

Payday Lending:
Grounding the Policy Debate Through
Economic Analysis

by

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An honors thesis submitted in partial fulfillment

of the requirements for the degree of

Bachelor of Science

Undergraduate College

Leonard N. Stern School of Business

New York University

May 2009

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Abstract

Few legal businesses can lay claim to a reputation as bad as payday lenders. This study builds on an emerging understanding of payday lending as a business and compares key metrics to traditional lenders. The payday lenders included in this study account for approximately 25% of the stores in the United States. The results seem to disprove the claim that payday loans are much riskier than more mainstream consumer loans. Payday charge-off ratios appear tightly clustered around the averages for consumer loans, and slightly below credit card averages. The majority of costs in issuing a payday loan are derived from store level operations. The argument that high charge-off expense drives the very high fees of payday loans is invalid. It appears that high overall costs do, however, largely justify high fees. The average actual rate charged, however, is nevertheless substantially higher than what the company would need to show an operating profit. At high volumes, where fixed costs are a smaller fraction of revenues, payday lending is a highly profitable business. There is a challenge in reaching this volume, however, due to high store growth and competition. Even with considerably higher leverage, traditional lenders show an ROE that is only similar to that of the payday lenders in normal years. Considering this fact, along with the very high ROA of payday lenders, it would seem that payday lending as a business is more profitable than mainstream consumer lending.

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1. Introduction

Few legal businesses can lay claim to a reputation as bad as payday lenders. Consumer advocates and journalists have branded them everything from “predators” to “legal loan sharks,” and lawmakers have passed ever stiffening regulations to try to limit business. But standing in stark contrast to the constant barrage of bad publicity, payday lenders are flourishing. In 2006, the number of stores issuing payday loans surpassed the number of Starbucks and McDonalds combined (Kirchhoff, 2006, p. B1), despite bans on payday loans in the populous states of New York, New Jersey, and Connecticut.

Payday loans are defined by two elements: A small loan principal (typically \$200-500) and a short maturity (generally around 14 days). But despite the industry’s best efforts, payday lending has become equally associated with high fees that have sparked nearly two decades of heated debate, litigation, and public policy battles.

The colloquial name derives from the product’s stated purpose: To provide cash to fulfill immediate obligations until the borrower’s next payday. In a process that takes no more than 15-20 minutes, the borrower furnishes a pay stub, valid ID, and a postdated check made out to the lender and receives a cash advance. When the loan becomes due about 2 weeks later, he can choose to pay back the amount borrowed plus anywhere from 15-25% in fees, or pay fees only and “rollover” the principal. The APR on this transaction will range from 391-651%.¹

¹ Because fees are fixed for payday loans, there is no compounding of interest. The APR calculation simply scales the interest paid to a year. The formula is thus [# of periods per year * that period’s interest rate].

The roots of payday lending trace back to the end of the 19th century (Drysdale & Keest, 2000, pp. 618-619)², but its modern form did not fully evolve until the early 1990s. As lenders became increasingly ubiquitous, a moral debate began over whether the industry was predatory in nature. Until very recently, however, research into the industry was basically limited to issues of public policy and jurisprudence. Industry groups and consumer advocates traded volleys based primarily on speculation, intuition, and anecdotal evidence. Truly objective, economic analysis on the payday industry was essentially unavailable until the FDIC published a study in 2005.

The analysis presented here continues to build on an emerging understanding of payday lending as a business. Data from five payday lending chains is analyzed with an eye towards understanding how the dynamics of the payday lending industry differ from more traditional consumer finance companies. This study compares key metrics of the payday lenders with three mainstream finance companies, and tests the hypotheses of previous researchers against this data. It evaluates some key tenets of advocacy positions, while making every attempt to remain neutral. Indeed, the conclusions here may provide ammunition to camps on either side of the debate.

The analysis finds that payday loan default rates are effectively equal to the default rates of traditional consumer finance companies and less than that of credit card companies. While default risk is low, however, fixed costs are high enough that, at current volumes, very high interest rates are necessary for stores to show a profit. Lenders charge interest rates that are significantly higher than this implied breakeven rate, however, and earn better rates of return on invested capital with less market risk than mainstream lenders.

² They note the “salary buyers” and “five-for-six boys” that sprang up near the turn of the century.

2. The Business Environment

2.1. A Brief History of the Payday Loan

In less than 25 years, the payday industry has grown from a black market business evading the law to a regulated enterprise complete with its own lobbyists on Capitol Hill. Payday lending's modern form emerged from the 1980s as an illegal enterprise conducting business through "artful dodges" (Drysdale & Keest, 2000, p. 604) that presented loans as delayed check cashing services. These early operations spread across the Midwest, escaping prosecution with increasingly brazen justifications³ before regulations effectively legalized them in the early '90s. Since then, the speed of the industry's gains in legitimacy has been surpassed only by a breathtaking increase in revenues. ACE Cash Express, a leading provider of payday loans in the US, estimates that loan volume in the US increased ten-fold from \$3.5 billion in 1998 to \$40 billion by 2005 (ACE Cash Express, 2006, p. 5). The leading industry trade group spent \$1.4 million in 2008 lobbying congress on behalf of more than 23,000 payday lending stores (Davis, 2009).

A confluence of economic and cultural shifts has contributed to the rise of the payday loan from its dubious beginnings. Drysdale and Keest, tracking the history of usury laws, highlight the growth as a side effect of the "credit boom" of the '90s (p. 13). As mainstream consumer lenders found higher margins and burgeoning demand in the market for larger automobile and home equity loans, credit cards replaced personal loans as the typical short-term credit solution. The change opened a market of individuals that were either unable or unwilling

³ To evade regulations, lenders typically present the loan as a rebate or some other non-credit transaction. It is unclear if such practices continue, but the companies focused on in this paper have taken great pains to dissociate from payday lending's black market beginnings. The stigma remains.

to obtain a credit card and “created a void that grew under the radar screen of regulators, policy makers, and, for a time, even the mainstream industry” (p. 13). Additionally, the high inflation rates of the ‘80s and the resultant relaxation of existing interest rate caps paved the way for eventual legalization of alternative loans.

These market-based explanations are incomplete in that they leave out the impact of social forces and changing demographics in driving the surge in demand. Growing evidence points out an increasing proportion of Americans that are “underbanked” (Barr, 2004, p. 2). For these individuals, real or perceived costs and fees of maintaining traditional banking services pose too high of a hurdle to maintain mainstream credit. Anecdotal evidence also suggests that there is deep distrust of traditional banks among those with lower incomes, especially within immigrant communities (McGray, 2008). Payday lenders have been successful at cultivating trust by hiring within local communities and maintaining multi-lingual staff (McGray). They create one stop shops of alternative finance, frequently augmenting cash advances with other informal banking services like check cashing and wire transfers.

2.2. The Regulatory Environment

It is impossible to understand the payday environment without acknowledging the uncertainty of the regulations surrounding the industry. Payday lending is effectively legal in 35 states, but a November 2008 referendum in Ohio is likely to lead to an interest rate cap that will make it the 16th state to effectively ban the industry. Laws rarely ban payday lending outright, however, instead imposing interest rate caps. As such, it is difficult to clearly define the legality of lending in different states. Laws change frequently, and national lending chains must operate under a different set of regulations and interest rate caps in each state.

Since the early '90s, the general trend in regulations has gone against the industry. From time to time, states have passed increasingly strict regulations. At the federal level, the ability of lenders to export the origination of loans to states with looser interest rate caps (the “rent-a-bank” model) was blocked in 2005. In 2006, Congress effectively prohibited the advancing of payday loans to members of the military. There is proposed federal legislation would cap effective APRs at 391% (New York Times Editorial Board, 2009). It is by no means certain that regulations will continue to become increasingly stiff, however, especially in the face of intense lobbying efforts: “It is unclear whether other states will follow the lead of Georgia and ban [payday loans,]...Florida and create effective regulation, or maintain the safe harbors...that exist in the majority of states” (Kenneth, 2008). While the potential for tighter regulatory controls poses a serious and unpredictable threat to the payday loan industry, any devastating effects are likely to be felt only in the long term, as states pass legislation on an individual basis.

The stringency of laws seems to have a critical impact on prices charged for loans, however. An analysis of data collected from payday lenders in Colorado found that 92.75% of issued loans carried the maximum fee allowed by law (Chessin, 2006, p. 409). Flannery and Samolyk similarly find a “tight range of fees charged, concentrated at or slightly below the maximum fee permitted” and an “absence of customer price sensitivity” (p. 21).

This finding suggests that borrowers are especially insensitive to price, and that lenders compete along different attributes. Critics of the industry have used this idea to shoot down the argument that fees are set by competition. Instead, they argue, lenders extract maximum value from borrowers due to unequal bargaining power resulting from the desperation and ignorance of borrowers (Drysdale & Keest, 2000, p. 643). This perception that payday lenders reap rich profits with unbounded fees is a key holding of anti-payday consumer advocacy groups.

2.3. Advocacy Positions

Industry annual reports provide data on the attributes of who they argue is the “typical” borrower: “[She is] 43...She works as a professional and makes over \$30,000 a year. She owns her car but not a house” (Dollar Financial Corporation, 2008). Advance America’s marketing literature targets “the people who make America work, because they do the work of America” (Advance America Website).

The implication is that the payday product is a bridge through a financial rough patch for individuals with a steady income. An oft-quoted analogy likens the loans to a financial taxi: Expensive for long trips, but perfectly viable for short distances (Huckstep, 2007, p. 207). Lenders even argue that apparently high fees can be a bargain in the face of the embarrassment and fees of late payments and bounced checks. Furthermore, they make the basic economic argument that lending to individuals with tight cash flows inherently carries more risk, and that higher fees are required to compensate for high charge off expenses.

Critics reject this justification arguing that payday loans provide an illusory quick fix to a long term problem. Because borrowers are unlikely to be in significantly better financial shape when the loan matures two weeks later, consumer advocates warn that payday loans encourage repeat borrowing and loan “rollovers” in which only interest is paid and the maturity is extended (Drysdale & Keest, 2000, p. 6). Criticisms of the industry generally focus on repeated rollovers as the biggest danger to borrowers. Anecdotes relate the stories of people in a desperate situation who end up paying multiples of their initial loan size in interest before ever paying off the principal.

Whether or not payday lending encourages irresponsibility is beyond the scope of this paper, but neither of these views is completely accurate. As with all forms of credit, there are

borrowers who use funds responsibly and borrowers who overextend themselves and find themselves in worse financial straits. Understanding anti-payday advocates is relevant, however, because critics have argued that the payday industry cannot survive without chronic borrowers regularly rolling over loans in cycles of debt (Chessin, 2006, p. 411). Brooks goes as far as to suggest that payday lenders attempt keep borrower credit ratings low to cut them off from mainstream credit⁴ (Brooks, 2006). Analyzing profitability below, I provide a starting point for evaluating the legitimacy of claims on both sides of the policy debate.

2.4. Overview of the Economic Literature

In a breakthrough study published by the FDIC in 2005, Flannery and Samolyk question the objectivity of previous economic research on the payday lending industry, characterizing it as “bound up in advocacy positions for or against the industry” (Flannery & Samolyk, 2005, p. 7). Before this study, “there [was] relatively little evidence about the costs, default losses, and operating performance of payday advance firms” (p. 1). Most research was generally made up of legal reviews, surveys of consumers, and position papers either for or against the industry. Flannery and Samolyk obtained data from two private payday lending chains and performed an extensive regression analysis to examine the profitability of firms in the industry. They conclude that high loan losses and operating losses account for “a great extent” of high payday fees (Flannery & Samolyk, 2005, p. 21). They find store loan volume to be the primary factor driving profitability. Rollover loans contribute to profitability to the extent that they contribute to greater loan volume.

⁴ He reasons that if payday lenders reported positive credit events, borrowers would eventually qualify for superior credit terms at mainstream lenders and avoid payday loans altogether.

Huckstep examines publicly available data from seven payday lenders, focusing on store level data from a single quarter. Building on the Flannery and Samolyk study, he draws a direct connection between excessive profit and need for regulation. He argues that, if profits are not particularly high, “then the call for regulation should be based solely in principle, moral, or other subjective reasoning—not on high fees” (Huckstep, 2007, p. 204). He compares payday financial data to several different mainstream finance companies finding high expenses and low profit margins. With regard to per-store profitability, he concludes that “if companies should be limited to a certain profitability measure, citizens would be better off fighting Starbucks than their local payday lender” (Huckstep, 2007, p. 228).

These two studies represent the most important economic research on the industry. These authors’ key conclusions and the claims of advocacy groups, serve as the starting point for analysis, with additional research noted where relevant.

3. Study Overview

3.1. Data and Potential Shortcomings

Financial data from publicly available 10-k reports filed by five different payday lenders forms the core of this study’s data set. Four of these companies (Advance America, Cash America, Dollar Financial, and QC Holdings) are publicly traded. The fifth company, ACE Cash Express is not publicly held, but filed a 10-k with the SEC as recently as 2006. Publicly available financial information from three more traditional consumer finance companies (GE Capital; HSBC Finance Corporation; and American General Finance, a subsidiary of AIG) and the Federal Reserve is employed as a point of comparison.

There is a complication resulting from those firms that engage in multiple lines of business. Payday lenders generally also engage in check cashing and pawn lending; traditional

finance companies also lend to businesses and homebuyers. Advance America is the only pure payday lender of the sample, and the breakeven analyses here rely heavily on this single company's data. In examining loan losses, however, the sample is broader, using data specifically from the payday lending. In the case of the consumer finance companies, only typical consumer loans are considered. It is generally impossible, however, to disaggregate expenses and net income to calculate measures of firm wide profitability. And so, while that analysis is illustrative of key differences between payday and mainstream lending, the study's firm wide conclusions is unavoidably affected by some lines of business that are outside the focus of this paper.

The payday lenders included in this study reported a total of 5,955 stores offering payday loans in the US in 2006. These companies account for approximately 25% of the stores in the United States.⁵ This sample should be generally representative of the population of payday lenders in the United States, but because it is almost entirely composed of public companies, there may be noteworthy differences with private lenders and single store companies. The consumer finance companies included are representative of the typical large mainstream consumer lender, and the Federal Reserve data are assumed to population averages.

3.2. Research Questions

This study's research goal is to understand the dynamics of the payday loan industry: How these companies generate value for their shareholders, and what their economic costs of doing business are. There are a number of frequently cited, but rarely examined, claims circulating about the payday industry. This paper first examines loan losses to understand how

⁵ ACE Cash Express estimates 23,000-24,000 lenders in 2006 (ACE Cash Express, 2006).

they compare with traditional lenders and how much they impact profitability. Building on this, the analysis turns to the cost structure of a payday loan and calculates the implied breakeven point in terms of both APR and volume. Finally, the study looks at key firm-level profitability measures to understand how payday lenders differ from their mainstream counterparts.

4. Analysis

4.1. Loan losses

A chief justification for high loan fees has been an assumed high credit risk for payday borrowers. The rationale is straightforward: Lenders demand a higher rate of return to compensate for a higher default risk. Flannery and Samolyk essentially take high default risk as given for payday borrowers.⁶ Huckstep, however, determines that while “loan losses may be high...that seems to be a trait of the lending industry generally, rather than a unique trait of payday lending institutions” (Huckstep, 2007, p. 230).

Part of the confusion surrounding the cost of loan losses stems from the variety of metrics used to measure defaults. Traditional finance companies generally present defaults as a percentage of loans outstanding. As noted by Flannery and Samolyk, Payday lenders suffer tremendous loan losses by this measure.

⁶ Huckstep notes the lack of a clear benchmark as the key weakness of the Flannery and Samolyk study.

Exhibit 1: Ratio of Loan Losses to Current Portfolio of Outstanding Loans					
		2005	2006	2007	2008
Advance America			45.27%	59.53%	
Cash America			102.41%		
QC Holdings	77.76%		54.17%		
ACE Cash Express	85.96%		79.44%		
Dollar Financial Corp.				37.23%	45.79%
Payday Average		82%	70%	48%	46%
American General Finance	5.55%		4.22%	4.76%	
HSBC Finance			0.38%	0.66%	
GE Capital				0.82%	1.10%
Mainstream Average		6%	2%	2%	1%

When annual write-offs are measured against current receivables, the default experience appears prohibitively high, especially when contrasted with the apparently minimal losses of traditional finance companies. Because of the short maturity of payday loans, however, this metric is a meaningless indicator of the true loss experience of payday lenders. While a payday lender's average loan maturity is 14-20 days, consumer finance companies issue loans over at least several years or on a revolving basis. At any given moment then, a payday lender's loan portfolio represents only a small fraction of loans that it will issue and collect in a year—essentially, the denominator for this ratio is exceedingly small in comparison to mainstream lenders.

The vast difference in loan maturities creates a challenge in measuring loan losses in a way that can accurately compare the real impact these losses have on profitability. Huckstep proposes using the ratio of loan losses to revenues. Unfortunately, information on revenues derived specifically from mainstream consumer loans is not readily available, making it impossible to calculate meaningful statistics to compare with payday lenders. Therefore, this

analysis first focuses specifically on understanding the frequency of defaults, assessing the impact of loan losses on profitability in the next section.

The best way to measure incidences of defaults is to compare charge-off rates, defined as the percentage of loans (measured in dollars) that are eventually written off as uncollectible. This ratio is computed for payday lenders by dividing annual charge-offs by the amount of loans originated in the period. The Federal Reserve calculates, categorizes, and publishes average charge-off rates for loans issued by all US commercial banks; the charge-off rate for the Fed’s consumer loan category can thus be treated as the population average. Exhibit 2 compares these data, averaging the quarterly statistics from the Fed into a single annual figure.⁷

Exhibit 2: Charge-Off Ratios of Payday Lenders vs. Commercial Bank Averages					
	2005	2006	2007	2008	
Payday Lenders					
Advance America	1.52%	2.64%	3.05%	3.79%	
Cash America	6.16%	5.10%			
QC Holdings	4.17%	3.40%			
ACE Cash Express	3.92%	4.01%			
Dollar Financial Corp.		1.04%	2.31%	2.85%	
Federal Reserve Data					
All Consumer Loans	2.75%	2.05%	2.48%	3.51%	
Credit Cards Only	4.84%	3.64%	4.00%	5.52%	

This comparison paints a very different picture than the previous exhibit. It is immediately apparent that the charge-off ratios far more similar than the ratio of charge-offs to loans outstanding. The payday charge-off ratios appear tightly clustered around the presented Fed overall population averages, and slightly below credit card averages.

A paired t-test analyzes these further, using the difference between observed payday charge-off rates and the corresponding annual average from the Fed as the test statistic. Each

⁷ These data are updated regularly and are available online at <http://federalreserve.gov/releases/chargeoff/chgallnsa.htm>.

observed charge-off ratio is compared with the Federal Reserve average for the year in which it was observed. Pairing variables in this way should control for the influence of the external economic environment. Exhibit 3 first presents the results of basic two-tailed tests to determine whether there is a statistically significant difference between payday charge-offs and the average for both aggregate consumer loans and credit cards. It then presents the results of additional one-tailed tests to better understand the magnitude of the differences.

Exhibit 3: Summary of Paired T-Tests of Charge-Off Ratios: Payday vs Commercial Banks					
	N	Mean	Standard Deviation	Test Hypothesis	P-Value
Difference Between Payday Charge-Offs And All Consumer Loans (Payday-Consumers)					
	17	0.74	1.332	Mean Difference not = 0	0.036
	17	0.74	1.332	Mean Difference >.25	0.074
Difference Between Payday Charge-Offs And Credit Cards (Payday-Credit Cards)					
	17	-1.174	1.457	Mean Difference not = 0	0.0004
	17	-1.174	1.457	Mean Difference <.5	0.037
	17	-1.174	1.457	Mean Difference <1	0.315
Shaded results signify significance beyond a 95% level of confidence					

These results seem to disprove the claim that payday loans are much riskier than more mainstream consumer loans. While the tests show the payday charge-off ratio to be statistically larger than the overall commercial bank average, the difference is small, and the tests fail to statistically prove that the difference is more than .25%. Payday loans are also less likely to default than the average credit card, with the statistically significant difference larger than .5%. This finding is counterintuitive when considering the assumption that payday borrowers are unable to obtain credit cards because of poor credit histories.

The critical finding here is the similarity in loan loss frequency. If credit risk were the determining factor driving the price of payday loans, we would expect to find interest rates very similar to those mainstream loans. According to data on interest rates collected by the Fed, the average consumer credit card APR has crept as high as 15.37% since 2000.⁸ More punitive rates

⁸ These data are available online at http://www.federalreserve.gov/releases/g19/hist/cc_hist_tc.html.

for cardholders in default are in the range of 30%.⁹ APRs on payday loans are routinely more than ten-times as high as these rates. With these comparisons in mind, it is clear that loan losses do not explain the costs of payday loans.

4.2. The Costs of Lending

High prices on payday loans despite low default risk might lead to the assumption that payday lenders generate tremendous profits, but payday lenders incur significant fixed costs “to promote customer convenience” (Huckstep, 2007, p. 231). Previous authors have supported the industry’s contention that occupancy and salary costs are so high that payday lending is not especially profitable. Understanding the real costs of payday lending is thus crucial to determine how much of a fee is retained for profit.

This study repeats an analysis performed by Deloitte Financial Advisory Services (“Deloitte”) for a Canadian payday lending trade group. Deloitte gathered data by requesting information from twelve payday lenders in British Columbia and then calculated the costs of providing a payday loan in terms of the cost per \$100 lent (Deloitte Financial Advisory Services, 2008).

The analysis presented here uses data from Advance America, a company which derives nearly 100% of its revenues from payday lending operations and owns more than 10% of payday stores in the United States. Fixed expenses are broken down between the store level and corporate level. Store level expenses include salary and occupancy expenses, marketing expenses, depreciation of stores, and other expenses specific to individual stores.

The loan loss provision has been subtracted from store level expenses. Corporate level expenses include general/administrative costs and depreciation, but do not include interest

⁹ This figure was gleaned from a recent web search of credit card offers.

expenses, one-time losses/impairments, or taxes. These costs are then allocated to each dollar lent and scaled to \$100. Bad debt expense is calculated separately by multiplying the charge-off ratio by the \$100 principal. There is also an opportunity cost of capital in issuing a new loan, but because both the dollar amount and time period is so small for this illustration, it can be safely ignored without seriously affecting conclusions.

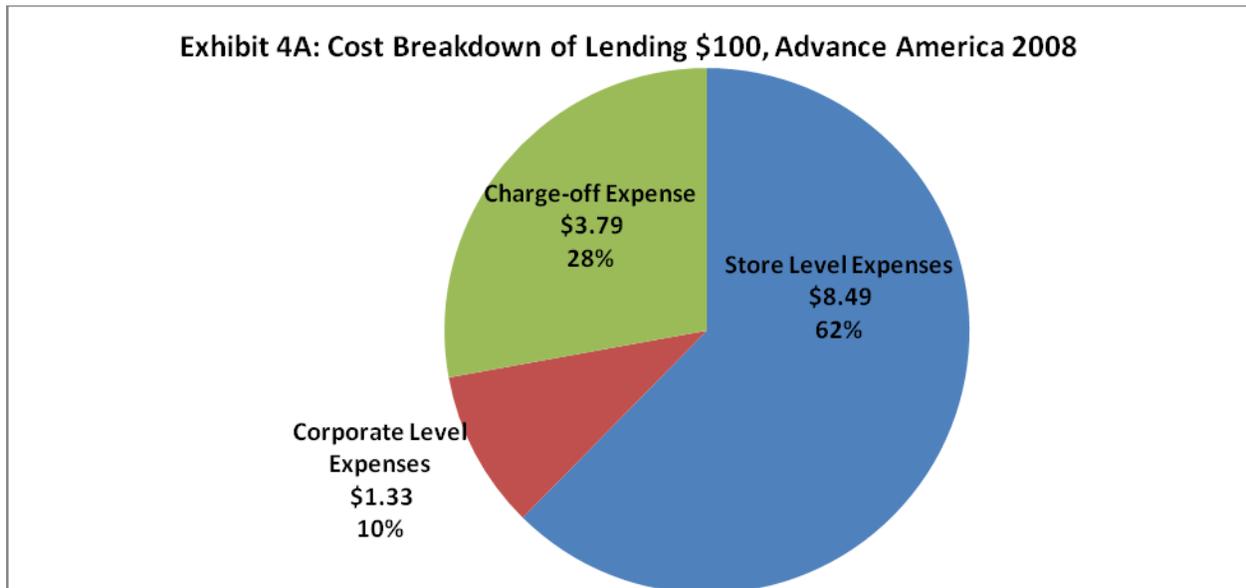


Exhibit 4b: Profit Per Loan						
	2003	2004	2005	2006	2007	2008
Total Costs	\$12.24	\$11.72	\$11.65	\$12.97	\$13.76	\$13.61
Average Fee Per \$100	\$16.20	\$15.85	\$16.21	\$15.58	\$15.24	\$15.03
Profit Per \$100 Lent	\$3.96	\$4.14	\$4.55	\$2.61	\$1.48	\$1.42
% Margin	32%	35%	39%	20%	11%	10%

The majority of costs in issuing a payday loan are derived from store level operations. Loan losses represent a smaller, but significant portion of the cost of operations, despite charge-off rates that are not especially high compared to mainstream lenders. This confirms Huckstep’s conclusion regarding loan losses: In the lending business, even low charge-offs contribute

substantially to costs. This observation helps to clarify a central point of confusion about payday lending. Charge-offs are indeed a significant contributor to costs, but they neither account for the majority of costs, nor do they occur with substantially more frequency than mainstream lenders. Taken by itself, then, the argument that high charge-off expense drives the very high fees of payday loans is invalid.

From Exhibit 4B, it appears that high overall costs do, in fact, largely justify high fees. Of the \$15.03 average fee per \$100 lent in 2008, only \$1.42 was retained as profit—a profit margin of 10.4%. Even in 2005, when this margin was substantially higher, issuing a loan still cost over \$11 per \$100 lent. From these data alone, then, it appears that the costs of convenience are significantly limiting on profitability for payday lenders.

The chart also reveals a trend of decreasing profit margins over time. Given the limited number of observations, it is impossible to be sure if these costs have increased as part of a larger trend or simply because of random variability, but payday lenders have expressed concern about limited growth opportunities moving forward as the industry matures. The Advance America 2008 annual report even goes as far as to claim that the “Industry has largely stopped growing” (Advance America, 2008).

The reduction in margins might be part of a trend related to the maturation of the payday industry. A later section will show that intensified competition appears to be diminishing loan volume at individual stores. It is less clear, however, what will happen to margins moving forward, as companies stop investing in new stores. Flannery and Samolyk found that new payday stores require several years to reach full profitability. 2008 represented the first year in its history that Advance America closed more stores than it opened. As existing stores mature, the losses of young stores may weigh less on profits, increasing margins. Conversely, competition

may be intensifying to the point that the very high margins of several years ago are no longer sustainable.

4.3. Breakeven Analysis

4.3.1. In Terms of Price

Because they are examined in terms of \$100 lent, the costs presented in Exhibit 4 can easily be thought of in terms of percentages of principal. The fee required to break even as a percentage of principal will be equal to the percentage of costs per \$100 lent. This makes it possible to calculate the implied breakeven price in terms of an APR. Assuming a 14 day maturity, the effective breakeven and actual APRs for Advance America from 2003-2008 were as follows:¹⁰

Exhibit 5: Advance America's Breakeven vs Actual APR						
	2003	2004	2005	2006	2007	2008
Total Cost Per \$100 Lent (%)	12.24%	11.72%	11.65%	12.97%	13.76%	13.61%
Actual Average Fee per \$100 Lent	16.20%	15.85%	16.22%	15.58%	15.24%	15.03%
Breakeven APR, 14 day Maturity (%)	319%	305%	304%	338%	359%	355%
Actual Average APR Charged	422%	413%	423%	406%	397%	392%
Interest Charged in Excess of Breakeven	103%	108%	119%	68%	39%	37%

Considering the breakeven points in terms of APRs supports industry claims that very high APRs are required for payday lending to be a viable enterprise. Even in 2005, when average costs were the lowest for the range of data examined, the implied breakeven APR was over 300%. In 2007 and 2008, higher average costs drove this figure to over 350%. Previous literature has noted that, because costs are high, profits are not as excessive as high fees might imply. The average actual rate charged, however, is nevertheless substantially higher than what the company

¹⁰ APR = (# of periods) (fees) In this case we assume a 14 day maturity or 365/14 periods.

would need to show an operating profit. The high levels of interest in excess of the breakeven are strong evidence of high profits in the payday industry.

It is important to note, however, that the interest rate in excess of the breakeven point decreased sharply from 2006 to 2008. This is partly the result of the average loan size growing faster than the average fee charged. This is a trend consistent across the industry. Growth in dollars lent surpasses growth in number of loans issued, but lenders profit less per loan because some states limit finance charges on higher amounts of principal.

4.3.2. In Terms of Volume

Allocating the cost of operations to a single loan or to each dollar assumes the ratio of fixed costs to loan volume is constant. Put differently, it effectively treats fixed costs as variable. In reality, fixed costs per loan (and by extension, the breakeven price of a loan) are a function of total loan volume. To the extent that additional loans can be issued with existing resources, the fixed costs allocated to each loan will drop, and profit per loan will increase. The previous breakeven analysis also assumed constant volume and derived the APR required to turn a profit. Since it seems that APRs charged in practice are effectively fixed at or near the legal maximum, however, payday profits are probably more a function of volume than price. To find the breakeven volume for payday lenders, the following analysis assumes that the only variable cost is the expense associated with charge-offs. While there is surely some additional cost per loan (if only from office supplies, etc.) this is assumed to be negligible. Workers at payday lenders are paid a fixed salary and so there is no incremental compensation expense associated with writing a loan. Again, the analysis uses data from Advance America, the only pure payday lender of the data set.

Exhibit 6 calculates the contribution ratio, defined as: (Price Per Loan – Variable Costs) / Price Per Loan.

Exhibit 6: Advance America's Contribution Margin						
	2003	2004	2005	2006	2007	2008
Average Fee	\$52	\$52	\$55	\$55	\$55	\$55
Average Loan Amount	\$321	\$328	\$339	\$353	\$361	\$366
Charge-off Ratio	3%	2%	2%	3%	3%	4%
Charge-off Cost per Loan	\$10	\$7	\$5	\$9	\$11	\$14
Contribution Margin	81%	86%	91%	83%	80%	75%

As expected from previous analysis, the contribution per loan is quite high. Loan losses have already been established as small, and there are no additional variable costs. This observation may seem tautological, but it reveals an important idea about the payday lending industry: Each loan issued is extremely profitable. We have seen that fixed costs can seriously erode this profitability, but at high volumes, where fixed costs are a smaller fraction of revenues, payday lending is a highly profitable business. From the contribution ratio, we can derive the breakeven point defined in terms of the number of loans issued. Both calculations assume that the average loan size and corresponding fee remain constant. The fixed costs here are the same costs as the previous breakeven analysis. Exhibit 7 presents the implied breakeven volumes at the firm and store level.

Exhibit 7: Advance America's Breakeven Volumes						
	2003	2004	2005	2006	2007	2008
Contribution per Loan	\$42	\$45	\$50	\$46	\$44	\$41
Contribution per Dollar	\$0.13	\$0.14	\$0.15	\$0.13	\$0.12	\$0.11
Total costs (treated as fixed)	\$299,794	\$362,291	\$399,624	\$421,832	\$462,145	\$421,832
Firm Level (in thousands):						
Breakeven Loan Volume (#)	7115	8086	8019	9231	10509	10258
Breakeven Loan Volume (\$)	\$2,283,995	\$2,652,158	\$2,721,497	\$3,258,651	\$3,793,738	\$3,754,586
Per Store:						
Breakeven Loan Volume (#)	3490	3358	3079	3236	3711	3668
Breakeven Loan Volume (\$)	\$1,120,155	\$1,101,395	\$1,045,122	\$1,142,184	\$1,339,597	\$1,342,362
Per Store Per Day:						
Breakeven Loan Volume (#)	10	9	8	9	10	10
Breakeven Loan Volume (\$)	\$3,069	\$3,018	\$2,863	\$3,129	\$3,670	\$3,678

While it is difficult to analyze the firm level figures without a clear benchmark, breaking the data down to the daily, store level provides some context. The daily loan volume required to breakeven is strikingly small. During the period, the average store needed to lend about \$2800-\$3700 to break even: 8-10 loans daily. Given the rapid growth in payday lending and high demand, we might expect lenders to easily surpass such low volumes. For 2007 and 2008, however, Advance America's average daily store volume was between 11 and 12 loans—Less than one loan per hour.

Loan volumes that seem smaller than expected are likely limited by growth and competition. New stores see low loan volume before reaching full profitability. Competition limits loan volume by offering consumers different outlets for a product that is difficult to differentiate. Volume is also limited by cannibalization of a firm's own customers. Because payday lenders compete by offering convenience to customers, there is a drive to open more stores and be open for longer hours, both of which drive up costs. It is unclear, however, what

will happen to profitability as the industry matures and fewer new stores open. If an equilibrium is reached where competition limits volume to current levels, profitability will likely remain near current levels. If firms slow investment while seeing gains in volume as current stores mature, profitability may start to approach the very high levels observed on a per-loan basis.

4.4. Firm Wide Profitability

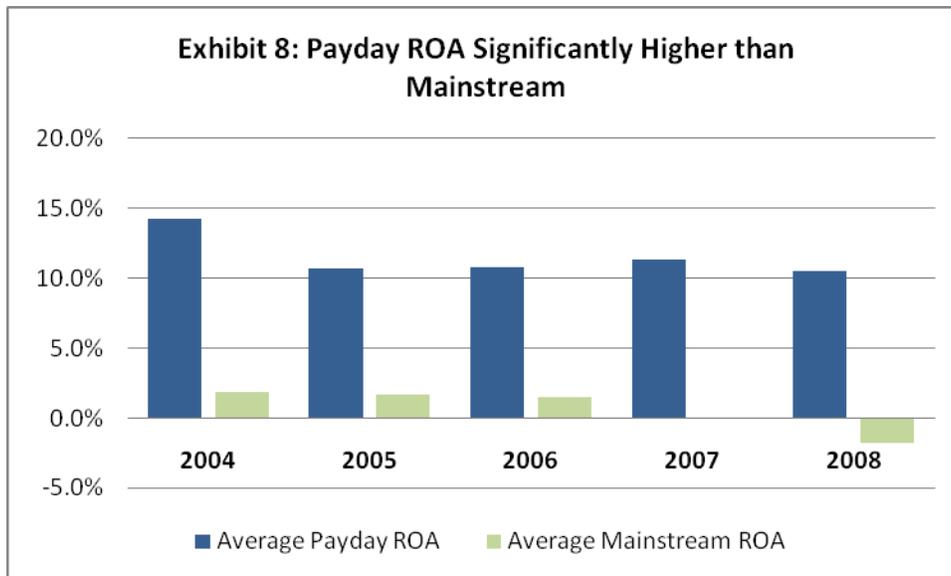
To examine how these industry dynamics impact the bottom line for payday lenders, this study turns to measures of return on investment. This section examines the return on assets and return on equity for both the payday lenders and mainstream financial institutions included in the study.¹¹ Return on assets is defined as the ratio of operating income to average assets; return on equity is the ratio of net income to average shareholder's equity. While these measures are firm-wide and will include businesses beyond strictly consumer lending, the key findings are reflective of capital structures and business models and are relevant to the different kinds of lending.

4.4.1. Return on Assets

The return on assets ratio (ROA) attempts to measure how efficient management is at generating income from invested capital. The higher the ROA is, the more efficient and profitable the company is. ROA is highly dependent on industry; what is "good" for a company in one industry may be subpar in another. Comparing the ROA for payday lenders with mainstream consumer finance companies thus illustrates key differences in efficiency and

¹¹ All data for exhibits in this section has been gathered from Capital IQ.

profitability for the two forms of credit. Exhibit 8 summarizes the ROA for all companies included in the study except ACE Cash Express.¹²



It is immediately apparent that payday lenders have a significantly higher ROA than traditional consumer lenders. The difference is so large, in fact, that the smallest observed payday ROA (5.4%, QC Holdings, 2005) is more than twice the highest observed ROA of the mainstream lenders (2.4%, American General 2004). Differences in business model help to explain some, but perhaps not all of the disparity.

Companies that lend money have relatively few physical assets: The majority of assets are financing receivables. Because the maturities on payday loans are dramatically shorter than traditional loans, the amount of *average* assets—the denominator of the ROA equation—is much smaller for payday lenders than traditional lenders who keep loans on their books for an extended period of time. Payday lenders are essentially able to generate income by lending,

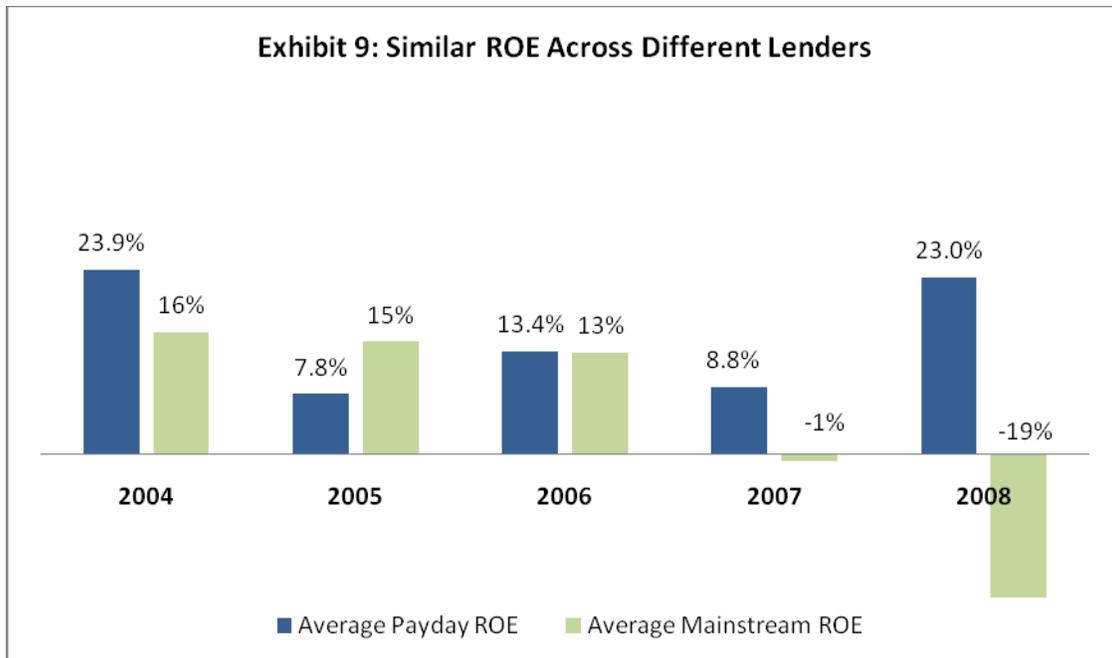
¹² Because ACE has not published a 10-k since 2006, there was not enough information to include the company in the analysis.

collecting, and relending a relatively small amount of capital. Traditional lenders, on the other hand, turn loans over much more slowly, and thus require much more capital to generate adequate returns.

Payday lending appears to be an industry in which high returns can be generated with a small capital investment. Firms profit to the extent that they are able to increase average assets—that is, to the extent that they are able to issue more loans. This point helps to explain payday lending’s rapid growth. With low capital requirements, little product differentiation, and customers that are insensitive to price, the industry is especially inviting to new entrants. In such a competitive environment, where convenience seems to be king, incumbent firms benefit by preempting new entrants and opening more stores of their own in the race to issue more loans. As previously explored, such a competitive environment limits the volume that individual stores are able to generate, even as industry and firm-level profits continue to grow. Considering return on equity makes this point more clear.

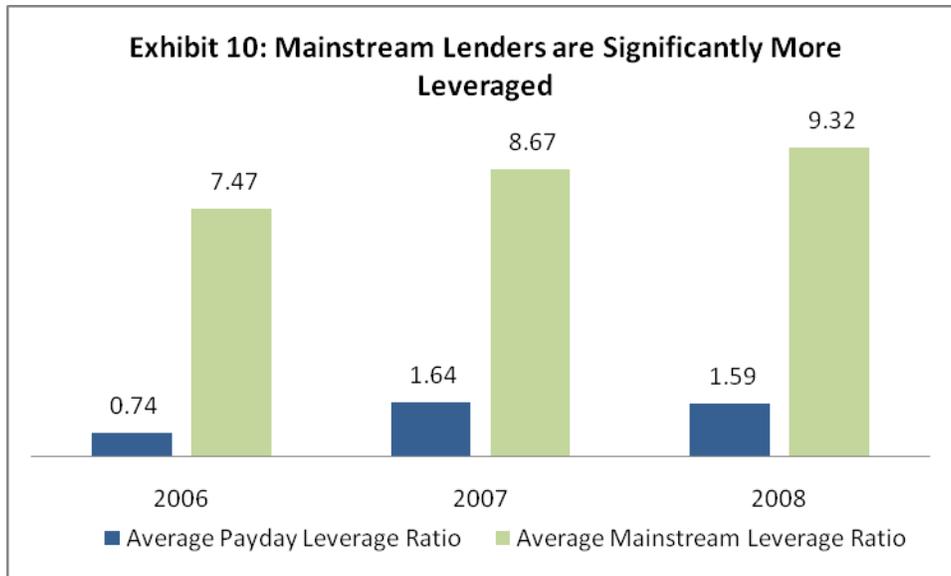
4.4.2. Return on Equity

Return on equity (ROE) measures profitability and efficiency relative to the amount of money that shareholders have invested. Like ROA, ROE is highly dependent on industry. Exhibit 9 summarizes ROE for the same companies above.



It is difficult to compare the observations in this noisy sample, with heavy losses for the mainstream lenders as the effects of the subprime mortgage crisis rippled through 2007 and 2008. It is clear, however, that ROE is more similar for the two types of lenders than ROA.

This is largely related to differences in capital structure. As a rule, mainstream lenders are considerably more leveraged than payday lenders. Exhibit 10 lists reported debt/equity ratios for the last 3 years.



Greater leverage increases ROE because interest payments make firms more tax efficient, and because the reduction of shareholder’s equity reduces the denominator in the ratio. With more leverage, mainstream lenders increase net income and return it to a smaller pool of equity.

It is unclear if the current capital structures of payday lenders are optimal for the long term. As previously noted, payday lenders require considerably less capital than traditional companies, reducing the need for debt financing. Payday lenders simply might not be able to lend additional capital. Payday lenders also have significant commitments resulting from operating leases on their many stores. Because these leases require fixed future payments, they are very similar to debt obligations. These leases thus reduce a company’s capacity to handle additional debt. Finally, because payday lenders carry a much smaller amount of assets on their books, they have less to offer in terms of collateral. This may limit their ability to borrow. Better understanding these issues of capital structure should be a topic approached in future research, because, to the extent that payday lenders can both invest more capital and avoid distress, increased leverage will increase profits.

Even with considerably higher leverage, however, traditional lenders show an ROE that is only similar to that of the payday lenders in normal years. Considering this fact, along with the very high ROA of payday lenders, it would seem that payday lending as a business is more profitable than mainstream consumer lending. It is also worth noting the heavy losses sustained by mainstream finance companies—and the comparatively strong performance of the payday lenders—during the financial crisis in 2008. While losses were surely exacerbated by high leverage, the disparity in performance suggests that traditional consumer lending is inherently more exposed to adverse economic conditions than payday lending.

5. Implications for Future Research

By this point, it is clear that there is more than ample consumer demand to support payday lending in its current form. Intense competition has arguably made life more convenient for borrowers but has done little to reduce prices. Borrowers have supported rapid growth despite extremely high interest rates. To some extent, these prices are mandated by the high costs of operating a huge volume of stores. But is such high store density required to reach customers? Or do high prices and easy entry enable a competitive situation where players drive store loan volume to the breakeven point? This is the crucial question that comes to light as a result of this analysis.

If customer convenience is so critical that individual stores can reach only a very limited geographical market, then the cost structure of lenders will likely remain effectively static. If, however, store density is a function of price, then a reduction in density would increase loan volume and profit at remaining stores. In such a case, lenders might be able to charge less while remaining profitable. Lenders thus might be able to dramatically improve margins through consolidation and acquisition. Reduced competition might actually help the consumer.

Payday lending is a highly profitable business at its core. We have seen high per-loan margins, low default risk, and low capital requirements. Such characteristics encourage new players to enter the market, and existing players to preempt them. Expansion cannibalizes per-store volume but marginally increases firm profits.

A more concrete model of borrower behavior is required to truly understand the competitive dynamics of the payday industry. It is generally accepted that convenience is more of a driver in the borrowing decision than price, but it is unreasonable to assume that borrowers are entirely price-insensitive. More specific information about why borrowers choose one lender over another would help to define how wide of a market a single lender can serve. It would also provide important information helping to explain the surge in demand for payday loans. With a better understanding of demand elasticity, it would be possible to better predict the effects of changing interest rate caps and the number of stores that could profitably operate within a given market.

6. Conclusion

Having found little evidence of excessive profitability and strong consumer demand, previous researchers have warned against high-handed regulation. This analysis has highlighted evidence suggesting that lenders are, in fact, quite profitable. However, the correlation between profitable and predatory is not necessarily valid, especially in the face of a market that is starved for other credit options. Lawmakers and advocates would do better to consider the issue from an economic perspective. While payday lending may indeed require regulation, the fact remains that these companies have built a business model that satisfies a burgeoning demand that will not be regulated away.

But defining the issue as a choice between turning a blind eye to exploitation and denying millions legal access to credit is a sucker's choice. Responsible policy making would seek to ease the burden of high fees placed on consumers, yet still allow lenders to be profitable. Lenders have room in their margins to continue to profit while charging less, and consolidation offers the promise of further reducing costs.

For real progress to be made toward finding an equilibrium that works for all involved in the payday debate, interested parties need to move away from inflammatory rhetoric and legislation that views the industry in binary terms. They must move toward defining acceptable interest rates and profit margins and take cautioned steps to satisfy the credit demand in an economically sustainable way.

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