

PAYDAY LENDING: A PROFITABILITY ANALYSIS

by

Evan Lang

Submitted in partial fulfillment of the
Requirements for Departmental Honors in
the Department of Finance
Texas Christian University
Ft. Worth, Texas

May 5th, 2014

PAYDAY LENDING: A PROFITABILITY ANALYSIS

Project Approved:

Supervising Professor: Steven C. Mann, Ph.D.

Department of Finance

Jeff Moore

Department of Finance

Michael Sherrod

Department of Management, Entrepreneurship, and Leadership

ABSTRACT

After its inception in the early 1990s, the payday loan industry grew rapidly over the next two decades. Now, the payday lending industry represents a sizable industry, operating over 20,000 stores, lending roughly \$50 billion in credit, and generating approximately \$9.3 billion in revenue in 2013. Despite its size and prevalence, the payday lending industry suffers from a poor public image due to the often cited horror stories of borrowers using payday loans. As these horror stories circulate, lawmakers have responded to the calls from the public and implemented regulation on the industry in hopes of protecting the payday loan borrowers. Lawmakers justify these regulations based on moral and economic reasoning. This study details the moral reasoning and conducts a financial analysis on four publicly traded payday lenders to examine the economic reasoning. Ultimately, this study reveals that despite common belief payday lenders do not make extravagant profits when compared to traditional lenders, suggesting that that regulation on the industry must be based solely on moral or subjective reasoning, as opposed to economic reasoning.

TABLE OF CONTENTS

INTRODUCTION	1
RESEARCH QUESTION	4
LITERATURE REVIEW	5
Payday Lending Background	5
The Growth of the Payday Lending Industry	5
Payday Lending’s Business Model.....	7
Regulation	8
The Borrower.....	10
Who are the Borrowers?	11
Reaching the Borrowers – Locations of Payday Lenders	15
Effects on Borrowers	17
Is Payday Lending a Necessary Evil?	19
Payday Lending: How Costly is it?	20
Financial Analysis of Payday Lenders.....	20
METHODOLOGY	24
RESULTS & DISCUSSION.....	25
Loan Loses.....	25
The Costs of Lending.....	28
Breakeven Analysis – In Terms of Price	29
Breakeven Analysis – In Terms of Volume	31
Firm Wide Profitability	32
Profitability Margins.....	32

Return on Assets.....	33
Return on Equity	34
Limitations	35
Future Studies.....	36
IMPLICATIONS.....	37
CONCLUSION	39
APPENDICES.....	41
Appendix 1: Ratio of Loan Losses to Current Portfolio of Outstanding Loans	41
Appendix 2: Ratio of Loan Losses to Revenue.....	42
Appendix 3: Charge-Off Ratios of Payday Lenders vs. Commercial Bank Averages.....	43
Appendix 4: Cost Breakdown of Lending \$100	44
Appendix 5: Breakeven Analysis – In Terms of Price.....	46
Appendix 6: Contribution Margin	47
Appendix 7: Breakeven Analysis – In Terms of Volume	48
Appendix 8: Operating Margin.....	49
Appendix 9: Net Profit Margin.....	50
Appendix 10: Return on Assets.....	51
Appendix 11: Return on Equity.....	52
REFERENCES.....	53

INTRODUCTION

When W. Allan Jones opened his Check-Into-Cash operation in 1993 and began making small, short-term loans for a postdated check for the value of the loan and a service fee, the payday lending market emerged. Over the next decade, the industry grew at a rapid pace. By 2004, payday lenders made \$50 billion in loans, representing a 525% increase from 1999 (Thomas, 2007). The industry continued to expand and, eventually, the number of payday lending store fronts surpassed the number of Starbucks and McDonalds combined (Graves and Peterson, 2008). Now, payday lenders operate over 20,000 stores and thousands of websites. In 2013, payday lenders extended \$48.7 billion of payday credit, up from the decade low of \$30 billion in 2008. With the high growth, the industry generated approximately \$9.3 billion in revenue (Stephens, 2011).

Although the payday loan industry represents a sizable market, the industry is scrutinized heavily and suffers from a poor public image due to the often cited horror stories of borrowers using payday loans. As horror stories of payday loans circulate, the public appears to believe that the entire industry needs to be regulated.

Over the past few years, lawmakers have responded to the public by enacting legislation in hopes of protecting consumers, citing moral and economic reasons. Regulation strategies include limiting renewals, requiring disclosure of principles terms of each transaction, prohibiting discriminatory practices, and capping interest rates. At the time of this study, 23 states and the District of Columbia either ban or

maintain exacting requirements on payday lenders. Going forward, both state and federal bills have been proposed that would expand the regulation on the industry.

The need for regulation on payday lending, though, is divisive among politicians, economists, and academics. Opponents of the industry believe that payday lenders take advantage of poor, uneducated minorities with the high-costs of the short-term term credit provided, which has APRs reaching upwards of 500%. Due to the high cost and structure of payday loans, opponents believe that payday loans trap borrowers in a cycle of debt and increase financial hardship.

In response to these claims, the payday loan industry attempts to justify itself by arguing payday lending is a vital way to help the underbanked, people that have poor access to mainstream financial services normally offered by retail banks, solve temporary cash-flow problems, such as the need to pay for an unexpected medical expense when alternative sources of funds are unavailable or more expensive than payday loans. They also contend that high operating costs and loans losses require the high fees associated with payday loans. In the end, they believe that payday loans are welfare-enhancing for borrowers.

Although extensive research has been conducted on payday lending, many misconceptions and contradictions exist because much of the data relating to the industry and borrowers is “bound up with advocacy positions for or against the industry,” making the reliability of past research questionable (Flannery & Samolyk, 2005, pg. 7). Only a limited amount of research produced objective data and analysis, the last of which was conducted in 2008.

This article intends to make up for this and update the past research by providing an objective financial analysis on four publicly traded payday lenders. The goal of the study is to increase the public's and lawmakers' understanding of the payday loan industry, particularly the economics of payday lending, in an effort to provide crucial information to lawmakers as they debate increasing regulation. To provide insight into the costs and profitability of the payday loan industry, four publicly traded payday lenders will be analyzed against four traditional lenders. Ultimately, the study reveals, despite common belief, that payday lenders do not make extravagant profits. In fact, when compared to traditional lenders, the profitability of payday lenders is less than the profitability of traditional lenders. With these results, this study suggests that regulation should be based on moral reasoning – not the economics of payday lending.

Section 2 outlines the research question this study will answer. Section 3 provides background on the payday loans industry, highlighting the size and growth, the payday lending business model, and the regulations, discusses the typical borrower, where payday lenders locate, and the impact of payday loans on the borrowers, and explores past studies that provide a financial analysis of the industry. Section 4 presents the methods. Section 5 provides results of and discussion on the study on the profitability information of the publicly traded payday loan companies. Section 6 discusses the implications of the data. Section 7 concludes the study.

RESEARCH QUESTION

As industry advocates and opponents debate the justifications of payday lending, policy makers have responded to calls for increased regulation. From 2008 to 2013, numerous states implemented regulation on payday loans. As of 2013, 15 states restricted payday lending, and eight states have payday loan storefronts but maintain exacting requirements. Most recently, South Carolina, Virginia, Washington, and Mississippi instituted new laws in an effort to curb the use and growth of payday loans. Although the federal government has not directly regulated payday lending (outside of general statutes such as the Truth in Lending Act and the Military Lending Act), regulation from the federal government may take place now that the Consumer Financial Protection Bureau has rulemaking authority over the industry (Kaufman, 2013).

Regulation on payday lending is often based on two ideas. The first idea is based on the notion that payday lenders take advantage of borrowers by locating in areas with a high percentage of minorities and uneducated adults and by constructing loans that increases financial hardship. The second idea is that payday lenders make extraordinary profits due to the high APRs they charge borrowers. Put in simpler terms, regulation is based on moral and economic reasoning.

The first idea has been detailed thoroughly in past research. In these studies, researchers examined the payday loan business model, the locations of payday lenders, and the borrowers – who they are and their financial welfare after using a payday loan. In comparison, research and hard data on the economics of payday lending are lacking, making it difficult for regulators to justify their implementation

of regulation based on the second idea. At this point in time, only Flannery & Samolyk (2005), Huckstep (2007), and Gold (2009), along with an industry study conducted by Ernst and Young (2009), have provided an objective financial analysis. The latest data analyzed was in 2008, leaving a significant gap in research.

This study aims to fill this gap and update the previous financial analysis by conducting a financial analysis of publicly traded payday loan operators and comparing them to traditional lenders in an effort to provide crucial information to lawmakers as they debate increasing regulation. By examining previous research surrounding the moral implications of payday lending and conducting an objective financial analysis of the payday lenders, this study will aim to answer the following question – is regulation on the payday loan industry justifiable based on moral or economic reasoning?

LITERATURE REVIEW

Payday Lending Background

The Growth of the Payday Lending Industry

While methods of providing short-term financial solutions to consumers started centuries ago, the payday loan emerged in the early 1990s when W. Allan Jones opened his first Check-into-Cash operation in Cleveland, Tennessee, in 1993 (Thomas, 2007). After Jones's first store opened, the payday loan industry grew rapidly. In the early 2000s, payday lending stores processed approximately 180 million transactions and provided \$40 billion in loans (Flannery & Samolyk, 2005). Over the next few years, the payday lending industry continued to expand. By 2006, payday loan storefronts outnumbered McDonalds and Starbucks locations

combined (Graves and Peterson, 2008). In 2013, the industry provided \$48.7 in loans and revenue increased to \$9.3 billion, despite negative to flat growth during the recession from 2008 to 2010. In 2013, the FDIC estimated that 4.7% of all U.S. households used payday lending at some time in 2013. Pew Charitable Trusts states a higher figure at 5.5% of U.S. adults (Kaufman, 2013).

The growth was supported by three main drivers: “(a) an increasing number of states passed legislation explicitly authorizing payday lending, (b) improvements in check-clearing technologies, which made the payday lending production process more efficient, and (c) banks began charging higher and more systematic prices for checking account overdrafts and nonsufficient funds” (DeYoung & Phillips, 2006, pg. 6). Other research suggests payday loans grew because there is deep distrust of traditional banks among those with lower incomes, and payday lenders integrated into communities successfully by hiring within the communities and maintaining a multi-lingual staff (McGray, 2011).

Originally, many payday lenders were “mom and pop” shops, but the industry experienced significant consolidation. Today, large private payday lenders and six publicly traded payday lenders dominate the industry. In addition, large banks re-entered the market through partnerships with payday lenders. The payday lending industry is expected to continue to grow despite increased regulation that will push industry operators out of certain geographic regions and reduce profits (Hoopes, 2014).

Payday Lending's Business Model

Payday loans are small short-term loans intended to provide a cost-effective way of funding a cash deficiency. To qualify for a payday loan, “the borrower usually needs only a bank account and a job” (Huckstep, 2007, pg. 206). During the transaction, the lender receives a personal check dated for the borrower’s next pay day for the amount of the loan with an additional finance charge. A typical payday loan is a two-week loan for around \$250-\$300 for 30 days with fees ranging from \$15 to \$30 on each \$100 lent. In the early 2000s, roughly 80% of all payday loans across the country were less than \$300 (Stegman & Faris, 2003). By 2008, the size of a payday loan was approximately \$351, and the average fee per \$100 loan amounted to \$17.34 (Stephens, 2011). The fees translate into APRs well over 300%. Assuming that the borrower has sufficient funds, the lender deposits the original check or the borrower pays the loan off in cash on the agreed upon due date. In theory, that is the process for payday lending transactions.

In reality, many borrowers struggle to pay off the original loan, as they do not have sufficient funds. In fact, a recent study by the Consumer Financial Bureau found that only 36% of loans operate how payday loans theoretically should (Burke, Lanning, Leary, & Wang, 2014). If a borrower cannot repay their original loans, a borrower has a few options. First, the borrower can choose a “rollover” or “renewal”, which extends the loan for another two-week period for a cash payment of additional interest and extension fees. With a renewal, the fees associated with the original loan can range from an APR of 390% to 7,300%, with an average of 500% (Burch, 2001). Option two is the lender deposits the check, and the borrower

faces the high costs of bouncing a check and still owing the payday lender. The third option is to borrow from a different payday lender and use the new funds to pay off the old debt; thus, entering a vicious cycle of debt (Huckstep, 2007).

Within this model, opponents point to a variety of problematic features, including triple-digit interest rates, the rollover feature, the failure to disclose terms of a loan, and coercive collection practices (Chin, 2004). In addition, many point to the practice of charging lower fees for initial loans to start a relationship as a reason for concern, as it can capture a first-time borrower and trap them in a cycle of debt. This strategy was found in research conducted by DeYoung and Philips (2006), Peterson and Rajan (1994), and Knittel and Stango (2003). Of these concerns, the high APRs and rollovers receive the most criticisms and complaints from borrowers. Burke, Lanning, Leary, and Wang (2014) found that 80% of payday loans are essentially rolled over to a new payday loan within two weeks. Several other studies show that over a twelve-month period, consumers renewed their loans 10-12 times on average, leaving them with even higher APRs and costs. Moreover, roughly 62% of all payday loans are made to borrowers who rollover over the loan so many times the borrower ends up paying more in fees than the original amount they borrowed (Burke, Lanning, Leary, & Wang, 2014).

Regulation

To protect customers, states have passed a variety of laws, including price caps (limits APRs, with the most common cap at 36%), size caps (limits the maximum size of a loan), loan term limits (puts a upper cap on the length of the loan), limits on simultaneous borrowing (limits the absolute number of loans a

customer can borrow at a given time, while others set limits on the number of loans a customer can borrow from a single lender at a given time), rollover prohibitions (disallows renewing loans), cooling-off periods (lengthens the amount of time during which borrowing is not allowed), and extended repayment options (requires lenders make available an extended, amortizing loan option in addition to their basic payday loan option) (Kaufman, 2013).

Currently, 28 states allow single-repayment loans with APRs usually in the range of 391% to 521%, eight states “have payday loan storefronts, but maintain more exacting requirements, such as lower limits on fees or loan usage, or longer repayment periods”, and 15 states have no payday loan store fronts (includes District of Columbia) (“Payday Lending in America: Who Borrows, Where They Borrow, and Why”, 2012, pg. 21).

The importance of selecting the optimal regulations cannot be underestimated, as some regulations have shown negative effects with borrowers experiencing increased financial hardship after regulation is implemented. According to a study conducted by Morgan and Strain (2008), Georgians and North Carolinians bounced more checks, complained more about lenders and debt collectors, and filed for Chapter 7 bankruptcy at higher rates after their states outlawed payday credit. In a similar study, Zinman (2010) found that Oregon respondents who used payday loans experienced an adverse change in financial condition, such as being unemployed or having a negative subjective assessment about one’s overall recent or future financial situation, after regulation was

installed. In addition, The Pew Charitable Trusts also found that lending didn't decrease in Colorado after regulation was enacted (2013).

Despite the extensive research on the effectiveness of regulations in the payday loan industry by Bhutta, Skiba, and Tobacman (2012), Stegman and Faris (2007), Kaufman (2013), and Avery (2011), efforts to distinguish the relative merits and effectiveness of the different regulatory strategies on borrowers have been limited and inconclusive. Because of this, new literature, including research by DeYoung and Philips (2009), Bertrand and Morse (2011), and Melzer and Morgan (2009) focus on the optimal environment that maximizes the effectiveness of borrowing with payday loans. Their research indicates that increasing financial education and understanding the pricing behavior of payday lenders are key for effective regulation. While studies continue to be conducted to better understand the impact of different types of regulations, regulations are expected to increase over the next few years.

The Borrower

One reason regulations are expected to continue is the belief among politicians and some researchers that payday lenders take advantage of borrowers and that the use of payday loans increase financial hardship. However, not all evidence supports these theories. This section will describe the characteristics of borrowers, how payday lenders reach the borrowers, and the impact - both positive and negative - of payday loans on borrowers.

Who are the Borrowers?

Many academic articles point to payday loan customers being middle class and relatively educated. One of the often cited academic studies on the demographics of the payday loan industry was conducted by Lawrence and Elliehausen (2008). Their research supported this claim, with their data indicating that 74.4% of borrowers have a high school diploma or some college education and 51.5% have incomes of at least \$49,999. In general, the respondents were less likely than the general population to have either low or higher incomes (Lawrence & Elliehausen, 2008). Another study suggests that the average borrower has a \$35,000 annual income, with half of borrowers having incomes between \$25,000 and \$49,000 (Elliehausen & Lawrence, 2001). During the time of the study, the median household income in the U.S. was \$41,486, according to the 2000 Census. In addition, research suggests that 100% of borrowers have steady income and a checking account (Willoughby, 2005). Furthermore, the publicly traded payday lenders report in their 10Ks that the majority of their customers have middle class incomes, graduated high school, and own a home, a sign of middle class income.

Other research paints a different picture of borrowers. A study conducted by Stegman and Faris (2003) indicated that individuals who use payday loans were recently involved in the welfare system, which suggests a lower income. In 2012, The Pew Charitable Trust (2012) expanded on this research and found that the odds of payday loan usage are 62% higher for those earning less than \$40,000 annually and 57% higher for renters than homeowners. In another study in Colorado, data collected between July 2001 and December 2004 revealed that the typical borrower

was a 36 year old single woman making over \$28,000 per year (Chessin, 2005). The study also revealed that 63% of borrowers made less than \$30,000 per year, and only 0.24% made more than \$50,000. Studies from Wisconsin, Illinois, and California also point to lower incomes among payday borrowers at around \$25,000 per year (Johnson, 2002).

While studies have contradictory findings on the median incomes, almost all research indicated that poor credit history plays an important role when borrowers turn to payday loans. Lawrence & Elliehausen (2008) found that even though borrowers use traditional credit, borrowers turned to payday lenders because they had difficulty attaining additional credit due to their poor credit history. In fact, their research indicates that borrowers' poor credit is a major factor driving demand for payday loans. Like Elliehausen and Lawrence, Stegman and Ferris (2005) found that individuals with impaired credit histories are more likely to use payday loans than traditional consumer credit or other alternative forms of credit. Bhutta, Skiba, and Tobacman (2012) asserted that payday loans are used after credit card lines are exhausted and when the search for additional forms of credit is unsuccessful. Although the fees are high, borrowers understand and accept the high fees from payday lenders in order to obtain credit (Elliehausen & Lawrence, 2001). A recent poll conducted by *USA Today* suggests that millennial who use alternative forms of credit, such as payday loans, don't mind the high fees (*Millennials big fans of prepaid cards, payday loans*, 2013).

The use of payday loans is debated among researchers. On one side, A 2001 study conducted by Georgetown University's Credit Research Center at the

McDonough School of Business found that 66% of borrowers use them as the way theory intended them to be used, as an emergency cash flow fix (Elliehausen & Lawrence, 2001). However, the same study found that almost 50% of borrowers have at least seven loans per year, which may indicate that borrowers had a few things happen, including borrowers having a substantial financial emergency, numerous incidence of emergencies, or are using them as a long-term source of credit (Elliehausen & Lawrence, 2001).

On the other hand, the study conducted The Pew Charitable Trusts (2012) indicated that 69% of borrowers used their first payday loan for a recurring expense and only 16% of borrowers used payday loans for an unexpected expense. The contradiction may exist because both studies are linked to advocacy positions for or against the industry, making both studies have questionable reliability.

Although contradictions exist among the data about the use of payday loans, evidence is clear that the average payday loan borrower is using multiple payday loans a year. The Georgetown study showed that the average number of loans would be near 10. In that same study, the data revealed that almost 50% used payday loans over seven times a year, and 22.5% reported using the loans 14 times or more a year. Interestingly, 47% of their respondents obtained payday loans from more than one payday lender in 12 months preceding the survey (Elliehausen & Lawrence, 2001). In 2001, the North Carolina Bank Institute cited a *Wall Street Journal* analyst who claimed that the average borrower makes 11 transactions per year (Schaaf, 2001). In the Colorado study, the average borrower had over 9 loans per year from the same lender and 20% of borrowers took out 16 or more loans with the same

lender within a 12-month period (Chessin, 2005). In 2005, an article indicated that 20% of borrowers in Illinois take out 20 or more loans per year (Willoughby, 2005).

These figures are critical in the debate on payday loans, as Stegman & Faris (2003) contend that payday lending's business model encourages chronic borrowing, and the industry's financial performance is enhanced by successful conversion of occasional users into chronic borrowers. Flannery and Samolyk (2005) disagreed with their findings and believe that financial performance is enhanced by high loan volume, not total number of customers. Nonetheless, the Colorado study was consistent with the findings of Stegman and Faris (2003) and concluded that there is "a gaping disconnect between the theory and expressed purpose of payday loans...and their reality" (Chessin, 2005, pg. 418). In the following section, the study will outline the effects of chronic borrowing from payday loans.

Despite the disconnect and claims that the industry fails to disclose information about the loans, overwhelming evidence suggests that borrowers understand the fee structure and when the loan was due, even though some research suggests that borrowers do not understand the terms of the loans ("Payday Lending in America: How Borrowers Choose and Repay Payday Loans", 2013). In addition, borrowers show signs of deliberation in their decision to use a payday loan (Lawrence & Elliehausen, 2008).

Not only do they show signs of deliberation, but also, many borrowers believe they benefitted from the use of credit. In fact, almost 82% of borrowers agreed that most people benefitted from payday loans, and roughly 92% of

respondents felt that payday lenders provide a useful service. Many researchers, like Elliehausen (2006), contend that borrowers display positive feelings towards payday loans because payday loans provide an easy process with fast approval and convenient store location for short-term credit when they cannot receive credit from other sources. Although borrowers display positive feelings, the same study revealed that 72% agreed that the government should impose an interest rate cap on lenders, and 75% felt that the government should limit their fees. These figures should be taken in context, as most people would like to pay lower prices for any good or service (Elliehausen & Lawrence, 2001).

Reaching the Borrowers – Locations of Payday Lenders

To reach the customers, many believe payday lenders are locating in neighborhoods to take advantage of unsuspecting borrowers. However, many disagree with those claims and believe payday lenders are responding to unmet demand.

The critics of payday loan industry cite multiple studies that claim payday lenders target neighborhoods with unsuspecting borrowers. Data from a study conducted by Burkely and Simkins (2004, pg. 13) “confirms the general claims about the location of payday lenders – payday lenders tend to locate in urban areas with relatively higher minority concentrations, younger populations, and less-well-educated citizens.” Other researchers, including Gallmeyer and Roberts (2009), Stegman and Faris (2003), Prager (2009), and Damar (2009), echo these findings. DeYoung and Phillips (2006), on the other hand, found that payday lenders are not more likely to locate in markets with a disproportionate minority populations.

While payday lenders enter neighborhoods with those demographics, research suggests that moderate income levels and low credit scores are the main drivers of determining the locations of payday loan operations. Research from Prager (2009), Stegman and Faris (2003), Gallmeyer and Roberts (2009), and Wheatley (2010) found that payday loans avoid the poorest neighborhoods and favor working-class neighborhoods with moderate incomes. In fact, Burkley and Simkins (2004) found that public assistance rates are negatively related to the number of payday lenders

Prager (2009) asserted that low credit scores are the strongest predictor of payday loan concentrations. Prager (2009, pg. 15) stated that payday lenders locate in “counties where a larger percentage of the population has a credit score that would place them in the subprime category.” With moderate incomes and low credit scores, findings suggests that payday lenders simply locate “where their services are likely to be greatest because a significant portion of the population does not qualify for more mainstream (and less expensive forms of) credit” (Prager, 2009, pg. 21).

Interestingly, research from DeYoung and Philips (2006) and Prager (2009) suggests that the locations of traditional banks and payday lenders have a strong positive relationship, suggesting that there is strong complimentary between the quantity of traditional and non-traditional banking services in an area. They locate in areas that are well-branched areas because payday borrowers must have a bank account to write a check, but borrowers turn to payday lenders because they experience difficult in obtaining additional credit. In addition, borrowers turn to

payday lenders because of the more convenient hours of operations and a preferred product mix relative mainstream banks.

Effects on Borrowers

As borrowers turn to payday lenders for their credit needs, many argue the impact of payday loans on their financial well-being. Some argue that payday loans increase financial hardship, while others believe payday loans are welfare enhancing.

Numerous studies point to payday loans increasing financial hardship by those who use them. On an intermediate time frame, Melzer (2011) found that using payday loans increases the difficulty in paying important bills, such mortgage, rent, and utilities bills. When examining the long-term consequences, Skiba and Tobacman (2009) found that payday loans increase the likelihood of filing for Chapter 13 bankruptcy, particularly those who were barely approved for their first payday loans. The magnitude, they found, is very large, representing a two percent increase in bankruptcy filing rates.

Outside of financial hardship, Carrell (2008, pg. 19) found that payday lending “produces a significant decline in overall job performance [in the military] (as measured by a 3.9 increase in reenlistment ineligibility), and a decline in retention. They also found that a measure of severely poor readiness (the presence of Unfavorable Information File) increases by 5.3%.” While their evidence on military readiness and performance is clear, the social welfare implications are less clear-cut, but the results suggest that payday loan access is welfare-reducing.

Although many opponents argue that borrowers become trapped in a cycle of debt, which is caused by repeat borrowing at high interest rates, Fusaro and Cirillo's study (2011) had strong evidence that high interest rates does not drive consumers into a cycle of debt, suggesting that payday loans don't increase financial hardship for borrowers.

Additional research suggests that payday lending is welfare enhancing. For instance, Wilson, Findlay, Meehan, Wellford, and Schurter (2010) conducted a laboratory experiment to examine what affect the existence of payday loans has on individuals' abilities to manage and survive financial setbacks, which are represented by unexpected expenditures. They found that the majority of the subjects benefitted from the existence and their use of payday loans. However, they did note that subjects whose demand for payday loans exceeded a certain threshold level are at a greater risk than if payday loans did not exist.

Morse (2011) used a natural disaster as exogenous shock to find whether access to payday loans exacerbates or mitigates individual financial distress. His study found that "California foreclosures increase after disasters, but the existence of payday lenders mitigates half (1.2 foreclosures per 1,000 homes)" (Morse, 2011, pg. 1). His research suggests that payday lending is valuable for those facing personal disaster. His research, though, does generalize the common occurrence of personal emergencies and does not capture the welfare impact on "those borrowing in ordinary economic circumstances to fund temptation consumption" (Morse, 2011, pg. 26).

Is Payday Lending a Necessary Evil?

While industry opponents argue that payday lending is predatory in nature, industry advocates note that payday lending may be a necessary evil, citing that payday lending is the best available option for the underbanked. Often times, the alternatives are not available or not the best option. For instance, pawn shops, an often-used alternatives, is only available for those who have goods available to sell and who are willing to sell those goods.

Title pawns, another alternatives, are only available for those who own a car. The risk of defaulting on title pawns can be even more costly than failing to pay back a payday loan, as a car may serve as the transportation method to and from work. If a borrower defaults, he/she may lose his/her car, which could result in the loss of a job. In addition, the underbanked may not qualify for credit cards or their credit cards may be maxed out, leaving them with no other option but payday loans.

Another alternative to payday loans is borrowing money from friends or family. The Pew Charitable Trusts (2012) found that 57% of borrowers would use this alternative if payday loans were not an option. However, respondents described this choice as humiliating and stressful. Payday lending can help avoid turning to friends and family, while also lessening the probability of future financial hardship if used correctly ("Pay dirt", 1999).

In addition to the lack of alternatives, the research described earlier indicated that payday loans have the potential to provide positive impacts on borrowers, which suggests that, if used correctly, payday loans can be a useful tool to survive a short-term liquidity problem. The benefits of payday loans can also be

seen in the research that revealed that borrowers were worse off financially after regulation on payday lenders were implemented.

During times of a short-term financial emergency, payday lending can be the most economical option. A useful way to think of payday lending is through a common analogy, which compares payday lending to a taxi cab ride. Taking a taxi cab is a cost-effective for a short distance but not the best way to travel from Fort Worth to New York. If used as intended, payday loans are a useful source of credit, but the problem is that large numbers of consumers use payday loans as long-term source of credit ("Pay dirt", 1999).

Payday Lending: How Costly is it?

To justify the high fees associated with payday loans, industry participants and defenders fall back on two key financial aspects of the industry – high operating costs and the large incidence of losses. Assessing industry performance and profitability is difficult, as most payday advance firms are privately held, so their data is proprietary. For this section, this article will discuss past studies on the publicly traded companies in the industry, and, then, the Author's own study on the publicly traded companies.

Financial Analysis of Payday Loans

Flannery and Samolyk (2005) published the first study regarding the costs of payday lending. In their study, they obtained proprietary store-level data from two large monoline, publicly lending companies and performed a comprehensive financial analysis of store operations and profitability. Their goal was to determine if loan losses and operating expenses were large enough to justify the service fees

charged by payday lenders. Ultimately, they determined that “fixed operating costs and loan loss rates do justify a large part of the high APRs charged on payday advance loans” (Flannery & Samolyk, 2005, pg. 1). Flannery & Samolyk (2005) found that the ratio of mean losses to total revenue was 15.1%, which they claimed was “substantially” higher than customary loan loss rates at traditional consumer lenders, but comparative data was not provided. When examining the expenses of payday lenders, the study indicated that staying open longer hours to capture customers that are shopping on convenience, rather than price, drove high fixed operating costs.

They found the most successful payday lending stores processed a large volume of loans, as store profitability increases as the number of loans processed increases. They contend that repeat borrowers, the source of criticisms and debate, don’t enhance a store’s profitability; rather, they add to the loan volume of a particular store (Flannery & Samolyk, 2005). The final results indicated that a typical payday-lending store creates 33.2% profit margins before accounting for regional or corporate expenses.

While Flannery & Samolyk provided novel information into the payday lending research, they could have improved their study by providing a comprehensive comparison of payday lenders against traditional commercial lenders or other franchise-type businesses. Without the comparisons, a benchmark is missing.

As a follow-up to the study conducted by Flannery and Samolyk, Huckstep conducted a study analyzing financial data from seven publicly traded payday

lenders and doing a comparative analysis for six publicly-traded commercial lenders, including Capital One, GE Capital HSBC, Money Tree, and American Express Credit, and one publicly traded company, Starbucks, with a business model similar to payday lenders. His goal was to determine if regulation should be increased because payday lenders enjoyed outrageously high profits. He ultimately argued that “the call for regulation should be based solely in principle, moral, or other subjective reasoning – not on high fees” (Huckstep, 2007, pg. 204).

In his analysis, he found that the industry’s “justifications for high service fees, and by extension high APRs, may be justified by both high store expenses and high loan losses” (Huckstep, 2007, pg. 230). His analysis showed that store expenses in the industry accounted for 75% and 68% for pure play payday and hybrid payday operators, respectively. For a comparison, Starbucks is less than half of these at 32%. Like Flannery and Samolyk, he found that three items accounted for a large majority of the expenses -wages, occupancy costs, and loan losses. Loan losses represented 26% and 22% of store operating costs for pure play payday lenders and hybrids. To compare these figures, Huckstep calculated bad debt expense of comparable companies. Pure payday lenders loan losses equaled just over 20% of revenues, slightly more than the loan losses from mainstream lenders at 16.6% of revenues. In an analysis on an alternate perspective, Huckstep analyzed the loan losses as a percentage of outstanding loans at payday lenders and commercial lenders. He found that loan losses as a percentage of outstanding loans for payday lenders was 25%, while loan losses of commercial lenders was approximately 5%.

After accounting for expenses, Huckstep found that the average profit margin was 3.57% for pure play lender and 7.63% for hybrid lenders. In comparison, payday lending falls short of profits for commercial lenders and Starbucks. Commercial lenders had profit margins of 13.04%, while Starbucks had a profit margin of over 9% for the same period. With these results, Huckstep (2007, pg. 228) concluded that “citizens would be better off fighting Starbucks than their local payday lender.”

Huckstep’s research did have several shortcomings. First, the study only used one three-month period of time. By looking at one, short period of time, he did not capture trends that would provide insight into a comparison of the companies. Secondly, the payday lending industry and the commercial lending industries serve different customers and markets. Because of this, a portion of the differences in ratios is explained by these differences. Although these shortcomings existed, Huckstep’s study plays a critical role in the economic research on the industry.

Following Huckstep’s study, Ernst and Young LLP (“Ernst and Young”) was asked by the Financial Services Centers of America, Inc. (“FiSCA”) to perform a survey and analyze financial data to determine the cost of a payday loan product for a payday loan company. In their study, they found that operating costs were the largest component of total costs at 66.51%. Specifically, the survey showed that 38.58% were fixed operating costs (includes rent, utilities, insurance, security, advertising, depreciation and amortization, corporate overhead, and payments to affiliated companies), 26.39% were “hybrid” operating costs (includes salaries and benefits and incentive plan expense), and 1.54% were variable costs (includes bank

service charges other than interest on loans and credit checks). After accounting for costs in addition to operating costs, Ernst and Young found that a typical loan was \$379, loan costs amounted to \$52.63, and loan revenue equaled \$57.85, and pre-tax profit was \$5.22. The store-weighted average pre-tax profit margin was equal to 14%. The store-weighted costs per \$100 was \$13.89, with the majority of costs from operating costs and bad debt costs, which were \$3.74 and \$9.41, respectively. Store-weighted profit equaled a small \$1.37 per \$100.

While Ernst and Young's study provides insight into payday lender's costs, revenues, and profit, it has a couple of limitations. First, Ernst and Young did not analyze trends over time. Their results only reflect the results of the twelve surveyed companies and representatives of their fiscal year 2008 results. In addition, their results may not be necessarily representative of the entire industry. Although there are limitations to the study, the report is useful, as it provides an objective analysis that is not intended to endorse and oppose payday lending.

METHODOLOGY

This study began by selecting the four largest publicly traded payday loan companies whose primary or secondary line of business consists of payday loans. These companies include Advance America (AEA), Cash America (CSH), QC Holdings (QCCO), and Dollar Financial Corporation (DLLR). It is important to note that AEA is no longer publicly traded, as it was purchased by Grupo Elektra for \$655 million in February 2012 and subsequently taken private. This study does not include privately held lending firms because the information for such firms is not available to the public. The payday lenders included in this study represent a significant

portion of the payday loan industry. The sample used should be generally representative of the population of payday lenders in the United States.

When comparing payday lenders to traditional lenders, this study chose HSBC Bank (HSBC), Capital One (COF), GE Capital (GELK), and American Express (AXP). These companies were chosen because they are representative of the typical traditional consumer lender. In addition, these companies were chosen based on past studies in order to provide context and an update to the previous studies.

Financial data was obtained from publicly available 10Ks from the Securities and Exchange Commission (“SEC”), Bloomberg, and the Federal Reserve. Once data was obtained, certain analytical ratios were defined for comparisons and analyzed. The following sections will discuss the results of the study. First, the study will analyze the industry’s loan losses and costs of payday lending. Next, the study will analyze the costs of AEA and QCCO, the two largest pure play payday lenders, and conduct a breakeven analysis in order to understand the economics of the payday loan business model. Lastly, the study will analyze firm-wide profit in comparison to traditional lenders.

RESULTS & DISCUSSION

Loan Losses

One of the chief justifications of high APRs for payday loans is the incidence of high loan losses. This study will focus on three different measures that provide insight into loan losses for payday loans, believing they are the most applicable and insightful measures.

The first way, the way traditional financial companies present their defaults, is to calculate the ratio of loan losses as a percentage of loans outstanding. Like the studies conducted by Flannery & Samolyk (2005) and Gold (2009), Appendix 1 reveals that payday lenders suffer tremendous loan losses by this measure in comparison to traditional lenders.

However, as Gold (2009) noted in his study, this measure is not the most accurate way to analyze loan losses for payday lenders. Because payday lender's average loan maturity is 15 days, a payday lender's portfolio represents a minimal portion of loans that are issued and collected in a given year, making the denominator much smaller than the denominators for mainstream lenders. The enormous differences in maturities makes it difficult to accurately analyze the impact of loan losses on profitability.

To combat this, Huckstep (2007) attempted to find the ratio of loan losses as a percentage of revenues. Like Huckstep, Appendix 2 reveals that the ratio of loan losses is not significantly greater than the ratio of traditional lenders. In fact, the ratio of loan losses of traditional lenders as a percentage of revenue was higher during the recession due to the financial crisis. Outside of those years, the differences is notable but not significant enough to justify higher APRs than traditional lenders. While these metrics provide insight into loan losses, it is difficult to analyze the differences because mainstream lenders do not provide information on revenues derived from mainstream consumer loans, making it unfeasible to calculate statistics that are comparable to statistics available by payday lenders.

The most insight way to understand loan losses is to analyze the charge-off rates. The Federal Reserve defines charge-off rates as the “value of loans and leases removed from the books and charged against loss reserves. Charge-offs rates are annualized, net of recoveries.” Payday lenders calculate charge-off ratios by dividing charge-offs by the amount of loans originated during a given period, which for this study is a payday lender’s fiscal year. The Federal Reserve also publishes the average charge-off for loans issued by all US consumer banks, which is then further broken down into “All Commercial banks” and “100 largest Commercial banks”. This study treats the Fed’s consumer loan category as the population average. Appendix 3 compares the data (i.e. this study took an average of The Federal Reserve’s quarterly data for each year).

Unlike the ratio of loan losses as a percentage of outstanding loans, the charge-off ratios between payday lenders and commercial banks are clustered around the Fed’s average and even slightly below credit card averages, as seen in Appendix 3. The data disproves the industry’s claim that payday loans are much riskier than traditional consumer loans and suggests that loan losses alone do not justify the high costs of payday loans. Moreover, this finding is interesting in that it shows that the average payday lender has smaller charge-off rates than banks have with credit cards, which studies and the payday loan industry claim that payday loans are an alternative to using credit cards.

With similar charge-offs rates, one would expect the APRs of payday lenders and credit cards to be roughly the same. This is not the case. While payday lenders’ average APR is well over 300%, the average consumer credit card APR is 15.01%.

For those with bad credit, the average consumer credit APR is 22.73% (*CreditCards.com Weekly Credit Card Rate*). The differences in APR may be due to the structure of credit. Payday loans are 14 day loans, while credit cards provide credit for an entire year.

The Costs of Lending

While the high prices on payday loans might suggest that payday loans enjoy high profit margins, this is not the case, as payday lenders incur high fixed costs in order to promote customer convenience. Past studies support this claim and point to high salary and occupancy costs at a storefront level driving high costs and low profit margins.

This section will stem from the previously discussed studies by Ernst and Young (2009) and Gold (2009). The analysis will focus on AEA and QCCO, as nearly 100% of its revenues and costs are derived from their payday lending operation. To understand the costs incurred by payday lenders, fixed costs are broken down at the store level and corporate level. Expenses at the store level include salary and related payroll, occupancy costs, center depreciation expenses, and other expenses. Provisions for loan losses are not accounted for in this study because the study takes into account charge-off rates, as it is a more accurate depiction of loan losses. Corporate expenses include general administrative expenses and corporate depreciation and amortization. The costs are divided over all loans issued during the year and then multiplied by 100 in order to determine the costs per \$100 loan. The charge-off rates are multiplied by 100 to calculate bad debt expense. In the study conducted by Ernst and Young, Ernst and Young calculated the opportunity cost of

capital in issuing a new loan. The study, along with the Gold's study (2009), found that the dollar amount is immaterial, so it can safely be ignored without seriously affecting the conclusions.

Appendix 4A and 4B reveals that the majority of costs are derived at the store level in issuing a payday loan, representing roughly 74% of total costs of issuing a loan for AEA and 54% for QCCO. As past studies suggest, the high costs at the store level are driven by offering a convenient service with long hours and many locations. While the data discussed in the previous section contended that charge-off rates do not justify high APRs, the high charge-off rates do represent a significant cost. With high operating costs and charge-offs, along with corporate level costs, Appendix 4A and 4B show that high overall costs do justify high fees. It is clear in the data in Appendix 4A and 4B that the costs of operations from offering a convenient service limits profitability.

It is also interesting to note the trend in profitability for payday loans. For the most part, profit margins have declined since 2004, with a slight rise in 2012 and 2013 for QCCO. Although it is difficult to determine the exact driver of decreasing margins, past research and industry studies suggests that costs rose due to increasing regulation, and fees charged were limited by increasing competition and regulations.

Breakeven Analysis – In Terms of Price

The costs in Appendix 4A and 4B can provide more context to the high APRs through a breakeven analysis. To determine the breakeven point in terms of price, the costs are thought of in terms of percentages of principal (Gold, 2009). The fee

required to breakeven as a percentage of principal will be equal to the percentage of costs per \$100. The maturity was determined by the average loan length, which AEA and QCCO provide in their 10K. With these figures, one can determine the implied breakeven price in terms of an APR. The breakdown for AEA and QCCO can be seen in Appendix 5A and 5B.

Exhibit 5A and 5B show that high APRs are needed for payday lending to be a profitable enterprise. However, it is evident that QCCO does charge interest rates much greater than the breakeven point of lending, while AEA's interest rates are not as high as QCCO's. These figures suggests that payday lenders charge excess APRs. However, these APRs do not lead to extravagant profitability, which will be detailed further the following sections. Interestingly, the interest rates are trending down since 2004, with interest rates dropping quickly for AEA. The drop is partly driven from the average loan size increasing faster than the average fee charge. Part of the reason fees have remained relatively the same is because some states have put a cap on the fees payday lenders can charge.

Although the breakeven in terms of price is insightful, the analysis effectively treats fixed costs as variable. In reality, fixed costs per loan are a function of total loan volume. As additional loans are issued with existing resources, the fixed costs associated with each loan will fall, and profit per loan will increase. Because of this, past research suggests that the profitability of payday lenders is more a function of volume than price. The next section will analyze the breakeven in terms of volume.

Breakeven Analysis – In Terms of Volume

As previously mentioned, the best way to determine the breakeven point for payday loans is to examine the volume of payday loans. In this analysis, charge-offs are considered the only variable cost. Although payday lenders may experience other minor costs per loan, such as office supplies, past research suggests that those costs are immaterial. Costs such as salary expenses are considered fixed because they are paid a fixed salary that does not increase as loan volume rises.

Before detailing the breakeven in terms of volume, the contribution margin, which is defined as the price per loan minus variable costs divided by the price per loan, is found. As exhibit 6A and 6B shows, the contribution margin for payday loans is high at over 70% for both AEA and QCCO. The high contribution margin is significant because it shows that each loan that is issued is profitable. As seen in the previous section, fixed costs limit profitability, but when volumes are high for payday lenders, payday lending becomes a highly profitable business, as indicated in the studied conducted by Flannery and Samolyk (2005). This is clearly seen in QCCO's performance from 2012-2013. In 2012, QCCO originated 803,475 loans at an average fee of \$57.67 and enjoyed an EBT of \$14,629. In 2013, QCCO originated only 757, 237 loans at an average fee of \$59.23 and its EBT was -\$11,093. During those 2 years, costs remained similar, and revenues and profits dropped from the lack of volume.

With the contribution margin, we can find the breakeven in terms of volume. In the calculations, it is assumed that the average fee and loan size remain constant,

which is a fair assumption based on 10 years of historical evidence. Exhibit 7A and 7B reveals the firm and store level data.

Exhibits 7A and 7B provide a couple of unique insights. First, the daily loan volume to breakeven at the store level is minimal at about 9-11 and 12-17 a day for QCCO. In 2007-2008, AEA's average was between 11-12, which is barely one an hour.

Going forward, loan volumes are expected to be limited by regulations and competition. With these conditions, many operators will have to compete by offering more convenient services, meaning that stores will be open for longer hours, which will drive up costs, increase the breakeven volume, and decrease overall profitability.

Firm Wide Profitability

To understand the firm wide profitability, this section will examine a variety of ratios, including profitability margins and measures of return on investment, and compare them to traditional lenders. The profitability margins include the operating margin (defined as operating income divided by revenue) and net profit margin (defined as net income/revenues). Measures of return on investment are return on assets (defined as the ratio of operating income to average assets) and return on equity (the ratio of net income to average shareholder's equity).

Profitability Margins

The operating margin is used to measure a company's operating efficiency and pricing strategy. A high operating margin reflects a company that is run efficiently and controls costs effectively. As is expected after detailing the high costs

incurred by payday lenders, the operating margin is dramatically less than traditional lenders, as seen in Appendix 8. High costs of payday lending at a store level drive the high costs in comparison to traditional lenders. Appendix 8 indicates that payday lenders are less profitable than traditional consumer lenders.

Like operating margin, payday lenders have a net profit margin that is substantially less than the net profit margin of traditional lenders, which can be seen in Appendix 9. Net profit margin is used to measure how much out of every dollar of sales a company keeps in earnings. Companies strive to increase net profit margins, as it reflects a company's ability to control costs. Payday lender's low profit margin reveal that payday lenders have higher costs; thus, earning less out of every dollar than traditional lenders.

Return on Assets

Return on assets measures a company's efficiency at using its assets in generating earnings. A high ROA reflects an efficient and profitable company. Although ROA is dependent on its industry, it is still useful to compare payday lenders with traditional lenders. When comparing the average ROA of payday lenders and traditional consumer lenders (Appendix 10), payday lenders enjoy an ROA that is substantially higher than traditional lenders.

The disparity in ROAs is mainly due to the business models of payday lenders and traditional lenders. The majority of assets of companies who lend money are financing receivables. As discussed previously, payday lenders have low financing receivables in comparison to traditional lenders due to the short-term maturities of payday loans. While payday lenders turn loans over quickly, traditional lenders turn

loans over slowly and require higher capital than payday lenders to generate returns.

Payday lender's high ROA provides insight into the growth of the industry. With the high ROA, payday lending offers attractive returns for a small capital investment. In addition to high ROA, the industry is appealing due to the low barriers of entry, which is driven by low capital requirements, customers' insensitivity to prices, and low product differentiation. With the high ROA and low barrier to entry, industry studies suggest that the industry will become more competitive. As the competition increases, loan volume may be limited for each store, which could hurt profitability.

Return on Equity

ROE measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. ROE, like ROA, is dependent on the industry. The chart below summarizes the ROE for payday lenders and traditional commercial lenders.

Unlike ROA, the ROE of payday lenders and traditional lenders are fairly similar (Appendix 11), outside of 2008 when traditional commercial lenders were impacted heavily by the financial crisis (i.e. GE's ROE was excluded as its ROE was an outlier at 119%).

Prior to 2008, traditional lenders enjoyed a ROE that was generally higher than payday lenders' ROE. The main contributor was that traditional lenders were leveraged more than payday lenders. From 2006 to 2008, the average payday lender's leverage ratio was 0.74, 1.64, and 1.58, respectively, while traditional

commercial lender's leverage ratio was 7.47, 8.67, and 9.32, respectively (Gold, 2009). However, after the financial crisis, the leverage ratio for traditional commercial lenders dropped as regulations limited the leverage a traditional commercial lender could use. As traditional lenders deleveraged, the ROEs of payday lenders and traditional commercial lenders converged, which some may point to and suggest that payday and traditional lenders generate an almost equal amount of money for shareholders during ordinary economic times. However, because of the differences in leverage used by payday lenders and traditional lenders, comparing ROEs is difficult. The optimal capital structure for payday lenders and traditional commercial lenders are outside the scope of this research, but could be a topic for future research.

Limitations

While this study provides insight into the economics of the payday loan industry, the study has several limitations. One of the biggest limitations of this study is that it focuses on publicly traded payday lenders, which only represents a portion of the industry. Notable differences may exist between publicly traded payday lenders and privately owned lenders. However, information from privately owned payday lenders is not available because it is proprietary.

Within the data, a couple of limitations existed. Because there is not a standard form of disclosure for payday lenders, line items on an income statement may include items that are not included in another company's line item. For example, Company A may include certain information in "store expense", while Company B may place that information in another line item. However, this study

aimed to provide the best comparisons as possible. The data from the companies examined is affected by the “quality of earnings”. While there is no reason to believe that there is a problem with the quality of earnings in this study, the quality of earnings is always a factor when analyzing publicly traded companies. In addition, the financial ratios reported are a quality of each company’s management.

Comparing payday lenders and traditional lenders is not a perfect comparison, as the industries serve different customers and markets. Certain portions of the differences in the ratios are due the differences in the industries. Determining how much of an impact the differences in the industry impacted the ratios is difficult, but many of the ratios, such as profit margin, provide insight, as they are widely used ratios to compare industries and companies.

Another limitations is the timespan of the study. Although the study analyzed 10 years of data, the study could have looked at a longer period of time to better understand the trends and comparisons between payday lenders and traditional lenders.

Future Studies

Although this study provided useful insight into the economics of publicly traded payday lenders, many future studies could expand on the results of the research presented. One future study that would be useful is conducting a financial analysis on privately held payday lenders if the data is available. By understanding the economics of privately held payday lenders, lawmakers will have a better understanding of the industry as a whole.

Outside of the economics of payday lending, further research should be conducted on the borrower and the impact of using payday loans on the borrower. Additional research would be useful because much of the past research was connected to advocacy positions for and against the industry, and past research displayed conflicting results. In addition, with regulation increasing, the description of borrowers may change.

Future studies should also focus on the effectiveness of various regulatory strategies. Past studies and research suggest that choosing the appropriate regulation is critical. As such, academics and economists should continue their efforts to understand the most effective way to increase financial education for borrowers and the pricing strategies of payday lenders.

IMPLICATIONS

As industry opponents call for increased regulation and lawmakers debate enacting legislation, this article provides critical information that will help the public and lawmakers make informed decisions regarding regulation on the payday loans industry. By conducting an objective financial analysis on four publicly traded payday lenders, this study fills an important gap in research on the payday loan industry and updates past research from Flannery and Samolyk (2005), Huckstep (2007), Ernst & Young (2009), and Gold (2009). Ultimately, this study indicates that the claims asserting that payday lenders generate enormous profit from the structure of their loans are a significant misconception, suggesting that regulation should not be based on economic reasoning. Instead, calls for increased regulation should be based entirely on moral or subjective reasoning.

I contend that the payday loan industry should not be banned based on moral reasons, as I believe it is a necessary evil due to the fact that it provides a useful service for those in short-term cash crunch without other alternatives. However, because of the significant concerns about payday lending causing chronic borrowing and increasing financial hardship, I believe that regulation on payday lending industry should be enacted in every state in the United State to protect borrowers. I believe the most effective regulation will focus on limiting borrowers using multiple payday loans and rolling over their payday loans. These strategies include limits on simultaneous borrowing, rollover prohibitions, and cooling-off periods. Another regulatory strategy I believe would be useful is extended repayment option, which help borrowers pay for the payday loan before they have to rollover the loan.

These regulatory strategy will help borrowers use payday loans as intended, which research suggests is welfare-enhancing, and protect them from entering the cycle of debt and facing financial hardship. Others scholars, like Skiba (2012), have called for similar regulations on the payday loan industry. While this is one idea on regulatory strategies, research should continue to be conducted to determine the most effective regulatory strategy.

CONCLUSIONS

After inception in the early 1990s, the payday loan industry experienced rapid growth. By 2013, payday lenders extended \$48.7 billion of payday credit that generated \$9.3 billion in revenue (Stephens, 2011). Although the industry has grown rapidly, the industry suffers from a poor public perception due to the often cited horror stories about borrowers using payday loans. The horror stories have caused the public to call for regulation on the payday loan industry. Because of the public's cry for regulation, lawmakers have enacted legislation to protect consumers. In the deliberation process for implementing regulation, lawmakers cite moral and economic reasons as the reason for regulation.

The need for regulation, though, is divisive among politicians, economists, and academics. Those who oppose the industry believe that payday lenders take advantage of unsuspecting borrowers by charging high APRs that are not justifiable and, ultimately, cause financial hardship by trapping borrowers in a cycle of debt. In response to these claims, the payday loan industry attempts to justify itself by arguing that payday loans provide a useful alternative to loans from traditional lenders that solves short-term cash-flow problems for the underbank. In addition, they contend that high operating costs and loans losses require the high fees associated with payday loans.

Although extensive research on the payday loan industry has been conducted, there is only a limited amount of objective data and analysis that exists on the payday loan industry because past research is "bound up with advocacy positions for or against the industry" (Flannery & Samolyk, 2005, pg. 7).

Consequently, many misconceptions and contradictions exist about the payday loan industry.

This study aimed to fill the lack of objective research and update previous studies by providing an objective financial analysis on four publicly traded payday in an effort to increase understanding on the payday loan industry as lawmakers debate enacting more regulation. This study found that payday lenders do not make extravagant profits when compared to traditional lenders. If this is the case, this study contends that that the call for regulation should be based on moral reasoning – not the economics of payday lending.

Before enacting legislation, lawmakers should further examine the moral reasoning for regulating the payday loan industry, the industry's operating costs and profitability, and the effectiveness of various regulation strategies. Most importantly, legislators need to make decisions with a full understanding of the payday lending industry and payday borrowers, as restricting an industry that lent almost \$50 billion without understanding the full picture could be catastrophic. State governments should follow the words of Jeremy Bentham, "But the fact is, he cannot get [a loan] at that lower rate...The legislator...who knows nothing at all about the matter, comes and says to him[,] 'You shall not have the money: for it would be doing you a mischief to let you borrow it up such terms.' There may be worse cruelty, but can there be greater folly?" (Smith, 2003, pg. 34).

APPENDICES

Appendix 1: Loan Losses

Appendix 1: Ratio of Loan Losses to Current Portfolio of Outstanding Loans										
Companies	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Payday Lenders</i>										
Advance America	57.38%	59.47%	50.84%	63.32%	61.72%	61.00%	50.79%	43.77%	0.00%	0.00%
Cash America	10%	32%	19%	44%	36%	29%	35%	29%	42%	40%
QC Holdings	49.45%	76.58%	54.09%	69.08%	75.03%	63.41%	48.98%	45.80%	52.57%	69.80%
Dollar Financial Corp.	80%	76%	57%	56%	50%	45%	34%	25%	39%	53%
<i>Payday Average</i>	<i>49.25%</i>	<i>60.95%</i>	<i>45.04%</i>	<i>58.15%</i>	<i>55.71%</i>	<i>49.74%</i>	<i>42.07%</i>	<i>35.80%</i>	<i>33.33%</i>	<i>40.54%</i>
<i>Traditional Lenders</i>										
HSBC	0.92%	1.05%	1.22%	1.76%	2.67%	2.96%	1.46%	1.29%	0.83%	0.54%
Capital One	3.33%	2.57%	1.57%	1.49%	5.29%	4.89%	3.25%	1.79%	2.20%	1.79%
GE Capital	1.38%	1.36%	0.95%	1.19%	2.02%	3.25%	2.30%	1.37%	1.43%	1.90%
American Express Credit	5.73%	5.85%	5.93%	7.31%	13.76%	0.00%	3.83%	1.67%	2.94%	0.00%
<i>Traditional Lender Average</i>	<i>2.84%</i>	<i>2.71%</i>	<i>2.42%</i>	<i>2.94%</i>	<i>5.94%</i>	<i>2.77%</i>	<i>2.71%</i>	<i>1.53%</i>	<i>1.85%</i>	<i>1.06%</i>

Appendix 2: Ratio of Loan Losses to Revenue

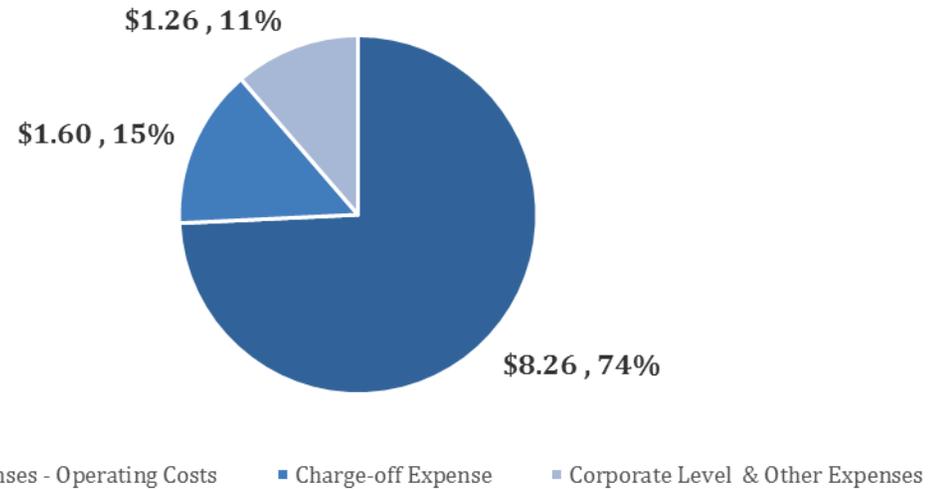
Appendix 2: Ratio of Loan Losses to Revenue										
Companies	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Payday Lenders</i>										
Advance America	15.65%	18.26%	18.31%	19.77%	20.08%	19.23%	17.36%	17.24%		
Cash America		7%	7%	16%	14%	11%	13%	13%	16%	19%
QC Holdings	20.66%	26.76%	21.14%	24.33%	24.85%	21.55%	19.36%	18.97%	21.94%	29.25%
Dollar Financial Corp.	3%	4%	6%	8%	9%	10%	7%	7%	0%	0%
<i>Payday Average</i>	<i>13.21%</i>	<i>14.07%</i>	<i>13.02%</i>	<i>17.00%</i>	<i>17.09%</i>	<i>15.56%</i>	<i>14.12%</i>	<i>13.98%</i>	<i>12.74%</i>	<i>16.23%</i>
<i>Traditional Lenders</i>										
HSBC	11.40%	12.86%	15.26%	20.69%	28.85%	37.88%	19.50%	15.83%	11.54%	8.58%
Capital One	13.71%	14.85%	12.21%	10.12%	36.72%	32.58%	24.16%	14.50%	21.22%	15.43%
GE Capital	9.88%	0.97%	7.62%	10.04%	17.38%	32.95%	22.48%	11.22%	11.35%	13.84%
American Express Credit	9.28%	10.31%	10.17%	14.16%	19.05%	20.89%	7.93%	3.41%	5.99%	0.00%
<i>Traditional Lender Average</i>	<i>11.67%</i>	<i>9.75%</i>	<i>11.32%</i>	<i>13.75%</i>	<i>25.50%</i>	<i>31.08%</i>	<i>18.52%</i>	<i>11.24%</i>	<i>12.52%</i>	<i>9.46%</i>

Appendix 3: Charge-Off Ratios of Payday Lenders vs. Commercial Bank Average

Appendix 3: Charge-Off Ratios of Payday Lenders vs. Commercial Bank Average										
Companies	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Payday Lenders</i>										
Advance America	1.60%	2.11%	2.64%	3.05%	3.22%	3.33%	2.91%	2.69%		
Cash America	3.40%	4.34%	3.91%	7.33%	6.96%	5.29%	5.87%	6.64%	8.58%	10.15%
QC Holdings	3.23%	4.17%	3.40%	4.01%	4.15%	3.58%	5.04%	4.12%	4.35%	5.41%
Dollar Financial Corp.	1.83%	2.07%	2.15%	2.62%	2.91%	3.14%	2.30%	2.50%		
<i>Payday Average</i>	<i>2.52%</i>	<i>3.17%</i>	<i>3.03%</i>	<i>4.25%</i>	<i>4.31%</i>	<i>3.84%</i>	<i>4.03%</i>	<i>3.99%</i>	<i>6.47%</i>	<i>7.78%</i>
<i>Federal Reserve Data</i>										
<i>All Banks</i>										
Top Banks Loans	0.09%	0.06%	0.08%	0.23%	1.23%	2.27%	2.15%	1.46%	1.08%	0.49%
Credit Cards Only	5.05%	4.84%	3.54%	3.98%	5.52%	9.42%	9.43%	5.67%	3.99%	3.44%
<i>Top 100 Banks</i>										
Top Banks Loans	0.10%	0.07%	0.09%	0.25%	1.40%	2.51%	2.41%	1.58%	1.22%	0.55%
Credit Cards Only	5.03%	4.84%	3.58%	3.97%	5.44%	9.52%	9.48%	5.69%	3.99%	3.43%
<i>Federal Reserve Data</i>	<i>2.56%</i>	<i>2.45%</i>	<i>1.82%</i>	<i>2.11%</i>	<i>3.40%</i>	<i>5.93%</i>	<i>5.87%</i>	<i>3.60%</i>	<i>2.57%</i>	<i>1.97%</i>

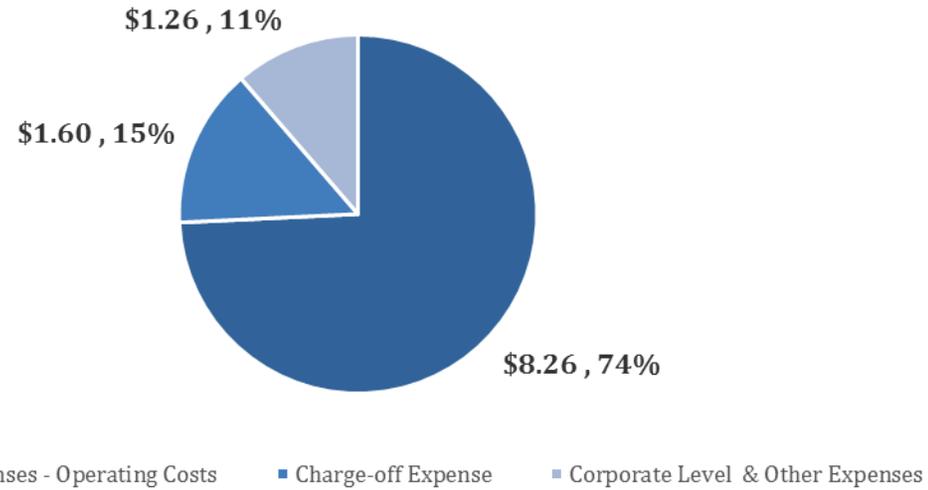
Appendix 4: Cost Breakdown of Lending \$100

Appendix 4A: Cost Breakdown of Lending \$100, Advance America, 2011



Profit Per Loan, Advance America									
AEA	2004	2005	2006	2007	2008	2009	2010	2011	
Total Costs of Lending	\$11.13	\$12.24	\$12.97	\$13.76	\$13.84	\$14.46	\$14.35	\$12.81	
Average Fee Per \$100	\$15.84	\$16.21	\$15.54	\$15.26	\$15.06	\$14.67	\$14.86	\$14.65	
Profit Per \$100 Loan	\$4.71	\$3.97	\$2.58	\$1.50	\$1.21	\$0.22	\$0.52	\$1.84	
<i>Profit Margin</i>	29.75%	24.47%	16.58%	9.84%	8.05%	1.48%	3.47%	12.56%	

Appendix 4A: Cost Breakdown of Lending \$100, Advance America, 2011



Profit Per Loan, QC Holdings											
QCCO	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Total Costs of Lending	\$9.28	\$12.14	\$12.79	\$12.42	\$12.85	\$13.44	\$17.80	\$14.74	\$14.43	\$12.46	
Average Fee Per \$100	\$17.77	\$17.48	\$14.62	\$16.93	\$16.93	\$17.09	\$17.08	\$18.01	\$17.99	\$18.29	
Profit Per \$100 Loan	\$8.49	\$5.33	\$1.83	\$4.51	\$4.08	\$3.65	(\$0.72)	\$3.27	\$3.57	\$5.83	
Profit Margin	47.78%	30.52%	12.51%	26.65%	24.09%	21.37%	-4.24%	18.16%	19.82%	31.86%	

Appendix 5: Breakeven Analysis – In terms of Price

Appendix 5A: Advance America's Breakeven vs. Actual APR								
AEA	2004	2005	2006	2007	2008	2009	2010	2011
Total Cost of Lending Per \$100 Lent	11.13%	12.24%	12.97%	13.76%	13.84%	14.46%	14.35%	12.81%
Total Cost of AEA Per \$100 Lent	12.81%	14.38%	14.44%	14.28%	14.07%	15.13%	15.21%	14.08%
Breakeven APR of Lending (%)	263.71%	282.76%	292.17%	304.32%	300.78%	299.84%	290.94%	256.89%
Actual Average APR charged	375.37%	374.36%	350.22%	337.03%	326.49%	304.47%	301.43%	294.14%
Interest Charged in Excess of Breakeven of Lending	111.66%	91.60%	58.05%	32.71%	25.70%	4.64%	10.48%	37.25%

Appendix 5B: QC Holdings's Breakeven vs. Actual APR										
QC Holdings	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Cost of Lending Per \$100 Lent	9.28%	12.14%	12.79%	12.42%	12.85%	13.44%	17.80%	14.74%	14.43%	12.46%
Actual Average Fee per \$100	17.77%	17.48%	14.62%	16.93%	16.93%	17.09%	17.08%	18.01%	17.99%	18.29%
Breakeven APR of Lending (%)	225.77%	277.06%	291.72%	283.36%	293.12%	306.60%	406.09%	316.44%	309.77%	267.54%
Actual Average APR charged	432.36%	398.75%	333.44%	386.31%	386.16%	389.94%	389.55%	386.67%	364.90%	370.80%
Interest Charged in Excess of Breakeven of Lending	206.59%	121.70%	41.72%	102.95%	93.04%	83.34%	-16.53%	70.23%	55.12%	103.26%

Appendix 6: Contribution Margin

6A: Advance America's Contribution Margin									
AEA	2004	2005	2006	2007	2008	2009	2010	2011	
Average Fee	\$52.00	\$55.00	\$55.00	\$55.00	\$55.00	\$53.00	\$55.00	\$55.00	\$55.00
Average Loan Amount	\$328.00	\$339.00	\$353.00	\$361.00	\$366.00	\$361.00	\$370.00	\$375.00	\$375.00
Charge-Off Ratio	1.60%	2.11%	2.64%	3.05%	3.22%	3.33%	2.91%	2.69%	2.69%
Charge-Off Per Loan	\$5.26	\$7.14	\$9.30	\$11.02	\$11.79	\$12.00	\$10.77	\$10.10	\$10.10
Contribution Margin	90%	87%	83%	80%	79%	77%	80%	82%	82%

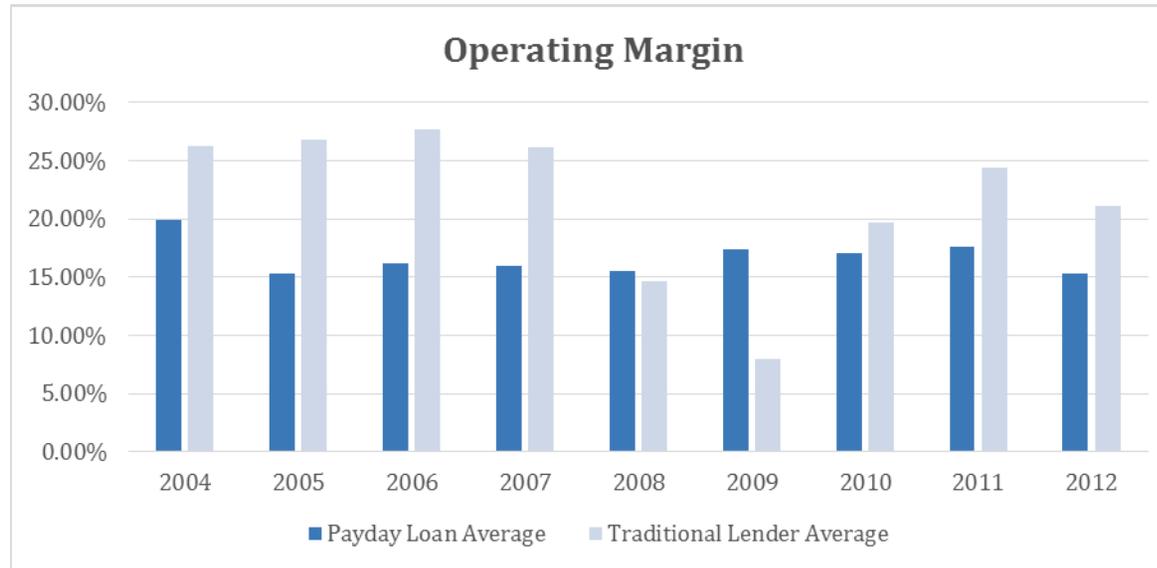
6B: QC Holdings's Contribution Margin										
QC Holdings	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Average Fee	\$50.99	\$53.83	\$53.12	\$52.90	\$53.61	\$53.70	\$53.98	\$56.65	\$57.67	\$59.23
Average Loan Amount	\$286.97	\$307.96	\$363.42	\$312.39	\$316.70	\$314.16	\$316.11	\$314.56	\$320.48	\$323.91
Charge-Off Ratio	3%	4%	3%	4%	4%	4%	5%	4%	4%	5%
Charge-Off Per Loan	\$9.27	\$12.83	\$12.35	\$12.52	\$13.16	\$11.26	\$15.95	\$12.95	\$13.95	\$17.52
Contribution Margin	82%	76%	77%	76%	75%	79%	70%	77%	76%	70%

Appendix 7: Breakeven Analysis – In Terms of Volume

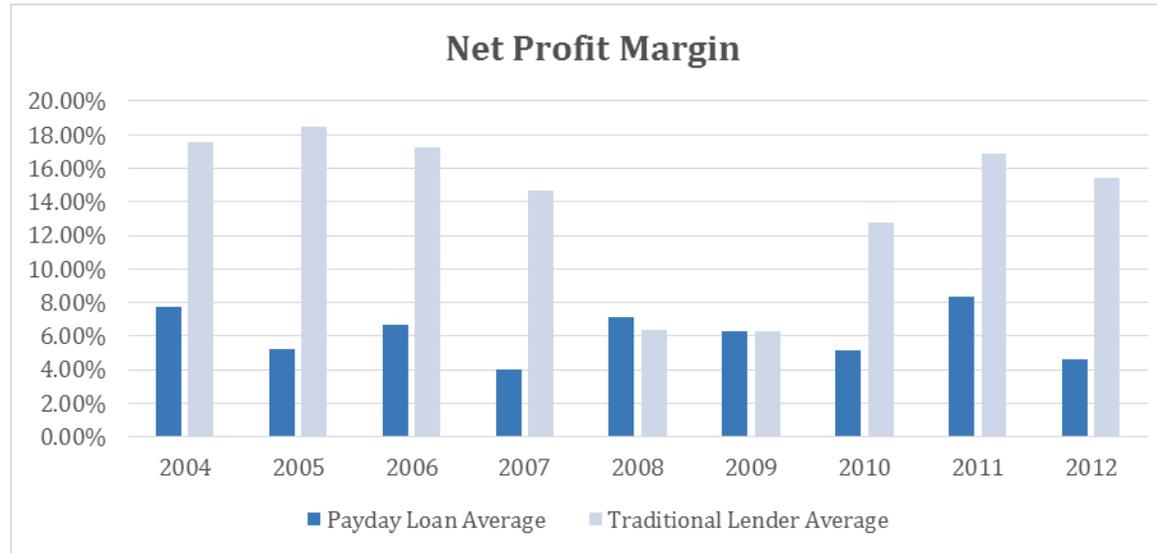
7A: Advance America's Breakeven Volume									
AEA	2004	2005	2006	2007	2008	2009	2010	2011	
Contribution per Loan	\$46.74	\$47.86	\$45.70	\$43.98	\$43.21	\$41.00	\$44.23	\$44.90	
Contribution per Dollar	\$0.14	\$0.14	\$0.13	\$0.12	\$0.12	\$0.11	\$0.12	\$0.12	
Total Costs (treated as fixed)	\$362,285.60	\$399,626.11	\$421,834.64	\$462,148.05	\$456,474.22	\$436,651.33	\$424,345.91	\$401,078.69	
Firm Level (in thousands)									
Breakeven Loan Volume (#)	7774	8375	9258	10538	10592	10681	9620	8957	
Breakeven Loan Volume (\$)	\$2,549,961.91	\$2,839,150.96	\$3,267,928.76	\$3,804,321.49	\$3,876,633.13	\$3,855,681.68	\$3,559,347.73	\$3,358,979.60	
Per Store									
Breakeven Loan Volume (#)	3229	3216	3245	3721	3787	4129	4090	3466	
Breakeven Loan Volume (\$)	\$1,058,954.28	\$1,090,303.75	\$1,145,435.95	\$1,343,333.86	\$1,385,996.83	\$1,490,406.52	\$1,513,328.12	\$1,299,914.71	
Per Store Per Day									
Breakeven Loan Volume (#)	9	9	9	10	10	11	11	9	
Breakeven Loan Volume (\$)	\$2,901.24	\$2,987.13	\$3,138.18	\$3,680.37	\$3,797.25	\$4,083.31	\$4,146.10	\$3,561.41	

7B: QC Holdings's Breakeven Volume											
QC Holdings	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Contribution per Loan	\$41.72	\$41.00	\$40.77	\$40.38	\$40.45	\$42.44	\$38.03	\$43.70	\$43.72	\$41.71	
Contribution per Dollar	\$0.15	\$0.13	\$0.11	\$0.13	\$0.13	\$0.14	\$0.12	\$0.14	\$0.14	\$0.13	
Total Costs (treated as fixed)	\$65,302.65	\$98,729.12	\$116,291.73	\$127,823.04	\$136,465.12	\$135,144.83	\$123,688.57	\$97,041.33	\$95,753.51	\$94,358.20	
Firm Level (in thousands)											
Breakeven Loan Volume (#)	1571	2416	2861	3175	3384	3194	3263	2228	2197	2269	
Breakeven Loan Volume (\$)	\$450,701.93	\$743,972.37	\$1,039,575.32	\$991,959.66	\$1,071,700.27	\$1,003,522.03	\$1,031,312.62	\$700,692.84	\$704,135.77	\$735,083.52	
Per Store											
Breakeven Loan Volume (#)	4233	4619	4666	5328	5785	5745	6238	4621	4715	5253	
Breakeven Loan Volume (\$)	\$1,214,829.99	\$1,422,509.32	\$1,695,881.44	\$1,664,361.85	\$1,831,966.27	\$1,804,895.74	\$1,971,917.05	\$1,453,719.59	\$1,511,020.96	\$1,701,582.21	
Per Store Per Day											
Breakeven Loan Volume (#)	12	13	13	15	16	16	17	13	13	14	
Breakeven Loan Volume (\$)	\$3,328.30	\$3,897.29	\$4,646.25	\$4,559.90	\$5,019.09	\$4,944.92	\$5,402.51	\$3,982.79	\$4,139.78	\$4,661.87	

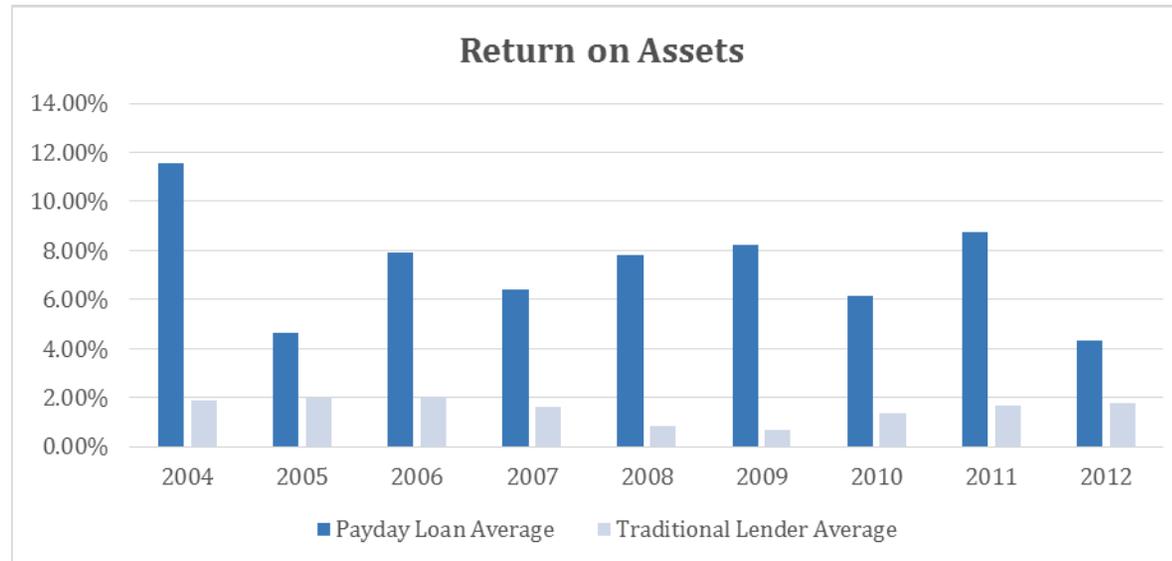
Appendix 8: Operating Margin



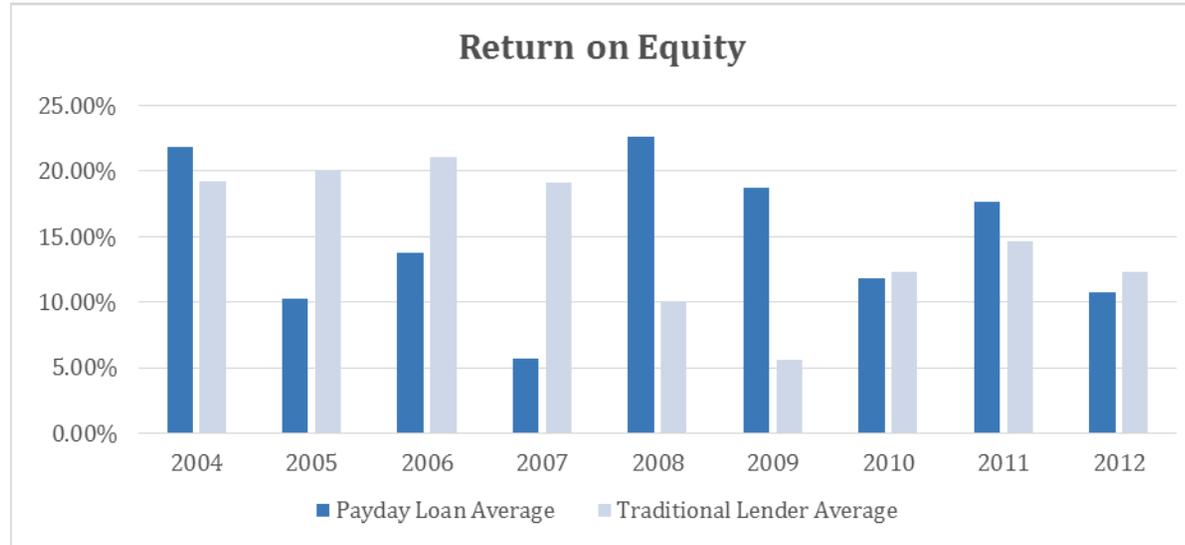
Appendix 9: Net Profit Margin



Appendix 10: Return on Assets



Appendix 11: Return on Equity



REFERENCES

- Avery, R. B. (2011). *Payday Loans versus Pawnshops: The Effects of Loan Fee Limits on Household Use*. Board of Governors of the Federal Reserve System. Working Paper.
- Bertrand, M., & Morse, A. (2011). Information Disclosure, Cognitive Biases and Payday Borrowing. *The Journal of Finance*, 66(6), 1865-1893.
- Bhutta, N., Skiba, P., & Tobacman, J. (2012). Payday Loan Choices and Consequences. *Vanderbilt Law and Economics*. Working Paper.
- Burch, C. A. (2001). Taking the Pay Out of Payday Loans: Putting an End to the Usurious and Unconscionable Interest Rates Charged by Payday Lenders. *University of Cincinnati Law Review*.
- Burke, K., Lanning, J., Leary, J., & Wang, J. (2014). *CFPB Data Point: Payday Lending*. Consumer Financial Protection Bureau.
- Burkey, M. L., & Simkins, S. P. (2004). Factors affecting the location of payday lending and traditional banking services in North Carolina. *The Review of Regional Studies*, 34(2), 191-205.
- Carrell, S. (2008). *In harm's way? Payday loan access and military personnel performance*. Philadelphia, PA: Federal Reserve Bank of Philadelphia.
- Chessin, P. (2005). Borrowing From Peter to Pay Paul: A Statistical Analysis of Colorado's Deferred Deposit Loan Act. *Denver University Law Review*, 83(2), 388-423.
- Chin, P. (2004). Payday Loans: The Case for Federal Legislation. *University of Illinois Law Review*, 2004(3), 723-754.

- CreditCards.com Weekly Credit Card Rate Report*. (n.d.). Retrieved from <http://www.creditcards.com/credit-card-news/interest-rate-report-010213-unchanged-2121.php>
- Damar, H. E. (2009). Why Do Payday Lenders Enter Local Markets? Evidence from Oregon. *Review of Industrial Organization*, 34(2), 173-191.
- DeYoung, R., & Phillips, R. J. (2006). *Strategic Pricing of Payday Loans: Evidence from Colorado, 2000-2005*. The Federal Reserve Bank of Kansas City Economic Research Department. Working Paper.
- Elliehausen, G., & Lawrence, E. (2001). *Payday Advance Credit in America: An Analysis of Customer Demand*. Credit Research Center, McDonough School of Business Georgetown University.
- Elliehausen, G. (2006). *Consumers' Use of High-Price Credit Products: Do They Know What They are Doing?* NFI Working Paper.
- Ernst & Young (2009). *The Cost of Providing Payday Loans in a US Multiline Operator Environment*.
- Flannery, M., & Samolyk, K. (2005). *Payday lending: Do the Costs Justify the Price?* FDIC Center of Financial Research. Working Paper.
- Fusaro, M. A., & Cirillo, P. J. (2011). *Do Payday Loans Trap Consumers in a Cycle of Debt?*
- Gallmeyer, A., & Roberts, W. T. (2009). Payday lenders and economically distressed communities: A spatial analysis of financial predation. *Social Science Journal*, 46(1), 521-538.

- Gold, A. (2009). Payday Lending: Grounding the Policy Debate through Economic Analysis. *Leonard N. Stern School of Business, New York University*. Working Paper.
- Graves, S., & Peterson, C. (2008). Usury Law and The Christian Right: Faith-Based Political Power and the Geography of American Payday Loan Regulation. *Catholic University Law Review*, 57(3).
- Hoopes, S. (2014). *Check Cashing & Payday Loan Services in the US*. IBISWorld.
- Huckstep, A. (2007). Payday Lending: Do Outrageous Prices Necessarily Mean Outrageous Profits. *Fordham Journal of Corporate & Financial Law*, 12(1), 203-231.
- Johnson, C. (2002). Payday Loans: Shred Business or Predatory Lending? *Minnesota Law Review*, 1(99).
- Kaufman, A. (2013). *Payday Lending Regulation* (62). The Federal Reserve Board, Finance and Economics Discussion Series. Working Paper.
- Knittel, Christopher R., and Victor Stango. 2003. "Price Ceilings as Focal Points for Tacit Collusion: Evidence from Credit Cards." *American Economic Review*, 93(5): 1703-1729.
- Lawrence, E.C. & Elliehausen, G. (2008). A Comparative Analysis of Payday Loan Customers. *Contemporary Economic Policy*.
- McGray, D. (2008). Check Cashers, Redeemed. *New York Magazine* [MM36-MM42].

- Melzer, B. T. (2009) & Morgan, D.P. *Competition and adverse selection in the small-dollar loan market: Overdraft versus payday credit*. New York, NY: Federal Reserve Bank of New York.
- Melzer, B. T. (2011). The Real Costs of Credit Access: Evidence from the Payday Lending Market. *The Quarterly Journal of Economics*, 126, 517-555.
- Millennials big fans of prepaid cards, payday loans*. (2013, June 13). Retrieved from <http://www.usatoday.com/story/money/personalfinance/2013/06/13/millennials-banking-alternatives/2408861/>
- Morgan, D. P., & Strain, M. R. (2007). *Payday holiday: How households fare after payday credit bands* (309). Staff Report, Federal Reserve Bank of New York.
- Morse, A. (2011). Payday lenders: Heroes or villains? *Journal of Financial Economics*, 102(1), 28-44.
- Pay Dirt. (1999, June 3). *The Economist*, 351(8122), 28.
- Payday Lending in America: How Borrowers Choose and Repay Payday Loans*. (2013). The Pew Charitable Trusts.
- Payday Lending in America: Who Borrows, Where They Borrow, and Why?* (2012). The Pew Charitable Trusts.
- Petersen, M. A., & Rajan, R. G. (1995). The Effect of Credit Market Competition on Lending Relationships. *The Quarterly Journal of Economics*, MIT Press, 110(2), 407-443.
- Prager, R. A. (2009). *Determinants of the locations of payday lenders, pawnshops and check-cashing outlets*. Washington, DC: Div. of Research & Statistics and Monetary Affairs, Federal Reserve Board.

- Schaaf, S. A. (2001). From Checks to Cash: The Regulation of the Payday Lending Industry. *North Carolina Banking Institute*, 5, 339-340.
- Skiba, P. M. (2012). Regulation of Payday Loans: Misguided? *Washington and Lee Law Review*, 69(2).
- Skiba, P. M., & Tobacman, J. (2012). Do Payday Loans Cause Bankruptcy. *Vanderbilt Law and Economics Research*, 11-13.
- Smith, F. B. (2003). *Payday Lending - Lessons from History* (34). Consumer's Research Magazine.
- Stegman, M. A., & Faris, R. (2003). Payday Lending: A Business Model that Encourages Chronic Borrowing. *Economic Development Quarterly*, 21(1), 169-190.
- Stephens (2011). *Payday Loan Industry*.
- Thomas, R. J. (2007). Rolling Over Borrowers: Preventing Excessive Refinancing and other Necessary Changes in the Payday Loan Industry. *William and Mary Law Review*, 48(6), 2401-2436.
- Wheatley, W. P. (2010). Economic and Regional Determinants of the Location of Payday Lenders and Banking Institutions in Mississippi: Reconsidering the Role of Race and Other Factors in Firm Location. *The Review of Regional Studies*, 40(1), 53-69.
- Willoughby, E. (2005). Bankwest v. Baker: Is it Mayday for Payday Lenders in Rent-A-Charter Arrangements? *North Carolina Banking Institute*, 9, 268-278.

Wilson, B. J., Findlay, D. W., Meehan, J. W., Wellford, C. P., & Schurter, K. (2010). An Experimental Analysis of the Demand for Payday Loans. *The B.E. Journal of Economic Analysis & Policy*, 10(1).

Zinman, J. (2010). Restricting consumer credit access: Household survey evidence on effects around the Oregon rate cap. *Journal of Banking & Finance*, 34(2), 546-556.