Regulation of Payday Lending in Canada

A Report to ACORN

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ACORN
Association of Community Organizations for Reform Now

ACORN champions the interests of Canada's low- and moderate-income urban communities on the critical issues of social and economic justice. We believe that transforming the conditions that adversely affect millions of Canadians can best be achieved with an active national membership -- members deeply invested in their organization and focused clearly on lasting socio-economic change.

As the pressures on low- and moderate-income Canadians have become more acute in recent years, the need for a popular response rooted deeply in community has also intensified. And yet, on balance, the response to date has not equaled the difficulties posed by profound shifts in the nature of work, in the composition of family life, in social spending and public infrastructure, amongst many other challenges

With the neighbourhood chapter as its structural cornerstone, our organization is built organically by and for the membership. Our community organizers go door to door every day reaching hundreds of families per week. Our over 2000 members in Toronto and Vancouver , our the elected leaders in Toronto, Vancouver and soon Ottawa are working with their neighbours to address issues that span a wide range of concerns, including tenant rights, youth crime and predatory lending.
www.canada.acorn.org

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Executive Summary

ACORN Canada engaged me to determine an appropriate fee structure for payday lenders that would reduce the current very high rates while still allowing at least some of the companies to continue to operate. This fee structure should replace the current rule of 60% maximum interest contained in the Criminal Code, thus allowing mainstream financial institutions to compete in the short-term lending field legally.

I recommend that one of these two fee schedules be adopted for payday lending:

❑ a fixed fee of $10.00 per loan + interest charged at a rate no higher than 60% per annum, effective annual rate + a fee that is a fixed percentage of the dollar value of the loan no larger than 5%.
❑ A fee that is 12% of the first $250.00 of loan principal + 6% of the loan principal in excess of the first $250.

I also recommend that the lender be allowed to charge 60% effective annual rate (EAR) on any loan in arrears, but no other fees save cost recovery of bank charges for returned cheques.

I analyze the cost structure of the existing companies and then model the profitability under various fee structures. The recommended fee schedules are calculated to allow large, efficient firms to continue to compete, but not to earn excess profits.

I estimate that adoption of the first of the recommended fee schedules, which is my preferred choice, would save borrowers approximately $194 million annually.

In the long run, I believe that the fee for payday lending, or any similar form of short-term lending of small amounts, should be lower than my recommendations. The most efficient company in the payday lending business is still very small when compared with the mainstream financial institutions. Payday lenders are very inefficient compared with banks and credit unions, because of the small volume and dollar value of the transactions they handle. Regulations setting a much lower fee schedule than I propose are consistent with the public interest, as long as the banks and credit unions respond with products that provide a reasonable substitute. The federal and provincial governments may have to exercise some moral suasion to encourage this.

The payday lending industry is not very risky in the way that we usually think of risk in financial institutions. The lending portfolio is very diversified in the form of many very small loans, and hence the loss rate is reasonably stable. A single corporate default can cost a bank far more in loan losses than the total loan losses of the entire payday lending industry in Canada for a year.

The risk for payday lenders comes at the opening phase, as it does for most small businesses. Unless a payday lending store gets enough business to cover its fixed costs and generate a positive margin, it is a losing proposition. Once the business is

established, which takes about a year, the risk is quite small. The large financial institutions do not face this risk of trying to establish a losing business, because they would be levering the payday lending business off an existing infrastructure – essentially adding another line of business that can contribute a positive margin to existing fixed costs. Furthermore, the payday borrowers are almost entirely their customers already. In order to make payday lending work, the borrower must have a bank/credit union account on which a cheque or debit authorization can be written. The banks and credit unions can enter this business as part of their normal operations, and they should do so once the regulations are properly established.

Recommendations

1. Payday loans should be regulated as to fees charged under federal legislation in order to provide efficient and equal treatment across Canada, and to allow competition from other financial service organizations.
2. Payday consumer loans should be defined as any loan that is for a term of less than 31 days and for an amount of not greater than $1500 adjusted for inflation.
3. The limit of $1500 in Recommendation 2 should be increased every year on March 31st by the percentage that is the increase in the Consumer Price Index for Canada.
4. Payday lenders should be regulated to charge a fee that is no more than that calculated using one of the following schedules, and each lender must use only one schedule for all of its loans:
    a. a fixed fee of $10.00 per loan + interest charged at a rate no higher than 60% per annum, effective annual rate + a fee that is a fixed percentage of the dollar value of the loan no larger than 5%.
    b. A fee that is 12% of the first $250.00 of loan principal + 6% of the loan principal in excess of the first $250.
5. Payday lenders should not be allowed to charge any fee on a loan past the maturity date except for:
    a. continuing interest at a rate no higher than 60% per annum, effective annual rate, plus,
    b. the amount of any bank service charges to the lender for returned cheques.
    For greater certainty, no rollover, extension or rewrite fees should be permitted if the borrower does not repay the full loan on the maturity date.
6. Payday lenders should be required to post on every premise a prominent notice that provides the total cost of loans for a suitable range of sizes and times to maturity, showing both the dollar cost and the effective annual interest rate.
7. Internet payday lenders who do not have a physical place of business in Canada may be harder to regulate, but they should be held to the same terms if possible. I am not a lawyer, but I imagine if the law did not permit enforcement of collection of loans that violate whatever law eventually regulates payday lenders, the internet lenders would soon follow the regulations.
8. The maximum payday loan should be 25% of the client's next net pay.
9. The federal government, in consultation with the provincial ministries responsible for consumer financial affairs, should determine if there are other forms of short-term loans that should receive similar treatment to payday loans.

<u>Why is Regulation Needed?</u>

I recommend that payday loans and payday lenders be regulated under a new federal law or section of an existing law, and in fact I prefer to extend that to any short-term lending of small amounts to individuals. The alternatives are to:

1. allow/mandate self-regulation;
2. to leave the regulation as it is under the Criminal Code, section 347; or,
3. remove short-term loans from section 347 and not regulate them at all.

Let me discuss self-regulation first. Payday lending is a very small business compared with other financial services operations. There is no group of professional or even quasi-professional practitioners associated with it. There is no existing tradition of this specific field regulating its own affairs. The voluntary Canadian Payday Lenders Association (CPLA) is less than three years old, and does not include all of the payday lenders in Canada. The CPLA seems to have come about as a response to class action lawsuits, negative media coverage and the prospect of government regulation of payday lending. Virtually all Canadian financial services companies are regulated already, and where they have self-regulation, there are supposed to be extensive checks and balances. This situation does not exist for payday lending, nor is it realistic to suppose that it will any time soon.

The existing alternative is no regulation at all, except under the Criminal Code, section 347, which forbids interest exceeding 60%, effective annual rate. I am not alone in interpreting the wording of Section 347 to include all the fees that payday lenders charge under the word "interest.[1]" Payday lenders all violate this law. It will become clear in my further analysis that no self-standing payday lender's cost structure can possibly sustain the business if the total of all fees is limited to 60% per annum. This alternative must inevitably close down all payday lenders, unless the federal government is prepared to indefinitely avoid enforcing its own laws.

I believe that the law has not been enforced so far because government policy makers recognize a genuine need for short-term, unsecured lending. I cannot provide any authoritative quotation for that, because they are not going to allow themselves to be quoted. The conclusion is that if we want to close down the payday lending business, and any other similar, potentially abusive, short-term lending business, we need only enforce Section 347 of the Criminal Code. If we want to maintain a viable short-term lending business of some sort, then we will need to allow fees that are higher than those allowed by Section 347

Those who believe that unregulated competition leads to the best result for everyone would be happy to have no regulation at all on payday loans. Such a position is quite reasonable in some situations, since competition on an even footing may lead to lower prices and higher quality for everyone. This is not a situation where everyone is on an even footing, however.

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[1] Some lawsuits have already established this. I also make this statement in my position as a qualified expert witness in finance, particularly personal finance.

- A significant proportion of the borrowers do not understand how to calculate interest, and are unable to understand just how much payday loans cost, according to studies by ACORN and the Public Interest Advocacy Centre.
- A majority of the borrowers would like to have the payday lenders regulated, according to the ACORN study.
- Most of the borrowers have sufficiently poor credit ratings that no other form of credit is available, and thus they cannot be said to exercise much choice.
- If competition on rates and other terms that would benefit borrowers were already seen to be happening, that would be a reason to let it unfold, but we do not see that. Money Mart, which has the lowest fees in the business, raised its rates about two years ago and none of the competition lowered theirs to try to compete. The Cash Store seems to have raised its rates also in the last year. Money Mart has recently changed its fee schedule to one that will provide slightly lower rates for loans under $166 and higher rates for loans over $166. The net effect is higher total revenue, because the average loan size is much larger than $166.
- The industry is still growing, and one of the largest players is growing by takeover, which suggests that there are rents, or unusually high profits, to be made by efficient producers.
- Even though Money Mart has the lowest rates, and has the longest, best-established presence in the alternative finance sector, the Cash Store is quickly approaching its size as measured by number of stores. Cash Store charges fees much higher than Money Mart. If the customers were able to distinguish or able to move between competitors, this expansion would not be possible without Cash Store lowering its fees to be at least close to Money Mart's fees.
- Money Mart originally limited its loans to a lower percentage of the net pay than did many other companies, where 50% was common. Instead of fees dropping, or other companies lowering their loan limits as well, Money Mart raised its loan limit to 50% of net pay. A loan of 50% of net pay plus all the fees, which in Cash Store's case is about 20% of the loan, leaves a borrower in a debt trap after just one loan. It is hard to imagine many people who are forced to borrow from a payday lender being able to forgo more than half their next paycheque. If they could manage that, they wouldn't have needed the loan in the first place.
- The most recent published financial reports of Dollar Financial Inc., the parent company of Money Mart, and Rentcash Inc., the parent of the Cash Store, show that loan volumes are increasing rapidly on a same store basis. That is, they are able to lend more from the same location, as well as opening new stores. In addition, their profits are rising quickly.

Since the available evidence shows that competition on rates is not happening, the customers are not well-informed and in a good position to exercise the best choices and there seem to be excess profits available, I conclude that Canada should regulate the rates that payday lenders can charge, as well as other aspects of the business. The primary focus of this paper is the rates and that is what I will focus on. The CPLA has made no move to regulate rates, nor has it shown any willingness to do so in the future.

Furthermore, it is a small organization with no established regulatory framework and tradition, and hence it is not suitable to rely on it.

There is another compelling reason for properly-designed federal regulation that is unique to this situation. As long as the 60% interest rate limit in the Criminal Code remains in place, the competition that would lower rates will not happen. The mainstream financial institutions will not break the law, and hence will not enter payday lending. They have a huge established branch structure that would make them able to offer short-term loans much more cheaply than the stand-alone payday lenders. If the Criminal Code restriction is removed and replaced with commercial law that allows them to enter the market, I expect they will do so and provide active competition that will lower fees dramatically. Without properly designed regulation, they will not enter the market, and hence the borrowers will always face exceptionally high fees.

The Canadian Payday Loan Association (CPLA) has established some rules for its members already, and the former President, Robert Whitelaw, has told me that they are enforcing these rules. ACORN and the CPLA agree that rollover loans should be prohibited. I recommend the same, and I recommend it in every aspect that it might take, using other terms such as back-to-back or repeat loans. This recommendation is to reduce the likelihood of a borrower getting into a spiral of ever-increasing debt due to accumulating fees. Since there is already so much agreement on banning this practice, I will not do any analysis of rollovers. Although the largest lenders and more than half the stores in total belong to the CPLA, there are still other non-members who allow rollovers and charge rollover fees.

The CPLA does not have any rule to limit the fees charged, nor the percentage of net pay that the lender will advance. ACORN has asked me to attempt to determine a reasonable fee level to which payday lenders should be limited, and that is what the remainder of this report analyzes. The limit of 25% of net pay for any loan is ACORN's recommendation, and I agree that it is at least a big improvement on the 50% limit that is the norm now. My experience in personal finance research suggests that even 25% is likely to provide hardships for many of the borrowers, given their financial situation, but they are already experiencing financial difficulties if they have to borrow against the next paycheque, and we cannot blame payday lenders for every ill.

Robert Whitelaw has written in an article in *The National Post* that he supports the introduction of regulation. Manitoba has introduced a bill to regulate payday lending in the province, though it leaves the thorny question of fee limits to regulations under the Public Utilities Board, and of course these regulations do not exist yet.

A Method to Set Fee Regulations for Payday Loans

The basic method is common to most rate regulation settings. I have some information on costs and loan volumes, and I have the existing fee schedules. I model the cost of the payday lending business in various ways and use the cost information I have

to provide actual dollar values. The cost model includes a reasonable allowance for profit, since we cannot regulate a business to operate without profit. I estimate the appropriate loan volume per store. The undetermined variable is then the fees charged on the loans. An equitable fee structure is one that yields a zero profit from the model, since an allowance for profit is included as if it were a cost (which it is, called the cost of capital in the regulatory and finance fields). Of course, there are many possible fee structures that give this result. The two formats that I propose are similar to those found in US regulation and in the operations of the companies themselves; only the actual rates applied to the two formats are lower than we see currently charged in Canada. The two formats are:

1. A fixed dollar amount for each loan regardless of size, plus interest on the loan for the period to maturity, plus a percentage of the loan; or,
2. A percentage of the loan up to a certain size, plus a lower percentage of the principal over that size, regardless of the time to maturity.

Format #1 is similar to the one that Money Mart used until recently. The second most common format now used in Canada is a single percentage of the entire loan, regardless of time to maturity. I have modified that to include two steps, but you could modify to include more than two steps. Some US jurisdictions use a two-step rule.

The notable aspect of both these formats is that most of the cost of the loan to the borrower does not depend on the time to maturity, which is completely different from our normal conception of loan interest. The reason is very simple. Most of the operating cost of the payday lender is the actual processing of the loan. The cost of funds for the period of the loan is very small in comparison. Payday lending is labour-intensive, and the cost is virtually the same regardless of the loan size and the time to maturity. Accordingly, both schedules charge a higher effective interest rate for smaller loans, to match the high proportion of fixed costs in the business operation.

Consider, for a moment, the interest charge that accrues to a $100 loan if a lender conforms to the Criminal Code by charging 59% as an effective annual rate, and the loan is outstanding for exactly seven days. The interest is just $0.89. No lender could possibly survive with such a loan rate on small, short-term loans. Leaving aside the cost of processing the loan and financing it, the bad debt rate alone is greater than 1% for most payday lenders. If payday lending is to exist at all, the allowable fees will exceed an effective rate of 60%. To this extent I agree with the public statements of the Canadian Payday Loan Association and some of its members. Where we differ is in the level of fees necessary to allow payday lending – I believe the fees should be much lower than those charged now.

<u>The Industry Structure of Payday Lenders</u>

Any recommendation that reduces fees will drive the marginal lenders out of the market. Their business then migrates to the remaining participants. If a large number of

lenders cease business, this migration of customers will affect the economics significantly, and the effect will be magnified by the extent that the remaining lenders have a high proportion of fixed costs relative to variable costs. That is, if an existing lender can absorb substantial additional volume with only a small increase in cost, then its profits rise substantially if a large number of competitors exit the business. Other terms used to describe this effect are "returns to scale" and "high operating leverage."

Operating leverage is very high in the payday lenders. Basically, a payday lender operates a store with one or two staff on hand and pays rent, other space costs, minor office expenses, and administration if the company is part of a larger chain. The only costs that vary completely with volume are bad debts and the cost of funds to the lender. Advertising will affect volume to some extent. A very large increase in volume does not entail much cost increase. I will support this claim in later sections.

Given this industry structure, we would expect competition to drive consolidation and a lowering of fees. The small players in the industry would be driven out. Consolidation is happening very rapidly at the time that I am writing this report, and also considerable expansion. But, fees are not dropping and many small firms still exist. If my recommended fee structure is implemented, I am virtually sure that almost all single store operations and all but a handful of larger companies will exit the business. Their scale will be too small to survive on the lower fees. The larger companies remaining will become even more profitable, because they will add most of the abandoned customers to their own businesses, for quite modest increases in cost.

We must take account of this effect in determining the appropriate fee schedule for regulation, because otherwise we set fees based on costs that not distributed over the volume of business that they will enjoy. The Ernst & Young report, *The Cost of Providing Payday Loans in Canada,*[2] is the largest scale attempt to measure payday lending costs. Unfortunately, the operating costs presented in the report cannot be used in the format given, because the authors based it on the then-existing volumes of business, and expressed all costs as a % of loan volume, as if they were entirely variable costs. This is quite untrue, and since loan volumes per store have increased greatly since the data in the report was collected, the costs as reported are now wrong. At the time EY was planning the work I also commented on their plan, and none of us recognized the importance of this weakness. I did suggest that the results would need updating because the individual stores were still increasing their volume, and the chains were adding many new stores, but I am unaware of any plans to do another study. I emphasize strongly that in my opinion EY did work diligently, honestly and effectively in its data collection, and I will use its report extensively to provide a basis for parts of my cost determination, using a different technique to represent the cost function.

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[2] *The Cost of Providing Payday Loans in Canada: A Report Prepared for the Canadian Association of Community Financial Service Providers,* Ernst & Young Tax Policy Services Group, Oct. 2004 (http://www.cpla-acps.ca/english/measuring_en.htm). The Association has since renamed itself the Canadian Payday Loan Association (CPLA). The US accounting firm Ernst & Young LLP audits Dollar Financial Group Inc., the US parent company of Moneymart.

Number of Stores/Companies

Tables 1 and 2 show the progression of the industry. Money Mart and Cash Store are now the dominant players with 648 stores between them at Sept 20/05. The third largest chain is Cash Money, with 70 stores, which is one fewer than the 71 shown in Table 1. The CPLA website shows as members companies that have a total of 794 stores currently. The CPLA believes there are about 500 non-member payday lending stores, but none of them are very large chains. The largest non-member I have identified is Stop 'n' Cash, which seems to have declined in size in the last year from 44 to 29 stores. I must emphasize that since there is no registration required, any list is speculative and incomplete. If we accept the CPLA estimate, then there are about 1300 payday lending stores, and the two largest chains have 50% of the market by number of stores, and the three largest have 55%.

I cannot quantify the number of payday lenders operating over the internet and by telephone. There are several such firms, or maybe scores. They do not need to be domiciled in Canada. Furthermore, it seems that some payday lenders with storefronts are also lending on the internet and telephone, or are converting entirely to that format. I am unaware of any evidence on how much payday lending happens outside a physical store, and I cannot think of any way to collect convincing statistics on it. Regulation will be even more problematic. My instinct is to regard such lending as riskier for the lender from the point of view of defaults, but also much cheaper to administer. The internet lenders rarely provide their rates – you have to actually negotiate a loan, or at least go through the pretence. What rates I do have are similar to those that the storefront lenders charge.

Table 1

**Largest Payday Lending Companies in Canada
with Physical Stores at May 6, 2005**

This table contains the best information available at May 6, 2005. Companies that operate only on the internet are excluded.* Some companies are expanding rapidly, some are contracting or merging and some use more than one name. There is no authoritative list. I drew this one from web searches and the CACFSP (now the CPLA) membership on its website.

	Number of Stores	Fees	Geographic Spread
Cash Money	70	20% of principal	Mostly in Ontario.
The Cash Store (subsidiary of Rentcash, public co.	144	22.5% of principal for processing + interest	Across Canada. Brokers loans. Also has 56 locations in furniture stores for purchase financing.
Instaloans	99	25%	BC to northwestern Ontario.
Money Mart (sub. of Dollar Financial, US)	329	$59% + 7.99% of (principal + interest)	Across Canada, US, UK. The number of stores given is for Canada only.
Premiere Cash Advance	~30	24.8%, presented as two different fees of 22.5% and 2.3%	Website being rebuilt, no current information
Sorenson's Loans Till Payday	35	No fee information available.	Western Canada, no current information.
Stop 'n' Cash (also 310 Cash)	44	25% of principal	Ontario, New Brunswick.
Unicash Financial	<u>22</u> <u>773</u>	Two loans sizes: $21 on $100; or, $22.35 on $152.65 (=14.6% of principal)	Toronto, Golden Horseshoe.

1313Number
of
Stores
Fees
Notes
71
20% of principal
Stopped growing
298
~26% of principal for
processing + 59%
interest + $6
350
59% EAR + 13.99%
of (principal +
interest)
29
25% of principal
22
Two loans sizes: $21
on $100; or, $22.35
on $152.65 (=14.6%
of principal)
13
11
10
10
814
Member of CPLA
Sorenson's seems to have disappeared and The Cash Store bought Premiere Cash
Advance, but it seems to have operated only three stores when it was purchased.

Volume of Payday Lending

This is a small business, and the individual locations handle low volumes. The EY report can be dissected to find the average annual volume of payday loans per store for three size classes of company:

- o Big companies with over $20 million in total volume: $1.85 million per store
- o Medium companies with $2 – 20 million in total volume: $1.15 million per store
- o Small companies with less than $2 million in total volume: $640,000 per store.

EY collected the information on a voluntary basis from a number of payday lenders. The identity of the respondents is confidential, and only aggregate numbers are presented in the report, but I am confident that Money Mart was one of the respondents, and hence has a significant impact on the big company numbers. EY did its data collection in the summer of 2004, and hence the numbers they gathered pre-date the June 30, 2004 annual reports of Rentcash Inc. (listed on the TSX, parent of The Cash Store) and Dollar Financial Group Inc. (listed on NASDAQ, parent of Money Mart). The 2004 and 2005 annual reports of these two companies, and their quarterly reports of Sept 30, 2005, show a rapid increase in the volume of loans per store and the size of individual loans. The Cash Store grew very rapidly in size by acquisition and opening new stores, but same store sales also rose rapidly. Money Mart did not add as many new stores as The Cash Store, but its same store sales also increased. Money Mart also stated that it estimated it has more than 50% of the volume of payday lending and cheque cashing in Canada, although it estimated it had only about 1/3 of the stores. Its estimate of 1/3 of the stores places the entire industry at about 1,050 stores, which is somewhat fewer than the CPLA estimate.

Money Mart reported a total loan volume for its Canadian company-owned stores of US$129,092,000 in Q1/2006. Converting at the average rate of US$1 = CD$1.20 for the three month period, multiplying by four and dividing by 211 (the number of company-owned stores at the end of June 30, 2005) we get $2.9 million loan volume per store, a huge increase from the EY report. The volume has been increasing every quarter. Given that some of the stores were not open for an entire year, and it seems to take several years to reach full volume, $2.9 million is certainly lower than the amount to be expected when the industry matures.

The Cash Store reported several statistics on same store revenues for Q1/2006. In Table 3 I convert these to annual loans volumes in two different ways. Cash Store claims in the most recent financial statements that it charges a brokerage fee of 20% on average to refer loans to the lenders it represents who then charge no more than 59% p.a.[3] One year ago, it was charging 22.5% for the brokerage service. I convert the revenues to loans by dividing by .2 in one column and .225 in the other column. I also multiply by 1.03, because the revenues are net of those loans that were never repaid, which is somewhere in the region of 3%. In subsequent work, I allow for bad debt expenses to be deducted, but I need to start with the gross volume of loans made, which is also the starting point for the EY report.

Table 3 can be interpreted as showing that a single store could expect loan volume

	Q1/2006 Loan Revenue per store	Implied Annual Loan Volume with a fee of 20% (MM)	Implied Annual Loan Volume with a fee of 22.5%(MM)
Table 3: Calculating Store Loan Volume for The Cash Store			
Oldest 20 stores	$177,000	$3.6	$3.2
Next oldest 20 stores	153,000	3.2	2.8
122 stores open a full year	122,000	2.5	2.2

from $2.2 million to $3.6 million. The numbers could be higher if the oldest stores still haven't finished growing. Neither Money Mart nor The Cash Store have shown a period of constant sales per store – same store sales continue to grow much faster than the rate of inflation. In addition, the recommended fee levels will drive many smaller competitors out of business and their customers will migrate to the survivors, increasing per store volume even more.

Let me introduce another factor, the average loan size. It is also growing faster than inflation for both Money Mart and The Cash Store. That growth surely can't continue for long, since paycheques are not increasing that fast. After converting the Money Mart figures from US$, the average loan size for the two companies is CD$368, for the year ended June 30, 2005. Divide that value into $3 million, and you get the average annual number of loans, 8152. A typical payday loan store is open 12 hours a day, six days a week, and about 8 hours on Sunday, for a work week of 80 hours. Some are open shorter hours, particularly in smaller cities, and some are open 24 hours a day.

[3] I have not easily reconciled this disclosure with direct observation. The brokerage fee for a first-time borrower seems to be about 26%, but it will vary somewhat with loan size, and is lower for a repeat customer, since there is less processing time required and the loan becomes less risky with familiarity. There is also a one time charge of $8.00 for a smart card that the store loads with the loan amount. Then, there is a charge of $6.00 for every use of the smart card at a bank ATM. Finally, there is an interest charge. The interest is not much, since there are so many other fees, but in the examples I tried by phone, the rate is higher than the 59% that The Cash Store claims, even using an APR calculation.

If we use 80 hours per week, and 4000 hours per year as the average hours of operation, this comes out to just over two loans made per hour. As I said earlier, this is a very small business.

The staff members also have to do the collection routines of depositing cheques, answer inquiries that don't turn into loans, etc. Nonetheless, we can see that there is plenty of room for further business without increasing costs proportionately. Using the EY figure of $1,850,000 volume p.a., and a loan size of $300, we get only 6,167 loans p.a., or about 1.5 loans per hour. If we look instead to the average volume of $640,000 for the small stores in the EY report and assume a smaller average loan size of $200, we see the store is making only 3,200 loans per year, or less than one per hour of operation.

Whatever assumptions we make about loan volumes for an individual store, these are quite small operations. There is also lots of room for expanded volume in a given store with a proportionately smaller increase in costs. I do not want to delve into the minutiae of how an individual store operates, but a large part of the operating costs we observe in the business are fixed. The operator has to pay rent, telephone and other basic office costs, and at least one employee to keep the business open at all times. If the loan volume is only around two per hour, then most of the cost is fixed – one employee at a time can handle practically everything.

Money Mart and some of the other stores handle a range of other services, with cheque cashing providing a large volume of business and revenue[4]. These companies can spread their fixed costs over a larger volume of business, and hence operate more cheaply. Money Mart currently charges the lowest fees on almost all loans and offers the widest range of other services.

One point of this discussion is to determine what range of total loan volume I am going to base recommended fee structures on. The lower the loan volume per store, the higher the fees must be to compensate for the operating leverage. Because we are not seeing rate competition, and we have customers who are not able to choose the best rate for various reasons, this is a significant decision. Higher fee structures will maintain an inefficient industry, and since government legislation and regulation is hard to change, consumers will be stuck with a permanently flawed situation.

I will analyze regulation of rates with loan volumes of $3 million p.a. and higher per store. Money Mart and Cash Store are almost there already. Money Mart has additional sources of revenue from the same establishments. My recommendations would thus prevent the small operators from earning their cost of capital, except in the uncommon situation where a single store has a high volume. I cannot believe that it is in the public interest to regulate in a way that existing lenders will automatically have excess profits, and when the businesses that cannot compete under the regulations are so small relative to the normal size of a financial services industry branch. Given the consolidation that is underway, the small operators do have a potential exit strategy. A

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[4] While cheque cashing and payday loans are the main source of revenue, other services include money transfers, tax preparation, discounting of tax refunds, currency exchange and electronic bill payment.

regulated level of fees that lets them stay in business by charging unwary consumers excessive fees is not acceptable.

Putting Specific Revenue Numbers into the Structure

The cost to an individual borrower of three different existing fees structures is shown in Table 4. The left-hand set of rates is the previous Money Mart fee. The middle one is a flat 20% of principal, which is a common rate charged by many lenders. The right-hand set is the current rate for The Cash Store, quoted to me by a Cash Store employee in December 2005. The table shows the dollar cost and under it the effective annual interest rate for a variety of loan sizes and maturities. The effective annual rates are very high. Readers who do not understand how effective annual rates are calculated should read Appendix 1, where they are explained, and compared with annual percentage rates.

There isn't much to say about these rates. Money Mart charges much lower rates, both under its old scheme and under its new one, but they are still very high. The rates for any flat percentage charge don't vary by loan size, but they do decline for longer loans. The effective rates for Money Mart and The Cash Store decline with size and time to maturity, because the fee structure contains both fixed and variable fees. A rate structure that has only a flat percentage rate, regardless of time to maturity and size, tends to penalize the larger borrowers in favour of the smaller borrowers. Someone who borrows $100 will take the same amount of time to process as someone who borrows $500. A rate structure with a fixed charge and a variable rate of some sort will charge relatively more on very small loans, and relatively less on large loans, which reflects more accurately the cost curve of the lender.

Table 5 displays the same information for three much lower fee schedules. The left and right hand sections are the two fee structures that I recommend. The middle block is a slightly higher rate structure, but still much lower than those in Table 4. You may view the glass as half full or half empty. The fee structures that I recommend cost the consumer much less, as both the comparable dollar amounts and the EARs demonstrate. On the other hand, the rates are still quite high when compared with conventional loans for larger amounts and longer periods. For example, the fee from the left hand section on a $1000 loan for 28 days is still almost $100, and the EAR is 233%.

I will now turn to cost determination to justify the recommended fee structures.

Table 4: Loan Cost and Effective Annual Rate for Different Fee Schedules Existing Fee Structures												
	Fee = $9.99 + 59% EAR + 7.99% of (principal + interest)[1]				Fee = 20% of principal[2]				Fee = $6 + 26% of principal + 59% EAR[3]			
Principal Days o/s	$100	$300	$500	$1,000	$100	$300	$500	$1,000	$100	$300	$500	$1,000
7	$18.94 *	$36.85 41,959	$54.76 22,474	$99.54 13,984	$20 **	$60 **	$100 **	$200 **	$32.91 **	$86.72 **	$140.53 **	$275.05 **
10	16.30 24624	28.89 2766	41.48 1734	72.96 1207	77,545	The fee stays the same for each size for all maturities. The EAR is the same for each size of loan, but declines with time to maturity			33.30 **	87.89 **	142.48 **	278.96 **
12	16.56 10466	29.67 1661	42.79 1115	75.57 817	25,511				33.56 *	86.67 *	143.79 *	281.57 *
14	16.82 5657	30.46 1144	44.10 806	78.19 612	11,498				33.82 *	89.46 90,036	145.10 76.620	284.19 67,841
21	17.74 1609	33.22 521	48.71 403	87.41 329	2,278				34.74 17,717	92.22 10,452	149.71 9,385	293.41 8,652
28	18.67 831	36.01 338	53.36 275	96.71 233	977				35.67 5,234	95.01 3,511	154.36 3,235	302.71 3.041

The first line of each cell shows the dollar cost of a loan for the amount at the head of the column, maturing in the number of days shown at the left of the row. The second line of each cell shows the effective annual interest rate (EAR) of that fee.

[1] Money Mart's fee structure during period of the financial statements. It has changed since to EAR of 59% + 13.99% of (principal + interest).

[2] A fee structure common among smaller firms. I have seen rates ranging from 15% to 35%.

[3] The Cash Store's existing fee structure, as described to me by a staff member during a telephone call in December 2005. There is also a one-time fee of $8 for a new customer to buy a debit card. The loan balance is loaded on the debit card and the customer then gets the cash from a bank ATM, for an additional fee of $6. The $6 is included in the structure in this table, since it will apply to every loan, but the one-time fee is not. Thus, a first time loan will cost more than the table shows.

* EAR exceeds 100,000%

** EAR exceeds 1,000,000%

Table 5: Loan Cost and Effective Annual Rate for Different Fee Schedules											
Proposed Fee Schedules											
Fee = $10 + 5% of principal + 60% EAR				Fee = $10 + 6% of principal + 60% EAR				Fee + 12% of the first $250 of principal + 6% of the remainder			
$100	$300	$500	$1,000	$100	$300	$500	$1,000	$100	$300	$500	$1,000
Principal Days o/s											
7											
$15.91 *	$27.72 9925	$39.53 5184	$69.05 3152	$16.91 *	$30.72 16023	$44.53 8848	$79.05 5184	$12 36744	$33 22982	$45 8844	$75 4242
10											
16.30 24624	28.89 2766	41.48 1734	72.96 1207	17.30 33694	31.89 3893	46.48 2465	82.96 1734	6158	4411	2223	1301
12											
16.56 10466	29.67 1661	42.79 1115	75.57 817	17.56 13601	32.67 2220	47.79 1506	85.57 1115	3041	2291	1409	802
14											
16.82 5657	30.46 1144	44.10 806	78.19 612	17.82 7089	33.46 1475	49.10 1050	88.19 806	1819	1419	846	559
21											
17.74 1609	33.22 521	48.71 403	87.41 329	18.74 1880	3622 625	53.71 489	97.41 403	617	513	347	251
28											
18.67 831	36.01 338	53.36 275	96.71 233	19.67 939	39.01 392	58.36 322	106.71 275	338	290	208	157

The first line of each cell shows the dollar cost of a loan for the amount at the head of the column, maturing in the number of days shown at the left of the row. The second line of each cell shows the effective annual interest rate (EAR) of that fee.
* EAR exceeds 100,000%

The Cost Function of a Payday Lender

EY provides an extensive discussion of how it investigated the cost structure of payday lenders and I will not repeat it here. One table from the report is particularly useful in my analysis, and I reproduce it here so that readers may see how the EY report presents its findings, as well as the numbers themselves. Table 6, which is Table 5b in the EY report, shows the weighted average cost of providing payday loans, drawn from a large survey EY conducted. This study is dated October 2004, at a time when the industry was somewhat more fragmented and loan volumes for the two largest firms were much lower than they are now.

Table 6: EY Cost Measurements			
Table 5b *Cost of Providing Payday Loans, by Type of Cost and by Size of Business* *Weighted Average of Survey Respondents*			
	Cost per $100 of Payday Loans		
	Average of All firms	Large Businesses	Medium Businesses	Small Businesses
Operating cost	$10.58	$10.31	$12.04	$16.92
Cost of loan capital	.52	.50	.63	.50
Cost of supplementary capital	.57	.56	.63	.69
Bad debt cost	4.02	3.98	4.52	3.11
Total cost	$15.69	$15.35	$17.82	$21.22
EY report, 2004, pp 31.			

Table 6 shows clearly that payday lenders have to charge fees that greatly exceed the Criminal Code limit of 60% in order to stay in business. These costs are economic costs, not just accounting costs, and so they include an allowance for profit, or return on capital. If we accept these costs as stated, then to earn a fair rate of return, the average small payday lender has to charge a flat rate of over 22% in order to find it worthwhile to stay in business. The rate must be over 22%, because some of the loans will go bad, and hence provide no revenue.

I do not accept these costs as being accurate now, because the loan volumes have increased greatly and a part of the operating costs and capital costs are fixed. Let me go through the costs one line at a time.

Operating costs

They are about ¾ of the total cost. These were measured on average loan volumes of $1.85 MM, $1.15 MM and $640,000 per large, medium and small company store, respectively. A large part of the operating costs are fixed over a wide range of volumes. Each store must pay fixed rent and wages for one or two staff at all times, regardless of business volume. Heat, light and telephone will be largely fixed. A very large volume store might need some part-time help and so volume will increase labour costs in an irregular fashion.

As I stated earlier, loan volumes of the two major chains are close to $3 million a year and still growing rapidly. Therefore, we cannot use the EY operating cost measures as a fraction of loan volume – that would overstate the cost significantly. There is a way to use them, however. I have already said that a lot of the operating cost is fixed, and the remainder should vary by loan number, rather than by loan volume. It will take much the same operating costs to process a loan of $100 as a loan of $500. The ideal form of the cost structure is then a fixed cost per store (including head office administration for a chain, which EY does include) and a variable cost per loan transaction. I can extract this from the data in a rather crude fashion by plotting the total cost per store (including allowance for head office costs) against the number of transactions per store. I would prefer to have the results for every store individually, and then I would have a good data set for a linear or even a curvilinear regression. Unfortunately, I do not have that data and cannot get it.[5] The best I can do is to estimate the number of transactions for each size of business, per store, and the total cost, by working backwards from the EY data.

First, the number of transactions. The average size of loan from the EY report is $279. I designed a reasonable distribution of loans around that average that yields a weighted average of $279, and thus a number of loans per store for each of the three size classes of loan volume. I multiplied the loan volumes by the EY operating costs for each size to get total cost per store. When I plot the total operating costs against the number of transactions, it is almost a straight line, with a positive intercept and positive slope. I used a simple linear regression rather than plotting by eye, although of course we should not be blinded by the fact that this is a regression with only three points. The intercept is 62,670, which is the fixed cost, and the slope is 16.03, which is the variable cost per transaction. The R-squared is .996, which simply reflects that it is almost a straight line, but this is still a very crude approximation in the absence of more data. Finally, these numbers are about a year older than the sales volume data that I discussed earlier for Money Mart and The Cash Store. Therefore, I multiply them by 1.03 to allow for inflation, to arrive at a fixed cost of $64,450 per store plus a variable cost of $16.51 per transaction.

Since this is a rather small base of evidence upon which to measure cost, I investigated the public disclosures of Dollar Financial Group Inc., the US parent company of Money Mart and Rentcash Inc., the parent of The Cash Store. Both companies provide substantial financial disclosure beyond the minimum required.

Rentcash has two lines of business: payday loans, and rent-to-own. The latter business is located inside furniture stores and is completely separate. Furthermore, Rentcash discloses the two lines as separate business lines, and breaks down the expenses, even allocating most of the head office expenses to one line or the other. The head office allocation is very heavily to the payday business line (far higher than the proportion of revenue), which I think is somewhat questionable, but I have no way to pursue it further. The Cash Store also provided me with an average loan value in a

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[5] EY does have it, but is not permitted to give it to me under the terms of its survey of payday lenders.

private communication and so I went through the same regression exercise. I divided the total costs by the number of stores, and estimated the number of transactions per store per year. The Cash Store has been opening stores so rapidly that I cannot use the number of stores open at each period end for these processes. I used a variety of assumptions to try different weightings, settling on assuming that the stores opened during the year should have 50% weighting. This process avoids understating costs per store for less than full year operations, but still leaves the understatement due to store costs being applied to less than the volume that is realizeable when the store is fully established. Table 3 shows that the Cash Store is still increasing same store volume, even for its oldest stores.

I used fiscal 2004 and 2005 (June 30 year-ends), plus Sept. 30, 2005 quarter, multiplied by four, to get three data points. There are actually a number of regressions, using different assumptions about the number of transactions, etc. The fits are not as close to a straight line as the EY data, but they still give positive intercepts and slopes that make sense. The cost function for The Cash Store is much higher than the regression based on the EY numbers. There are two reasons for this. First, The Cash Store is growing very fast, and so the costs look high because the stores are not yet bringing in their full revenue, even with my 50% weighting of new stores. Second, The Cash Store has only payday lending as a business line, whereas Money Mart and some of the other large players have other lines of business.

I have already argued that we should use only efficient operations as the guide for setting permissible fee levels. This is generally the case in regulated industries, since otherwise there is no incentive to reduce costs if they can be passed on to consumers regardless of necessity. The efficient model is a chain of stores that are well-established, have several lines of business to share the fixed costs and use current technology. The Cash Store has too many new stores and only one line of business in them.[6] I will not use The Cash Store results in determining my recommendations.

Money Mart provides a wealth of information in its 10-K reports for fiscal 2003, 2004 and 2005, fiscal year June 30.[7] The disclosure in the 10-Q is not sufficient for my purposes, and so I once again can get only three points. Money Mart does not disclose payday lending costs separately, since it is running different businesses in the same store. It does disclose payday loan volume, fee revenue and net bad debt losses for Canada, the UK and the US as separate geographic segments. The EY report uses allocations of expenses to payday lending and other businesses from multi-line providers. When the company did not provide an allocation, EY used percentage of revenue to allocate. This is arbitrary, but there is no right answer for joint costs, as generations of managerial accountants can tell you, and revenue is a reasonable method. I used the percentage of revenue to payday loans as the allocation method to get the total costs for payday lending. Money Mart does disclose average loan size and so determining the number of transactions was possible. I tried several assumptions about the details of the numbers, but the regressions/plots did not prove helpful. The intercept is always negative, which is

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[6] The Cash Store may have added new lines of business currently, but I have seen no evidence that they existed during the historic period of the financial statements I used in the analysis.
[7] All values are in US$. I used average rates from the Bank of Canada to translate into CD$.

impossible. While I believe that I know why this happens, and what it says about the shape of the cost curve, I cannot use the result to estimate fixed and variable costs as I did with the EY and Cash Store numbers.

I turned instead to the EY format for the operating expenses, and divided total expenses for payday lending by total loan volume. Table 7 shows the calculations.

Table 7 Money Mart Operating Expenses			
	2003	2004	2005
Revenue net of loan losses, Canada, US$000	$67,023	$84,466	$108,224
Add back loan losses, US$000	3,247	3,001	5,819
Gross revenue all business lines US$000	70,270	87,467	114,043
Gross revenue, payday loans US$000	22,492	31,479	48,680
Payday as a fraction of total revenue	.32	.36	.43
Operating and head office expense US$000	45,168	65,017	71,902
Average exchange rate US to CD	1.51	1.34	1.25
Operating and head office expense CD$000	68,204	87,123	89,878
Loan volume US$000	248,149	309,016	447,940
Loan volume CD$000	374,705	414,081	559,925
Expenses allocated to payday lending CD$000	21,825	31,364	38,647
Operating cost per $100 loan, CD$	$5.83	$7.57	$6.87
Loan loss rate as % of loan volume	1.3%	1.0%	1.3%
Source of raw figures: Dollar Financial Group Inc. 10-K 2005, pp 71-74. Exchange rates from Bank of Canada. Operating and head office expense is calculated net of depreciation, interest and loan losses.			

The last two lines of Table 7 are the results we need for the cost figures. The operating cost per $100 loan is far below the values from the EY report, and also quite variable. I do not know why the value rose in 2004 to be above the 2003 and 2005 values. I will use $6.87 per $100 loan, or 6.87% of loan volume as a second method of estimating operating cost, and both it and the fixed and variable cost values appear in Table 8.

Cost of Loan Capital

I use the .5% of loan volume value that EY calculated without further adjustment. I believe that EY has overstated the cost of capital rate because it improperly analyzed the risk of the business, but the potential effect of the error is too small to warrant further analysis. This is clearly a cost that varies with loan volume.

Cost of Supplementary Capital

This value will not vary much with volume over quite large ranges. It is return required on the fixed assets and cash balance – the working assets aside from loans receivable. Accordingly, I converted it to a fixed annual sum rather than a percentage of loan volume. The EY value for a large business is .56%, and the loan volume for that category is $1.85 million, which yields an annual fixed cost of $5,802.

Recovery of Start-up Loss

These companies will normally suffer a cash loss on every new store while it builds up loan volume. One private estimate I received was $50 – 75,000 per store. The Cash Store has only started earning large profits this year, partly because of these start-up losses. The companies should be able to expect to earn a rate of return on this capital from start-up, even though it does not appear on the balance sheet under accounting rules. EY did not include this in its costs, but I do. I use a very simple measurement. I allow a 10% real rate of return on $75,000, or $7,500 p.a.

Bad Debt Losses

This is a controversial subject, and small differences in the rate have a material effect on profit. I disagree with the method that EY used to calculate the cost included in its report, and the difference is probably material. EY allowed twice for the cost of capital of the bad debts – once in its cost of loan capital, and once when it included the profit component in the loss. The only cost to the lender is the lost loan principal. Of course, EY does not analyze revenue, and I deduct the lost revenue component in my revenue calculations.

The EY report shows a wide variation in loan loss experience. One company had a loan loss rate of 14% of principal loaned, which presumably means it did not last. Seven of the 19 respondents had loan losses less than 2%; the other 11 experienced losses from 2% to 5.9%. Leaving out the company reporting 14% loan losses, the mean is 2.86%.

I view this loan loss experience rate as higher than what we will see in the long-run, particularly if my recommendations are adopted with significantly lower fees than we currently see in the industry. First, there will be fewer, larger lenders. Borrowers who default will run out of options very quickly. Two, the industry is still growing and its staff members are gaining experience. They will have better judgement in the future. Third, the larger firms are likely to be better at controlling loan losses, and they will dominate the market soon. Note that Money Mart shows loss rates of 1% in one year and 1.3% in two years. I think the overall market will have somewhat higher rates than

Money Mart, and its loan losses will probably increase somewhat as its smaller competitors exit the business and leave their problem customers to Money Mart. In Table 8 I show the effect of bad debt loss rates of 2%, 2.5% and 3% of loan volume. I think that allowing for a 2% rate is the most reasonable choice.

Setting Allowable Fee Schedules

Table 8 is the culmination of the analysis. What it shows is the revenues and expenses, by store, of payday lending companies. The revenues are determined by the fee schedules that I created, and the costs by the cost functions I have discussed in the previous section. The costs include an allowance for a rate of return on capital invested in the business.

The line *fee revenue* is the result of applying the fee schedule at the top of the section of columns to the loans that total the store's volume. *Default interest* is 60% interest collected on loans that are not repaid at the maturity date. I allow no rollover fees in my recommendations, but I do allow an interest cost so that the borrower does have some incentive to pay off as quickly as possible, even after defaulting on the original maturity.

The *Operating Cost* and the *Bad debts* I have discussed in previous sections. *Capital Cost* is the sum of the values for cost of loan capital, cost of supplementary capital and start-up loss recovery. The capital cost values are the same for every scenario. The bad debts have a range of possible values.

The *Excess Profit/-Economic Loss* is not the same as an accountant's definition of profit and loss. This line shows the excess profit or loss after the owner has received or been allocated a fair return on the risky capital invested. Therefore, the perfect competitive equilibrium (achievable only in the dreams of academic economists) is zero in this line. A small loss means an unacceptably low rate of return on capital, but it may still be positive in the accountant's language. A small profit means the owner made more than enough to compensate him or her for the capital at risk.[8]

Panel A shows the effect of imposing my proposed fees on a large firm with $3 million loan volume per store and facing the fixed plus variable cost function I discussed earlier. The first and third blocks are the two possible fee structures that I recommend. Note that they yield a small excess profit if the bad debt rate is 2%, but economic losses if it rises to 2.5%. A fee schedule of $10 plus 6% + 60% EAR is too generous; it essentially breaks even economically at the highest bad debt rate and only the current level of sales.

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[8] Operating costs include an allowance for salary for an owner-manager of a small firm or single store.

	Table 8: Effect on Payday Lenders of Different Fee Schedules and Cost Functions -- Per Store, Per Year								
Panel A: *Loan volume: $3 MM, Fixed Operating Cost = $64,450; Variable Operating Cost = $16.51 per transaction*									
	Fee Schedule $10 + 5% on principal + 60% EAR			Fee Schedule $10 + 6% on principal + 60% EAR			Fee Schedule 12% on first $250; 6% on rest		
Bad debt rate	2%	2.5%	3%	2%	2.5%	3%	2%	2.5%	3%
Fee Revenue	$293,296	$291,729	290,302	$322,696	$321,049	$319,403	$301,179	$299,842	$298,105
Default Interest	19,951	----------------------------------same in all scenarios--							
Operating Cost	220,813	----------------------------------same in all scenarios--							
Capital Cost	28,302	----------------------------------same in all scenarios--							
Bad Debts Exp.	60,000	75,000	90,000	60,000	75,000	90,000	60,000	75,000	90,000
Excess Profit/ -Economic Loss	$4,131	-$12,366	-$28,862	$35,531	$16,884	$238	$12,014	-$,4523	-$21,060
Excess Profit/-Loss as:									
% of total loans	.1	-.4	-1.0	1.1	1.1	.6	0	-.2	-.7
$ per loan	$.44	-$1.31	-$3.05	$3.54	$1.78	$.03	$1.27	-$1.48	-$2.22
Panel B: *At $4 million loan volume, same cost structure as Panel A:*									
Excess Profit/Loss	$31,425	$9,430	-$12,565	$70,265	$48,430	$26,235	$41,935	$19,887	-$2,162
Excess per loan	$2.49	$.75	-$1.00	$5.59	$3.84	$2.08	$3.32	$1.57	-$.17
Panel C: *Loan volume: $3 MM; Operating Cost = $6.87 per loan transaction*									
Everything is the same as Panel A, except for:									
Operating cost	$206,100	----------------------------------same in all scenarios--							
Excess Profit/ - Economic Loss	$18,444	$2,348	-$14,148	$48,244	$31,598	$14,952	$26,727	$10,190	-$6,346
$ per loan	$1.99	$.25	-$1.49	$5.09	$3.34	$1.58	$2.82	$1.08	-$.67

Panel B uses the same fixed and variable cost function, with loan volume of $4 million p.a. As the industry consolidates and Money Mart and The Cash Store become more mature and grab business from the exiting companies, the average loan volume will end up somewhere between $3 and $4 million per store, in today's dollars. I don't think they can get beyond that level across a chain, although individual stores will manage larger volume. The excess profits are higher and now an excess profit is earned at the 2.5% bad debt rate.

Panel C shows the summary of comparable results for $3 million volume and the operating cost function of 6.87% of loan volume. The results with this cost function provide excess profits at 2.5% of loan volume. I have not added a panel with results for this cost function and $4 million loan volume, but the result is what you would expect – more excess profit.

There are many permutations and combinations of fees and cost structures that are possible. The two that I have found that seem to balance consumer interest with maintaining the industry for efficient producers are:

❑ $10 per loan + 5% of the principal + 60% effective annual interest on the principal, or
❑ 12% on the first $250 of principal + 6% on principal exceeding $250.

The first of the two recommended fee structures is my preferred one, since it comes closer to matching the cost function. I estimate a total saving to consumers of $194 million annually. This is an approximation, but it gives a reasonable idea of how much could be saved. Table 9 shows the calculations. These calculations use the new Money Mart fee schedule.

Table 9: Estimate of Savings to Consumers with Adoption of Recommended Fee Schedule				
	Existing fee	Number of stores	Fee reduction per store	Total Company Reduction 000s
Money Mart	59% EAR + 13.99% of (princ +int)	350	$141,931	$49,676
Cash Store	$6 + 59% EAR + 26% of principal	298	270,164	80,509
All the rest	20% of principal (assumed average)	652	97,571	63,616
TOTALS		1300		$193,801

Appendix 1: Calculating Annual Interest Rates

Interest rate calculations to convert interest rates for short periods into annual rates may follow one of two conventions: effective annual rate (EAR), or annual percentage rate (APR). As long as the reader knows which convention is followed, conversion is simple. However, when trying to determine the economic nature of short-term interest rates, the EAR is much more revealing, and is closer to economic reality.

The APR assumes implicitly that the interest and principal repaid by a borrower is not reinvested at the same rate on a compound basis. Only the principal is reinvested. As a result, the formula for an APR is:

$$APR = m \times (1 + i_m)$$

where:
m = the number of periods in the year
i_m = the interest rate for the period.

The EAR assumes implicitly that any money received from a borrower, including interest, is reinvested at exactly the same rate of return. Thus, the interest compounds continually during the year. While this is not exactly true, it is reasonably close to reality. Since interest rates do fluctuate, the actual return a borrower receives is somewhat variable over the year. Nonetheless, the EAR is closer to economic reality than the APR, since it does assume that the periodic interest is also reinvested. Even if a lender does not actually reinvest the money, he gets the benefit of receiving it earlier than year end. The formula for an EAR is:

$$EAR = (1 + i_m)^{\frac{365}{m}} - 1$$

The difference isn't that large for a typical consumer loan where interest is charged monthly, but it becomes very large for payday loans with their short periods and high rates. Two examples will illustrate this, using a loan of $300 for 14 days (which means 26.14 periods per year, or m = 26.14 if we want to be very accurate, although accuracy is somewhat superfluous with such large interest rates).

Example 1: A fee of 20% of principal

APR = 20% X 26.14 = 523%

EAR = $(1.2)^{26.14} - 1 = 11,644\%.$

Example 2 : A fee of $10.00 + 60% EAR + 5% X principal

The fee is $10 + $300 X $(1.60^{14/365}$-1) + 5% X $300
= $10 + .0182 X 300 + $15 = 30.46

APR = 30.46/300 X 26.14 = 265%

$$\text{EAR} = \underline{(1 + 30.46/300)^{26.14} - 1 = 1153\%.}$$

Note that values in the main body of the report are sometimes calculated using different numbers of decimal places and can vary slightly.