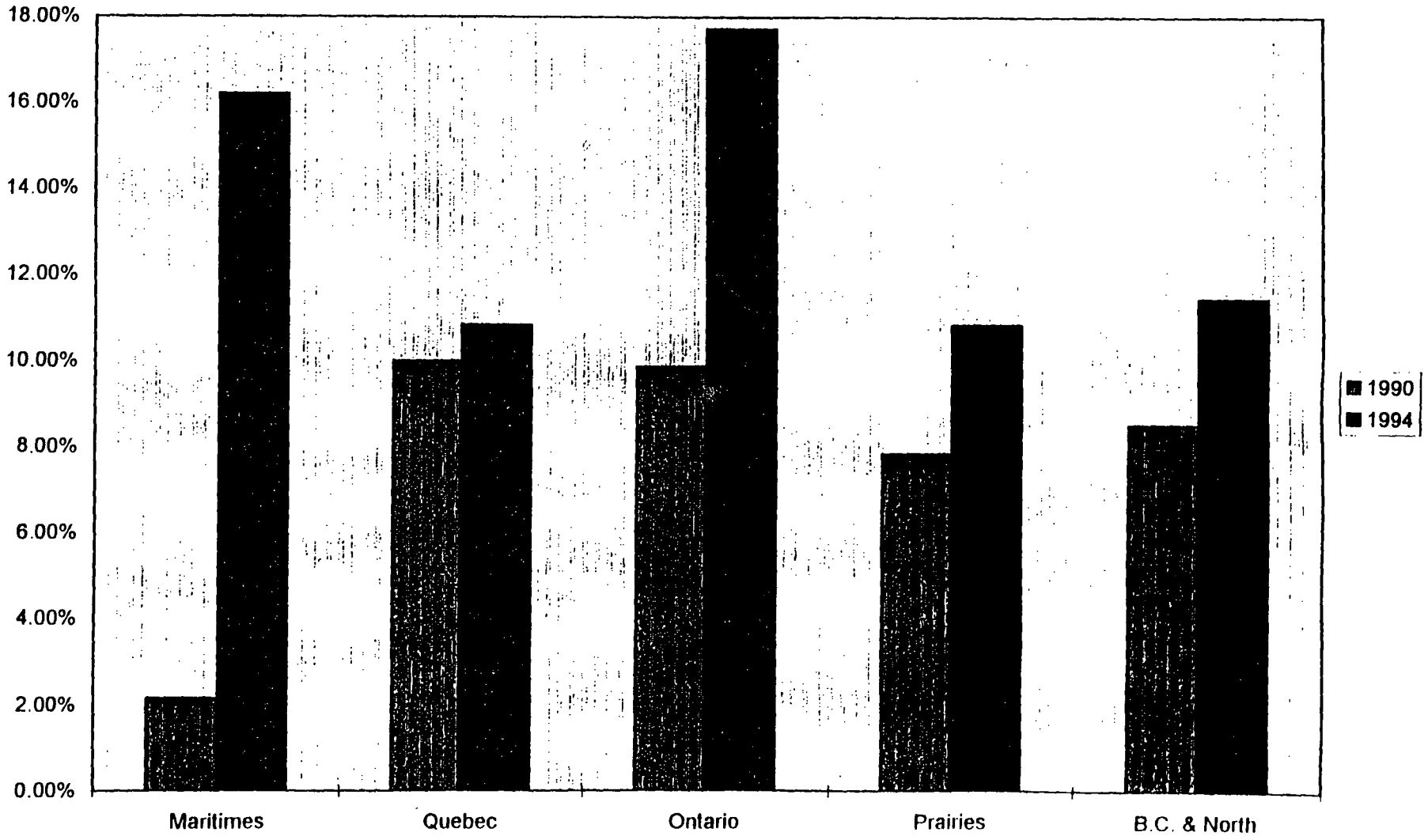
New Line of Credit Turndowns: 1990-1994



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Chart 3

Turndowns of Line if Credit Increase Applications: 1990-1994



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Turndowns by Region

Table 4

Logistic Regression Models of Loan Turndowns

Variable	Interpretation	1987 Estimation	Replication: 1990 Data	Replication 1994 Data	Estimation 1990 Data	Estimation 1994 Data
Term Loans						
X ₁	=1 if Manufacturing	-0.300	0.560	0.640		-0.520
X ₂	Number of employees					-0.027
X ₃	=1 if rural location	-0.220	-0.059	-0.075		
X ₄	=1 if declining sales				1.130	0.350
X ₁₀	=1 if distress history	0.450				
X ₁₃	=1 if Ontario location					0.580
X ₁₄	=1 if personal banking					0.430
X ₁₅	Number of account managers					0.370
X ₁₆	=1 if ever over LOC limit		-0.140	-0.210		
X ₁₇	=1 if ever defaulted		-0.018	0.450		
X ₁₈	=1 if sales growth				1.150	
Line of Credit Increases						
X ₄	Age of firm				-0.038	
X ₈	=1 if declining sales	0.990	0.560	0.700	1.030	0.620
X ₉	=1 if stable sales	0.370	0.430	0.120		
X ₁₀	=1 if distress history	1.030				
X ₁₁	=1 if firm had been creditor in bankruptcy			0.049		
X ₁₂	=1 if firm has history of bankruptcy			1.640		1.940
X ₁₃	=1 if Ontario location					0.370
X ₁₄	=1 if personal banking					0.360
X ₁₅	number of account managers					0.180
X ₁₆	=1 if ever over LOC limit		-0.120			
X ₁₇	=1 if ever defaulted		-0.490			
X ₁₈	=1 if sales growth				-1.070	
X ₁₉	=1 if Nfld location					1.150
X ₂₀	=1 if in Construction sector					-0.650
X ₂₁	=1 if in wholesale sector					-0.760
X ₂₂	=1 if in hospitality sector					-0.530
X ₂₇	=1 if in service sector				0.850	
New Lines of Credit						
X ₂	Number of employees					-0.035
X ₄	Age of firm					-0.051
X ₈	=1 if declining sales					0.500
X ₁₀	=1 if distress history	0.650				
X ₁₁	=1 if firm had been creditor in bankruptcy			-0.480		-0.410
X ₁₂	=1 if firm has history of bankruptcy			-0.720		1.080
X ₁₄	=1 if personal banking					0.370
X ₁₅	number of account managers					0.430
X ₁₆	=1 if ever over LOC limit		0.250			
X ₁₇	=1 if ever defaulted		-0.190			
X ₂₃	=1 if in business services sector					0.970
X ₂₄	=1 if NWT location					1.670
X ₂₅	=1 if female-owned					-0.340
X ₂₆	=1 if New Brunswick location					0.970

The inefficiencies of the bank-SME interface mitigates against a profitable relationship. Small borrowing balances imply that account managers must administer of the order of 100 accounts to cover costs and contribution to margin and overhead. This implies an average of 1-2 days per year that a typical account manager can accord a small business client. The economics of this situation provide fertile ground for misunderstandings and miscommunications. The potential for problems is exacerbated when account managers are rotated (as required if they are to gain experience and training).

This is one respect in which the Canadian system differs from that in other countries. In the U.S., for example, the dominance of small regional banks results in lower rates of turnover of loan account managers. (The are, of course, obvious exceptions to this rule.) The account manager frequently has roots in the community with greater longevity and is better able to assess character and risk than a typical Canadian counterpart.

Starting in the mid 1980's, the large Canadian banks began to alter their process of loan approval. Many banks moved to a commercial loan centre and centralized loans officer system. The functions of branch officers in such a system are reduced. It is important to note that not all Canadian banks moved to this system nor has this system been implemented in precisely the same way among all adopting banks.

Large customers will probably receive personal sales calls from loan centre personnel; however, account managers will have less personal contact with the smaller business applicants, applicants whose capacity and character they must supposedly judge. It might be hypothesized that such intuitive factors would become much less relevant in an impersonal system with a centralized loans officer system,

It can be speculated that it takes several years for the new systems to adjust, and for personnel to become used to operating under new organizational structures. It appears that 1990 may have been part of the period of adjustment, and thus it is difficult to determine causal factors. By 1994, however, there appears to be some regularization in the system. It is clear the new organizational arrangements have allowed the banks, as organizations, to become more-sophisticated in their approval process of loan applications. (Sophisticated is used here in the sense that additional factors are taken systematically into consideration.) While it could be expected that refusal rates would rise as a result of taking additional information into account in the decision process, it should also be expected (other things being equal) that the default rate experienced by banks on their loans should fall as a result of this process. However, while it is beyond the scope of this study to examine default rates, it should be observed that the expansion of the SBLA programme should also have the effect of lowering default rates on non-SBLA loans made by banks.

The change in turndown rates is clear. According to the CFIB data, the rates at which SMEs are turned down by banks for loans in the 1991-1994 period is significantly higher than the rates at which turndowns have occurred historically. Several factors have been found to be related to turndowns in a consistent fashion. In general, a loan turndown is more likely for:

- smaller firms;
- non-manufacturing firms (term loans);
- firms that report a record of declining sales;
- firms with a history of distress;

- firms that have had to deal with multiple account managers;
- firms in particular industrial sectors;
- firms in particular geographic locations (Ontario, NWT, New Brunswick).

While most of these factors make intuitive sense, it seem clear that the banking industry needs to take steps to mitigate the impacts of account manager turnover.

2.2 The Pricing of Loans to SMEs: Interest Rates on Loans⁵

Overview of Interest Rates in 1990 and 1994

Tables 5, 6 and 7 break down by firm size the average interest rates reported by CFIB members for the 1990 and 1994 periods. These tables summarize interest rates on, respectively, new term loans, new lines of credit, and increases in lines of credit. The 1994 data also allow separation of borrowing experience according to the technology content of the firms' products or services. The findings for 1994, therefore, are also broken down according to this criterion.⁶ Charts 4, 5, and 6, and 7 summarize these findings in graphical format.

Table 8 breaks down the interest rates reported by CFIB members on the 1990 survey. These rates reflect the interest component of the cost of borrowing during the 1988, 1989, and 1990 periods. Rates are broken down by industry for the three types of loan applications. Responses have also been reported here weighted so as to represent the larger population of Canadian SMEs.

Tables 9, 10, and 11 report interest rates from the 1994 survey for new lines of credit (Table 9), new term loans (Table 10), and applications for increases in lines of credit (Table 11). This has been done on an unweighted basis and according to a re-weighting that reflects the 1991 breakdown of small businesses nationally (according to Statscan data for 1991). Inspection of these tables reveals that both on an unweighted and re-weighted basis, interest rates on term loans appear to have increased from 1990 to 1994 and that these increases have pervaded most sectors.

In summary, four findings are evident:

- the size of the borrower correlates strongly and inversely with rates charged on loans;
- interest rates on loans to technology-based firms did not vary significantly⁷ or materially across low, medium, and high tech firms; a somewhat surprising result given much of the publicity accorded the laments of firms in the knowledge-based sector;
- interest rates on term loans appear to have increased significantly between 1990 and 1994; but,

⁵ Note the interest rates from the 1987 CFIB survey are not reported here. This is because they were not recorded in a manner consistent with the subsequent survey data.

⁶ Too few observations to allow meaningful breakdowns according to technology content were possible for the 1990 survey, given the relatively smaller number of responses.

⁷ In all cases, the term "significant" is used in the sense of statistical significance.

- average rates of interest on new operating loans and on increased limits on operating loans have not increased by statistically significant extents.

There is a caution regarding these findings. Survey data drawn from the CFIB membership are biased. In particular, such data reflect the responses of:

- firms that have prospered to the point of being able to participate financially in the CFIB; and,
- firms that have elected to respond to the survey request.

The first bias is known as a *survivorship* bias; the second is referred to as *non-response* bias. In this case, survivorship bias understates the experiences of smaller, more marginal SMEs, firms that typically have most difficulty arranging financing. The second bias overstates the responses of those CFIB members who feel particularly strongly about their banking experiences. Thus, to some extent, the two biases tend to offset each other.

The usual means of correcting for non-response bias is to carry out follow-up surveys of those members that have elected not to respond to the survey in the first instance. This was not done here because the random selection of bank loan file data, the results of which will be presented in a subsequent section, accomplishes this task. To correct for survivorship bias, the results of the CFIB survey have been re-weighted to afford greater emphasis to smaller firms. Tables 8, 9, 10, and 11 reflect this re-weighting.

Summary: Overview of Interest Rates

According to the CFIB 1990 and 1994 survey data, interest rates charged by banks to SME customers on term loans have increased. This increase is preserved when the data are reweighted to remove survivorship bias; however, it is not yet clear to what extent non-response bias influences this finding.

Thus far, it seems that interest rates are influenced by several factors simultaneously, including firm size and industry sector. It is likely that interest rates are also influenced by factors not yet identified here. For example, bankers typically refer to the "5 C's" of commercial lending (collateral, character, business conditions, capacity to repay, and capitalization) as determinants of risk. Traditionally, risk and required returns on capital are closely related. Accordingly, such factors are potential determinants of interest rates. Moreover, the popular media suggests that gender and technology content are also potential determinants of interest rates, notwithstanding published research to the contrary.

Because of the plethora of factors that could affect interest rates, rigorous analysis of the factors that are most closely associated with interest rates requires multivariate analysis. The findings of multivariate regression modeling of factors associated with interest rates on loans to SMEs are reported in the following section.

Table 5

Interest Rates on New Term Loans: 1990-1994 by Firm Size

		Mean Rate Above Prime	Standard Deviation	Number of Cases
All Cases 1990		1.362	0.857	502
Number of Employees:	1 - 4	1.470	0.951	202
	5 - 19	1.407	0.790	228
	20 - 49	1.047	0.600	43
	50 - 99	0.806	0.610	18
	100 - 499	0.603	0.604	11
All Cases 1994		1.534	0.791	1574
Low Tech: Totals		1.578	0.835	787
Number of Employees:	Less than 5	1.732	0.881	258
	5 to 19	1.582	0.816	380
	20 to 49	1.322	0.724	110
	50 to 99	1.256	0.756	23
	More than 100	1.219	0.747	16
Medium Tech: Totals		1.501	0.750	648
Number of Employees:	Less than 5	1.596	0.715	208
	5 to 19	1.561	0.761	306
	20 to 49	1.355	0.741	91
	50 to 99	0.937	0.599	28
	More than 100	0.909	0.454	15
High Tech: Totals		1.439	0.704	139
Number of Employees:	Less than 5	1.565	0.700	46
	5 to 19	1.486	0.667	69
	20 to 49	1.188	0.756	16
	50 to 99	0.929	0.535	7
	More than 100	0.000	0.000	1

Chart 4

**Interest Rates on New Term Loans:
1990-1994 by Firm Size**

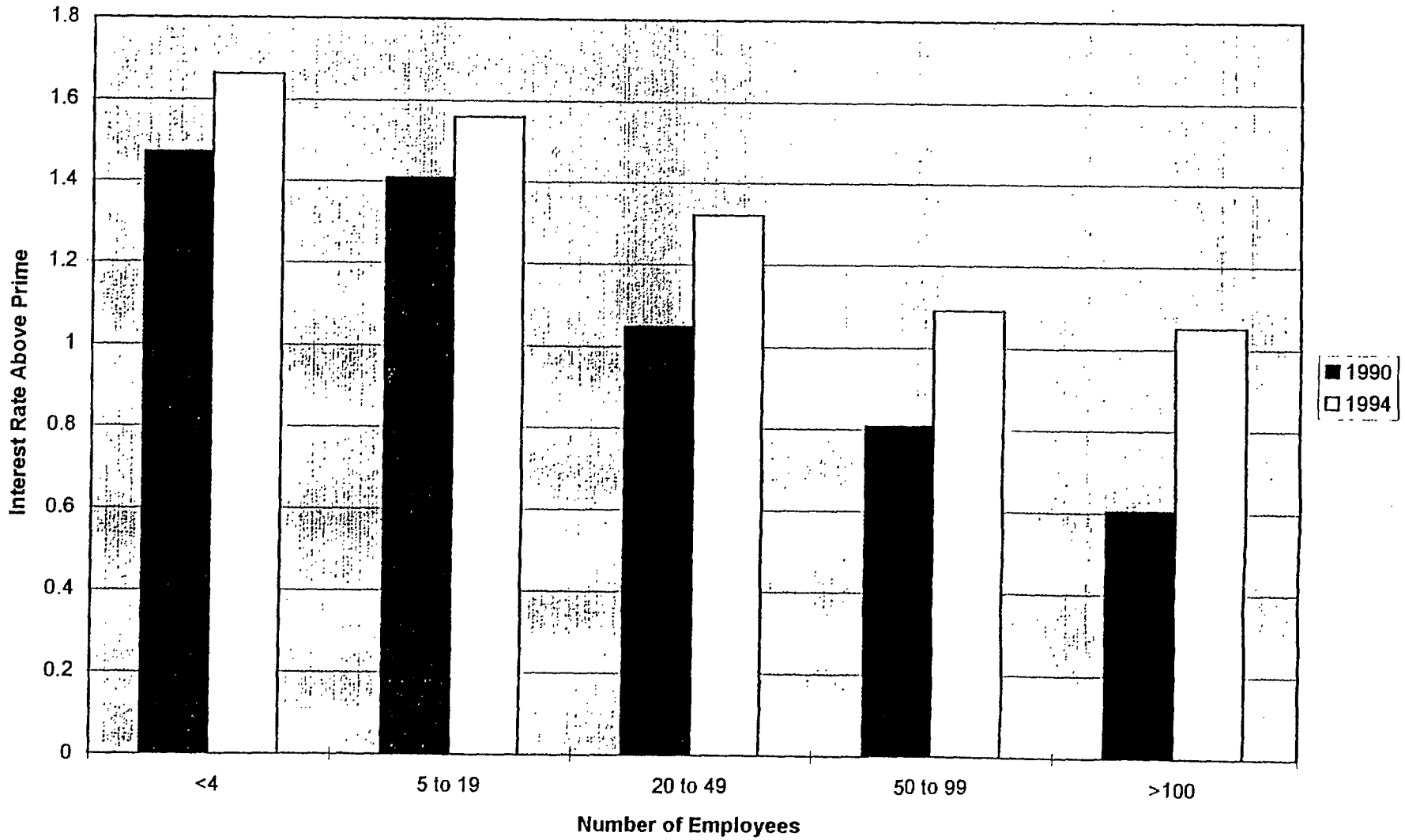


Table 6

Interest Rates on New Lines of Credit: 1990-1994 by Firm Size

		Mean Rate Above Prime	Standard Deviation	Number of Cases
All Cases 1990		1.362	0.856	498
Number of Employees:	1 - 4	1.620	0.898	176
	5 - 19	1.338	0.801	232
	20 - 49	1.008	0.772	64
	50 - 99	0.716	0.369	18
	100 - 499	0.625	0.641	8
All Cases 1994		1.414	0.857	1676
Low Tech: Totals		1.449	0.861	769
Number of Employees:	Less than 5	1.675	0.947	293
	5 to 19	1.433	0.767	331
	20 to 49	1.072	0.721	108
	50 to 99	0.944	0.654	29
	More than 100	0.719	0.713	8
Medium Tech: Totals		1.379	0.849	765
Number of Employees:	Less than 5	1.613	0.994	233
	5 to 19	1.391	0.739	379
	20 to 49	1.057	0.739	109
	50 to 99	0.823	0.636	31
	More than 100	0.846	0.754	13
High Tech: Totals		1.411	0.871	142
Number of Employees:	Less than 5	1.707	1.105	47
	5 to 19	1.404	0.709	71
	20 to 49	0.967	0.481	15
	50 to 99	0.656	0.229	8
	More than 100	0.750	0.000	1

Chart 5

Interest Rates on New Operating Loans:
1990-1994 by Firm Size

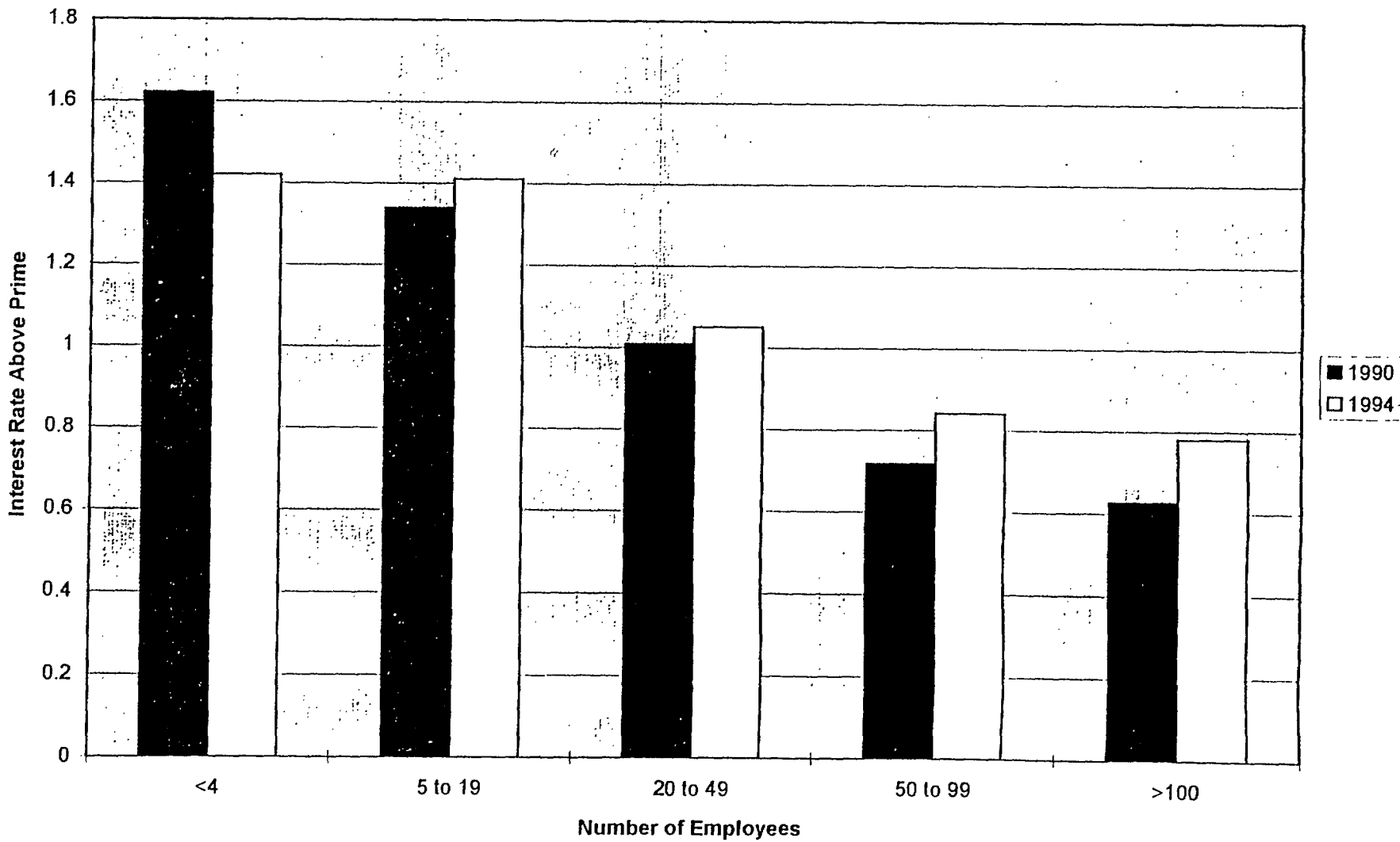


Table 7

Interest Rates on Line of Credit Increases: 1990-1994 by Firm Size

		Mean Rate Above Prime	Standard Deviation	Number of Cases
All Cases 1990		1.328	0.896	534
Number of Employees:	1 - 4	1.730	0.972	122
	5 - 19	1.395	0.907	275
	20 - 49	0.928	0.468	88
	50 - 99	0.768	0.455	28
	100 - 499	0.493	0.566	18
All Cases 1994		1.398	0.791	1298
Low Tech: Totals		1.417	0.769	584
Number of Employees:	Less than 5	1.660	0.855	175
	5 to 19	1.437	0.670	283
	20 to 49	1.202	0.693	88
	50 to 99	0.654	0.617	26
	More than 100	0.625	0.483	12
Medium Tech: Totals		1.369	0.806	571
Number of Employees:	Less than 5	1.505	0.906	133
	5 to 19	1.424	0.734	316
	20 to 49	1.141	0.755	92
	50 to 99	0.958	1.012	24
	More than 100	0.583	0.438	6
High Tech: Totals		1.441	0.820	143
Number of Employees:	Less than 5	1.961	1.335	31
	5 to 19	1.376	0.507	79
	20 to 49	1.167	0.572	21
	50 to 99	1.139	0.486	9
	More than 100	0.583	0.382	3

Chart 6

**Interest Rates on Line of Credit Increases:
1990-1994 by Firm Size**

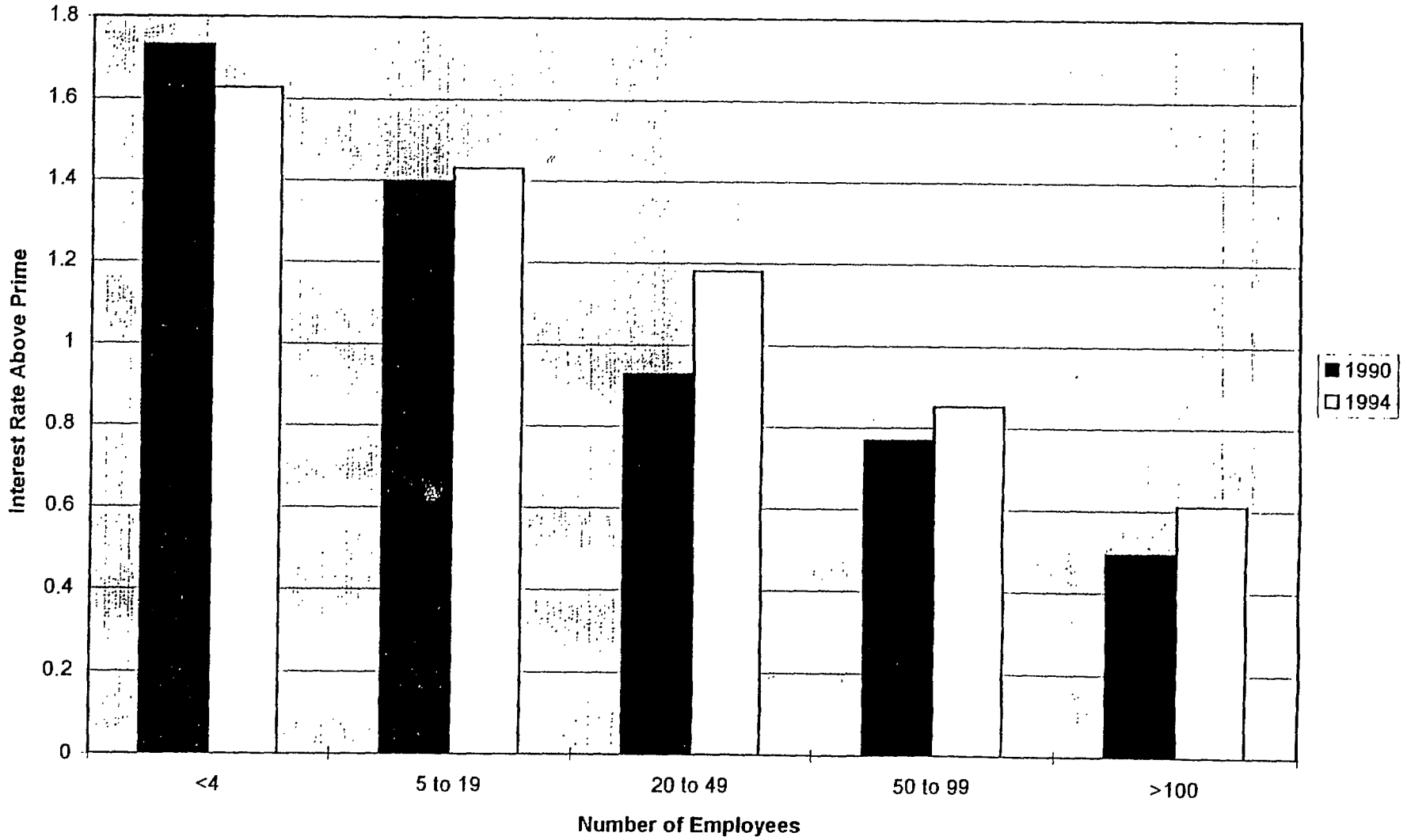
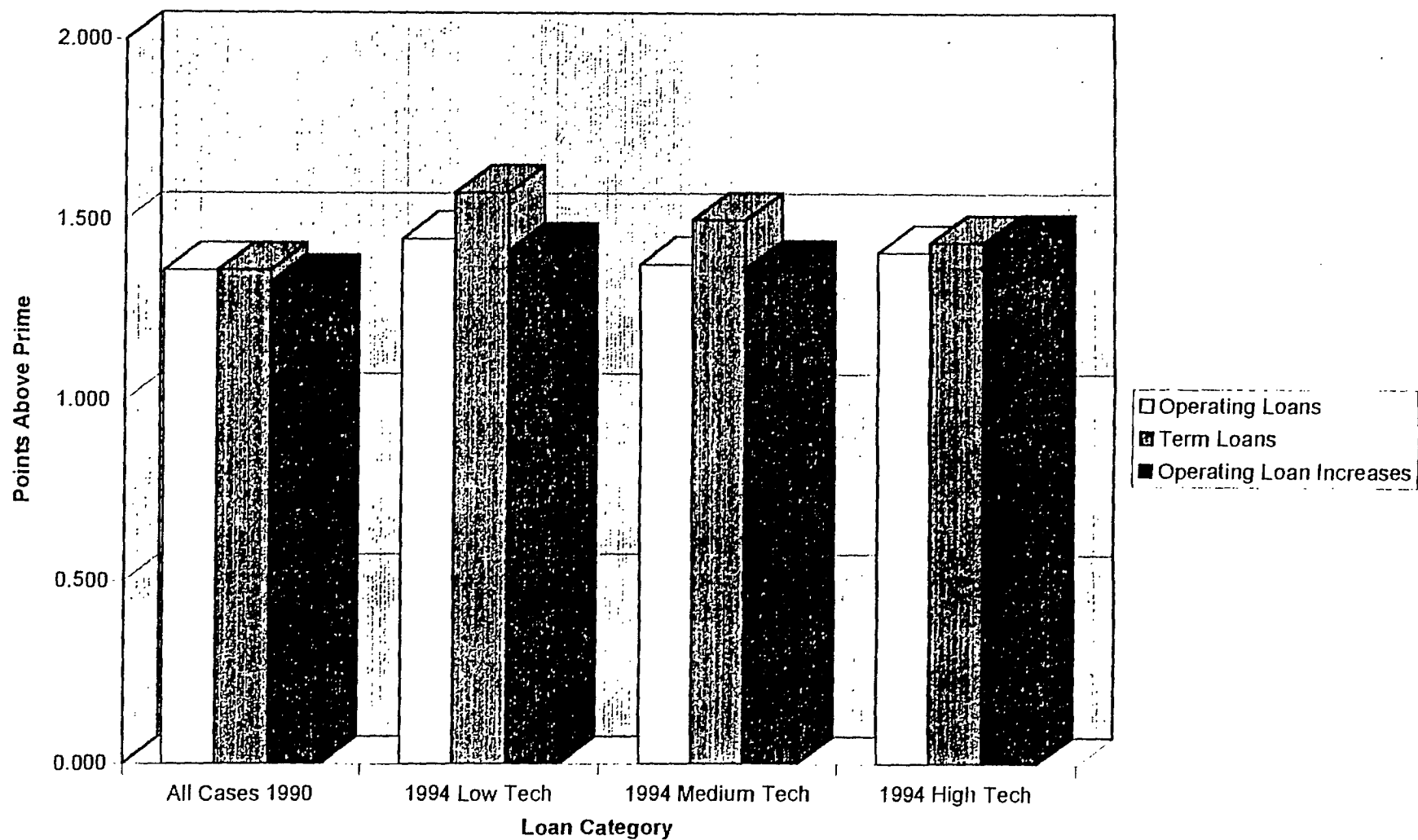


Chart 7

Interest Rates on Loans to SMEs:
1990-1994 by Level of Technology



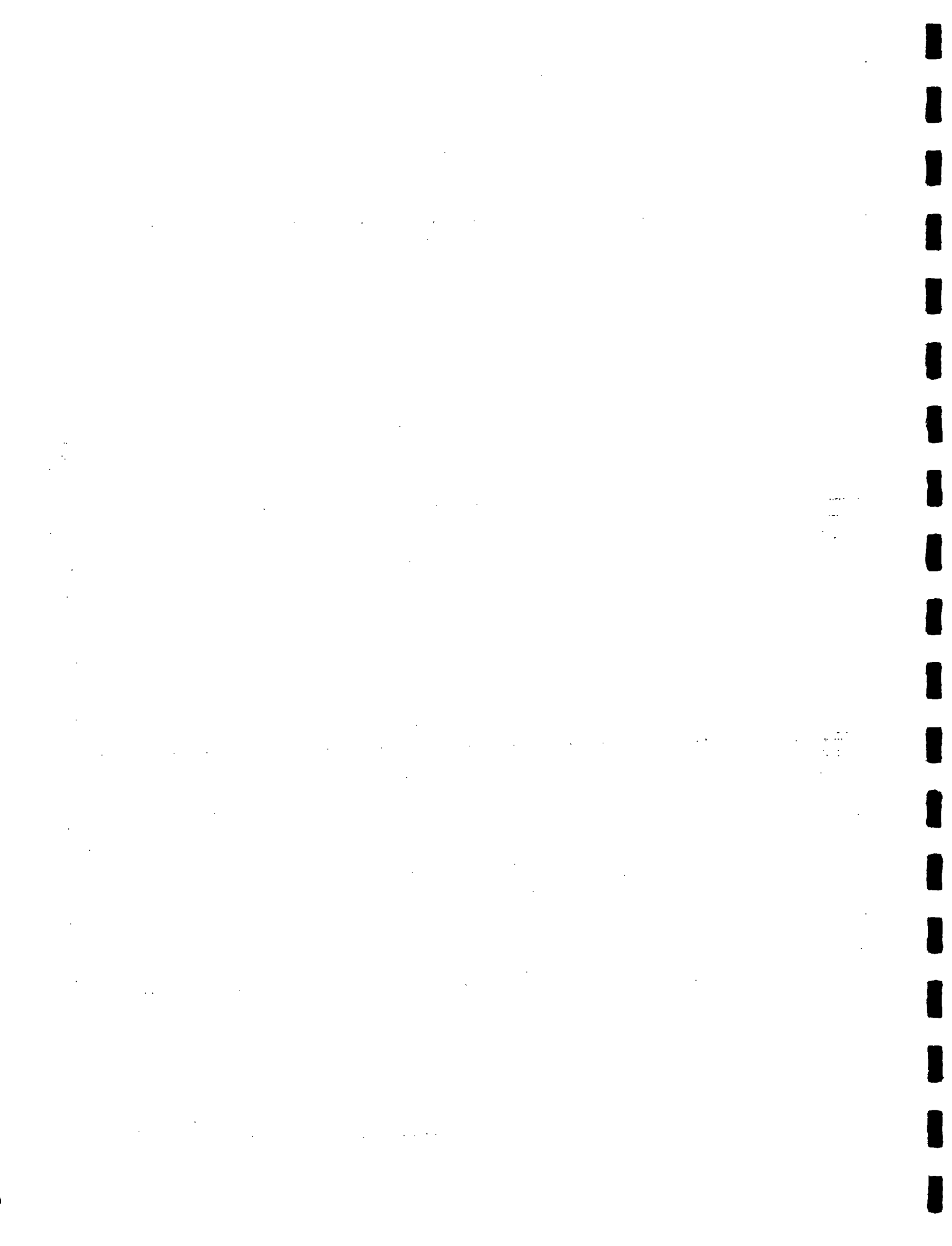


Table 8

**Interest Rates to SMEs in 1990
by Type of Loan**

	Unweighted			Re-Weighted	
	Mean	Std. Dev'n	N Cases	Mean	Std. Dev'n
New Lines of Credit: 1990					
Agriculture, Fishing, Farming	1.031	0.727	24	1.260	0.765
Mining	1.000	0.000	2	1.000	0.000
Construction	1.500	1.192	45	1.829	1.553
Manufacturing	1.235	0.744	51	1.461	0.771
Transportation & Communications	1.844	1.369	8	2.065	1.027
Wholesale	1.039	0.563	36	1.305	0.478
Retail	1.428	0.793	166	1.594	0.822
Finance, Insurance, Real Estate	1.483	0.679	45	1.672	0.685
Services	1.363	0.921	121	1.578	1.003
Totals (498 Cases)	1.362	0.856	498	1.577	0.924
Term Loans: 1990					
Agriculture, Fishing, Farming	1.133	0.633	15	0.720	0.518
Mining	1.321	0.746	7	0.865	0.524
Construction	1.172	0.720	29	1.206	0.836
Manufacturing	1.408	0.919	68	1.544	1.200
Transportation & Communications	1.241	0.873	28	1.639	1.087
Wholesale	1.438	0.935	28	1.816	1.258
Retail	1.398	0.924	169	1.515	0.998
Finance, Insurance, Real Estate	1.438	0.657	32	1.549	0.706
Services	1.353	0.818	126	1.500	0.919
Totals (502 Cases)	1.362	0.857	502	1.488	0.983
Line of Credit Increases: 1990					
Agriculture, Fishing, Farming	1.161	0.733	19	1.275	0.653
Mining	1.083	0.382	3	1.228	0.291
Construction	1.305	0.674	75	1.555	0.707
Manufacturing	1.205	0.956	72	1.446	0.803
Transportation & Communications	0.982	0.737	14	1.318	0.395
Wholesale	1.078	0.698	55	1.133	0.505
Retail	0.146	1.065	173	0.194	1.321
Finance, Insurance, Real Estate	1.588	0.852	17	2.047	0.945
Services	1.392	0.809	104	1.571	0.969
Totals (532 Cases)	1.329	0.897	532	1.670	1.071

*Source: 1990 CFIB membership survey.

Table 9

Interest Rates in 1994
New Operating Loans

New Lines of Credit: 1994 Data	Unweighted			Re-Weighted	
	Mean	Std. Dev'n	N Cases	Mean	Std. Dev'n
For Entire Population (Total Cases = 2,657)	1.414	0.857	1676	1.635	0.964
<i>Total: Low Tech</i>	<i>1.449</i>	<i>0.861</i>	<i>769</i>	<i>1.659</i>	<i>0.937</i>
Agriculture, Fishing, Farming	1.102	0.745	54	1.074	0.665
Mining, Primary Industries	1.517	0.630	15	1.522	0.715
Manufacturing	1.403	0.787	90	1.695	0.618
Construction	1.552	0.971	104	2.039	1.133
Transportation & Communications	1.360	0.724	28	1.432	0.614
Wholesale	1.332	0.946	58	1.762	1.164
Retail	1.495	0.875	209	1.800	0.939
Finance, Insurance, Real Estate	1.519	0.736	52	1.611	0.821
Business Services	1.600	1.059	28	1.482	1.035
Community Services	1.233	0.710	15	1.223	0.619
Hospitality etc.	1.548	0.900	88	1.705	0.975
<i>Total: Medium Technology Content</i>	<i>1.379</i>	<i>0.849</i>	<i>765</i>	<i>1.597</i>	<i>0.975</i>
Agriculture, Fishing, Farming	1.257	0.891	31	1.164	0.536
Mining, Primary Industries	1.417	0.931	6	1.541	0.630
Manufacturing	1.370	0.674	104	1.561	0.659
Construction	1.350	0.809	93	1.546	1.024
Transportation & Communications	1.375	0.782	22	1.437	0.455
Wholesale	1.198	0.645	82	1.515	0.655
Retail	1.428	0.977	183	1.790	1.104
Finance, Insurance, Real Estate	1.288	0.681	60	1.503	0.731
Business Services	1.530	0.942	50	1.714	1.065
Community Services	1.461	0.969	19	1.632	1.489
Hospitality etc.	1.497	0.931	92	1.728	1.108
<i>High Technology: Total</i>	<i>1.411</i>	<i>0.871</i>	<i>142</i>	<i>1.684</i>	<i>1.069</i>
Agriculture, Fishing, Farming	1.000	0.661	3	1.325	0.289
Mining, Primary Industries	1.118	0.728	19	0.965	0.789
Manufacturing	1.250	0.500	6	1.617	0.000
Construction	2.500	0.000	1	2.500	0.000
Transportation & Communications	1.088	0.450	17	0.991	0.436
Wholesale	1.450	0.972	37	1.956	1.227
Retail	1.750	0.758	6	1.941	1.027
Finance, Insurance, Real Estate	1.750	0.535	15	1.552	0.532
Business Services	1.250	0.866	4	1.250	0.788
Community Services	1.509	1.197	28	2.378	1.463
Hospitality etc.	1.789	1.751	32	2.326	1.427

*Source: 1994 CFIB membership survey

Table 10

Interest Rates in 1994
Term Loans

Term Loans: 1994 Data	Unweighted			Re-Weighted	
	Mean	Std. Dev'n	N Cases	Mean	Std. Dev'n
For Entire Population (Total Cases: 2,433)	1.534	0.791	1574	1.656	0.802
<i>Low Technology Content: Totals</i>	<i>1.578</i>	<i>0.835</i>	<i>787</i>	<i>1.724</i>	<i>0.874</i>
Agriculture, Fishin, Farming	1.356	0.820	53	1.329	0.727
Mining, Primary Industries	1.135	0.574	13	1.317	0.452
Manufacturing	1.657	0.895	91	1.997	0.970
Construction	1.607	0.789	83	1.795	0.778
Transportation & Communications	1.423	0.626	68	1.767	0.651
Wholesale	1.578	0.755	37	1.915	0.639
Retail	1.577	0.794	200	1.626	0.887
Finance, Insurance, Real Estate	1.565	0.837	31	1.549	0.998
Business Services	1.813	0.974	36	2.086	1.150
Community Services	1.645	0.718	19	1.719	0.639
Hospitality etc.	1.584	0.950	125	1.768	0.817
<i>Medium Technology Content: Totals</i>	<i>1.501</i>	<i>0.750</i>	<i>648</i>	<i>1.594</i>	<i>0.719</i>
Agriculture, Fishing, Farming	1.406	0.842	32	1.264	0.534
Mining, Primary Industries	1.475	1.233	10	1.476	3.261
Manufacturing	1.489	0.740	141	1.724	0.638
Construction	1.665	0.806	62	1.807	0.773
Transportation & Communications	1.583	0.569	18	2.297	0.671
Wholesale	1.399	0.677	47	1.461	0.559
Retail	1.480	0.776	142	1.558	0.766
Finance, Insurance, Real Estate	1.404	0.673	30	1.638	0.690
Business Services	1.500	0.515	34	1.533	0.666
Community Services	1.380	0.612	23	1.446	0.639
Hospitality etc.	1.585	0.799	90	1.729	0.786
<i>High Technology Content: Totals</i>	<i>1.439</i>	<i>0.704</i>	<i>139</i>	<i>1.559</i>	<i>0.697</i>
Mining, Primary Industries	1.250	0.250	3	1.177	0.000
Manufacturing	1.309	0.737	17	1.353	0.587
Construction	2.250	1.061	2	2.966	0.277
Transportation & Communications	0.500	0.000	2	0.500	0.000
Wholesale	1.143	0.476	7	1.488	0.549
Retail	1.523	0.612	22	1.736	0.504
Finance, Insurance, Real Estate	1.250	0.707	8	1.294	0.832
Business Services	1.662	0.631	17	1.573	0.760
Community Services	1.381	0.846	21	1.480	0.930
Hospitality etc.	1.565	0.798	27	1.712	0.640

*Source: 1994 CFIB membership survey

Table 11

Interest Rates in 1994
Line of Credit Increases

Line of Credit Increases: 1994 Data	Unweighted			Re-Weighted	
	Mean	Std. Dev'n	N Cases	Mean	Std. Dev'n
For Entire Population	1.365	0.714	1286	1.533	0.768
<i>Low Technology Content: Totals</i>	<i>1.398</i>	<i>0.727</i>	<i>581</i>	<i>1.585</i>	<i>0.730</i>
Agriculture, Fishin. Farming	1.294	0.644	46	1.337	0.659
Mining, Primary Industries	1.625	0.744	8	1.207	0.655
Manufacturing	1.292	0.859	75	1.952	0.889
Construction	1.458	0.726	72	1.667	0.719
Transportation & Communications	1.513	0.559	20	1.610	0.427
Wholesale	1.222	0.750	68	1.528	0.709
Retail	1.429	0.666	162	1.632	0.681
Finance, Insurance, Real Estate	1.364	0.727	22	1.475	0.810
Business Services	1.565	0.632	23	1.817	0.625
Community Services	1.375	0.981	10	1.070	0.810
Hospitality etc.	1.559	0.750	53	1.858	0.810
<i>Medium Technology Content: Totals</i>	<i>1.330</i>	<i>0.718</i>	<i>565</i>	<i>1.452</i>	<i>0.787</i>
Agriculture, Fishin. Farming	1.313	0.907	28	1.440	0.858
Mining, Primary Industries	1.071	0.554	7	1.923	0.318
Manufacturing	1.365	0.703	89	1.559	0.575
Construction	1.398	0.663	77	1.501	0.765
Transportation & Communications	1.205	0.660	11	1.125	0.571
Wholesale	1.080	0.543	64	1.350	0.458
Retail	1.385	0.750	157	1.631	0.815
Finance, Insurance, Real Estate	1.406	0.741	16	1.815	1.181
Business Services	1.511	0.688	22	1.388	0.882
Community Services	1.020	0.615	19	1.011	0.475
Hospitality etc.	1.529	0.765	52	1.399	0.773
<i>Totals: High Technology</i>	<i>1.364</i>	<i>0.639</i>	<i>140</i>	<i>1.603</i>	<i>0.860</i>
Agriculture, Fishing, Farming	1.400	0.566	2	1.400	0.433
Manufacturing	1.298	0.507	30	1.736	0.444
Construction	1.042	0.641	6	1.020	0.198
Transportation & Communications	0.875	0.854	4	1.923	0.408
Wholesale	1.578	0.734	16	2.166	0.542
Retail	1.302	0.540	29	1.181	0.413
Finance, Insurance, Real Estate	1.125	0.177	2	1.248	0.025
Business Services	1.900	1.022	10	2.685	1.301
Community Services	1.278	0.491	9	1.321	0.496
Hospitality etc.	1.429	0.612	28	1.409	1.015

*Source: 1994 CFIB membership survey

Factors Associated with Interest Rate Determination (1990 and 1994)

This section presents the findings of multivariate analyses that attempt to identify factors associated with the interest rates banks charge SME customers on loans. These analyses are reported separately, in Appendix C, for each of term loans, new lines of credit, and applications to increase the limits of existing lines of credit.

As noted, banking institutions assess borrower firms by means of implicit and explicit scoring systems. Each institution uses somewhat different models. Statistical analysis of aggregated data, therefore, provides insights about the strongest correlations or about those variables that are most common through the system. Factors that are idiosyncratic to particular institutions are lost during aggregation.

The common basis of assessment are the "5 C's" noted previously in Appendix B. It is reasonable, therefore, to expect that interest rates, like turn-down rates, would correlate with variables that attempt to measure the five underlying factors. Therefore, the candidate variable listed in Appendix B are also employed as potential determinants of interest rates assessed loans to SMEs. The findings of these correlations follow, with the statistical findings detailed in Table 12.

It was found that **interest rates were strongly correlated with measures of firm size. Neither the gender of the owner nor the level of technology of the firm's products were found to be associated with interest rates.**

In the case of technology based firms, data from this survey show that neither access to capital (as measured by turn-down rates) nor terms of lending (interest rates) are any different, other things being equal, than firms that are not technology-based. This result puts into question the claims of those lobby organizations that argue that banks discriminate against knowledge-based firms. These findings suggest that a re-examination of the evidence provided to the contrary is in order.

It was also found that **interest rates displayed regional disparities.** Borrowers in particular regions paid, on average, more for their loans after allowing for such factors as firms size and other measures of risk.

As with loan turn-down decisions, it is seen that **more factors appear to be correlated with interest rates reported in 1994 than with those reported in 1990.** It is suggested that this is consistent with the earlier suggestion that banks are becoming more sophisticated in their decision-making about lending to SME customers. It is likely that this change in decision-making practices is perceived by some small business owners as a shift in the 'rules of the game'. This perception might account for some of the anecdotal evidence that banks are becoming more stringent in requirements for credit.

The findings confirm that the nature of the decision process is complex. Appendix D presents a model that attempts to synthesize the parameters of the decision process.

Table 12

Multivariate Regression
Coefficient Estimates

Variable	Term Loans		Lines of Credit		Increases in LOC Limits	
	1990	1994	1990	1994	1990	1994
Base Rate (%)	1.24	2.46	1.15	1.97	1.28	1.59
<u>Size Measures</u>						
No. of Employees		-0.242	-0.0022	-0.153	-0.0064	-0.166
Size of Loan Facility (X 10 ⁻⁷ \$)			-1.13	-1.51		-0.93
<u>Region</u>						
PEI		0.85		1.10		
NS	0.42			0.47		
QUE	-0.99					
MAN			-0.40			
ONT		-0.23				
ALTA		-0.36	0.24			
SASK		-0.37				
NWT		2.16				
<u>Industry</u>						
Finance, etc.		0.52	0.34			
Construction		0.29				0.26
Hospitality				0.28		0.32
Retail						0.30
<u>Age of Business</u>		-0.0073		-0.006		
<u>Gender of Owner (1=Female, 0=Male)</u>						-0.13
<u>Nature of Business</u>						
High Tech			0.33			
History of Exceeding LOC					0.38	0.14
Goodness of Fit (R ²)		0.068		0.065		0.057

2.3 Additional Results from the CFIB Survey Data

Reasons for Loan Turndowns

It is common that banks provide small business owners with an explanation of why loans are turned down. Table 15, below, presents the frequencies that particular reasons have been offered, as reported by small business owners on the 1990 and 1994 CFIB surveys.

Two items are noteworthy from this table:

- the primary reason cited by banks for loan turndowns is an inadequate debt-equity balance. As noted by Peterson and Shulman, Canadian SMEs rely on banks for credit to a greater degree than small firms in most other developed countries. This is partially a result of an inchoate market for early-stage equity capital and the legislative barriers that inhibit equity formation. In some respects, the 'credit crunch' may be viewed as a result of insufficient equity capital.
- a significant proportion of the small business owners who reported a loan turndown also report that their bankers did not provide a reason for the loan turndown

Table 15
Reasons for Loan Turndowns

Reasons for Loan Turndowns	Term Loans: 1990	Term Loans: 1994	New Line of Credit: 1990	New Line of Credit: 1994
Too new in business	8.9	6.6	14.0	9.5
Too much outstanding debt	17.8	10.9	7.0	8.7
Insufficient equity	22.2	22.1	23.3	22.5
Poor industry conditions	6.7	10.2	4.7	13.0
No reason given	13.3	10.7	18.6	13.8
Other	31.1	39.5	32.6	32.4

Collateral Requirements

One of the concerns frequently raised by small business owners is that with the so-called 'credit crunch', banks have been demanding more capital than had been historically experienced. Table 16 presents, for new lines of credit and term loans, the cumulative distribution of banks' requirements for collateral, expressed as a ratio to the loan facility. For example, in 1994, 75.6 percent of applicants for new lines of credit were required to provide a maximum of a 3:1 ratio of collateral to loan. Findings indicate that these distributions do not differ to a

statistically significant or material extent. The claim that banks' are now requiring more collateral than in the past is not supported by these data.

Table 16
Ratio of Collateral to Loan

Ratio of Collateral to Loan (Cumulative)	Term Loans: 1990	Term Loans: 1994	New Line of Credit: 1990	New Line of Credit: 1994
Less than \$1 per \$1 of loan	12.4	19.0	10.8	16.8
\$1 or less per \$1 of loan	39.6	44.1	35.2	36.6
\$2 or less per \$1 of loan	75.2	72.5	62.0	61.5
\$3 or less per \$1 of loan	84.7	83.7	73.9	75.6
\$5 or less per \$1 of loan	92.6	90.8	86.9	88.1
Percent of borrowers required to provide more than \$5 of collateral per \$1 of loan	7.4	9.2	13.0	12.0

Complaints About "Bank Actions"

The 1994 CFIB questionnaire asked respondents whether or not their banker had engaged in any of the activities listed in the tables that follow. Table 17 lists responses about various "bank actions" broken down on a regional basis. Consistent with other findings in this report, it is seen that "bank actions" are more common in Ontario, in general, than in the Eastern or Western provinces.

The number of SME bank customers affected by these actions is also noteworthy. When the results are correlated with respondents' self reported sales growth, the breakdown in Table 18 emerges. Banks actions appear to be most common for firms that have a record of declining sales. However, firms whose sales are rapidly growing (in excess of 20 percent per year over previous three years) bank actions also appear to be frequent. It is not uncommon for rapidly growing firms to encounter financial difficulties due to unanticipated higher levels of working capital, particularly accounts receivable and inventory, that accompany rapid growth of sales. To the extent that business owners are 'surprised' by the need to finance growing levels of current assets, bankers are sometimes called on at short notice and without full documentation for emergency capitalization.

Table 17
Citations of Bank Actions

Bank Actions Cited	East	Ontario	West	Total
Total Number of Respondents	2337	5275	3291	10903
Requests for additional collateral	15.70%	15.68%	12.40%	14.69%
Reduction in line of credit limit	8.77%	11.94%	7.60%	9.95%
Requests for more personal guarantees	16.22%	19.56%	16.26%	17.85%
Requirements for consultant investigation	4.45%	4.38%	3.77%	4.21%
Requirements for more equity	9.29%	11.58%	9.15%	10.35%
Exercised control over payables	7.57%	2.31%	2.01%	3.35%
Called loan	2.27%	2.26%	1.67%	2.08%
Renegotiated entire financing package	9.29%	11.72%	10.57%	10.85%
Requirements for more frequent financial reporting	15.32%	14.54%	12.58%	14.12%
Reduction on inventory financing	4.58%	5.52%	4.38%	4.97%
Reduction on receivables financing	4.45%	5.90%	4.83%	5.26%
Other	2.27%	2.65%	2.58%	2.55%

Table 18
Banks Actions by Record of Sales Growth

Reported Bank Actions	Declining Sales	Stable Sales	Sales Growth 6 to 20%	Sales Growth > 20%
*** Requests for additional collateral	24.9	14.5	13.0	19.1
*** Reduction in line of credit limit	23.5	10.7	7.6	10.3
*** Requests for more personal guarantees	31.0	20.6	17.8	20.3
Requirements for consultant investigation	6.2	4.5	3.8	4.3
*** Requirements for more equity	19.1	11.8	9.1	15.7
Exercised control over payables	4.7	3.6	4.0	4.3
** Called loan	5.8	2.6	2.2	4.3
*** Renegotiated entire financing package	17.8	11.3	10.9	13.6
*** Requirements for more frequent financial reporting	22.8	15.2	14.8	16.1
*** Reduction on inventory financing	9.4	3.5	2.5	5.2
*** Reduction on receivables financing	12.4	4.7	3.4	3.9
Other	13.1	10.6	8.7	13.0

***Signifies statistically significant correlation, at 0.1% level, of action with growth record.
 **Signifies statistically significant correlation, at 1.0 % level, of action with growth record.

Concluding Summary of Findings from the CFIB Data

A brief listing of the findings from analysis of the CFIB data includes:

- rejection rates for loan requests in 1994 are higher than in 1990 and 1987;
- access to credit is a strong function of firm size with turndown rates being higher for smaller firms;
- the level of technology does not appear to be a major factor in determining the frequency of turndowns (with the possible exception of applications for new lines of credit);
- turndown rates are a function of geographic region with high turndown rates recorded in Ontario;
- the primary reason cited by banks for loan turndowns is an inadequate debt-equity balance yet, bankers frequently did not provide a reason for a loan turndown;
- determinants of the three types of loan decisions have altered and by 1994, more factors are significant determinants of loan turndowns, and some of these additional factors are new.
- a loan turndown is more likely for:
 - smaller firms;
 - non-manufacturing firms (term loans);
 - firms that report a record of declining sales;
 - firms with a history of distress;
 - firms that have had to deal with multiple account managers;
 - firms in particular industrial sectors;
 - firms in particular geographic locations (Ontario, N.W.T., New Brunswick).
- the size of the borrower correlates strongly with rates charged on loans;
- interest rates on loans did not vary significantly or materially across low, medium, and high tech firms;
- interest rates on term loans appear to have increased significantly between 1990 and 1994;
- interest rates displayed regional disparities;
- the distributions of collateral to loan have not changed between the 1990 and 1994 periods;
- banks actions such as requiring more collateral etc. appear to be most common for firms that have a record of declining sales; yet such bank actions also appear to be frequent for firms whose sales are rapidly growing.

Taken together, these results suggest that structural changes in banks' decision-making has during the 1990-1994 interval. Bank account managers appear to be more sophisticated in the sense that their decisions reflect more factors than in the past. As a result, small business owners may be perceiving that changes to the historical 'groundrules' have occurred. The situation is exacerbated by two additional elements. First, the economics of small business banking provide fertile ground for misunderstandings and miscommunications. The limited time account managers can devote to each of 80 to 120 accounts reduces the manger's ability to fully assess risk and to acquire as in-depth an understanding of the client as might be desirable. Second, the situation is further aggravated when account managers are rotated.

This study found that market for debt capital to SMEs may be modeled as a set of *risk adjusted* supply and demand equilibria. Accounting for risk results in a change in the slope of the supply curve: an increase in the interest rate is correlated with the bank's offer of a smaller loan to the client. The effect of this smaller loan is to ameliorate the risk that is behind the higher interest rate and the concomitant payments on the loan due to the higher interest rate. This has the effect of reducing the risk associated with the loan. Interest payments are a fixed cost to the small business, and the more money that has to be spent on interest payments, the higher the risk of failure of the business. It can be seen that in some individual cases, the small business people might misinterpret this reduction in the loan size that the banks offer, in their efforts to stabilize the risk of the loan, as a "credit crunch". What is really happening is the market operating in an expected fashion, with a clear delineation of risk occurring.

Readers are cautioned that survey data drawn from the CFIB membership are biased. While steps were taken to mitigate the effects of survivorship bias, the potential effects of non-response bias have not yet been addressed. The impacts of non-response bias can be profound. In particular, the 1994 CFIB survey was conducted in the March-April period of 1994. During this period, considerable media attention had been accorded many of the issues being evaluated. For example, reports of the hearings of the Parliamentary Committee on Industry were well-covered in the media and were directly related to these issues. It is conceivable and even likely that these reports may have shaped some responses to the CFIB survey.

Therefore, further research was required. This took the form of an intensive sampling of bank loan files. The findings from this sampling could then be compared with those of similar research conducted by Wynant and Hatch. These results are described in section 3 of this report.

Section 3

Findings from Bank Loan File Data

As part of the empirical exploration of hypothesis that the six major Canadian banks have been restricting credit to SMEs during the 1990-1994 period, data were gathered from a sample of bank loan files. The sample was chosen to represent all geographic regions of Canada and the six major chartered banks. Sample selection was designed to reflect the distribution of loan files according to these guidelines. This section of the report describes the findings of the analysis of these data. As a benchmark, the 1990 work of Wynant and Hatch [WH, hereafter] is employed and comparisons of current findings are made against those reported by WH.

3.1 Bank Loan Files: Survey Process

The data collection form was based on that used by Wynant and Hatch in their 1990 survey of bank lending patterns to SMEs. Because of the focus of this study on the credit crunch hypothesis, only those parts of the WH data collection form that potentially related to the credit crunch issue were retained. The data collection form was pre-tested and refined. Careful additions to the form have been made in light of the 1987, 1990, and 1994 CFIB surveys and in light of pre-testing. The consistency gained by refinement of the WH data collection form is essential to providing comparisons of the 1994 situation with that of 1990. A copy of the 1994 survey form is attached as Appendix E.

The sampling program was designed to reflect:

- the approximate market shares of the six major Canadian banks. Market shares were estimated on the basis of the 1990 CFIB survey.
- The geographic distribution of Canadian SMEs according to telephone area codes. Again, data from the 1990 CFIB survey provided guidance for this step.
- A random selection of bank branches within area codes by bank from listings supplied by each of the banks. The active assistance of the Canadian Bankers Association and the senior management of the six major chartered banks was essential to this step.

Based on the branches selected as noted above, an itinerary was established and sent to the vice-presidents of Independent Banking of each of the six major banks. Their cooperation in arranging researcher visits to the branches was sought and provided without exception. *In every instance and without qualification, researchers have been provided unrestricted access to loan files of SMEs, have enjoyed full access to loan account managers, and have been provided with any other additional information needed to complete the data collection instrument.* The cooperation of the banks has been noteworthy.

Table 19 summarizes the number of person-days, broken down by geographic region and banking institution, during which bank loan files were sampled.

Table 19
Distribution of Bank Sample

BANK	REGIONS VISITED					TOTAL
	ATLANTIC	QUEBEC	ONTARIO	PRAIRIES	BC	
BNS	4	1	11	1		17
BMO			13	3	2	18
CIBC	3	1	16	5	3	28
NAT	1	3	2	1		7
ROY	3	3	24	2	5	37
TD	3		3	2	1	9
TOTAL	14	8	69	14		116

In accord with these work assignments, 17 percent of the 1,393 files in the sample was drawn from branches of the Bank of Montreal, 13 percent from the Bank of Nova Scotia, 24 percent from the Canadian Imperial Bank of Commerce, 5 percent from the Banque Nationale, 34 percent from the Royal Bank, and 8 percent from the Toronto Dominion Bank.

Table 20 presents the distributions of firm size, as measured by annual sales and book values of total assets, by each of the banks.

Table 20
Characteristics of Sample Data

BANK	AVERAGE SALES (\$000)	AVERAGE TOTAL ASSETS (\$000)
BNS	982	721
BMO	1,407	1,013
CIBC	982	588
NAT	2,642	2,368
ROY	1,211	652
TD	821	908

The file data were derived from a variety of documentation events in the small business/bank relationship. In 57 percent of the cases the event is an annual review; requests for term loans (14 percent), new lines of credit (7 percent), and increases in existing operating loans (5 percent) constitute most of the remaining cases.

3.2 A Profile of SME Bank Clients

This section outlines salient characteristics of bank SME borrowers. The profile developed here is clearly not accurate for every branch or bank. Bank strategies stress different segments of the SME

marketplace. However, the data presented here do provide a global sketch of SMEs that have successfully obtained bank loans.

Company Attributes

In general, a majority of borrowing clients are established firms. Tables 21 and 22 list the distributions of SME borrowers by age of firm and level of annual sales volume, respectively. In addition, the data indicate that, on average, bank SME borrowers employ 5.6 people but that the half the borrowers report less than 4 full-time equivalent employees. Hence, while bank clients are among the smaller firms, they are unlikely to be start-ups.

Table 21
Age Distribution of SME Borrowers

Age Category	Proportion of Borrowers
Start-up	10.9%
1 - 3 years	11.5%
> 3 years	77.8%

Table 22
Distribution of Sales Volume of SME Borrowers

Annual Sales Volume (\$000)	Proportion of Borrowers
<250	28.8%
251-500	20.0%
501-750	11.2%
751-1,000	8.9%
1,001-2,000	16.7%
2,001-5,000	11.2%
>5,000	3.3%

Half the businesses have been in operation for less than seven years. Borrowing firms have been owned by their current principals for an average of 7.3 years, with half the firms having been owned by the current owners for more than five years. The primary owner of two-thirds of the firms are men; women are the primary owners of one firm in 12 (8.3 percent).

Industry sectors that represent the most borrowers are retail and services. Table 23 lists the sectoral distribution of bank SME borrowers. Most borrowers were limited companies.

Table 23
Sectoral Distribution of Bank Borrowers

Industry	Proportion of borrowers	Industry	Proportion of borrowers
Construction	5.0%	Agriculture, etc.	3.0%
Mining & Primary	0.6%	Transportation etc.	3.6%
Manufacturing	7.9%	Services	23.5%
Financial, Real Estate	2.3%	Professions	5.8%
Wholesale	4.8%	Hospitality	15.1%
Retail	27.7%	Other	0.8%

SME-Bank Relationship

Borrower firms tend to have been long-time customers with the bank. Two thirds of the firms were reported to have been with their current banker for more than three years and only 17 percent had been with the lender for one year or less, most of those being the start-ups noted in section 3.1.1.

Typically, the average loan is small. Table 24 presents the distribution of operating loan facilities and illustrates the nature of the small lending balances. Fifty percent of SME borrowers boast a credit facility of no more than \$50,000. This result carries clear implications over to the bank-SME relationship.

Assuming, for example, that on a loan of this small size banks assess an interest rate of prime + 3, the maximum annual loan revenue from 50 percent of the bank's SME clients is approximately \$2,000. After allowance for loan losses (typically estimated at 1 percent of balance), there remains little contribution to margin and overhead after the direct costs of the loan account managers are recognized. These economics drive the result that account managers must typically oversee 80 to 120 accounts. This result, in turn, implies contact time that averages 1-2 days per year.

Table 24
Distribution of Operating Loan Facility, by Size

Size of Operating Loan (\$000)	Proportion of Borrowers
<25	31.4%
26-50	18.6%
50-75	7.5%
76-100	9.8%
100-250	19.8%
>250	12.9%

To help with risk assessment, outside agencies are often consulted. Dun and Bradstreet (or equivalent) report on 44 percent of borrowers. Credit bureau ratings on the principals are present in 77 percent of the cases. Typically, borrower firms have no reports of payment problems according to these rating services.

Lenders also resort to information directly from the client. Historical financial statements are retained in files in 81 percent of the cases; however, in only a minority of cases are business plans (14.2

percent) or pro-forma financial statements (10.0 percent) present. The quality of the information is generally good. Most firms provide financial data to the banks that have either been audited (2.8 percent of the cases) or that have been prepared by an external professional (59.5 percent of the cases).

On average, SME borrowers present a reasonable financial profile to the bank. Tables 25 and 26 present the mean values of selected income statement (Table 25) and balance sheet items (Table 26).

Table 25
Selected Income Statement Items (Mean Values)

Item	Mean Value (\$000)
Annual Sales	1,090
Salaries & Draws by Owners	144
Gross Profit	392
Before-Tax Profit	25

Table 26
Selected Balance Sheet Items (Mean Values)

Asset Item	Mean Value (\$000)	Liability/Equity Item	Mean Value (\$000)
Cash	32	Accounts Payable	97
Receivables & Inventory	245		
Total Current Assets	346	Total Current Liabilities	219
		Total Equity	214
Total Assets	572		

The profile of firms described here differs in several respects from that of the general population of Canadian SMEs and from the profile of respondents to the CFIB surveys. Bank borrowers are seen to be more established firms than those that responded to the CFIB questionnaires. The proportion of unincorporated businesses in the CFIB database was substantially higher. Nonetheless, CFIB respondents tended to be larger than the firms represented in the bank loan files: the median number of employees was 7 in the CFIB database (compared with 4 in the bank files); 42 percent of CFIB borrowers reported operating loan facilities of less than \$50,000 (50 percent in bank files database); and 63 percent of CFIB respondents had been owned by the current owners for more than ten years (half the firms in the bank loan files had been owned by the current principals for more than five years).

These results indicate that sample comprised by the CFIB respondents are not representative of SME bank borrowers. In part, this is expected due to the survivorship bias and non-response bias inherent in the CFIB sampling frame.

3.3 Terms of Credit: Interest Rates on Loans 1990:1994

It is worth noting that banks do not track loan turndowns. Therefore, the bank loan file data do not permit evaluation of the contention of a credit crunch from the data gathered in this phase of the investigation. However, data on interest rates and collateral requirements are in place.

In order to address the allegation of a credit crunch, terms of lending between 1990 and 1994 are compared. The comparisons are based on data derived from the 1994 survey of bank loan file data and the work carried out by Wynant and Hatch in 1990. In their study, WH calculated average interest rates broken down according to a variety of criteria. Tables 27 and 28 compare, for operating loans and floating rate term loans, rates assessed by banks according to the breakdowns reported by WH.

Younger firms, and those with smaller loan facilities pay a greater premium now than in 1990. This is consistent with the organizational changes that have apparently resulted in more sophisticated decision making by loan account managers. However, these data do not support the contention that terms of credit are more onerous now than in 1990.

Tables 27 and 28 reveal that, with some minor variations, rates charged on loans have not changed very much since 1990. This is a finding that is directly contrary to that based on the CFIB results reported in section 2 of this report: that rates on term loans have increased. The bank loan file data do not support this finding. This difference is probably attributable to the non-response bias that is often problematic for mail survey data.

Summary: Findings from Bank Loan Files

Contrary to the results based on CFIB survey data, analysis of data from bank loan files do not support that interest margins on term loans have increased since 1990. The profiles of bank SME borrowers was described and found to differ from that of respondents to the CFIB survey. This difference, possible non-response bias, may account for the differential results.

Table 27

Factors Affecting Interest Rate Above Prime:
Approved Operating Loans, 1990 and 1994

Industry	Average Rate Above Prime	
	<i>Wynant & Hatch 1990</i>	<i>Riding & Haines 1994</i>
Agriculture, Fishing, Forestry	*	1.35
Mining & Primary Industries	*	*
Construction	1.82	1.58
Manufacturing	1.64	1.43
Transport & Communications	1.79	1.60
Wholesale	1.56	1.60
Retail	1.77	1.72
Finance, Real Estate, Insurance	*	*
Services	1.73	1.67
Professionals	n/a	1.65
Age of Business		
< 1 year	1.86	2.23
1 - 3 years	1.88	1.83
More than 3 years	1.65	1.54
Annual Sales		
Less than \$250,000	2.11	2.03
\$251,000 to \$500,000	1.78	1.73
\$501,000 to \$750,000	1.55	1.61
\$751,000 to \$1,000,000	1.55	1.60
\$1,001,000 to \$2,000,000	1.38	1.37
More than \$2,000,000	0.96	1.12
Years Business Owned by Current Principal(s)		
Less than 1 year	1.92	2.02
1 - 3 years	1.85	1.80
4 - 5 years	1.84	1.63
More than 5 years	1.60	1.54
Relationship with Bank		
Less than 1 year	1.89	1.84
1-3 years	1.78	1.70
Over 3 years	1.67	1.53
Burden Coverage Ratio		
Less than 1x	1.79	1.94
1x to 2x	1.85	1.46
2.01x to 5x	1.67	1.73
More than 5x	1.40	1.45
Risk Rating		
Above average	c. 1.20	1.45
Average	1.70	1.58
Below Average	2.08	1.72
Size of Loan Facility		
Less than \$25,000	2.34	2.34
\$26,000 to \$50,000	1.77	1.54
\$51,000 to \$75,000	1.79	1.48
\$76,000 to \$100,000	1.57	1.31
\$101,000 to \$250,000	1.32	1.22
More than \$250,000	1.11	0.93

* indicates too few observations to report

Table 28

Factors Affecting Interest Rate Above Prime: Approved Term Loans, 1990 and 1994		
	Average Rate Above Prime	
	<i>Wynant & Hatch 1990</i>	<i>Riding & Haines 1994</i>
Annual Sales		
Less than \$250,000	2.09	1.98
\$251,000 to \$500,000	1.79	1.81
\$501,000 to \$750,000	1.59	1.73
\$751,000 to \$1,000,000	1.65	1.72
\$1,001,000 to \$2,000,000	1.57	1.59
More than \$2,000,000	1.44	1.43
Burden Coverage Ratio		
Less than 1x	1.96	*
1x to 2x	1.84	*
2.01x to 5x	1.85	1.90
More than 5x	1.71	1.65
Size of Term Loan		
Less than \$25,000	2.00	1.98
\$26,000 to \$50,000	1.74	1.57
\$51,000 to \$75,000	1.72	1.83
\$76,000 to \$100,000	1.61	1.57
\$101,000 to \$250,000	1.40	1.53
More than \$250,000	1.34	1.42

Section 4

Summary and Discussion

This report provides the findings of an investigation regarding the belief that lending institutions have reduced access to credit for SMEs over the 1990 through 1994 period: the alleged "credit crunch". The findings were based on two sets of survey data regarding small business lending experiences in 1990 and 1994, thereby providing longitudinal "before" and "after" perspectives of SMEs' borrowing experiences.

The two categories of survey results were:

- those conducted by the Canadian Federation of Independent Business (CFIB) in 1987, 1990, and 1994. Findings from these surveys were reported in Section 2 of this volume.
- A random selection of bank loan files carried out in the summer of 1994 by the research team associated with this study. The results of this survey were reported in Section 3 of this volume.

Findings from this investigation include:

- rejection rates for loan requests in 1994 are higher than in 1990 and 1987;
- turndown rates are higher for smaller firms and are subject to regional disparities, disparities that correlate with geographic levels of prosperity;
- the level of technology is not a major factor in loan turndowns or interest rate determination;
- the primary reason for loan turndowns is an inadequate debt-equity balance;
 - determinants of the three types of loan decisions have altered significantly. By 1994, more factors are significant determinants of loan turndowns, and some of these additional factors are new. Turndowns were found to be more common if firms had had to deal with multiple account managers, other factors being held constant.
- the size of the borrower correlates strongly with interest rates charged on loans;
- according to CFIB data, interest rates on term loans appear to have increased significantly between 1990 and 1994; however, bank loan file data, selected randomly, did not support this finding.
- interest rates displayed regional disparities;
- the distributions of collateral to loan have not changed between the 1990 and 1994 surveys;
- banks actions such a requiring more collateral etc. appear to be most common for firms that have a record of declining sales; yet such bank actions also appear to be frequent for firms whose sales are rapidly growing;.

Taken together, these results suggest that structural changes in banks' decision-making have taken place. Bank account managers appear to be more sophisticated in their decisions, decisions that now reflect more factors. Small business owners may perceive this as a change to historical experience. The situation is

exacerbated by two additional elements. First, the economics of small business banking provide fertile ground for misunderstandings and miscommunications. The limited time account managers can devote to, typically, each of 80 to 120 accounts reduces the manager's ability to assess risk and to acquire as in-depth an understanding of the client as might be desirable. Second, the situation is further aggravated when account managers are rotated.

On the basis of these findings, there are elements of banks' business practices with respect to SMEs that are open to criticism. Some of these represent failures (or inabilities) to communicate. Loan turn-downs and "bank actions" need to be fully explained to the small business customer. Account managers need to be able to deal with fewer clients so that good relationships and open lines of communication can be maintained. To the extent that small business owners can acquire an understanding of the (changing) bank decision process, greater client satisfaction can be obtained.

Perhaps the major obstacle in this regard are the inefficiencies inherent in the low margins that result from small lending balances. By and large, it is the very smallest of bank business borrowers that face the most difficult situation, a situation that has a "vicious circle" aspect. Small borrowing balances represent low margin business to the bank so the account manager is too often unable to spend the time necessary to appreciate fully the fundamentals of the firm. This leads to cautious behaviour and an augmented likelihood of being turned down or subjected to a higher cost of borrowing. If a loan is advanced, the high interest cost is a fixed obligation that increases the firm's degree of financial leverage and its risk. The small borrowing balance and low margin make it difficult for the account manager to provide much remediation. Failure of the firm reinforces the sense that "smaller is riskier".

One route out of this dilemma is to follow the leads of the Provinces of Quebec and Saskatchewan and to permit Credit Unions, Co-operative Banking firms, and Caisses Populaires, to participate in the business loan market, perhaps up to a legislated loan ceiling. The experience in Quebec and Saskatchewan with this lenders has been positive. This step, of course, requires the involvement of provincial governments to ease the barriers to entry for such institutions.

It is difficult, however, on the basis of the data collected and analyzed here to find for a "credit crunch". Two elements of evidence favour the "credit crunch" hypothesis: increases in loan turn-down rates and increases in the average rates of interest on term loans. In the latter case, contrary evidence was documented. On the one hand, then, mail survey data (with its inherent non-response bias) is contradicted, on the other hand, by a randomly-selected sample of bank loan files. Turn-down rates were found to have indeed risen. However, the tenor of borrowing has also changed given the recessionary forces that have characterized the early nineties. The banks' perceived riskiness of borrowers has increased both due their high levels of systematic risk and due to high failure rates among SMEs (see Volume I). These are forces that may well explain reluctance to lend. Moreover, the reduction in lending was found to have strong geographic propensities that seem to correlate with regional levels of economic prosperity.

It seems too great a leap to conclude, on the basis of these data, that Canadian banks have conspired explicitly or implicitly, to unduly restrict credit.

APPENDIX A

PARTICULARS OF THE CFIB DATA BASES

PARTICULARS OF THE CFIB DATA BASES

The 1987 Survey

In 1987, the CFIB conducted a national mail survey regarding on various aspects of their members' dealings with financial institutions. Survey questionnaires were mailed to randomly selected members of the CFIB.⁸ The survey was mailed to randomly selected members on October 30, 1987. A reminder letter and a second copy of the survey questionnaire were mailed November 16. The survey cutoff date was December 11, 1987. A total of 3,217 usable responses were received, yielding a response rate of approximately 30 percent. The questionnaire employed had been pre-tested, and was comprised of four sections: the nature of the business; financing conditions; perceptions of bank competition; perceptions and concerns regarding bank service. A copy is attached.

Not all 3,217 responses were used in this analysis. Small businesses in the agriculture sector were not considered. Various filters for missing data and for responses which misinterpreted the questionnaire were also employed. Because lending criteria and terms of credit differ according to the type of loan, the remaining data were broken into three subgroups according to the type of loan request: term loans; establishing new lines of credit; and, requests to increase existing lines of credit.

⁸ It should be noted that CFIB members tend to be more established in business and to be slightly larger than the average small business in Canada. This difference is not unexpected, since firms which have been established for at least a few years are more likely to become members of a business organization than firms just starting out. In the context of the study, CFIB members could therefore be expected to have fewer financing problems than the average small business. In other respects, such as sector and geographic location, the CFIB membership is closely representative of the Canadian small business community.



CFIB Banking Survey

November, 1987

The CFIB Banking Survey is a very effective tool. Your responses to this questionnaire will provide us with valuable data needed to act on your behalf. As is our rule, the information which you provide will remain confidential.
Please circle or mark the appropriate answer.

Your Business

1. What is your form of business organization?

1. Proprietorship	2. Partnership	3. Corporation	1
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2. Please classify your major business activity using one of the categories below. (If more than one applies, mark the one which contributes the most toward your gross sales or total revenues.)

1. Construction	5. Wholesale	9. Services	2
2. Mining/Oil Field Services	6. Retail	10. Professions	
3. Manufacturing	7. Agriculture/Forestry/Fishing	11. Other _____	
4. Transportation/Communications	8. Financial Services	(Describe)	

3. During your last fiscal year, what were your gross sales, net of sales taxes and other excise taxes?

1. Under \$100,000	4. \$ 500,000 - 699,999	7. \$1,500,000 - 1,999,999	3
2. \$100,000 - 299,999	5. \$ 700,000 - 999,999	8. \$2,000,000 - 5,999,999	
3. \$300,000 - 499,999	6. \$1,000,000 - 1,499,999	9. \$6,000,000 or More	

4. How many employees do you have including yourself? 4-8
 _____ total employees, of which _____ are part-time. 7-8

5. How long have you owned your present business? _____ years. 9-10

6. Which best describes your average annual change in gross sales revenues over the past 3 years? (Mark one only)

1. Declined more than 5%	3. Grew (6 - 20%)	5. Too new in business to compare	11
2. No change (-5 to + 5%)	4. Grew rapidly (more than 20%)		

7. Is the principal owner/operator of this business a:

1. Male	2. Female	3. Male/Female equal partners	12
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8. Where is your firm located?

1. Rural area or small town (up to 10,000 population)	3. City (100,000 - 500,000 population)	13
2. Small city (10,000 - 100,000 population)	4. Large city (over 500,000 population)	

Financing Conditions

9. Which one of the following represents your most significant concern with existing banking practices? (Mark one only)

1. Collateral requirements	4. Fees/service charges	7. Term of the loan	14
2. Interest rate charged	5. Competence of account manager	8. Other _____	
3. Availability of credit	6. Speed of processing loan application	(Describe)	

10. Do you have a "line of credit" for your business?

1. Yes	2. No	15
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- 10a) If "Yes", please indicate the limit (maximum possible amount).
 \$ _____ (nearest thousand). 18-19

- 10b) If "Yes", please indicate the approximate average annual draw down on the line.
 \$ _____ (nearest thousand). 20-22

- 10c) If "Yes", what is the interest rate?
 _____ % OR Prime Rate + _____ %. 23-28

- 10d) If "Yes", what is the approximate value of the security required?
 \$ _____ (nearest thousand). 27-30

- 10e) If "Yes", over the last 3 years, has your line of credit:

1. Increased	2. Decreased	3. Stayed the same	31
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SURVEY CONTINUED INSIDE

11. Do you have a fixed term loan(s)?								
1. Yes	2. No							32
11a) If "Yes", where did you get your most recent fixed term loan? (Mark one only)								33
1. Family, friends	5. Savings and Loan, Trust Company							
2. Other private individuals	6. Government agency or program							
3. Bank	7. Other _____							
4. Credit Union, Co-op, Caisse Populaire	(Describe)							
12. When was the last time you tried to get a loan for your business from a bank or bank-like institution? (Quarter and year please. Include any fixed term loans, a new line of credit or increases in a line of credit. Do not include draws on an established line of credit.)								35
	Quarter of Year		Year					
1. First	3. Third	34	1. 1987	3. 1985	5. Before 1984	6. Never lined		
2. Second	4. Fourth		2. 1986	4. 1984				
12a) Where was the final loan decision made?								36
1. My local branch	3. Regional office				5. Don't know			
2. Specialized or main branch	4. Head office							
12b) What type of loan was requested? (Mark one best answer)								37
1. Fixed term	2. New line of credit				3. Increase in line of credit			
12c) Was the loan, line of credit or line of credit increase approved?								38
1. Yes, and I accepted it	3. Yes, but I rejected it				5. No final decision			
2. Yes, after further negotiation	4. No							
12d) If "No", what was the primary reason given for the turndown?								39
1. Too new in business	5. Firm's geographic or neighbourhood location							
2. Too much outstanding debt/insufficient equity	6. No reason given							
3. Bank's unfavourable assessment	7. Other _____							
4. Poor industry conditions	(Describe)							
12e) If "No", what was the amount requested?								40-43
\$ _____ (nearest thousand).								
12f) If it was approved, please provide the following:								44-47
1. Loan size, line of credit size or size of increase in line of credit.								
\$ _____ (nearest thousand).								
2. Payback period (term) _____ months OR _____ years OR _____ Not Fixed.								48-50
3. Interest rate _____ % OR Prime Rate + _____ %.								51-54
4. Was business and/or personal (non-business related) collateral required? (Mark the one best answer)								55
1. No collateral required	3. Yes, personal collateral required							
2. Yes, business collateral required	4. Yes, business and personal collateral required							
4a) What is the approximate value of the collateral required by the bank?								56-59
\$ _____ (nearest thousand).								
4b) Would (will) the bank automatically rescind collateral pledges when the loan is paid off?								60
1. Yes	2. No				3. Don't know			
4c) Was your spouse required to co-sign or guarantee the loan?								61
1. Yes	2. No				3. Not applicable, no spouse			
5. Did the bank require changes to your normal management/operating procedures as a condition of the loan?								62
1. Yes	2. No							
6. Was/is the method of repayment by periodic equal instalments?								63
1. Yes	2. No							
7. What was the purpose of the loan or line of credit? (Mark all that apply)								64
1. Working capital, e.g. inventories, payroll, receivables								
2. Fixed assets, e.g. plant, equipment, vehicles, real estate								65
3. Cushion for the unexpected								66
8. Did the loan, line of credit or line of credit increase represent the amount you really wanted?								67
1. Yes	2. No							
8a) If "No", approximately what percent of your need did it represent?								68
1. Under 10%	3. 25 - 49%				5. 65 - 89%			
2. 10 - 24%	4. 50 - 64%				6. 90 - 99%			

9. Were the size, terms and transaction generally satisfactory?				
1. Very satisfactory		3. Could have been better		69
2. Satisfactory		4. Unsatisfactory		
9a) What parts of the loan or loan transaction could have been improved? (Mark all that apply)				
1. Interest rate	70	6. Way you were treated	75	9. Other _____ 78
2. Amount received	71	7. Took too long	76	(Describe)
3. Maturity (payback period)	72	8. Didn't understand you	77	10. None 79
4. Collateral requirements	73	business or it's needs		
5. Amount of fees/charges	74			

Bank Competition

13. Have you noticed any change in competition for your firm's business among banks or bank-like institutions now compared to 3 years ago?				
1. Much more competition	3. No change	5. Much less competition		80
2. Slightly more competition	4. Slightly less competition	6. No opinion; not applicable		
13a) Within the last 3 years, have you experienced a change in the following characteristics of the bank or bank-like institution your firm has dealt with most often?				
A. Accessibility of account manager:	1. Better	2. No change	3. Worse	81
B. Services offered:	1. More	2. Same	3. Less	82
C. Capability of staff/personnel:	1. Better	2. No change	3. Worse	83
D. Continuity of account manager:	1. Better	2. No change	3. Worse	84
E. Lending criteria:	1. More lenient	2. No change	3. More restrictive	85
14. Within the last 3 years, have you ever actively shopped for a different bank (including bank-like institutions) to service your business needs?				
1. Yes	2. No			86
14a) If "No", why not? (Mark only one best answer.)				
1. Possible repercussions from current bank	3. Satisfied with current bank	5. Never thought about it		87
2. No real difference in banks	4. Only one bank in the area	6. Other _____		
		(Describe)		
15. Within the last 3 years or since you changed bank/bank-like institutions (whichever is less), how many different account or institution managers have you dealt with at your principal bank/bank-like institution?				
1. One	2. Two	3. Three	4. Four	5. Five or more 88
16. When was the last time you changed principal banks/bank-like institutions?				
1. Never or more than 5 years ago	3. 3-4 years ago	5. 1-2 years ago		89
2. 4-5 years ago	4. 2-3 years ago	6. Within last 12 months		

Bank Service

17. Below are listed a number of characteristics for a bank or a bank-like institution. How important is each one to you in conducting your firm's banking business? (Respond once per line)				
	Very Important 1	Important 2	Not Important 3	
a. Knows you and your business	1a	2a	3a	90
b. Provides helpful business suggestions, advice, and/or seminars	1b	2b	3b	91
c. Offers the "cheapest money" available	1c	2c	3c	92
d. One person always handles your credit needs	1d	2d	3d	93
e. Convenient location	1e	2e	3e	94
f. Reliable source of credit	1f	2f	3f	95
g. Knows your industry	1g	2g	3g	96
h. Speed of decisions and service	1h	2h	3h	97
i. Easy access to loan officer	1i	2i	3i	98
j. Offers a wide range of banking services	1j	2j	3j	99
k. Knows the local market/community	1k	2k	3k	100

SURVEY CONTINUED ON OTHER SIDE

18. How would you rate your major bank or bank-like institution on these same characteristics? (Respond once per line)

	Good 1	Acceptable 2	Poor 3	
a. Knows you and your business	1a	2a	3a	101
b. Provides helpful business suggestions, advice, and/or seminars	1b	2b	3b	102
c. Offers the "cheapest money" available	1c	2c	3c	103
d. One person always handles your credit needs	1d	2d	3d	104
e. Convenient location	1e	2e	3e	105
f. Reliable source of credit	1f	2f	3f	106
g. Knows your industry	1g	2g	3g	107
h. Speed of decisions and service	1h	2h	3h	108
i. Easy access to loan officer	1i	2i	3i	109
j. Offers a wide range of banking services	1j	2j	3j	110
k. Knows the local market/community	1k	2k	3k	111
19. Over the last 12 months, has the number of services on which you have paid fees:				
1. Decreased substantially	3. Stayed the same	5. Increased substantially		112
2. Decreased slightly	4. Increased slightly	6. Don't know/haven't noticed		
19a) Over the last 12 months, has the per unit size of fees:				
1. Decreased substantially	3. Stayed the same	5. Increased substantially		113
2. Decreased slightly	4. Increased slightly	6. Don't know/haven't noticed		
19b) If either has "Increased" does the additional cost reflect a comparable increase in the amount or quality of services received?				
1. Yes	2. No			114
20. Do you do your personal banking at your firm's principal bank or bank-like institution?				
1. Yes, by choice	2. No	3. Yes, at bank(er)'s insistence		115
21. What is your principal bank (or bank-like institution) that you use for most of your business banking? (Mark one only)				
1. Canadian Imperial Bank of Commerce	5. Toronto-Dominion Bank	8. Trust/Finance Company		116
2. Bank of Nova Scotia	6. National Bank of Canada	9. Credit Union, Co-op, Caisse Populaire		
3. Bank of Montreal	7. Other chartered bank _____	10. Other _____		
4. Royal Bank of Canada	(Describe)	(Describe)		
22. At which location of your bank do you conduct your business banking?				
1. Headquarters/Main location	2. Specialized small business branch	3. General branch		117
23. In what province/territory is your principal business located? _____				118
24. In the past three years, has your firm experienced market or financial difficulties?				
1. Yes	2. No			119
24a) Within this period, would you describe your bank's approach to your business as:				
1. Very supportive	3. Unchanged	5. Harmful		120
2. Supportive	4. Not helpful	6. Other _____		
		(Describe)		

Comments: _____

Attach additional sheets if necessary.

The 1990 CFIB Survey

A national survey was also conducted by the Canadian Federation of Independent Business of its members in 1990. The questionnaire used for data collection was similar to the 1987 questionnaire described above. It included several variables which the 1987 survey lacked. Among such variables are years of managerial experience of owner, credit track record, and professional status of the financial manager. One of the primary purposes of the 1990 survey was to examine, in particular, terms of credit advanced to women business owners. Therefore, the questionnaire was mailed to all 5,246 women business owners listed on the CFIB membership and a random sample of 9,734 male business owners. To this end, questions were included on the principal owners and the financial manager of the enterprise. For each owner, it featured questions on the size of ownership, level of education, type of degree obtained (if any) and managerial experience. It also investigated the gender, identity, employment status, and training of the financial manager.

There were 2,785 respondents to the 1990 questionnaire, 28 of whom did not respond to the question of whether they had sought any form of debt financing in the years 1987-1990. There were five people who said they had not sought debt financing, but then indicated later that they had actually done so. Five hundred and ninety-four respondents indicated they had sought a term loan in the years 1987-1990, 627 respondents had sought a line of credit in the years 1987-1990, 635 respondents had sought an increase in their line of credit. Seven hundred and eighty-six respondents had not sought any of these three sources of business financing. Eighty-two respondents did not answer questions about the type of financing sought after indicating they had sought financing. Again, respondents from the agricultural sector were deleted from consideration.



CFIB Banking Survey

July, 1990

1-8

The CFIB Banking Survey is a very effective tool. Your responses to the questionnaire will provide us with valuable data needed to act on your behalf. As is our rule, the information you provide will remain confidential.

Your Business

1) Where is your firm located? (Circle one only)

1. Small town or rural area (up to 10,000 people)	3. City (100,001 to 500,000 people)	9
2. Small city (10,001 to 100,000 people)	4. Large city (more than 500,000 people)	

2) For how long has your business been established? (If less than one year, please round off to the year.)
_____ years 10-12

3a) What is the legal status of your business organization? (Circle one only)

1. A sole proprietorship (Go to Q. 4)	2. A partnership	3. A corporation	13
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3b) If your business is a partnership or a corporation, how many owners does it have?
_____ owners 14-15

3c) If your business is a partnership, is it an equal partnership? (Circle one only)

1. Yes	2. No	16
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4) How, on average, have your gross sales revenues changed over the past three years? (Circle one only)

1. Declined (more than 5%)	3. Grew (6 to 20%)	17
2. No change (-5% to +5%)	4. Grew rapidly (more than 20%)	

5) How many people does your business organization employ? (Include any owner who works for the business in your response)
_____ employee(s) of which, _____ is/are part-time (less than 30 hours per week) 18-24

6) Please evaluate the extent to which your organization's FINAL PRODUCT/SERVICE is "high tech" in nature by circling the appropriate number on the scale below. (A rating of 1 means that your final product is not "high tech" at all; 9 means that your final product or service is exclusively "high tech". High technology or "high tech" in this context refers to such industries as semiconductors and related silicon technology, biotechnology, pharmaceuticals, aerospace/satellite communications, telecommunications and computers. For instance, if your firm produces cookies, you may wish to assign a rating of 1; however, if your firm produces semiconductors, you may wish to assign a rating of 9. These two examples represent extremes and you may assign other ratings based on your perception of what the nature of your product/service is.)

Not "high tech" at all							Very "high tech"		
1	2	3	4	5	6	7	8	9	25

7) On the scale below, please indicate the extent to which your organization EMPLOYS HIGH TECHNOLOGY to produce its final products or to provide its services. (A rating of 1 means that your organization does not use high technology at all in production; a rating of 9 means that you use only high technology in production. For instance, though your firm may produce a non-high technology product, it may nonetheless employ high technology such as computers in production. If a plant for producing cookies is completely automated for instance, one may assign a rating of 9. On the other hand, if the cookies are produced traditionally, you may want to assign a rating of 1.)

Not "high tech" at all							Very "high tech"		
1	2	3	4	5	6	7	8	9	26

Background of Owner(s)

A principal owner of a business is a person who owns a substantial portion of the total equity of that business enterprise (usually 20% or more of total ownership) and who plays an active role in the management/direction of the business. Below, please provide information on up to three of your principal owners.

- 8) Please identify the gender of each of the principal owners of your business in descending order of percentage of ownership; that is, principal owner I should have more (or an equal share) of total equity than (as) principal owner II AND principal owner II should have more (or equal) percentage of total ownership than (as) principal owner III. (Circle 1 if the principal owner is male and circle 2 if the principal owner is female.)

Principal Owner I	Principal Owner II	Principal Owner III	Gender of Owner
1	1	1	Male
2	2	2	Female

27-29

SURVEY CONTINUED INSIDE

9a) What is the highest level of formal education that each of the principal owners of your business has completed? (Please circle one only for each owner.)

Principal Owner I	Principal Owner II	Principal Owner III	Highest Level of Education Completed by Owner	
1	1	1	Some high school	30-32
2	2	2	High school diploma	
3	3	3	Some university/college	
4	4	4	College degree	
5	5	5	Undergraduate degree	
6	6	6	Graduate degree	

If none of your principal owner(s) has a college or university degree, skip to Question 10.

9b) If an owner has a college or university degree, please indicate the type of degree below. (Circle 1 if the owner has a financial degree, circle 2 if the owner has another professional degree and 3 if the owner has a non-professional degree.)

Principal Owner I	Principal Owner II	Principal Owner III	Type of Degree Owner holds	
1	1	1	A financial professional degree (e.g. B Comm., M.B.A. or Ph. D. in Finance, Accounting or Economics)	33-35
2	2	2	Other professional degree (e.g. medical doctor, engineer, lawyer, etc.)	
3	3	3	Other degree	

10) In your industry sector, how many years of managerial experience does each of up to three of your principal owners have?

Principal Owner I	Principal Owner II	Principal Owner III		
_____ years	_____ years	_____ years		36-41

11) Who is the formal/informal financial manager of your business? (Circle one only)

1. A principal owner	3. An outside accounting firm	42
2. An employee who is not an owner	4. Other (Please specify) _____	

12) Is your financial manager a financial professional (that is, is your financial manager a Chartered Accountant, CPA, CGA, etc.?) (Circle one only)

1. Yes	2. No	43
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13) Is your financial manager employed on a full-time or part-time basis? (Circle one only)

1. Full-time	2. Part-time	3. Other (Please specify) _____	44
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14) What is the gender of your financial manager or the person who heads your finance department? (Circle one only)

1. Male	2. Female	45
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Debt Financing Experience

In this section, please provide details about the most recent occasion on which your firm sought credit from a financial institution. Most often, such credit takes the form of a term loan, a line of credit or an increase in an existing line of credit. We define these terms as follows:

Line of credit: A line of credit is defined here as a loan which is usually made to finance the day-to-day operations of the business.

Term loan: A fixed term loan is defined here as a loan which is usually a lump-sum and which is expected to be paid either as a lump-sum with interest after a specified period of time or in periodic installments over a specified period of time.

15) Has your firm sought a line of credit, an increase in a line of credit or a term loan from a financial institution since 1987? (Circle one only)

1. Yes	2. No (Go to Q.31a)	46
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16) When was the last time you applied for a line of credit, an increase in a line of credit or a term loan?

Month _____	Year _____	47-50
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17) Did this most recent experience involve a term loan, a line of credit or an increase in a line of credit? (Circle one only)

1. Term loan	2. Line of credit	3. Increase in line of credit	51
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18) From which of the following financial institutions did you seek the form of credit you desired? (Circle one only)

1. Canadian Imperial Bank of Commerce	6. National Bank of Canada	52
2. Bank of Nova Scotia	7. Other chartered bank (Please describe) _____	
3. Bank of Montreal	8. Trust/finance company (Please describe) _____	
4. Royal Bank of Canada	9. Credit union, co-op, caisse populaire (Please describe) _____	
5. Toronto-Dominion Bank	10. Other (Please describe) _____	

19) What is the amount of the line of credit, increase in line of credit or term loan you applied for?

\$ _____ (In nearest thousand)	53-57
--------------------------------	-------

20a) Was your application accepted or rejected by the financial institution? (Circle one only)

1. The application was accepted	3. The application was rejected outright (Go to Q.28a)	58
2. No decision has yet been reached (Go to Q.31a)		

20b) If your application was accepted, what is the FINAL amount of line of credit, increase in line of credit or term loan the financial institution was willing to approve?

\$ _____ (in nearest thousand)	59-63
--------------------------------	-------

29) Have you ever gone over the limit of your line of credit? (Circle one only)

1. Yes 2. No 124

30) Have you ever been unable to pay back any previous business loans on time? (Circle one only)

1. Yes 2. No 125

31a) Within the last three years, have you ever actively shopped for a different financial institution to service your business needs? (Circle one only)

1. Yes 2. No (Go to Q.31c) 126

31b) If yes, why? (Circle one only)

1. Not satisfied with current financial institution 3. Shopping can lead to better terms of credit 127
 2. Different banks provide different services 4. Other (Please describe) _____

31c) If you did not shop for another financial institution, why not? (Circle as many as apply)

1. Satisfied with current bank 5. Only one bank in the area 128-134
 2. Never thought about it 6. Possible repercussions from current bank
 3. Too busy 7. Other (Please describe) _____
 4. No real difference in banks -

32) When was the last time you changed your financial institution? (Circle one only)

1. Never 4. 2-3 years ago 135
 2. More than 5 years ago 5. Less than 2 years ago
 3. 1-5 years ago

Bank Services

33) Below are listed a number of characteristics for a financial institution. First please rate how important each characteristic is to you in conducting your business. Second, please rate the financial institution you deal with most often in terms of how satisfied you are with its performance on each of these characteristics.

	Importance			Satisfaction		
	Not Important	Very Important		Not Satisfied	Very Satisfied	
1. Knows you and your business	1	2	3	1	2	3
2. Provides helpful business advice	1	2	3	1	2	3
3. Offers the cheapest money available	1	2	3	1	2	3
4. Reliable source of credit	1	2	3	1	2	3
5. Provides wide range of services	1	2	3	1	2	3
6. Account manager is easy to talk to	1	2	3	1	2	3
7. Makes you feel comfortable	1	2	3	1	2	3
8. Treats you with respect	1	2	3	1	2	3
9. Good source of venture capital	1	2	3	1	2	3

34) On the whole, how satisfied are you with the financial institution you deal with? (Circle one only)

1. Highly satisfied 3. Somewhat dissatisfied 154
 2. Reasonably satisfied 4. Strongly dissatisfied

Financial Statements

35) Please complete the following short-form income and balance sheet statements of your business past fiscal year. This information will remain strictly confidential. Please round off amounts to the nearest thousand.

Income Statement			
Gross Sales	\$ _____	Taxes	\$ _____ 155-164
Operating expenses	\$ _____	Owners' (owners') withdrawals/salary	165-169
Interest expenses	\$ _____	Salaries (as a percentage of sales)	170-174
Lease obligations	\$ _____		175-182

Balance sheet statement			
Assets		Liabilities	
Accounts receivable	\$ _____	Accounts payable	\$ _____ 183-192
Inventories	\$ _____	Long term debt	\$ _____ 193-207
Bonds, securities	\$ _____		203-207
Fixed assets	\$ _____		208-212

Comments: _____

(Attach additional sheets if necessary)

Thank you for completing this survey

The 1994 CFIB Survey

The 1994 questionnaire was an expansion of the 1990 instrument and retained most of its content and structure. Mailed to all members of the CFIB, it had the following sections:

- data about the respondents business;
- respondents' most significant concern with existing banking practices;
- information about debt financing experience;
- concerns about banks;
- bank services;
- bankruptcy experiences;
- bank activity;
- space for further comments.

Of the 10,713 responses, 7,053 respondents indicated their firm had sought a line of credit, an increase in a line of credit, or a term loan from a financial institution since 1991. As in the two previous surveys, small businesses in the agriculture sector were excluded. A total of 2,185 respondents reported having sought a term loan since 1991; 2,396 had sought to establish a new line of credit; and 1,741 had applied to increase the limits on existing lines of credit.



CFIB Banking Survey

M-SV0047-9402(169)

The *CFIB Banking Survey* is a very important tool. Your responses to this questionnaire will provide us with valuable data needed to act on your behalf. As is our rule, the information you provide will remain confidential.

Please put your Member I.D. No. here.

1-8

This Member I.D. No. can be found in the bottom right-hand corner of your Mandate Ballot.

Example: 00064509

Instructions: Please circle answer as shown (1.)

Your Business

1) Where is your firm located? (Circle one)

1. Small town or rural area (up to 10,000 people)

3. City (100,001 to 500,000 people)

2. Small city (10,001 to 100,000 people)

4. Large city (more than 500,000 people)

9

2) How long have you owned your present business? (If less than one year, please round off to one year)

_____ years

10-11

3) How, on average, have your gross sales revenues changed over the past three years? (Circle one)

1. Declined (more than 5%)

3. Grew (6 to 20%)

2. No change (-5% to +5%)

4. Grew rapidly (more than 20%)

12

4) Is (are) the principal owner(s)/operator(s) of this business: (Circle one)

1. Male

2. Female

3. Male/Female equal partners

13

5) Please evaluate the extent to which your firm's **final product/service** is "low tech", "medium tech" or "high tech". (A rating of "low tech" means that your final product has little or no technology component, "medium tech" means there is a moderate amount and "high tech" means the final product is exclusively high tech.) (Circle one)

1. Low tech

2. Medium tech

3. High tech

14

6) Please indicate below the extent to which your firm **employs high technology** to produce its final products or to provide its services. (A rating of "low tech" means that your firm uses little or no high technology at all in production, "medium tech" means that it uses a moderate amount of high technology and "high tech" means that you use only high technology in production.) (Circle one)

1. Low tech

2. Medium tech

3. High tech

15

SURVEY CONTINUED INSIDE



Priority Banking Concern

- 7) Which one of the following represents your **most significant** concern with existing banking practices?
(Circle one)
- | | |
|---|--|
| 1. Collateral requirements | 7. Terms of the loan |
| 2. Interest rates changed | 8. Bank's willingness to provide financing |
| 3. Fair terms and conditions of credit | 9. Reporting requirements imposed by bank |
| 4. Fees/service charges | 10. Other (Please specify) _____ |
| 5. Competence of account manager | _____ |
| 6. Speed of processing loan application | _____ |

Debt Financing Experience

In this section, please provide details about your **most recent** application for credit from a financial institution. Most often, such credit takes the form of a term loan, a line of credit or an increase in an existing line of credit. We define these as follows:

Line of credit: A line of credit is a loan of variable size which is usually made to finance day-to-day operations.

Term Loan: A fixed term loan is usually a lump-sum and is expected to be paid either as a lump-sum with interest after a specified period of time or in periodic installments over a specified period of time.

- 8) Has your firm sought a line of credit, an increase in a line of credit or a term loan from a financial institution since 1991? (Circle one)
- | | |
|--------|--------------------|
| 1. Yes | 2. No (Go to Q.25) |
|--------|--------------------|
- 9) When was the last time you applied for a line of credit, an increase in a line of credit or a term loan?
Month _____ Year _____
- 10) For which type of credit did you most recently apply? (Circle one)
- | | | |
|--------------|-------------------|-------------------------------|
| 1. Term loan | 2. Line of credit | 3. Increase in line of credit |
|--------------|-------------------|-------------------------------|
- 11) From which of the following financial institutions did you seek the form of credit you desired? (Circle one)
- | | |
|---|---|
| 1. Credit union, caisse populaire, co-op (Please specify) _____ | 7. National Bank of Canada |
| 2. Canadian Imperial Bank of Commerce | 8. Other chartered bank (Please specify) _____ |
| 3. Bank of Nova Scotia | 9. Trust/finance company (Please specify) _____ |
| 4. Bank of Montreal | 10. Other (Please specify) _____ |
| 5. Royal Bank of Canada | _____ |
| 6. Toronto-Dominion Bank | _____ |
- 12) What is the amount of credit you applied for?
\$ _____
- 13) Was your application accepted or rejected by the financial institution? (Circle one)
- | | |
|--|--|
| 1. The application was accepted | 4. The application was rejected outright |
| 2. No decision has yet been reached | (Go to Q. 21) |
| 3. The application was accepted in a modified form | |
- 14) If your application was **accepted**, what is the **final** amount of credit the financial institution was willing to approve?
\$ _____
- 15) What is the **final** rate of interest the financial institution was willing to charge?
Interest rate = Prime rate + _____ percentage points above prime

16) What is the approximate value of the collateral the financial institution **finally** required to secure the credit?

\$ _____

46-54

17) Please indicate below which of the following **business** assets were demanded as collateral and which of these were available as collateral at the time of the application for credit. (Circle one answer for "demand" and one answer for "available" for each business asset.)

Business Assets	Demanded as Collateral		Available as Collateral		
	Yes	No	Yes	No	
A. Accounts receivable	1	2	1	2	55 63
B. Inventory	1	2	1	2	56 64
C. Automobile	1	2	1	2	57 65
D. Office equipment	1	2	1	2	58 66
E. Machinery	1	2	1	2	59 67
F. Real estate	1	2	1	2	60 68
G. Bonds and securities	1	2	1	2	61 69
H. Other (Please specify) _____	1	2	1	2	62 70

18) Please indicate below which of the following **personal** assets were demanded as collateral and which of these were available as collateral at the time of the application for credit. (Circle one answer for "demand" and one answer for "available" for each personal asset.)

Personal Assets	Demanded as Collateral		Available as Collateral		
	Yes	No	Yes	No	
A. Automobile	1	2	1	2	71 77
B. Real estate	1	2	1	2	72 78
C. Bonds and securities	1	2	1	2	73 79
D. Other personal guarantees	1	2	1	2	74 80
E. Personal guarantees of family, associates, etc.	1	2	1	2	75 81
F. Other (Please specify) _____	1	2	1	2	76 82

19) Did the financial institution require changes to your normal management/operating procedures as a condition of the loan? (Circle one)

1. Yes (Please specify) _____ 2. No

83

20) Please indicate if you were satisfied with the following: (Circle one for each)

	Satisfied	Dissatisfied	No opinion	
A. Size of loan	1	2	3	84
B. Terms of loan (interest, collateral, timeframe)	1	2	3	85
C. Banker's handling of application	1	2	3	86

Please go to Question 23

Bankruptcy

29) Has your business been involved in an insolvency, bankruptcy or receivership in the past year? (Circle one)

1. Yes, as a creditor 2. Yes, as a business 3. No

97-98

Bank Activity

30a) In the past year, has your bank(er) engaged in any of the following with respect to your business account? (Circle one for each)

	Yes	No	
A. Requested that your business pledge more collateral to back up loan(s)	1	2	99
B. Lowered your firm's line of credit	1	2	100
C. Asked you to provide more personal guarantees or collateral	1	2	101
D. Required a consultant's investigation or report of your operations	1	2	102
E. Required that you commit more equity to your firm	1	2	103
F. Exercised control over your firm's payables	1	2	104
G. Called your loan	1	2	105
H. Renegotiated the entire financing package	1	2	106
I. Required more frequent financial reporting	1	2	107
J. Cut back on inventory financing	1	2	108
K. Cut back on receivables financing	1	2	109
L. Other (Please specify) _____	1	2	110

30b) If yes to any part above, what caused the action to be taken by the bank? (Circle as many as apply)

- | | | |
|--|--|---------|
| 1. Sales less than expected | 7. Financial statements unacceptable to bank | 111-119 |
| 2. Expenditures more than expected | 8. Too much outstanding debt | |
| 3. Value of collateral declined | 9. Other (Please specify) _____ | |
| 4. Arbitrary decision by the bank | _____ | |
| 5. Exceeded credit limit | _____ | |
| 6. Sector/region viewed as risky by bank | _____ | |

30c) How was the notice or explanation of the bank action(s) handled? (Circle one for each)

	Yes	No	Don't Know	
A. Fully explained	1	2	3	120
B. Done with reasonable notice beforehand	1	2	3	121
C. Fair, in view of the reasons given	1	2	3	122
D. Other (Please specify) _____	1	2	3	123

30d) What has been the impact of the bank's action(s) on your firm? (Circle as many as apply)

- | | | |
|-------------------------------------|---------------------------------|---------|
| 1. Firm benefited from action(s) | 5. No particular effect | 124-129 |
| 2. Firm has cut back on employment | 6. Other (Please specify) _____ | |
| 3. Firm has cut back on operations | _____ | |
| 4. Firm has cut back on investments | _____ | |

Bank Performance

31) Please indicate how the following characteristics of your firm's financial institution have changed over the last 3 years. (Circle one for each)

	Better	No Change	Worse	
A. Accountability of account manager	1	2	3	132
B. Reliable source of credit	1	2	3	131
C. Knows you and your business	1	2	3	132
D. Knows your industry	1	2	3	133
E. Provides helpful business advice	1	2	3	134
F. Services offered (value for money)	1	2	3	135
G. Capability of staff/personnel	1	2	3	136
H. Continuity of account manager	1	2	3	137
I. Requires fair and reasonable terms and conditions for loans	1	2	3	138
J. Requires reasonable reporting documentation	1	2	3	139
K. Requires reasonable amount of collateral	1	2	3	140
L. Branch can handle loan requests without going to a higher level for approval	1	2	3	141
M. Bank's understanding of your business plan and financial statements	1	2	3	142
N. Bank's understanding of cash flow lending	1	2	3	143
O. Restrictions on lending	1	2	3	144

32) During the last 3 years, how many different account managers have you dealt with at your firm's principal financial institution? (Circle one)

1. One 2. Two 3. Three 4. Four or more 145

33) During the past 12 months, how would you describe your financial institution's approach to your business? (Circle one)

1. Supportive 4. Other (Please specify) _____ 146
 2. Neutral
 3. Harmful
- _____
- _____

Comments

APPENDIX B;

MULTIVARIATE ESTIMATION OF FACTORS IN LOAN TURNDOWNS:
AN OVERVIEW OF LOGISTIC REGRESSION AND FINDINGS

MULTIVARIATE ESTIMATION OF FACTORS IN LOAN TURNDOWNS: AN OVERVIEW OF LOGISTIC REGRESSION AND FINDINGS

The Logistic Regression Technique

The primary analytical technique employed in this aspect of the study is that of stepwise logistic regression.⁹ The general form of the logistic model is:

$$E\{y/n\} = e^{f(X)} / (1 + e^{f(X)})$$

The left hand term may be regarded as the probability of a loan turndown given a series of firm-specific characteristics denoted by the vector $\{X_i\}$. These characteristics include measures of such attributes as firm size, risk, credit ratings, etc. The right hand term is based on observations of firms that have either been turned down or not: A large value of $e^{f(X)}$ yields a value of $E\{y/n\}$ of close to 1.0 (e.g., turned down). A small value of $e^{f(X)}$ results in $E\{y/n\}$ of close to zero (e.g., not turned down). The $f\{X\}$, then, represent those corporate characteristics that best discriminate between actual historical loan turndowns and actual loan acceptances.

Here: y is the predicted number of turndowns in a sample of n cases.

$E\{y/n\}$ is the predicted proportion of loan turndowns, and.

$f\{X\}$ is a linear model of the form $a_0 + a_1X_1 + a_2X_2 + a_3X_3 + \dots$ in which the X variables are properties of the firm (e.g., firm size, etc.) and the a_i are parameters that are estimated in a regression-like fashion and that are related to the weight that each factor contributes to the likelihood of a turndown.

The concept is to estimate the parameters $\{a_i\}$ of a linear model that will predict the proportion of rejections for combinations of values of a set of independent variables, $\{X\}$, in the above equation. In essence, this approach parallels the credit scoring systems used by banks but in this instance is based on combined data from actual turndowns and approvals.¹⁰

⁹ L. Engelman, "Stepwise Logistic Regression", pages 330-344, in W.J. Dixon, Chief Editor, BMDP Statistical Software, University of California Press, Berkeley, 1985.

¹⁰ S.J. Press, and S. Wilson, "Choosing Between Logistic Regression and Discriminant Analysis", Journal of the American Statistical Association, V. 73, No. 364, December, 1978, pages 699-705.. In their comparison of statistical discrimination techniques, Press and Wilson state:

"It is unlikely that [multiple discriminant analysis and logistic regression] will give markedly different results, or yield substantially different linear functions unless there is a large proportion of observations whose X -values lie in regions of the factor space with linear logistic response probabilities near zero or one."

Since it is true in the present data that there are observations whose values do lie in regions of the factor space (that is, $f\{X\}$ near zero), Press and Wilson's recommendation that maximum likelihood logistic regression be employed was followed.

This is considered an improvement on previous approaches to the analysis of loan turn-downs for several reasons. First, logistic regression is a multivariate technique which permits the identification of sets of variables which, in linear combination, are statistically associated with the probability of membership in one of two mutually exclusive categories: loan turn down or not. Second, the use of this approach improves on the type of approach which attempts to relate loan turn-down rates to individual (univariate) attributes of the sample. Third, because the statistical assumptions which underly logistic regression admits both continuous and categorical variables, the use of this technique is likely to be less subject to concerns over the assumptions than would discriminant analysis. Finally, logistic regression is more easily interpreted than discriminant analysis.

Loan Turn-downs: Potential Explanatory Variables

The logistic regression function forecasts the probability of a loan turn-down given the right hand side variables, variables that measure the "5 C's" that lie behind credit decisions.

The following variables were available from the CFIB data as possible candidates for explanatory variables in the logistic regression. Selection of these candidate variables was based on attempts to measure empirically the risk concepts inherent in the "5 C's". For example, industrial sector and provincial jurisdiction are measures of "Conditions," size measures capacity, etc. Each measure, taken alone is arguably imperfect. However, when considered as a group they present a reasonable simulation of the factors frequently used in credit scoring systems. The variables are:

- X_1 Industrial sector. Following from the work of Thornton, who found that the likelihood of firms in the manufacturing industry being turned down was different from that for non-manufacturing firms, X_1 was set equal to 1 if the firm was in the manufacturing sector, and to 0 if not.
- X_2 The CFIB survey allowed for nine categories of gross sales, a measure of firm size. For the purposes of logistic regression, gross sales was treated as a pseudo-continuous variable by employing the median of each category of gross sales as values for X_2 .
- X_3 As an alternative measure of firm size and capacity to repay a loan, X_3 was a continuous variable which represented the number of employees reported by each firm. The total number of employees was reduced by one-half the number of part-time employees to provide a cross-sectionally consistent measure of each firm's workforce. In the 1994 survey, this was coded into seven categories (0-4, 5-9, 10-14, 15-19, 20-49, 50-99, >100).
- X_4 The age of the firm was a continuous variable which, to some extent, may be viewed as one of several proxies for firm risk and character.

It should be noted that several analyses were re-run using multiple discriminant analysis as an experiment. Generally, the results identified the same variables as significant, but had no predictive power. Typically, the multiple discriminant analysis results place all observations in the "approve" category.

X_5, X_6, X_7

These variables were used as categorical variables to denote the location of the firm. X_5 took on the value of 1 if the firm was located in a rural area, and zero if not. Likewise, X_6 and X_7 were set to values of 1 if the firms were located in a small city or a medium city, respectively, and zero if not.

X_8, X_9

These variables were also used as categorical variables to denote the nature of the rates of sales growth for the sample firms, another measure of capacity. Variable X_8 was assigned the value of 1 if gross sales had declined more than 5% annually, and a value of zero otherwise. Similarly, X_9 was assigned the value of 1 if the sales growth was stable. Thus, firms with growing sales were assigned values of zero for both X_8 and X_9 . No further distinction was made between firms experiencing different rates of sales growth.

X_{10}

Question 24 of the 1987 CFIB survey asked businesses owners if their firm "had experienced market or financial difficulties" in the past three years. A value of $X_{10}=1$ was assigned for those firms which responded affirmatively to this question. For firms which responded "no" to this question, $X_{10}=0$. Firms which did not respond to this question were treated as missing data and excluded from the analysis. [1987 questionnaire]

X_{11}

Has your business been involved in an insolvency, bankruptcy, or receivership in the past year as a creditor? (1 if yes, 0 if no) [1994 questionnaire]

X_{12}

Has your business been involved in an insolvency, bankruptcy, or receivership in the past year as a business? (1 if yes, 0 if no) [1994 questionnaire]

X_{13}

Set equal to 1 if firm is located in Ontario, zero otherwise. [1994 questionnaire]

X_{14}

Set equal to 1 if respondent, spouse, or family members use your business bank for personal banking services, zero if otherwise. [1994 questionnaire]

X_{15}

During the past three years, the number of different account managers at your firm's principal financial institution? [1994 questionnaire]

X_{16}

Have you ever gone over the limit of your line of credit? (1 if yes, 0 if no) [1990 questionnaire]

X_{17}

Have you ever been unable to pay back any previous business loans on time? (1 if yes, 0 if no) [1990 questionnaire]

X_{18}

Have your sales grown at +6 to +20% over the past three years? [A new category in 1990 and 1994, 1 if yes, 0 if no; thus businesses with sales growth of over 20% were assigned a zero on X_8 , X_9 , and X_{18}].

X₁₉ Set equal to 1 if firm is located in Newfoundland, zero otherwise. [1994 questionnaire]

X₂₀, X₂₁,

X₂₂, X₂₃

These variables indicate the line of business of the loan applicant. If the business is in the construction, wholesaling, hospitality and tourism, and business services line of business respectively, the variable was set equal to one; zero otherwise. [1994 questionnaire]

X₂₄ Set equal to 1 if firm is located in the Northwest Territories, zero otherwise. [1994 questionnaire]

X₂₅ Gender of principal owner(s)/operator(s) of the business. (1= female, 0 otherwise) [1990 and 1994 questionnaire]

X₂₆ Set equal to 1 if firm is located in New Brunswick, 0 if otherwise. [1994 questionnaire]

X₂₇ Set equal to 1 if firm is in the service sector, 0 otherwise. [1990 questionnaire]

Logistic Regression: Overview of Findings

The empirical findings regarding determinants of each of term loan decisions, new line of credit decisions, and decisions about applications to increase lines of credit are reported as follows.

The decision model estimated on the basis of the 1987 CFIB survey data is first reported. Next, that particular model is tested by then re-estimating it (replications) using 1990 and then 1994 data. New decision making models are then estimated based on 1990 and 1994 data. This sequence of estimation are carried out to determine how, if at all, lending decision-making had changed over the 1987-1994 period.

The determinants impacting lending decisions are reported below in general terms for each of the three types of loan applications: term loans, line of credit increases, and new lines of credit. The statistical details are summarized in Table 4.

Determinants of Term Loan Decisions

(a) *Estimation Based on 1987 Data.* Stepwise estimation of the logistic regression based on the entire 1987 data set of 1,034 term loan decisions (including 80 turndowns) yielded the finding that, **the probability of being turned down for a term loan is higher, other things being equal, for non-manufacturing firms, firms located in other than rural areas, and for firms which had experienced market or financial difficulty within the previous three years.** Each of these variables was entered into the equation at a nominal significance level of ten percent or less. The overall logistic regression relationship, according to goodness-of-fit Chi-square statistics, was found to be a good fit to the data.

In order to examine the robustness of this result and to investigate the predictive power of the model, the logistic regression was re-estimated based on a subset of the original data. This subset was generated by selecting randomly approximately 40 percent of the original 1,034 cases to serve as a "holdout" sample. Based on the remaining 544 cases (includes 51 turndowns) without missing data, the coefficients estimated on the basis of the reduced data set did not differ to a statistically significant extent from the original estimates. Thus the logistic regression model is not sample-dependent.

The inclusion of the manufacturing dummy variable is consistent with the asset basis of term loan financing. A history of financial distress is also an intuitively appealing determinant of lending decisions. Clearly, a firm which has few pledgeable assets and which has a history of market or financial difficulties is not a good candidate for term lending. The inclusion of the dummy variable representing a rural location is also interesting because this variable may have several possible interpretations.

(b) *Replication of 1987 Term Loan Results with 1990 Data.* The model was re-estimated using the 1990 data set, based on 563 observations (38 of which are turndowns). **None of the coefficients were significant.**

(c) *Replication of 1987 Term Loan Results with 1994 Data.* The model was re-estimated using the 1994 data set. It was found that the **manufacturing variable was highly significant, indicating (as it did for 1987) that other things being equal, the probability of being turned down for a term loan is higher for non-manufacturing firms.** This is consistent with the 1987 data set. The other variables were not significant.

(d) *Estimating the Probability of Term Loan Turndowns : 1990 Data.* Stepwise estimation of the logistic regression on the entire data set of 557 term loan decisions (including 38 turndowns) yielded the result that the **probability of being turned down for a term loan is higher for firms that have experienced a sales decline, and is higher for firms that have experienced a sales growth of between +6% to +20% over the past three years.**

(e) *Estimating the Probability of Term Loan Turndowns : 1994 Data:* Stepwise estimation of the logistic regression on the entire data set of 1,930 term loan decisions (including 260 turndowns) yielded the result that the **probability of being turned down for a term loan is higher, other things being equal, for non-manufacturing firms, for small firms, for firms that have experienced a sales decline, for firms located in Ontario, for firms that do not do personal banking at their business bank, and for those firms that have dealt with the highest number of account managers over the past three years.**

The overall logistic regression relationship, according to goodness-of-fit Chi-square statistics, was found to be a good fit to the data. Each of the variables above was entered in the equation at a nominal significance level of ten percent or less.

Determinants of Line of Credit Increase Decisions

(a) *Probability of Turndowns of Line of Credit Increases : 1987 Data.* The entire sample of 587 outcomes (67 turndowns) of requests for line of credit increases was used to estimate the logistic regression

model. According to this finding, the probability of being turned down for an increased line of credit is highest, other things being equal, for firms which experienced financial or market distress in the previous three years and for firms with declining sales. Firms which have experienced distress and which exhibit stable sales are the second-worst case.

The overall logistic regression relationship, according to goodness-of-fit Chi-square statistics, was found to be a good fit to the data.

In order to examine the robustness of the results and to investigate the predictive power of the logistic regression model was re-estimated, based on a randomly-generated subset of approximately 60 percent of the original data. Thus, based on a subset of 381 cases (41 of which were turndowns), the coefficients estimated on the basis of the reduced data set did not differ to a statistically significant extent from the estimates in (7). In addition, the Chi-square goodness-of-fit test statistics were also found to be significant at the 10 percent level and it is clear that the logistic regression model was not sample-dependent.

(b) *Replicating the 1987 Results for Line of Credit Increases with 1990 Data.* The model was re-estimated with the 1990 data. There were 607 cases included in this analysis. The results were that the signs of the sales-growth and sales-stable coefficients were correct, but the coefficients are not statistically significant. The coefficients of X_{16} and X_{17} have counterintuitive signs, and are also not statistically significant.

(c) *Replicating the 1987 Results for Line of Credit Increases with the 1994 Data.* The model was re-estimated with 1994 data. There were 1,741 cases included in the analysis, of these, 257 were turndowns of applications for line of credit increases. The coefficients on the sales-growth and bankruptcy involvement variables had the expected signs and were significant beyond the 10 percent level of type I errors. The coefficients on other variables were are non-significant.

(d) *Estimating the Probability of Turndowns of Line of Credit Increases : 1990 Data.* When the entire sample of 590 outcomes (46 turndowns) in 1990 of requests for line of credit increases was used to estimate a logistic regression model, it was found that the probability of being turned down for a line of credit increase is higher for manufacturers and for firms in the service sector, is lower for older firms, and for firms with an intermediate rate of growth (+6% to +20%).

(e) *Estimating the Probability of Turndowns of Line of Credit Increases : 1994 Data.* The entire sample of 1,661 outcomes (236 turndowns) of requests for line of credit increases was used to estimate a logistic regression model. The results suggest that the probability of being turned down for an increased line of credit is highest, other things being equal, for firms located in Ontario and Newfoundland. On the other hand, firms in the construction, wholesaling, and hospitality business are less likely to be turned down for an increase in their line of credit, as is the case where personal banking is done at the same bank. A previous history of business bankruptcy increases the likelihood of being turned down for an increase in the line of credit; an increased number of account managers also increases the likelihood of being turned down for an increase in the line of credit. Older businesses are less likely to have their application for an increased line of credit approved (a counterintuitive result), and finally, a history of sales decline means the business is more likely to have its application for an increase line of credit denied. The large number of variables are all significant at and beyond the five percent level. The overall logistic regression relationship, according to goodness-of-fit Chi-square statistics, was found to be a good fit to the data.

Determinants of Term Loan Decisions on New Lines of Credit

(a) *Probability of Turndowns of New Lines of Credit: 1987 Data.* The logistic regression model for the probability of turndowns for new lines of credit requests was first estimated using the entire data set of 409 cases, which included 60 incidences of turndowns. According to the findings, the probability of being turned down for a new line of credit depends only on whether or not the firm has experienced financial or market distress during the previous three years. Other things being equal, the probability of being turned down for a new line of credit is estimated to be 8.5 percent, unless the firm has experienced distress during the previous three-year period, in which case the probability of being turned down rises to 25.3 percent. The distress variable was significant at extremely small p-values.

In the manner of previous analyses, the logistic regression model was re-estimated using a subset of approximately 60 percent of the data, chosen randomly. Based on a subset of 281 cases (29 turndowns), the distress variable was the only discriminating variable. Based on the subset of data, the probability of a turndown rose from 5.6 percent to 21.3 percent for firms with a recent history of financial distress. Again, it is clear that the logistic regression model was not sample-dependent.

(b) *Replicating the 1987 Results for New Line of Credit Applications with the 1990 Data.* The model was re-estimated with the 1990 data. There were 591 cases included in this analysis; 43 of these cases were turndowns. None of the coefficients were significant.

(c) *Replicating the 1987 Result for New Lines of Credit Applications with the 1994 Data.* The model was re-estimated again with the 1994 data. There were 2,396 cases included in the analysis; 370 of these cases were turndowns on new line of credit applications. The results were that the coefficients of the distress variables were significant at the 10 percent level of type I errors.

(d) *Estimating the Probability of Turndowns of New Lines of Credit : 1990 Data.* When the entire sample of 581 outcomes (42 turndowns) of requests for new lines of credit was used to estimate a logistic regression, no significant explanatory variables were found.

(e) *Estimating the Probability of Turndowns of New Lines of Credit : 1994 Data.* The entire sample of 2,113 outcomes (324 turndowns) of applications for a new line of credit was used to estimate a logistic regression model. The results imply that the probability of being turned down for a new line of credit is highest, other things being equal, for firms located in New Brunswick and the Northwest Territories and for firms in the business services sector. As in the case of turndowns of line of credit increases, when personal banking is done at the same bank as is making a decision on a new line of credit, the likelihood of the application being turned down is lower. A business that has experienced business bankruptcy in the last year is more likely to be turned down, while a business that has survived bankruptcy of a creditor in the last year is more likely to be granted a new line of credit. The larger the number of account managers the business has had to deal with over the last three years, the higher the likelihood of a turndown on the new line of credit application. The larger the firm, and the older the firm, the less likely the application for a new line of credit is to be turned down. A sales decline is also associated with a higher likelihood of a turndown.

Finally, and notable given previous research, if the principal owners/operators are female, the application for a new line of credit is more likely to be turned down.

The logistic regressions were rerun separately for each bank to see if the source of the gender effect could be attributed to any bank or banks. These results indicate that the gender effect is due to the actions of credit unions, *caisse populaires*, and co-ops. Gender effects were not significant for any of the "big 6" banks.

A Note on Financial Distress

Common to almost all predictive models of loan turndowns was a corporate distress variable. This variable was seen to dominate all three logistic regression models in 1987. Small businesses which reported "market or financial difficulties" during the previous three years were by no means a rarity. Of the 3,139 respondents to the survey who answered this question, 937 (almost 30 percent) replied they had encountered such difficulties.

The data from the 1987 CFIB survey does not allow for very much further specification of the nature of "market or financial difficulties". It is not surprising the distress response is significantly correlated with the rate of sales growth. Of the 269 firms which reported declining sales, 61 percent also reported "market or financial difficulties". By comparison, only 23 percent of the 2,041 firms experiencing increasing sales reported difficulties. However, of the 561 firms reporting sales growth rates of more than 20 percent per year, 144 firms, or 26 percent, reported difficulties. Of this latter group, one may speculate that the reported difficulties are arguably related to the financial requirements resulting from increased levels of working capital typically associate with rapid expansion of sales.

The nature of the distress concept measurement changed in the 1990 survey. Two questions were asked: "Have you ever gone over the limit of your line of credit?" (X_{16}) and "Have you ever been unable to pay back any previous business loans on time?" (X_{17}). It can be seen that neither of these questions are ever significant explanatory variables in loan turndowns. It seems quite clear that these questions are inadequate measures of the distress concept.

Fortunately, the distress concept measurement changed again in the 1994 survey. Again two questions were asked: "Has your business been involved in an insolvency, bankruptcy or receivership in the past year as a creditor?" (X_{11}) and "Has your business been involved in an insolvency, bankruptcy, or receivership in the past year as a business?" (X_{12}). While neither of these variables are able to significantly explain variation in term loan turndowns, X_{12} is significant in estimating the probability of turndowns in line of credit increases in 1994, and both variables are significant in estimating the probability of turndowns of new lines of credit applications in 1994. It is clear that the fact that more precise questions were asked in 1994 than in 1990, helped clarify the issues.

APPENDIX C

MULTIVARIATE REGRESSION ESTIMATIONS OF DETERMINANTS OF
INTEREST RATES ON TERM LOANS, NEW LINES OF CREDIT, AND
LINE OF CREDIT INCREASES

MULTIVARIATE REGRESSION ESTIMATIONS OF DETERMINANTS OF INTEREST RATES ON TERM LOANS, NEW LINES OF CREDIT, AND LINE OF CREDIT INCREASES

Term Loans

(i) *1990 Data.* Of all the candidate variables used here, only two variables were found to be correlated with interest rates on term loans according to the 1990 CFIB survey data: both were variables that denoted the location of the respondent. It was found that if the respondent was located in the province of Nova Scotia, rates were, on average, 42 basis points higher than the base case and if the respondent was located in the Province of Quebec, rates were, on average, 99 basis points lower than the base case.

The goodness of fit measure for this regression was not particularly strong, even though both variables were significant at the 5 percent level. It is concluded that most firm-specific factors had little impact on rates on term loans.

(ii) *1994 Data.* The findings of analysis based on 1994 data were found to be more significant, more intuitively appealing, and more revealing. First, average interest rates varied by location:

- interest rates were, on average, significantly higher in the Northwest Territories and Prince Edward Island;
- interest rates were, on average, significantly lower in Saskatchewan, Alberta, and Ontario.

Rates varied by industry, being higher in the Finance/Insurance/Real Estate and Construction sectors. In this regard, it should be noted that the industry sector in which most loan defaults were reported in the 1994 CFIB survey was the Construction sector. Finally, the size of the firm (as measured by the number of employees) was strongly correlated with the level of interest.

New Lines of Credit

(i) *1990 Data.* The size of the firm (as measured by both number of employees and the size of the loan facility) were found to be strongly correlated with interest rates on new lines of credit based on 1990 data. For both variables, larger firms paid lower rates of interest. Moreover, firms in Manitoba paid lower rates (on average) while firms in Alberta paid higher interest rates. Firms in the Finance/Insurance/Real Estate sector also paid a premium as did firms whose products were deemed "high tech".

(ii) *1994 Data.* Analysis based on 1994 data showed some consistency with those based on 1990 data. Rates were again found to decrease for larger firms, with size being measured by both number of employees and size of loan facility. In addition, however, firms located in Prince Edward Island and Nova Scotia paid, on average, significant premia (1.1 and 0.47 percent, respectively). Firms in the hospitality industry also paid a premium that

averaged 27 basis points. Older firms (age of firm being one way to measure "character") paid lower rates and firms that had successfully survived previous financial distress also paid less. The latter finding is one that does give pause for thought. The premium identifies for "high tech" firms in the 1990 data was no longer significant based on 1994 data.

Applications for Increases in Lines of Credit

(i) *1990 Data.* Two factors were found to be statistically associated with interest rates charged on applications for increased lines of credit according to 1990 data. Again, the size of the firm (number of employees) and the level of interest rates were inversely correlated. In addition, firms that had a history of default paid a significant premium over the base rate.

(ii) *1994 Data.* Size was found to be inversely correlated with interest rates where size was again measured by the size of the loan facility, and the number of employees. Firms in the hospitality, construction, and retail sectors paid a premium of approximately 30 basis points. Interestingly, women business owners, other things being equal, faced an interest rate that averaged 15 basis points below male counterparts.

APPENDIX D

TYING IT TOGETHER: A SIMULTANEOUS EQUATIONS MODEL OF LENDING TO SMES

TYING IT TOGETHER: A SIMULTANEOUS EQUATIONS MODEL OF LENDING TO SMES

This section of the study presents a comprehensive model of the cross-sectional supply-demand conditions for lines of credit. It employs data from the 1994 survey only.

The first dependent variable is the *quantity of lending*, as measured by the responses to the question:

"If your application was accepted, what is the final amount of credit the financial institution was willing to approve? \$_____".

The second dependent variable is the *price of borrowing*, as measured by responses to the question:

"What is the final rate of interest the financial institution was willing to charge? Interest rate = Prime rate + _____ percentage points above prime."

The way the above price question is asked deserves comment. It can be seen that if the respondent was getting the loan at prime it would be as natural to leave the answer blank as to fill in a "0" value. Therefore, the analysis here is conducted two ways to allow for both possibilities. The first analysis (summarized by the results in Table 13) presumes all non-respondents to this question, *when a respondent indicated that they had a line of credit*, received an interest rate at prime. The alternative analysis (summarized in Table 14) simply removes the non-respondents data from the sample.

Step 1: Ordinary Least Squares Estimation

The first stage of the analysis was to model determinants of quantity of lending and the price of borrowing by means of ordinary least squares (OLS) analysis of each of the two dependent variables with a group of selected independent variables. Variable selection was governed by the findings of the earlier analyses reported here and by the theoretical considerations outlined by Melitz and Pardue (see Volume I).

This step resulted in an initial variable set that included the following variables:

- dummy variables for the province in which the business was located (e.g., Ontario = 1 if the business was located in Ontario, 0 otherwise);
- dummy variables for the industry sector of the business (e.g., Persserv = 1 if the business is a personal services business, 0 otherwise);
- dummy variables to indicate whether the business had been involved in an insolvency, bankruptcy, or receivership in the past year either as a creditor or as a business;
- a dummy variable corresponding to whether or not the firm's final product/service was "high tech";

- dummy variables on whether the firm's gross sales or revenues declined more than 5% on average, over the past three years (1 = yes, 0 = no), remained unchanged (i.e., within a 5% range either way), grew (+6% to +20%), or experienced rapid growth (greater than 20%) on average over the past three years;
- dummy variables on "Has your business ever gone over the limit of its line of credit within the past three years?" and on "Has your business ever been unable to pay back any previous business loans on time within the past three years";
- the number of employees;
- the number of account managers in the past three years;
- the age of the business; and,
- the dollar amount of collateral required to secure the loan.

Individual chartered bank effects were investigated, but none were found.

This list constituted the unrestricted list of variables initially used to develop an estimation model. After initial analysis, a restricted set of variables was arrived at. These equations, which were then used in ordinary least squares and two-stage least squares analysis, were as follows:

interest rate = f (employment, PEI, Nova Scotia, collateral, business age, loan size)

loan size = g (employment, collateral, bankruptcy of creditor, number of business age, interest rate, account managers, wholesale sector).¹¹

Step 2: Two-Stage Least Squares Estimation

Two-stage least squares estimates remove the bias in the OLS coefficient estimates. It can be seen that all the variables included have coefficients that are highly statistically significant

Tables 13 and 14 present the results. For each table, the ordinary least squares estimates are presented on the left, and the two-stage least squares estimates on the right.

The results in Table 13 are all intuitively appealing. Variables associated with the risk of the business are generally associated with higher expected interest rates. For example, as the size of the business (as measured by the number of employees) increases, the expected interest rate on the line of credit falls, the amount of collateral increases, the expected interest rate increases (other things being equal, the amount of collateral required is a measure of the riskiness of the loan). As the business' age increases, the expected interest rate falls. There is also an interest rate premium for businesses located in PEI and Nova Scotia. Thus, regional disparities noted earlier are confirmed.

¹¹ Note that the latter two variables were found to be statistically significant with the alternative definition of non-response to the interest rate question. Otherwise, they were not statistically significant.

These findings are consistent with other Canadian research (Wynant and Hatch, 1990; and Haines, Riding, and Thomas, 1991). It is not uncommon to find an inverse relationship between the interest rate charged, and the size of the loan. This study supports the hypothesis the market function as a family of *risk adjusted* supply and demand equilibria, and not simple supply and demand equations. Thus, accounting for risk results in a change in the slope of the supply curve, making a negative slope coefficient reasonable. What happens on the supply side when there is an increase in the interest rate is that as a result of the increased interest rate, the bank now offers the client a smaller loan. The effect of this smaller loan is to ameliorate the risk that is associated with the higher interest payments on the loan because the interest rate has risen. This has the effect of reducing the risk associated with the loan. Interest payments are a fixed cost to the small business, and the more money that has to be spent on interest payments, the higher the risk of failure of the business. It can be seen that in some individual cases, the small business people might misinterpret this reduction in the loan size that the banks offer, in their efforts to stabilize the risk of the loan, as a "credit crunch". It can be seen that what is really happening is the market operating in an expected fashion, with a clear delineation of risk occurring.

Although there are differences in the coefficient values across the two analyses that correspond with the two different interpretations of a non-response, the differences are not material. The important difference in the two analyses lies in the quantity as the left-hand side dependent variable equation. In Table 14 it can be seen that the alternative interpretation of the interest rate data results in the addition of two explanatory variables in the quantity as the dependent variable regression: the number of account managers, and whether or not the business was in the wholesale sector. The more account managers, the lower the expected loan size. Wholesalers receive a larger loan than other lines of business, other things being equal.

The results support the aggregate data analysis conducted in Volume I. The results indicate that a risk adjusted model of the Canadian capital market does seem appropriate. The variables perform well in a statistical sense, and yield reasonable results that are intuitively acceptable. Interpretation of the findings adds understanding to the factors that underlie accusations of a credit crunch and the operation of the market for debt capital to SMEs.

Table 13

OLS: Quantity as the Dependent Variable				
(Alternative definition of non-response to interest rate question)				
Variable	Beta	Standard Error	T-Stat	P-Value
Employment:	20928.454	1720.638	12.163	0.000
Collateral	0.037	0.005	8.184	0.000
Bankruptcy of Creditor	163152.043	49413.988	3.302	0.001
Number of Account Managers	-46193.051	22589.272	-2.045	0.041
Wholesale	190625.289	60490.487	3.151	0.002
Business Age	3835.092	1493.847	2.567	0.010
Interest Rate	-53287.727	14671.575	-3.632	0.000
Constant	82515.304	58183.519	1.418	0.156
Residual DF:		1465		

OLS: Interest Rate as the Dependent Variable				
(Alternative definition of non-response to interest rate question)				
Variable	Beta	Standard Error	T-Stat	P-Value
Employment	-1.077E-02	3.178E-03	-3.390	0.001
PEI	6.553E-01	3.339E-01	1.963	0.050
Nova Scotia	3.677E-01	1.755E-01	2.095	0.036
Collateral	1.568E-08	8.138E-09	1.927	0.054
Business Age	-8.642E-03	2.631E-03	-3.284	0.001
Loan Size	-1.827E-07	4.561E-08	-4.006	0.000
Constant	1.810E+00	5.653E-02	32.018	0.000
Residual DF:		1466		

Table 14

2SLS: Quantity as the Dependent Variable				
(Alternative definition of non-response to interest rate question)				
Variable	Beta	Standard Error	T-Stat	P-Value
Employment:	19621.173	3.510E+01	558.969	0.000
Collateral	0.038	5.189E-05	728.030	0.000
Bankruptcy of Creditor	146452.944	6.483E+02	225.896	0.000
Number of Account Managers	-44460.762	2.423E+02	-183.502	0.000
Wholesale	171574.079	7.752E+02	221.332	0.000
Business Age	3046.437	2.403E+01	126.755	0.000
Predicted Interest Rate	-141151.978	2.023E+03	-69.768	0.000
Constant	245207.743	3.785E+03	64.776	0.000
Residual DF:		1465		

2SLS: Interest Rate as the Dependent Variable				
(Alternative definition of non-response to interest rate question)				
Variable	Beta	Standard Error	T-Stat	P-Value
Employment	7.422E-03	1.079E-04	68.800	0.000
PEI	6.356E-01	4.810E-03	132.153	0.000
Nova Scotia	3.136E-01	2.545E-03	123.220	0.000
Collateral	4.728E-08	2.062E-10	229.285	0.000
Business Age	-4.491E-03	4.397E-05	-102.148	0.000
Predicted Loan Size	-1.024E-06	4.562E-09	-224.361	0.000
Constant	1.760E+00	8.571E-04	2053.703	0.000
Residual DF:		1466		

APPENDIX E

BANK LOAN FILE DATA COLLECTION INSTRUMENT

GENERAL INFORMATION

1/ IDENTIFICATION:

Transit No.: _____

2/ LOCALITY: (Circle one)

1. Rural (<10,000 pop.)
2. Small city (10,000 - 100,000 pop.)
3. City (100,000 - 500,000 pop.)
4. Large city (>500,000 pop.)

3/ BANK: (Circle one)

- | | |
|--------------|---------|
| 1. BMO | 5. FBDB |
| 2. BNS | 6. NAT |
| 3. CIBC | 7. ROY |
| 4. CU/CAISSE | 8. TD |

4/ FILE NO: _____

5/ ACCOUNT IS HANDLED BY: (Circle one)

1. Full Service Branch account manager
2. IBC Account Manager
3. IB Specialist in IBC
4. Account manager in CBC

6/ ACCOUNT MANAGER'S CREDIT APPROVAL LIMIT (\$000): _____

7/ YEARS CLIENT HAS BEEN WITH BANK: _____

8/ YEARS CLIENT HAS BEEN WITH SAME ACCOUNT MANAGER: _____

9/ NUMBER OF DIFFERENT ACCOUNT MANAGERS IN LAST 3 YEARS: _____

10/ FORM OF BUSINESS: (Circle one)

1. Proprietorship
2. Partnership
3. Corporation

10 a/ INDUSTRY OF BUSINESS ACTIVITY: (Circle one)

- | | | |
|------------------------------|----------------------------------|-----------------|
| 1. Construction | 5. Wholesale | 9. Services |
| 2. Mining/Oil Field Services | 6. Retail | 10. Professions |
| 3. Manufacturing | 7. Agriculture/Forestry | 11. Other _____ |
| 4. Financial Services | 8. Transportation/Communications | |

INDUSTRY

11/ Number Of Full Time (Or Equivalent) Employees: _____

12/ Age Of Business: _____

13/ Owned By Current Principals For _____ Years.

14/ Gender Of Principal Owner: (Circle One)

1. Male
2. Female
3. Equal partnership
4. Indeterminate

15/ D&B Rating: (Circle One)

1. Prior Bankrupt
2. Evidence of payment problems
3. Acceptable

16/ Credit Bureau Rating Of Owner/Managers: (Circle One)

1. Prior Bankrupt
2. Evidence of payment problems
3. Acceptable

17/ Managers' Shares Of Ownership: (Circle One)

1. Manager 1: _____%
2. Manager 2: _____%
3. Manager 3: _____%

MOST RECENT LOAN APPLICATION

18/ Type Of Credit Application: (Circle One)

1. Term Loan
2. New Line of Credit
3. Increase of LOC facility
4. Change in loan terms
5. Annual Review
6. Other

19/ Loan Package Requested By Customer: (Fill In Appropriate Blanks)

	Line Of Credit	Term: Floating Rate	Term: Fixed Rate	Govt Guarantee
1. Amount Requested (\$000)				
2. Interest Rate (.Above Prime)				
3. Repayment Term (Yrs)				

20/ Decision: (Circle One)

1. Bank reject
2. Bank accept, customer decline (GOTO: 21)
3. Bank accept (GOTO: 23)

21/ Why Reject: (Circle Appropriate Reasons)

1. Company lacks track record
2. Company has too much debt / too little equity
3. Insufficient collateral / guarantees
4. Anticipated repayment difficulty
5. Poor financial history
6. Not enough information provided
7. Insufficient fiscal management ability
8. Insufficient general management ability
9. Lack of confidence in owner/manager
10. Company too small
11. Loan too small
12. Other

22/ Why Customer Decline: (Circle Appropriate Reasons)

1. Too much collateral /guarantee required
2. Interest rate too high
3. Fees too high
4. Too many conditions
5. Company's requirements changed
6. Amount of loan approved too low
7. Decision took too long
8. Company looking for competitive quote (ie shopping)

23/ Loan Package Accepted: (Fill In Appropriate Blanks)

	Line Of Credit	Term: Floating Rate	Term: Fixed Rate	Govt Guarantee
Amount Proposed (\$000)				
Interest Rate (Above Prime)				
Repayment Term				
Amount Guaranteed By Govt (\$000)				
Type Of Govt Guarantee				
Annual Loan Mgmt Fee (\$)				
Net Loan Application Fee (\$)				
Date Loan Requested D/M/YR				
Date Loan Approved/ Reviewed D/M/YR				

24/ Account Manager Comments: (Fill In Appropriate Blanks)

	STRENGTH	WEAKNESS
1. Sensitivity To Economic Environment (Generic)		
2. Sensitivity Of Economic Conditions (Current)		
3. Client's Marketing Management		
4. Client's Operations Management		
5. Client's Character		
6. Client's Financial Management		
7. Security		
8. Future Cash Flows		
9. Anticipated Future Financing Needs		
10. Vulnerability		

25/ Is Client Changing Financial Institutions? (Circle One)

1. Yes
2. No
3. Switch from other branch of same bank

26/ Bank Scoring System Rating: _____

27/ Current Status Of Loan: (Circle One)

1. Satisfactory
2. Problem Loan

28/ Problems Perceived By Account Manager: (Fill In Appropriate Blanks)

Problems	# of Occurances
1. High administrative effort	
2. Recurring overdraft	
3. Margin violations	
4. Late information	
5. Difficult to contact	
6. Poor skills of client	
7. Poor character of client	
8. Poor communications with client	

29/ Problems Raised By Client: (Fill In Appropriate Blanks)

Problems	# of Occurances
1. Loan conditions too restrictive	
2. Collateral requirements	
3. Collateral requirements	
4. Fees	
5. Speed of processing	
6. Term of loan	
7. Information requested by bank	
8. Loan margin too low	
9. Amount of bank involvement	
10. Other	

30/ Collateral (\$000): (Fill In Appropriate Blanks)

	Book Value	Eligible Or Appraised Value	Margining Value
1. Personal Assets			
2. A/R			
3. Inventory			
4. Other Business Assets			

31/ Financial Data: (Fill In Appropriate Blanks)

\$000	YEAR: _____
Cash	
Receivables	
Inventory	
Other Current	
Total Current	
Net Fixed Assets & Land	
Investments	
Intangibles, Goodwill, Etc.	
Total Assets	
A/P	
Short Term Bank Loans	
Other Current Liabilities	
Total Current Liabilities	
Long Term Bank Loans	
Other Long Term Debt	
Total Long Term Liabilities	
Share Capital	
Retained Earnings	
Deferred Taxes	
Due to Shareholders	
Total Equity	
Sales	
Gross Profit	
Interest	
Leases, Rentals	
Profit Before Tax	
Profit After Tax	
Dividends To Shareholders	
Salaries & Draws By Owner(s)	

32. Quantity of Information Provided to Bank: (Fill In Appropriate Blanks)

	Not in File	Partial	Comprehensive
1. Business Pla			
2. Historical F/S			
3. Pro-Forma F/S			
4. Personal Financial Data			

33. Reliability of Financial Data: (Circle One in Your Opinion)

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

1: Unreliable 6: Outside Financial Professional 7: Audited

