

Profile of Accounting and Pricing Practices in the Leasing Industry

Final Report

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Profile of Accounting and Pricing Practices in the Leasing Industry:

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1.0 EXECUTIVE SUMMARY

1.1 Background

This draft constitutes the third draft of our analysis of current accounting and pricing practices in the leasing industry. The major objective of our work has been to understand current industry standards, and make recommendations for the capital leasing pilot project regarding:

- Definitions of default;
- Definitions of loss; and
- Interest rates.

This report has been developed based on interviews with selected leasing industry representatives. While every effort was made to capture their views accurately, the results are based on the extent to which certain representatives of the industry were willing to share confidential information, and may not represent the actual circumstances throughout the industry.

1.2 Analysis of the Leasing Industry

- **The practical concept of default** is well defined in industry. While organizations may differ in the elapsed time required to define a default (from 24 hours to 30 days), each of the organizations interviewed indicated that after non-payment for 90 days, they actively begin to try and recoup their loss.
- **The theoretical concept of loss** is consistently defined in industry as the net present value of the remaining payments, less the resale value of the equipment.
- **The maximum interest rate** is a complicated subject. None of the lessors have just one interest rate, or even a straightforward calculation algorithm for calculating the interest rate. In all cases, various factors, including the term, length of the lease, administrative costs, and creditworthiness of the client, jointly determine a premium in excess of the 10 year long bond rate. It is not readily feasible to identify precisely how much of the interest rate premium rate can be attributed to any given factor, such as administration fees. The maximum premium (in addition to the 10-year long bond rate), which is charged to the high risk SMEs (which would represent the target group for a leasing pilot project) appears to be approximately 10%.
- **The leasing business model** is very different from the loan business model. Because the leases are typically smaller and higher risk, and because the ability of the lessor to reclaim the asset lowers the potential loss value, lessors typically minimize administrative costs by conducting less due diligence and charging higher interest rates to cover losses.

1.3 Recommendations

Having spoken with industry representatives and having reviewed the loan program, we recommend the following factors constitute a basis for discussion with industry.

- **The desired trade off between interest rates and guarantee rates for the development of a pilot program be debated.** Our initial analysis suggests that a maximum premium of about 7% over and above the Canada long bond rate, with a guarantee level of 50% would

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be an acceptable starting point for such a discussion. This would preserve the existing preference for accepting higher risk of loss, in return for less due diligence relative to the banking industry. It should be noted that this rate corresponds to the maximum rate that could be charged by industry for small ticket, high risk leases. It provides a profit that is approximately equivalent to that of a 9% premium with no guarantee. Lessors might choose to charge a lower premium to larger or less risky leases, but still utilize the program. It could be argued competition in the industry would force the rates for these leases to go down further as industry is compensated for losses. If it was felt that lease rates for large leases or “less risky” leases should also be restricted in order to benefit from the program, a rating scheme could be developed, together with industry to chose appropriate maximums for various excess. We would suggest that the starting point for the discussion could be 7.25% for \$15,000, with a reduction in the premium of 5 basis points per additional \$1,000. It will be critical to involve both the leasing and banking industry in this discussion to ascertain whether such a policy, which is based on the assumption that existing profit levels would be maintained, would be perceived to be discriminatory.

- **The administrative process accord with leasing industry standards:** This would include common checks on prospective lessees credit worthiness and ability to pay, but which would not typically include the taking of security.
- **The lessee pay the fees to the lessor, and the lessor remit them to the government on behalf of the lessees,** consistent with the loan program.
 - In the case of the loans, the borrower can pay the fee upfront or wrap it into the loan. However, in the case of leases, wrapping the fee into the loan would cause substantially greater effort on the part of the lessor, because it would have to set up an entirely new procedure for securing the financing in order to provide it to the government on behalf of the lesser. Consequently, we recommend that consideration be given to the lessee paying the 2% registration fee up-front to the lessor and the lessor remitting this to the government.
 - The lessor include the 1.25% annual charge for the government in the calculation of the monthly payment, and remit this to the government on behalf of the lessee as is the case in the loan program. This would be charged against the principal owing at the end of each month. For example, the principal owing after the end of the first month on a \$50,000 lease would be \$48,792 and the fee would amount to \$50.12 while principal owing after 24 months would be \$31,145 and the fee would be \$32.44.
- **The government reimburse for the following two types of default:**
 - Financial default – If the lessee has not paid the lease for 90 days, the lessor should recapture the equipment and file for a loss under the program.
 - Technical default – If the lessee declares bankruptcy, the lessor should recapture the equipment as soon as practicable and file for a loss under the program.

1.4 Qualifications

The purpose of the particular project has been to define default, loss and an optimal maximum interest rate. An important additional consideration is the issue of incrementality. Consideration of this issue may require reassessment of some of the framework for recommendations offered here.

These recommendations are based on an initial round of consultations with industry concerning a

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wide range of issues. The challenge in this assignment has been that these issues are interdependent. Hence, it is critical to discuss the entire model with industry in a formal consultation process, in order to enable them to reflect on the issues with a fuller understanding of the complete package being offered.

One of the important factors to consider in this program is the manner in which it influences or “supports” the industry. For example, the program should not have a negative impact on the leasing industry. To the extent that leasing industry has high risk return ratios than the banking industry, then an industry-neutral program will not distort these ratios. It will be critical to involve representatives from the banking and leasing industry in the discussion to assess the full impact of the program.

2.0 THE CONTEXT

2.1 Objectives and Terms of Reference

The overall objectives of this study were to define “default”, “loss”, and the “maximum interest rate” that could be used under the prospective Canadian Small Business Financing Act pilot program for capital leasing.

Currently, the Canadian Small Business Financing Act guarantees, up to 85%, the value of the loss from loans to small business given by commercial lenders. This loan guarantee program is designed to encourage greater commercial willingness to lend to small business. Many studies have shown that small businesses are the strongest element in job creation, but also that small businesses have disproportionately large obstacles in obtaining financing. Accordingly, a desirable social goal (job creation) may be frustrated to some degree by a form of “market failure” in terms of obtaining funding: the CSBFA is there to fill this gap.

However, leasing, as opposed to purchasing, has become a progressively larger part of the effective capitalization of small business (and medium and large sized businesses also). This is particularly true, for example, for such asset classes as computers and computer networks, and also business vehicles. PricewaterhouseCoopers studies have shown leasing to be a growth instrument. Accordingly, in view of leasing’s increasingly important role in small business development, it is necessary to consider developing a finance guarantee for commercial leases to small business.

However, the specific design parameters for a capital leasing program may have to be altered considerably from the loan component. PricewaterhouseCoopers was given the following terms of reference for its research. PricewaterhouseCoopers was to provide:

- A consistent industry definition of default (technical and financial);
- What would be the lessors and the federal government’s liability under conditions of default;
- Definitions of losses;
- Best pricing practices in the leasing industry; and
- The effect of security on leasing companies’ pricing structure.

2.2 Key Assumptions

PricewaterhouseCoopers made the following key assumptions in developing this project. These are as follows:

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Assumption 1: The Current Provisions of the CSBFA in Respect of Loans are Satisfactory

This assumption means that in considering issues designing pilot program parameters, only those issues where the capital leasing program might require a changed response, from the loan program, were considered in depth.

Assumption 2: Any Leasing Pilot Project Must Be Designed to be Incremental and Fill Identifiable Market Needs

This assumption helped to guide the choice of questions for interviews, and subsequent choice of quantified variables in our analysis.

Assumption 3: Any Leasing Pilot Project Must be Independently Financially Viable and Maintain Cost Recovery Objectives to the CSBFA

This assumption means that it was understood that the federal government should not be exposed to large-scale uncontrolled fiscal commitments as a result of any capital leasing program.

Assumption 4: The Pilot Project is a Model for Future Federal Government Involvement in the Capital Leasing Market if Such Involvement is Warranted

This assumption means that any recommendations for the pilot program have to be robust, especially in terms of relevance over a potentially long time scale. (The Small Business Loans Act, forerunner to the CSBFA, had been in existence since 1961).

Assumption 5: Any Leasing Pilot Project Must Not be Interpreted as a Subsidy to the Leasing Industry

This assumption means that any recommendations made on the leasing program would need to be justified, if they gave any appearance of providing an advantage to the leasing industry over other Canadian industries, or to Canada over other trading partners.

Assumption 6: Any Pilot Project Design will be Reviewed with Industry Through Consultation Before Implementation

This is provided for in the existing Industry Canada pilot project “roll-out” plan.

Assumption 7: Policy - Appropriate Language

This assumption means that no attempt was made to provide formal legal terms for a prospective leasing pilot project, but rather this research was aimed at developing policy guidance to the Entrepreneurship and Small Business Office.

2.3 This report

The project has been divided up into two phases:

- Phase 1 – An analysis of Current Accounting and Pricing Practices in the Leasing industry. This involves conducting a literature review, and conducting interviews with stakeholders in the leasing industry. The results of this phase are included in synthesis form, as Appendix 1 to this report.

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- Phase 2 – Proposal of definition of default and of loss and a maximum interest rate (fixed spread formula) to be used under the CSBFA Capital Leasing Pilot Program. This will involve analysing the information gathered in phase one, and any further information required, to devise recommendations on definitions of default, loss and interest rates. The results of this phase are given in the next section.

2.4 Methodology and Interviews

This report is based on a review of PricewaterhouseCoopers' authoritative publication on *Leasing in Canada, A Business Guide*, and an initial round of contacts and interviews with the following organizations:

- the CIT Group;
- Hewlett Packard Finance;
- IBM Canada;
- Royal Bank;
- ABF Capital Corporation; and
- Canadian Finance and Leasing Associates.

It is believed that this group of contacts represents a fair sample of the leasing industry spectrum. It should possibly be noted that whereas the CIT Group represents one of the larger firms in the industry, it actually has grown in part by acquisition and mergers with smaller units. The interview representative of the CIT Group was fully familiar with the specific concerns of smaller leasing players. As well, ABF Capital can also be viewed as a representative of the smaller firms in the industry. On the other hand, Royal Bank would be a large, major player. Hewlett-Packard and IBM Canada are another category of so-called "captive lessors", an expression commonly used to convey leasing arms of manufacturing corporations. Finally, we interviewed the relevant leasing industry trade association.

It should be emphasized that specific interpretations, conclusions and recommendations contained in this report cannot necessarily be attributed to any particular interviewed organization.

3.0 RECOMMENDATIONS FOR THE CAPITAL LEASING PILOT

3.1 Defining Loss

The leasing industry differs from the loan industry in the sense that it is typically better able to dispose of assets reclaimed through default. However, the leasing industry can certainly suffer losses on a lease in case of default, despite their best efforts to recover the asset and find a new, productive, home for it. This is because the asset typically depreciates in market value faster than the term of the lease, and because of the structure of lease payments.

For example, very often in the case of say a leased computer system, after 24 months, when precisely half the lease payments of a 48-month lease have been made, the market value of the used equipment may only be 20% of the original lease value despite the fact that the lease is 50% of the way through the term. In addition, leases, like loans, are structured in such a way that early in the life of the lease a higher proportion of payments are devoted to interest, and it is only as the principal is paid down through time that a relatively larger proportion of the lease is devoted to principal (see Appendix 2 for example). Consequently, 50% of the way through the lease, less than 50% of the lease would have been paid off. Hence the loss occurs both because of rapid depreciation and graduated principal payments.

The exact calculation of the loss is a complex subject.

- Industry would define the loss as the net present value of future payments, minus the resale value of the equipment (net of costs of disposing of the asset). This would include the value of lost profits, which is their “cost of doing business”.
- However, the government will not compensate for lost profits. Hence, the definition of loss, as applied in the loan program, is more relevant here. In this case, the loss is calculated as the total value of the lease, minus the principal payments to date, minus the resale value of the equipment, plus any costs associated with disposing of the asset and the interest payments between the time of default and the filing of the claim. For example, if a \$50,000 loan defaulted after 12 months, the equipment was resold for \$20,000 and 6 months of lost interest were incurred, and the costs of disposing of the asset were \$2,000, the total loss would be calculated as follows:

Value of lease	\$ 50,000
Payments to principal	9,154
Resale value	20,000
Interest	2,532
Costs of disposal	2,500
Total Loss	<u>\$25,878</u>

We recommend discussions with industry focus on the loss being calculated in a manner analogous to that in the loan industry. Specifically, the loss would be calculated as the total value of the equipment (plus implementation charges) less the principal payments to date, less the resale value of the equipment, plus costs associated with disposing of the asset, plus the lost interest charges between the time of default and the settlement of the claim.

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3.2 The Leasing Business Model

The leasing business model varies quite substantially from the loan business model. There are three primary drivers that explain why the model is different.

Administrative efficiency is more important in the leasing industry. Administration costs increase less than proportionately with the size of the loan/lease. Because leases are typically smaller in value than loans, there is greater pressure on lessors to minimize administrative costs. As a result, lessors will typically strive to minimize their due diligence and administrative costs.

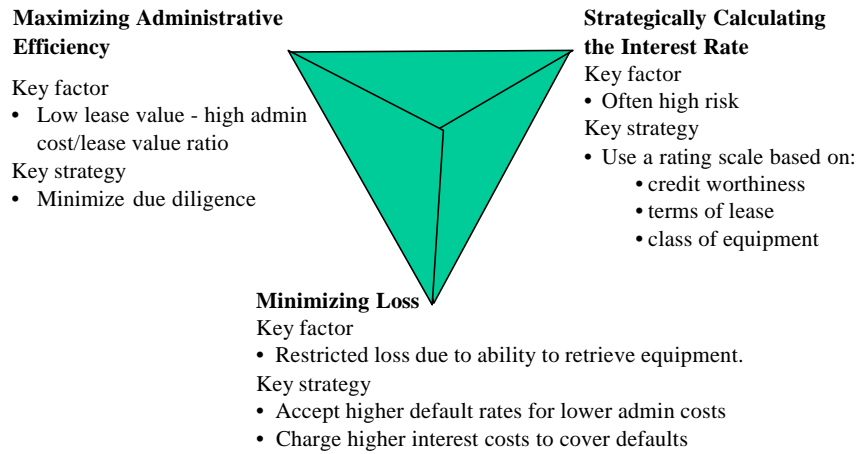
The risk is typically higher on leases than it is on loans, partly because lenders typically perform greater due diligence, partly because leased equipment, such as computers, is subject to rapid depreciation, and partly because it is often the companies that have less solid financial backing that cannot afford to buy equipment and hence, must lease it. One industry source indicated that as much as 80 to 90% of its leases were held by companies that could not have obtained loans for the equipment. However, the loss risk is lowered because lessors own the actual equipment. Hence, unlike in the case of a loan, if there is a default, the lessor can take back and then sell/re-lease the equipment. Most lessors have readier access to markets to dispose of equipment than is the case for lenders.

The interest rate is typically higher on leases than is the case for loans to offset the higher risk and different administrative framework. The interest rate is calculated as a function of the long bond rate, plus a premium to cover the costs of providing the lease. This maximum premium over the long bond rate reaches as high as 10%.

The premium includes administration charges and payments to profits. For some lessors, administration costs are low - typically such lessors would be relatively large institutions, who have a network of branches and client account managers across Canada, and who specialize in financing relatively high volume leases to small business (for example, tractor-trailer rigs valued at \$100,000 plus). However, for other lessors, administration is much more complex and necessarily involves greater relative costs. To illustrate, a lessor without 100% in-house financing capability (typically one of the smaller firms in the industry) may be required to "securitize" his leases, i.e., gather a group of leases up into one financing package for funding by an investor (e.g., an insurance company or pension fund). There may be a broker, acting as a medium of exchange between a leasing firm looking to find fresh financing and an investor willing to advance funds. As well, the actual management and payment collection of the lease may be outsourced to a specialist firm. The industry views this differentiation and labour specialization as aiding efficiency. However, in this multi-vendor environment, fees are a necessary baseload for business sustainability. It is just another example of the important administrative differences between lending and leasing. Just as administration charges are a part of the cost, so too are profits. Industry will typically only engage in business that provides them with an acceptable level of profits. Consequently, the components of the premium are impossible to separate out for the industry as a whole, because they vary from lessor to lessor. It is critical to note that if certain parts of the premium are disallowed, the effect will not be consistent across the industry.

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The Leasing Business Model Involves Balancing Three Issues



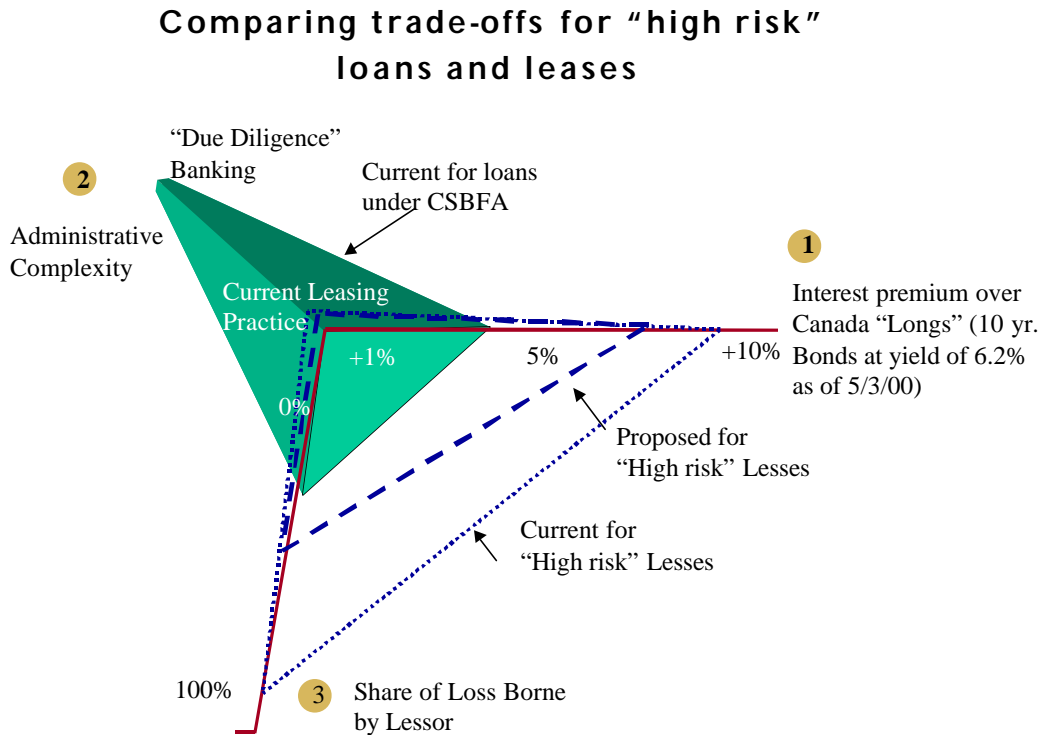
The following chart summarizes the differences between the leasing and the loan industry.

- The loan industry engages in substantial due diligence, and is permitted just a three percent premium (which includes a 1 ¼ % premium to the CSBFA program), but in return, receives a guarantee for 85% of high-risk loans to SMEs.
- In the leasing industry, lessors engage in less due diligence, charge higher interest rates, and absorb all of the loss.

This study has found preliminary support for a capital leasing pilot program that is characterized by a relatively high interest rate in return for lower loss guarantees and administrative burdens.

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The following chart illustrates the various combinations of interest rates, administrative complexity and share of loss for the loan and leasing industries.



3.3 Program Trade Offs

Finding the "correct" guarantee rate and maximum interest rate is a complicated task. At a minimum, the program should satisfy the following criteria:

- The leasing industry should not be made worse off (i.e. less profitable) by the introduction of the program. Hence, given that the maximum interest rate is as high as 10%, the players might insist that they will only participate in the program if they earn the same return that they are accustomed to.
- The program should be a cost-recovery one: revenues under the program should offset payments from the program.
- The program should provide incremental benefits to the SME community.

It is not possible to ensure that each of these objectives are fully met within this particular research project. However, it is possible to illustrate a range of scenarios that could emerge based on discussions with industry representatives and some basic calculations. It is critical to note however, that the practical occurrence of these factors may differ substantially from the assumptions included here. For example, it is impossible to estimate accurately the default rate because this program will apply to a group of firms that are not currently obtaining leases, and hence for which there is no information. Hence, the following analysis lays out a range of scenarios based on the described assumptions.

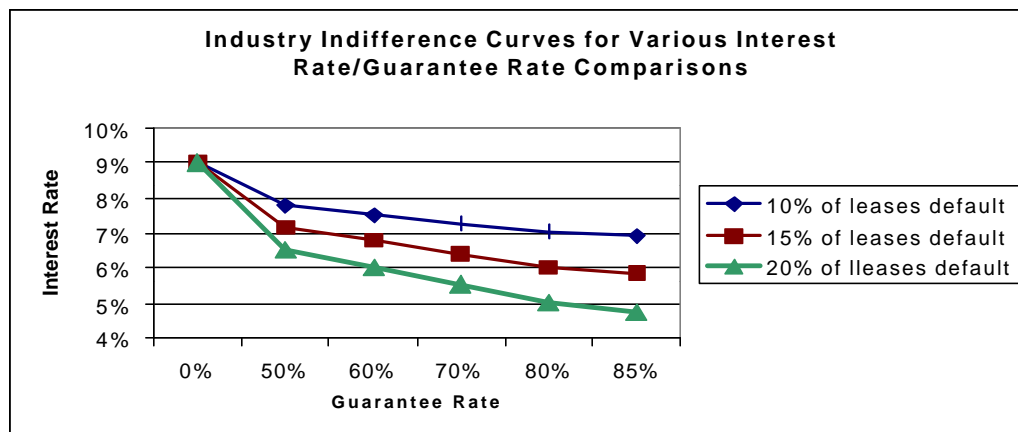
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The following table illustrates the tradeoffs that the lessors would be willing to make between interest rates and guarantee rates, by showing various combinations of interest and guarantee rates which provide the same level of profits. In each case, the basis for comparison is the profits that industry would earn if it charged a 9% premium (just slightly less than the existing maximum of 10%) above long bonds and absorbed all of the loss. This interest rate is the maximum that would be charged to the highest risk leases. Leases of lower risk would be charged a lower interest rate. The table projects as follows: if 10% of the leases default (and each results in a 50% loss resulting in a 5% loss in the total lease portfolio), industry will earn just as much profit if it charges 9.0% interest premium over long bonds, and receives no guarantee, as it will in the case in which it charges 6.909% and receives an 85% guarantee. The subsequent parts of the table do the same calculation, but under higher default rates. It should be noted that the 9% rate corresponds to the maximum rate that could be charged by industry for the small ticket, high risk leases. It provides a profit that is approximately equivalent to that of a 9% premium with no guarantee. Lessors might choose to charge a lower premium to larger or less risky leases, but still utilize the program. It could be argued competition in the industry would force the rates for these leases to go down further as industry is compensated for losses.

It should be noted that the higher the default rate, the lower the interest rate required to accept the guarantee scenario. For example, if the default rate is 10% and the guarantee is 85%, industry will be just as satisfied with 6.909% as it would have been with a 9% premium and no guarantee. However, if the default rate is 15%, industry will be just as satisfied with a guarantee of 85% and an interest premium of 5.842%.

The table also illustrates that government registration and annual fees would have to be varied based on different guarantee and default rates, in order to ensure a cost-recovery regime. These calculations are meant to be illustrative only, and do not take into account present valuation adjustments.

The following chart presents the indifference curves that summarize how industry might be willing to trade-off for different guarantee levels for different premiums, under varying assumptions about the percentage of leases that default, for the highest risk class of leases.



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Sample illustrations of the value of guarantees under different scenarios

Assumptions

Number of leases	\$ 1,000	Discount factor for loss calculation	5%
Average value of leases	\$ 50,000	Average years of lease	4
Total value of leases (000s)	\$ 50,000	Average years to default	2
Long bond/Prime rate	6.2%	Average residual value	7,500
Loss (Total value of lease, minus principal payments to date, minus resale value, plus disposal costs and lost interest between default and claim settlement) as a percentage of the total value of the lease		50.0%	

Default rate	Premium	Interest rate - premium + prime	Guarantee rate	Total interest payments \$000s	Lost principal	Guarantee support \$000s	Profits \$000s	Regis. Fee level	Regis. Fee revenues	Annual fee level	Annual fee revenues, non-defaulted	Annual fee revenues, defaulted	Total fee
10% of loans default, and a 50% loss is incurred (5% of total lease portfolio)													
10%	9.000%	15.2%	0%	\$21,626	2,500	0	19,126						
10%	7.777%	14.0%	50%	\$20,376	2,500	1,250	19,126	1.05%	525	0.80%	\$739	\$61	1,264
10%	7.530%	13.7%	60%	\$20,126	2,500	1,500	19,126	1.25%	625	1.00%	\$925	\$77	1,550
10%	7.282%	13.5%	70%	\$19,876	2,500	1,750	19,126	1.65%	825	1.00%	\$925	\$77	1,750
10%	7.033%	13.2%	80%	\$19,626	2,500	2,000	19,126	1.70%	850	1.25%	\$1,158	\$96	2,008
10%	6.909%	13.1%	85%	\$19,501	2,500	2,125	19,126	2.00%	1,000	1.25%	\$1,158	\$96	2,158
15% of loans default, and a 50% loss is incurred (7.5% of total lease portfolio)													
15%	9.000%	15.2%	0%	\$21,626	3,750	0	17,876						
15%	7.158%	13.4%	50%	\$19,751	3,750	1,875	17,876	1.60%	800	1.25%	\$1,093	\$143	1,893
15%	6.784%	13.0%	60%	\$19,376	3,750	2,250	17,876	2.00%	1,000	1.45%	\$1,270	\$166	2,270
15%	6.408%	12.6%	70%	\$19,001	3,750	2,625	17,876	2.00%	1,000	1.90%	\$1,669	\$218	2,669
15%	6.031%	12.2%	80%	\$18,626	3,750	3,000	17,876	2.00%	1,000	2.35%	\$2,070	\$270	3,070
15%	5.842%	12.0%	85%	\$18,439	3,750	3,188	17,876	2.00%	1,000	2.50%	\$2,205	\$287	3,205
20% of loans default, and a 50% loss is incurred (10% of total lease portfolio)													
20%	9.000%	15.2%	0%	\$21,626	5,000	0	16,626						
20%	6.534%	12.7%	50%	\$19,126	5,000	2,500	16,626	2.00%	1,000	1.80%	\$1,487	\$275	2,487
20%	6.031%	12.2%	60%	\$18,626	5,000	3,000	16,626	2.30%	1,150	2.25%	\$1,864	\$344	3,014
20%	5.525%	11.7%	70%	\$18,126	5,000	3,500	16,626	2.50%	1,250	2.75%	\$2,286	\$421	3,536
20%	5.015%	11.2%	80%	\$17,626	5,000	4,000	16,626	3.00%	1,500	2.80%	\$2,328	\$428	3,828
20%	4.759%	11.0%	85%	\$17,376	5,000	4,250	16,626	2.00%	1,000	2.50%	\$2,075	\$383	3,075

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3.4 A Framework for Choosing the Interest Rate and the Guarantee Rate

3.4.1 The Guarantee Rate

Our interview process suggested that the representatives we spoke with in the leasing industry want to be able to continue operating on an administratively efficient, lower due diligence model. In return for the lower due diligence, our interview process suggested the industry will accept a lower guarantee than is the case in the core loan program.

Current regulations for the core loan program of the CSBFA require a minimum of a credit worthiness check of the borrower by the lender, and satisfactory determination that the borrower can actually make the payments on the loan. However, the core lending program also makes plain that lenders are to meet “industry standards” in determining loan eligibility on the part of prospective borrowers. Usually this requires some sort of security and/or personal guarantees to be posted by the borrower.

The minimum standards of a credit worthiness check and the gathering of some practical evidence that the prospective borrower/lessee can actually make the payments are certainly harmonious with the business model used in the leasing industry. However, the more complex and demanding due diligence typically included in the lending model is generally not found in the leasing industry - at least for “small” and “mid-ticket” leases that are the majority of leases granted to small business.

Moreover, after default, the federal government’s core loan guarantee program requires a separate, third-party appraisal of the value of any asset recovered in respect of the loan. These appraisals are required to give the federal government confidence that losses were, in fact, being minimized. This procedure would not typically be harmonious with the leasing industry model. The leasing industry believes it is effective and efficient at disposing of assets recovered after default. In the case of so-called “captive lessors”, this would appear to be justified by reference to their existing marketing and distribution divisions, allied with their manufacturing operations. However, leasing companies with a more-purely-financial orientation also seem confident they have the mechanism to re-market assets speedily and productively. Typically this is done through specialist outsources such as regular industry-specific auctions.

However, the cumulative effect of all these variables is to make it less satisfactory, from the federal government’s point of view, and in comparison to the practices prevalent around the core lending guarantee program, that the leasing industry’s standards of practice will be sufficient to assure the government of loss minimization. By only guaranteeing 50% of the losses, the lessors will have the incentive to ensure that they receive the maximum disposal value for the equipment (and thus minimize the government payment).

3.4.2 The Interest Rate

Part of the reason that industry would be willing to accept a lower guarantee rate is to maintain relatively higher interest rates than is the case in the loan industry. As a result, the leasing industry seems to be amenable to accepting a lower guarantee rate in return for a higher interest rate.

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We recommend that Industry Canada initiate a discussion with industry concerning the desired trade off between interest rates and guarantee rates for the development of a pilot program. From our initial analysis we suggest that a maximum premium of about 7%, with a guarantee level of 50% would likely be an acceptable starting point for such a discussion. This would preserve the existing preference for accepting higher risk of loss, in return for less due diligence relative to the banking industry. It should be noted that this rate corresponds to the maximum rate that could be charged by industry for small ticket, high risk leases. It provides a profit that is approximately equivalent to that of a 9% premium with no guarantee. Lessors might choose to charge a lower premium to larger or less risky leases, but still utilize the program. It could be argued competition in the industry would force the rates for these leases to go down further as industry is compensated for losses. If it was felt that lease rates for large leases or “less risky” leases should also be restricted in order to benefit from the program, a rating scheme could be developed, together with industry to chose appropriate maximums for various excess. We would suggest that the starting point for the discussion could be 7.25% for \$15,000, with a reduction in the premium of 5 basis points per additional \$1,000. However, it will be critical to also involve the banking industry in this discussion to ascertain whether such a policy, which is based on the assumption that existing profit levels would be maintained, would be perceived to be discriminatory.

3.5 Recommendations on technical issues

3.5.1 Defining Default

There are primarily two concepts of default that are critical in the industry, that of financial default, and that of technical default. While in strict terms there are other definitions of default (e.g. non-maintenance of insurance), these occurrences are sufficiently infrequent that they do not merit consideration here.

We recommend that the government reimburse for the following two types of default:

- **Financial default – If the lessee has not paid the lease for 90 days, the lessor should recapture the equipment and file for a loss under the program**
- **Technical default – If the lessee has declared bankruptcy, the lessor should recapture the equipment and file for a loss under the program**

3.5.2 Payment and collection of government fees

Regardless of who actually pays the fees, the reality is that the lessee will carry the burden of the fee. However, for simplification of administrative matters, it is probably simpler for the lessor to collect the fees and remit them to the government. We would recommend slightly different approaches for the registration fee versus the annual fee.

Registration fee: In the loan scenario, because the lender is providing funds, the borrower can either wrap the registration fee into the loan, or pay it up-front. However, in the leasing scenario, the lessor is only providing equipment, not funds. Hence, “wrapping” the fee into the lease would require a substantial change in the way the lessor operates. Hence, the registration fee should be charged on an up-front basis, to minimize the administrative burden to the lessor. This 2% up-

Profile of Accounting and Pricing Practices in the Leasing Industry:

front registration charge should not be perceived to pose undue hardship on the lessees, particularly given that they are financing 100% of the cost of the equipment (compared to the loan scenario where only 90% of the cost can be financed).

Annual fee: When the lessor calculates the interest rate on the lease, it should simply add the 1.25% annual fee to be remitted to the government, as is the case in the loan scenario.

We recommend that the government discuss the following procedure for fee recovery:

- **the lessee pay the 2% registration fee up-front to the lessor and the lessor remit this to the government; and**
- **the lessor include the 1.25% annual charge for the government in the monthly payment, and remit this to the government on behalf of the lessee.**

Appendix 1

DETAILED REVIEW OF FINDINGS

The following sections review the feedback we have obtained through our interviews with industry. Given the complexity and the interdependence of these issues, the recommendations set forth in this section-by-section analysis are notional rather than specific in nature.

The Maximum Lease Amount

The maximum lease amount will be a critical element of the pilot lease program. The maximum lease value must be chosen so that the target SME group is provided with leasing options that are consistent with their needs. The optimal maximum lease amount is a difficult issue, as the typical lease values vary across both lessors and lessees.

In general, the leases for most firms with less than \$5 million in sales would be in the \$15,000-\$100,000 range. However, there is a divergence in the sizes of leases across groups of lessors. Lower value leases (\$15,000 to \$50,000) are more common among the own-equipment (so called “captive”) lessors. Larger leases (\$50,000 to \$100,000) are more common among the banking affiliates.

“Administration is complicated by multi-vendor environment”

For very creditworthy lessees, the leases reach as high as \$250,000.

Summary Findings
The standard maximum for leases should be \$250,000.

The Total Value of the Lease

The total value of the lease is also a concept that is not without ambiguity. Not only do the definitions vary across organizations, some organizations use multiple concepts. There are primarily three categories of valuations.

- The first, and most basic, is based on the value of the piece of equipment leased. In some organizations, the residual value of the equipment is subtracted from the total value.
- The second method includes both the cost of the piece of equipment leased, and the financing charges (i.e., interest components) that the lessee pays to the lessor. It is equivalent to a summation of payments over the life of the lease.
- The third method involves calculating the net present value (NPV). If the discount rate is set equal to the interest rate charged to the lessee (based on an assumption that the lessor wants to earn at least the amount that is earned on such investments) then the NPV will be exactly equal to the cost of the equipment.

Several considerations need to be taken into account in choosing a valuation calculation method.

- The value of the lease (regardless of which method above is used) typically includes the value of services that are associated with adoption of the equipment (for example, the value of a computer lease would include the installation charges).

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- In any calculation that takes into account financing charges (i.e., interest component), differences in terms will result in differences in the total value for the same piece of equipment, as well as differences in risk exposure to the lessor.
- Interest charges may vary across organizations for a variety of reasons, including whether or not the lessor is a captive lessor (i.e. own-equipment lessor), whether certain parts of the leasing arrangement are outsourced, and based on the efficiency and anticipated profitability of the lessor.

Summary Findings

Valuation based on just the piece of equipment, plus associated installation charges (rather than on financing charges as well), would enable comparability and a level playing field across lessors.

The Interest Rate

The commonly applied leasing algorithm has been articulated in our publication *Leasing in Canada, A Business Guide*, as follows:

- The normal selling price is used as the starting point for the determination of the leasing payments.
- Interest is computed at the lessor's borrowing cost plus a margin of one-half of 1% or more.
- A lease administration charge is calculated either as a percentage of funds in use or as a fixed monthly payment. This charge is proportionately higher for smaller amounts, but exactly what share of the total payment goes to cover administration fees and costs is not possible to determine as it varies across the leasing industry owing to needs for "securitization", costs associated with financing brokerage, etc..

Interviews with leasing organizations revealed that this is the general practice applied in industry. However, due the small size of leases common to SMEs the charge as per the third point is a difficult one to determine. No single rate or calculation method is used by any one organization. In each organization, the rate depends on the amount, the length of term, the administrative and overhead costs, the residual, prospects of the future relationship, cost of funds, and creditworthiness. One organization provided the following risk assessment/interest charge guide:

- Company with growth revenues, profits and cash flows = the prime or Canada long bond rate (depending on what the lessor pays) plus 1% or 2%.
- Company with fluctuating performance, some negative cash flow = the prime or Canada long bond rate (depending on what the lessor pays) plus 5%.
- Company is underwater, but still think it is viable = the prime or Canada long bond rate (depending on what the lessor pays) plus 10%.

The critical factor to note here is that this program is designed to assist those SMEs that might have difficulty securing leases, which are those that would be subject to the highest interest rate. It is not designed to target those SMEs that are considered an attractive investment, and hence would not be charged the highest interest rate. Hence, it is only the maximum interest rate that is of relevance to this program.

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Alternatively, a rating scheme could be developed, together with industry to chose appropriate maximums for various excess. We would suggest that the starting point for the discussion could be 7.25% for \$15,000, with a reduction in the premium of 5 basis points per additional \$1,500.

Summary Findings

The optimal interest rate must be chosen so as to balance the reward against the risk. As such, an interest rate cannot be chosen independent of the guarantee rate.

The Fee Structure

Based upon a limited number of discussions with leasing organizations, an annual fee of 1.25% plus the up-front registration fee of 2% is believed to be appropriate, given the high level of guarantee by the government. The fee might, or might not, be considered excessive, if the leasing guarantee were not as substantial as it is currently for the core lending program.

Summary Findings

The proposed annual fee of 1.25% plus the up-front registration fee of 2% should be applied. It should be noted that if the guarantee rate is reduced, a reconsideration of these fees would be required.

The Length of Payment

The standard length of payment varies between 3 to 6 years across organizations, but is even shorter for some computer equipment.

Summary Findings

The maximum should be the maximum across all organizations, which would be six years. However, the shorter maximum – perhaps 3 years, could be considered for computer equipment.

Security and Personal Guarantees

In general, many of the lessors do not require additional security and personal guarantees. This is because the industry operates by trying to achieve minimum administrative costs, rather than a minimum default rate. The cost of taking securities and/or guarantees and of the related due diligence is often believed to outweigh the cost of assuming a certain portion of the leases will default. However, it is worth noting that most lessors require that the lessee pay first and last months' lease payments up-front.

“The competitive edge of leasing is in the efficiency and speediness of response of the leasing industry... Better to make the lease guarantees easy to administer, even if a lower

Some of the purely financial organizations are an exception to this trend. They operate on a model closer to that of banks, and sometimes require securities or personal guarantees.

Several considerations are worth noting with respect to extending the CSBFA to include leasing.

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- Many SMEs choose leasing because they do not have additional collateral. The imposition of such restrictions might prevent the firms, for which the program is targeted, from accessing the program.
- The absence of such restrictions would likely result in greater risk than is the case in loans covered under the CSBFA for two reasons. First, the cost of default to SMEs would be lower than is the case with loans (because the SME would not have to meet the guarantee). Second, because the lessor is less demanding of applicants, it would attract higher risk types of applicants.

Summary Findings

An additional premium could be charged in those cases in which applicants do not provide securities or personal guarantees. The desirability of such a program would need to be tested through further interviews with both lessors and lessees.

The Definition of Default

Based on the sample lease contract obtained from the Canadian Finance and Leasing Association, a lease goes into default in principle whenever one or more of the following “events of default” take place.

The events of default are defined as follows:

- The failure of the lessee to pay any instalment of the rental payment or any other sum due under the terms of the lease;
- The reach of any covenant or conditioned contained in the lease (e.g. failure to maintain insurance);
- The subjection of said equipment to any lien privilege, seizure or attachment;
- Any assignment by the lessee for the benefit of creditors;
- The admission of the lessee in writing of his inability to pay its debts as they become due;
- The appointment of a receiver, trustee or similar official for the lessee of for any of its property;
- The filing by or against the lessee of a petition in bankruptcy or a petition for the reorganization or liquidation of the lessee under any federal or provincial laws;
- Any other act of bankruptcy by the lessee; or
- If the said equipment is in the opinion of the lessor, in danger of being confiscated or attached.

In actual practice, however, as opposed to in principle, there are two major classes of default:

- If no lease payments have materialized for 90 days (i.e., 3 missing payments), the lease is declared in financial default and the lessor seeks to recover his asset. The event of default will likely be back-dated to the date of the first missing payments. In practice, it is likely that the lessor will attempt to communicate with the delinquent lessee after 30 days and certainly after 60 days to find out if the inability to pay is temporary, and possibly suggesting some sort of re-financing or re-scheduling, or fundamental, in which ease of the lessor may move more quickly to establish a legal basis of event of default. Nevertheless, the 90-day rule seems usually accepted as industry standard.
- Technical default occurs when a company declares bankruptcy, and all of its assets, including capital leases, are put under bankruptcy protection.

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Other events of default (such as non-maintenance of insurance, etc.) are rare.

Summary Findings

A financial default should be considered non-payment for a period of 90 days. A technical default is externally defined. Both types of default should be guaranteed against.

The Definition of Loss

The loss is commonly defined in the industry as the net present value (discounted at 5%) of remaining payments, less the resale value of the equipment. However, this calculation of loss cannot be used for the leasing program, as it includes not just future payments to principal, but the loss of future profits, and this program is not designed to compensate for lost profits.

The loss for the loan program is calculated as: the sum of the remaining principal payments, minus the resale value of the equipment or the security, plus costs associated with disposing of the asset and the lost interest on the payments between the date of default and the settlement of the claim. The analogous concept in leasing would be the total value of the equipment (plus related implementation charges), minus the payments to principal, minus the resale value, plus costs associated with disposing of the asset (for example, auction fees) and the lost interest on the payments between the date of default and the settlement of the claim¹. In most cases, this will represent a loss because the resale value of the equipment will typically fall short of the combined value of the equipment less the principal payments to date, because depreciation of the equipment occurs more rapidly than payments to the principal.

“In general, asset depreciation is greater than the lease payments cash flow”

Summary Findings

The loss should be calculated as the total value of the equipment (plus implementation charges) less the principal payments to date, less the resale value of the equipment, plus costs associated with disposing of the asset, plus the lost interest charges between the time of default and the settlement of the claim.

Claims for Loss

Lessors typically pursue the company after default (90 days of non-payment for financial default and as soon as possible in the case of technical default). Given that the loss calculation is based on the resale value of the equipment, the exact loss value cannot be calculated until this time. As such, they would expect the guarantee to be paid immediately after the valuation of the equipment. In order to ensure that lessors do not apply an arbitrarily low valuation, and later resell at a higher value, this claim should only be paid out after the equipment has been sold or re-leased. The industry consistently suggested that it would dispose of equipment from a defaulted lease as speedily and productively as possible.

¹ It should be noted that the total value of the equipment will exceed the total value of the lease, but the estimated residual value of the equipment, at the time of the drawing of the lease contract.

Appendix 1

The Cap on Claims

The cap of claims under the core lending program follows the 90%-50%-10% formula. This was not contested by the leasing industry interviewees.

Summary Findings

As the lending program procedures appear satisfactory in regard to cap on claims, it is recommended that the same formula be used for the leasing program.

Appendix 2

CALCULATION OF THE LEASE PAYMENT

The following chart illustrates how the lease payments are calculated and structured. The monthly base is calculated such that the principal is paid off within the prescribed term and is charged on the remaining principal owing. Hence, at any point in the lease, the lessor can calculate the principal and interest payments to date.

For example, if a \$50,000 loan defaulted after 12 months, the equipment was resold for \$20,000 and 6 months of lost interest were incurred, and the costs of disposing of the asset were \$2,000, the total loss would be calculated as follows:

Value of lease	\$ 50,000.00
Payments to principal	9,154.00
Resale value	20,000.00
Interest	2,532.00
Costs of disposal	2,500.00
Total Loss	<u>\$25,878.00</u>

With a 50% guarantee, the government's net loss would amount to:

Payout to lessor	12,939.00
Revenue from registration fee	- 1,000.00
Revenue from the annual fee	- 510.62
	<u>\$11,428.38</u>

Appendix 2

AMMORTIZATION SCHEDULE

Key Figures	Inputs	
	Principal Finance Amount	\$ 50,000
	Unit Cost	\$ 50,000
Monthly Payments	Annual Interest Rate	13.00%
Advance \$1,208.33	Lease Term in Months (to Option)	48
Arrears \$1,221.42	Amount of PMTs In Advance	
	Amount of Balloon/Residual	\$ 7,500

Year	Month	Payments-	Principal-	Interest-	End Financing Balance-	Annual gov't fee
Year 1	0	\$1,208.33	\$1,208.33		\$48,792	
	1	\$1,208.33	\$679.75	\$528.58	\$48,112	\$50.12
	2	\$1,208.33	\$687.12	\$521.21	\$47,425	\$49.40
	3	\$1,208.33	\$694.56	\$513.77	\$46,730	\$48.68
	4	\$1,208.33	\$702.08	\$506.24	\$46,028	\$47.95
	5	\$1,208.33	\$709.69	\$498.64	\$45,318	\$47.21
	6	\$1,208.33	\$717.38	\$490.95	\$44,601	\$46.46
	7	\$1,208.33	\$725.15	\$483.18	\$43,876	\$45.70
	8	\$1,208.33	\$733.01	\$475.32	\$43,143	\$44.94
	9	\$1,208.33	\$740.95	\$467.38	\$42,402	\$44.17
	10	\$1,208.33	\$748.97	\$459.35	\$41,653	\$43.39
	11	\$1,208.33	\$757.09	\$451.24	\$40,896	\$42.60
Year 2	12	\$1,208.33	\$765.29	\$443.04	\$40,131	\$41.80
	13	\$1,208.33	\$773.58	\$434.75	\$39,357	\$41.00
	14	\$1,208.33	\$781.96	\$426.37	\$38,575	\$40.18
	15	\$1,208.33	\$790.43	\$417.90	\$37,785	\$39.36
	16	\$1,208.33	\$798.99	\$409.33	\$36,986	\$38.53
	17	\$1,208.33	\$807.65	\$400.68	\$36,178	\$37.69
	18	\$1,208.33	\$816.40	\$391.93	\$35,362	\$36.84
	19	\$1,208.33	\$825.24	\$383.08	\$34,536	\$35.98
	20	\$1,208.33	\$834.18	\$374.14	\$33,702	\$35.11
	21	\$1,208.33	\$843.22	\$365.11	\$32,859	\$34.23
	22	\$1,208.33	\$852.36	\$355.97	\$32,007	\$33.34
	23	\$1,208.33	\$861.59	\$346.74	\$31,145	\$32.44
Year 3	24	\$1,208.33	\$870.92	\$337.40	\$30,274	\$31.54
	25	\$1,208.33	\$880.36	\$327.97	\$29,394	\$30.62
	26	\$1,208.33	\$889.90	\$318.43	\$28,504	\$29.69
	27	\$1,208.33	\$899.54	\$308.79	\$27,604	\$28.75
	28	\$1,208.33	\$909.28	\$299.05	\$26,695	\$27.81
	29	\$1,208.33	\$919.13	\$289.20	\$25,776	\$26.85
	30	\$1,208.33	\$929.09	\$279.24	\$24,847	\$25.88
	31	\$1,208.33	\$939.15	\$269.17	\$23,908	\$24.90
	32	\$1,208.33	\$949.33	\$259.00	\$22,958	\$23.91
	33	\$1,208.33	\$959.61	\$248.72	\$21,999	\$22.92
	34	\$1,208.33	\$970.01	\$238.32	\$21,029	\$21.90
	35	\$1,208.33	\$980.52	\$227.81	\$20,048	\$20.88
Year 4	36	\$1,208.33	\$991.14	\$217.19	\$19,057	\$19.85
	37	\$1,208.33	\$1,001.88	\$206.45	\$18,055	\$18.81
	38	\$1,208.33	\$1,012.73	\$195.60	\$17,042	\$17.75
	39	\$1,208.33	\$1,023.70	\$184.63	\$16,019	\$16.69
	40	\$1,208.33	\$1,034.79	\$173.54	\$14,984	\$15.61
	41	\$1,208.33	\$1,046.00	\$162.33	\$13,938	\$14.52
	42	\$1,208.33	\$1,057.33	\$150.99	\$12,881	\$13.42
	43	\$1,208.33	\$1,068.79	\$139.54	\$11,812	\$12.30

Appendix 2