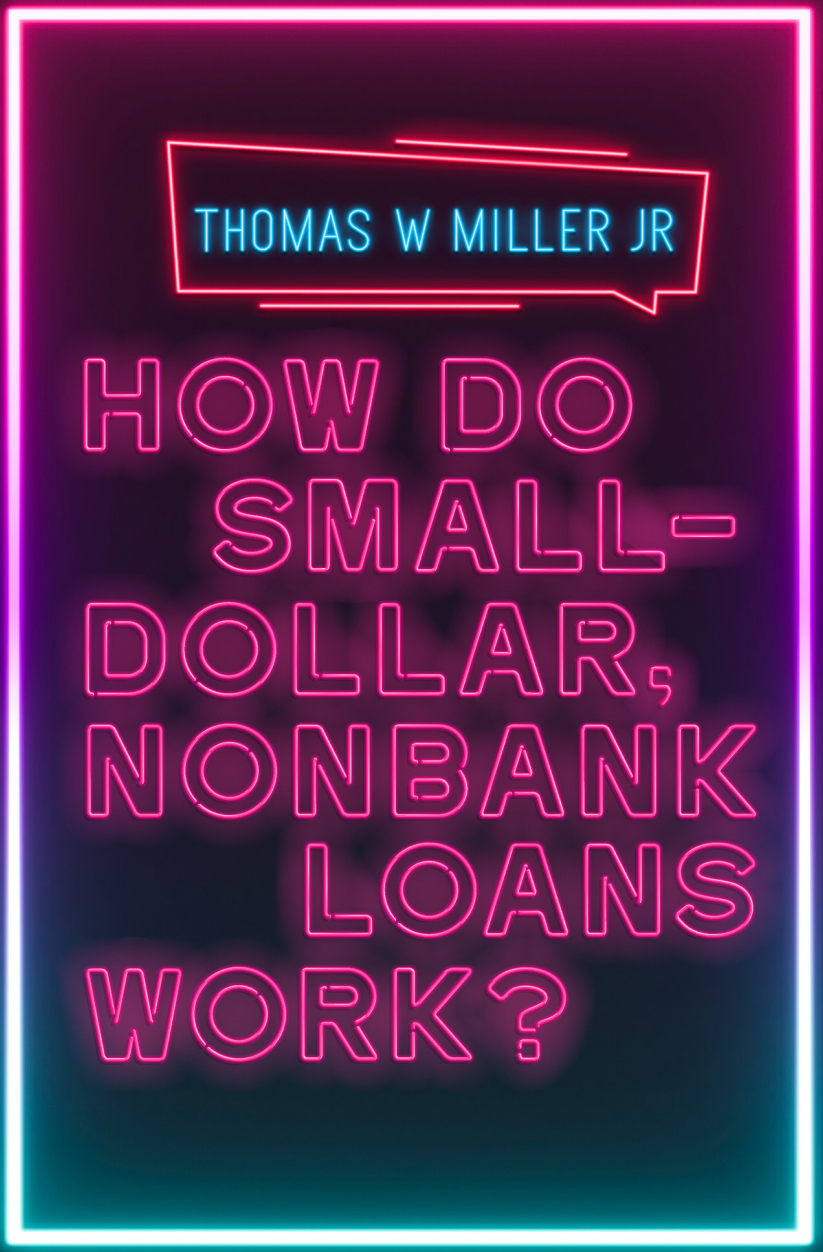
THOMAS W MILLER JR
HOW DO SMALL-DOLLAR, NONBANK LOANS WORK?

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In Memory of Mary Kathryn Miller

". . . and let light perpetual shine upon her."

"If the test of a subject's historical importance is the amount of controversy it generated, then consumer credit is one of the most significant subjects in the history of the American twentieth century."

Lendol Calder, *Financing the American Dream: A Cultural History of Consumer Credit*

Contents

Preface

Imagine that it is the Saturday before Thanksgiving. In a few days, most of your relatives and in-laws are coming over to watch football and eat Thanksgiving dinner together. You're thinking of the upcoming festivities as you open a can of soup. Smiling, you switch on a burner. Nothing happens. You try the other burners and check your circuit breaker. With a sinking feeling, you call the appliance store and report the problem. Bad news: you need a new stove.

What do you do now? Your answer will depend on your current financial health. How large are your ready cash reserves? What credit options do you have?

Some people's financial health is excellent. For others, it is strong. For others, it is average or fair or poor. Improving your financial health takes time—it normally requires a strategic plan. Unfortunately, financial shocks such as a broken stove can, and do, occur suddenly. They require tactical responses. If you don't have sufficient cash reserves when your stove breaks, you will need to either find a source of credit or do without a stove.

People who are in an excellent financial situation use credit differently from people who are in a poor financial situation. Moreover, people in an excellent financial situation have a larger set of credit options, and financial shocks have less of an impact on them.

For example, if you are a salaried employee with steady earnings and a high credit score, you likely have a credit card with credit available. Even if you don't currently have credit available, you can open a new line of credit to pay for a new stove. By contrast, consumers in poor financial situations are not well equipped to deal with sudden financial shocks like the loss of a stove. Such consumers do not have available credit on a credit card or access to new lines of credit. For these consumers, financial shocks can be overwhelming.

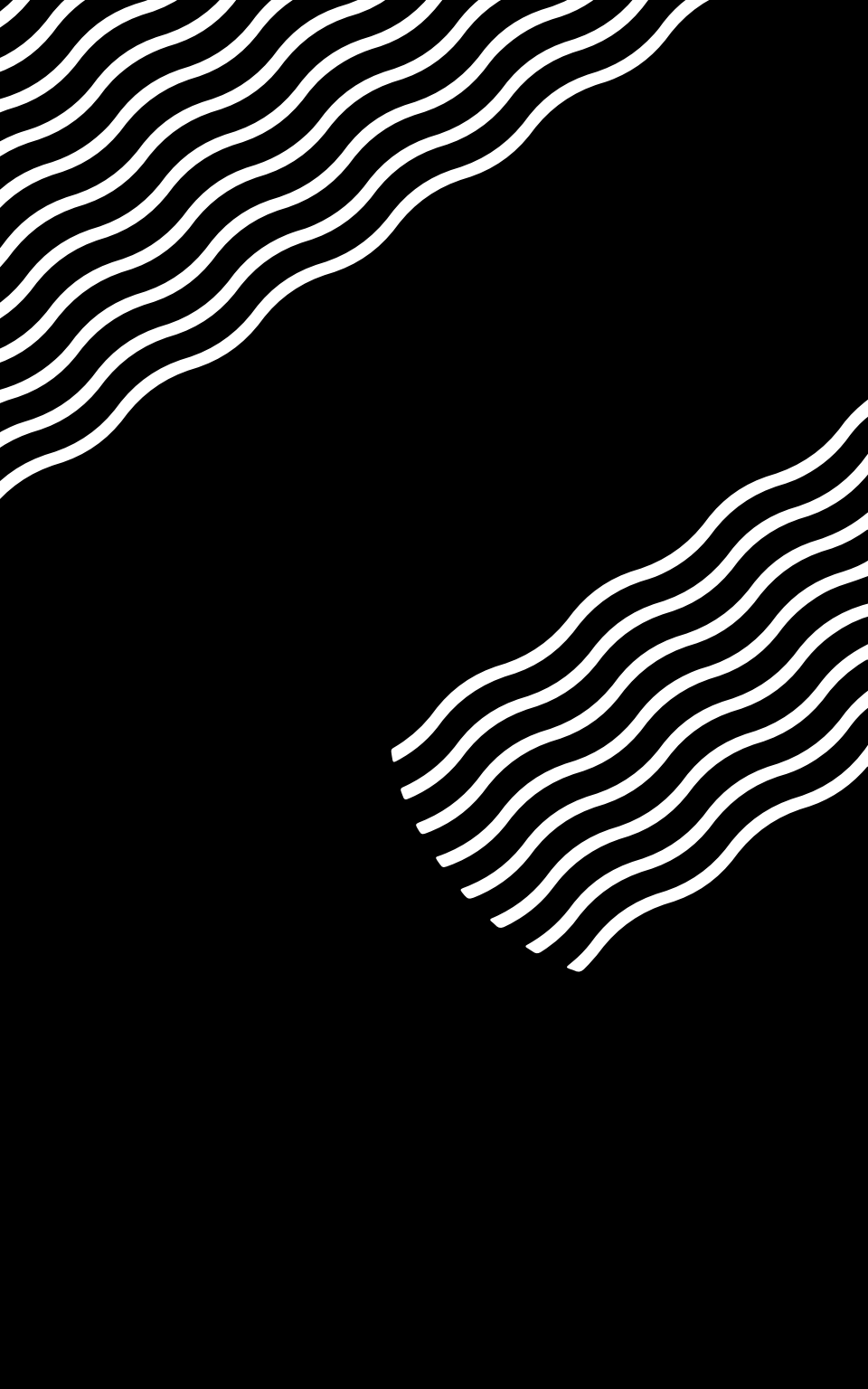
Hourly workers, usually employed in service or manufacturing jobs, are particularly vulnerable to income disruptions—another type of financial shock. In recent years, the American economy has seen an increase in short-term, part-time, temporary positions filled by independent contract workers. Workers in this so-called gig economy also face potential income disruptions. In addition, people who are self-employed in small service businesses such as landscaping, construction and maintenance, child or elder care, and housecleaning have natural variations in their income. Workers whose monthly income varies can find it difficult to meet ordinary living expenses, and financial shocks involving sudden expenses can be even more disruptive.

Many of the people involved in writing the laws and regulations that govern consumer credit have a strong financial position and a predictable income from an annual salary. Some might never have experienced a serious financial crisis. On a personal level, these policymakers might find it difficult to understand the financial dilemmas faced by people in weak financial situations and the options available to people in these situations.

Other lawmakers and rule-writers might have personal experience coping with financial disasters but might not have encountered all the credit products covered in this

guide. The fundamental purpose of this guide is to help *all* lawmakers and rule-writers understand the workings of four major non-bank-supplied credit products. For millions of consumers in weak financial situations, these products are a vital credit resource. It is important for the people who control access to these products to understand the choices of the people who use them.

As you read about the small-dollar credit products in this guide, imagine yourself trying to solve a broken-stove problem. You certainly do not have time to save up money for a new stove—the in-laws are counting on you for some holiday cheer. Suppose, however, that your financial situation is really poor. There is no room on your credit cards. You have a pittance of cash in reserve, but you are keeping that $115 in the shoebox for a truly dismal rainy day. You know that your checkered credit history rules out a bank loan. Your credit score means that getting financing from the appliance store is iffy. You still owe your family half the money they lent you for some expenses a few months back. Where can you go to get the money to replace your stove by Thanksgiving Day?



Introduction: First Things First

The aim of this guide is to provide a basic understanding of the workings of small-dollar loans supplied by nonbank providers. The guide's focus is on the mechanical aspects of how these loan products work, not on the legal aspects of small-dollar lending markets.

The intended readership includes state legislators, state regulators, the staffs of state legislators, members of the US Congress and their staffs, federal regulators, industry practitioners, consumer advocates, and interested citizens. I do not assume the reader has prior knowledge of finance. My intention is for any reader to be able to follow both the simple ideas in this guide and the complex ones. I have included a glossary of selected small-dollar loan terms to aid readers. (The first time a glossary term appears in the guide, it is set in boldface type.)

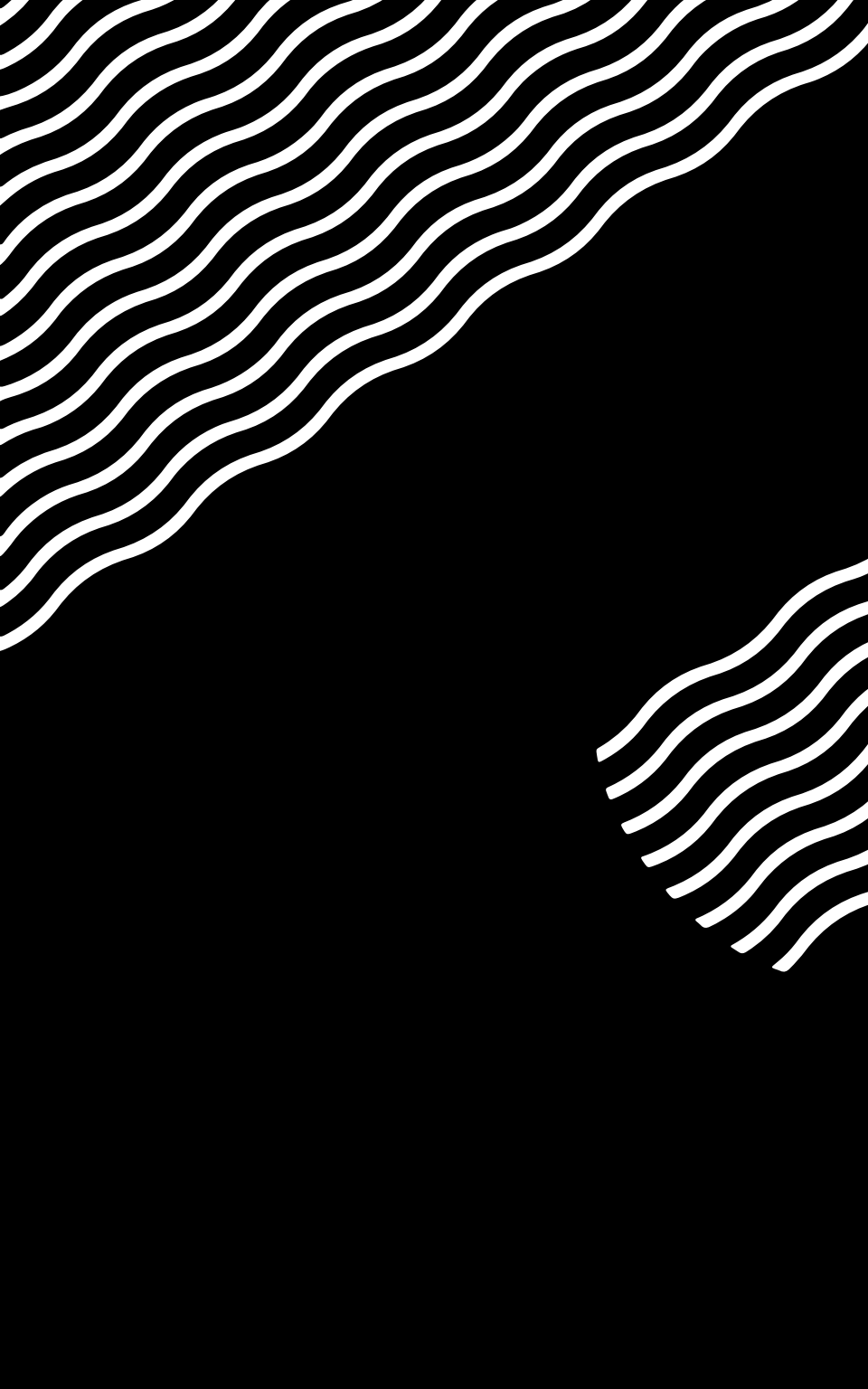
The purpose of this overview is to give legislators, regulators, and the public a shared basis of knowledge about these products. When people hear the term "consumer credit,"

many think of mortgages or credit cards. Importantly, the loans discussed in these pages are not secured by real estate, nor are they credit cards.

This guide summarizes the many hours I have spent reflecting on the importance of small-dollar, nonbank credit products. In addition, my approach has been informed by remarks and questions I have received during presentations about this topic before academic, regulatory, and policymaking audiences.

The following pages provide an overview of four established versions of loan products often offered to subprime borrowers: **personal loans** from finance companies, **pawn transactions**, **vehicle title loans**, and **payday loans**. The workings of two less-established loan products are also discussed: payday installment loans and vehicle title installment loans. Finally, there is a brief discussion of two other areas in the small-dollar loan landscape: online payday loans and flex loans. The guide does not cover other forms of small-dollar consumer credit, such as subprime credit cards, rent-to-own transactions, crowdfunding, peer-to-peer lending, charitable lending through churches, and loans from remedial loan societies.

I have written this guide to present facts, not suggestions to lawmakers to help them regulate these small-dollar credit markets. I believe that all sides to any public policy debate concerning small-dollar credit should have access to the same working knowledge of these products. I recognize that many people already have opinions about these products. It is my desire that those who discuss, regulate, and legislate will find this overview to be a useful common starting point for future public policy debates.



The Landscape

Most US consumers are aware that credit products like mortgages, car loans, and credit cards exist. Versions of these credit products are available for both **prime borrowers** and **subprime borrowers**—although the credit terms differ for the two groups of borrowers. Borrowers are divided into these two broad categories on the basis of their previous patterns of debt repayment: a comparison of credit histories suggests that certain individuals, categorized as prime borrowers, are more likely to repay future debts than are other individuals, categorized as subprime borrowers. This division is somewhat arbitrary, but it is a traditional way to classify borrowers. Borrowers who repay debt in a timely fashion are considered less risky and are usually offered lower **interest rates**. If borrowers exhibit an inconsistent pattern of repayment, lenders will charge higher interest rates. The less dependable the pattern of past repayment, the higher the interest rate charged on new debt.

A steady income helps consumers budget for timely debt repayment. A salaried job means a consumer can plan for future expenditures, including payments toward debt reduction. Salaried employees get paid even when they are sick and cannot come to work. By contrast, hourly employees do not get paid unless they work. Roofers do not work when it rains. Restaurant servers do not get paid when they take a child to the doctor. As a result, the income volatility of hourly workers means they might have more difficulty planning a budget. Income is variable, but expenses are recurring. If hourly workers have periods when they are unable to make scheduled debt payments, their standing with lenders might suffer.[1]

Today in the United States, a crucial section of the broad consumer credit landscape hides in plain sight. This portion of the credit landscape consists of **small-dollar loan** products offered to subprime borrowers by lenders that are not banks or credit unions. These important consumer credit markets are not widely known and are even less understood.

This guide is an introduction to four established types of small-dollar loans, all of which are traditionally made by lenders with brick-and-mortar storefronts: personal loans from finance companies, pawn transactions, vehicle title loans, and payday loans. Although this guide focuses on products offered by storefront lenders, some of these types of loans are also offered online, so section 2 includes a brief discussion of internet lending.

Sales Financing versus Cash Loans

Many consumers are familiar with the idea of taking possession of a good today and paying for it over time. This process is known as **sales financing**: the consumer takes possession of the item and pays for it over time with installment payments. Goods commonly obtained through sales

1. The nature of income variability has been documented. See, for example, the literature cited in Aspen Institute, *Income Volatility: A Primer*.

financing include automobiles, boats, recreational vehicles, motorcycles, home appliances, and home electronics. In the sales financing of high-value items, the good being purchased serves as **collateral**. Collateral is something pledged as security for a loan—that is, the collateral will be forfeited if the buyer **defaults**.

The credit products described in this guide do not fall into the sales financing category. Instead, these credit products fall into the category of **cash loans**. When consumers receive a cash loan, they can use the proceeds in any manner they wish. Depending on the type of loan, a cash loan is paid back in one lump sum or by installment payments.

The Basic Purpose of Consumer Credit

Consumers can use consumer credit products for planned purchases. In addition, the products are available to individuals who face a financial emergency. Consumer credit allows a consumer to change a current pattern of cash inflows and outflows to a preferred pattern.

Planned Purchases

Joe wants to buy a washer and dryer. He could save money and then purchase the pair of appliances after accumulating enough cash to buy them both. Or he could borrow money and purchase the washer and dryer today. In the first scenario, Joe sets aside some income over time to buy a washer and dryer to be used later. In the second scenario, he sets aside some income over time to pay for a washer and dryer that can be used now.

In the first scenario, while saving for a washer and dryer, Joe must trudge to the corner with a giant bag of laundry and a fistful of quarters and dimes. In the second scenario, he can conveniently

wash and dry clothes at home. In the first scenario, part of the cost Joe bears is the inconvenience of not having a washer and dryer for a period of time. In the second scenario, part of the cost Joe bears is the **interest** paid on the loan.[2]

Financial Emergencies

According to survey results reported by the Board of Governors of the Federal Reserve System in May 2018, more than 20 percent of respondents said that they could not pay all their current month's bills in full—suggesting that millions of Americans might be living paycheck to paycheck. Further, 44 percent of the respondents said that they could not cover an emergency expense costing $400 with cash on hand. They would have to meet this expense by selling possessions or borrowing money.[3]

For these millions of Americans, unexpected medical bills, funeral costs, automobile repairs, and a host of other expenses strain their finances. For hourly workers, weather events or other disruptions in income also affect budgets negatively. Perhaps these unexpected expenses can be met by increasing credit card debt or by borrowing from friends and family members. If not, or if the consumer prefers not to pursue those options, he or she might obtain a small-dollar loan. Sales financing is not an option when individuals have an unexpected need for cash in a financial emergency.

The Loan Process

The nonbank credit products presented in this guide all involve a process of transferring money from a lender to a

2. Here are some interesting questions that merit further research: What is the percentage of consumer expenditures that are planned versus emergency? How do these percentages change, controlling for differences in income, age, and other demographic factors? Which expenditures constitute emergency expenditures?

3. Board of Governors of the Federal Reserve System, *Report on the Economic Well-Being of U.S. Households in 2017*. For a description of the life of a middle-class household that fits into this category, see Gabler, "The Secret Shame of Middle-Class Americans."

borrower. They share many features but differ in ways that mean they are not perfect substitutes for each other in the eyes of consumers seeking credit. Each product's features are spelled out in its **loan agreement**—a consensual agreement between a borrower and lender that specifies the promises the two parties are making to each other.

Before a lender agrees to make a cash loan, the lender engages in loan **underwriting**. Underwriting is the process lenders use to decide whether to enter into a loan agreement. The underwriting process also determines how much money will be lent, as well as the cost of the loan in terms of interest and other **fees**. Sometimes the underwriting process is thorough, but for some small loans it is not detailed. Sometimes the underwriting process reveals that the borrower must post collateral. Or perhaps the borrower must demonstrate to the lender that the borrower has sufficient assets that can be sold to settle the debt.

Borrowers are in default if they cease making loan payments. Loans can be **recourse loans** or **nonrecourse loans**, depending on the loan agreement. When a borrower defaults on a recourse loan, the lender has a legal right to collect the debt fully from the borrower, including through **garnishment**. When a borrower defaults on a nonrecourse loan, the lender can only seize and sell the collateral.

The Diverse Nature of the Small-Dollar Loan Landscape

The nonbank credit landscape is diverse because subprime borrowers have diverse needs. The small-dollar loan marketplace has responded to this varied demand by making loan products available that differ from one another significantly in terms of size, length, cost, repayment method, and underwriting process. Table 1 summarizes some aspects of six common subprime consumer credit products.

Some small-dollar loans are short-term (lasting just weeks), some are intermediate-term (lasting months), and some last up to two years. Loans with a scheduled term of

a month or less are **lump-sum loans**, meaning that they require the repayment of **principal** and interest in a lump sum at the end of the loan period. Loans with a scheduled payback period of four months or more have a scheduled monthly repayment and are thus called **installment loans**.

For some installment loans, the scheduled monthly repayment leaves a **balloon payment** at the time the loan is due. In most cases, though, the scheduled monthly payments are equal in size and fully repay the loan. In such loans, each scheduled monthly payment has interest and principal components that change in a predictable way. Earlier payments have a higher proportion of interest. Later payments have a lower proportion of interest. The last payment, which is the same size as all the others, pays off the loan in full.

TABLE 1. SUMMARY OF THE FEATURES OF SIX SMALL-DOLLAR LOAN PRODUCTS

PANEL A. LOAN DESCRIPTIONS AND TERMS

Loan source	Mainline consumer loan product	Loan size	Typical loan length
Finance company	traditional installment loans, generally secured	depends on customer	by contract; usually 6–24 months
Pawnbroker	nonrecourse secured loans	by contract depends completely on item value	one month, renewable
Vehicle title pawn lender	nonrecourse secured loans	maximum depends on state law	one month, renewable
Vehicle title installment lender	installment loans	maximum depends on state law	4–12 months
Payday lender, lump-sum	lump-sum loans, unsecured	$100–$500+ depends on state law	two weeks; rollovers depend on state law
Payday lender, installment	installment loans, unsecured	$300–$2,000+ depends on state law	4–6 months for loans under $500; 6–12 months for larger loans

PANEL B. LOAN PROCESSES AND CREDIT CHECKS

Loan source	Loan process	Requires credit check?	Reported to credit bureau?	Can improve credit score?	Can hurt credit score?
Finance company	detailed underwriting process; 40%–60% rejection rate	extensive, including credit bureau report	yes	yes	yes
Pawnbroker	negotiation about value of item pawned	minimal	no	no	no
Vehicle title pawn lender	negotiation about vehicle value	some	no	no	no
Vehicle title installment lender	negotiation about vehicle value; check for verifiable income	some	unknown (new product)	unknown (new product)	unknown (new product)
Payday lender, lump-sum	check for verifiable income and checking account; 10% rejection rate	some	no (prohibited by bureaus)	no	no
Payday lender, installment	check for verifiable income and checking account	some	unknown (new product)	unknown (new product)	unknown (new product)

Underwriting is the process of researching and assessing the credit risk posed by a potential borrower. The purpose of underwriting is to gauge the probability that the borrower will default on the loan—that is, not pay it back. If a borrower is more likely to default, the lender must charge this borrower a higher interest rate to cover the true cost of making the loan to this customer.

The structure of the loan product plays a key role in whether the lender underwrites the loan. For example, in the market for traditional personal loans from finance

companies, payment occurs over six to twenty-four months. The lender must assess whether the borrower will have a reasonably stable income and expense flow over this future time.[4]

Would-be borrowers who do not qualify for personal loans have other options, including pawn transactions and vehicle title loans. These two small-dollar credit products are not rigorously underwritten. The reasons are simple. The person seeking money generally pledges an asset worth more than the loan amount sought. Because of this structure, there is a strong incentive to repay the loan. Moreover, the party providing the money has a way to ensure repayment, because if the loan is not repaid, the party can take possession of the pledged collateral and sell it.

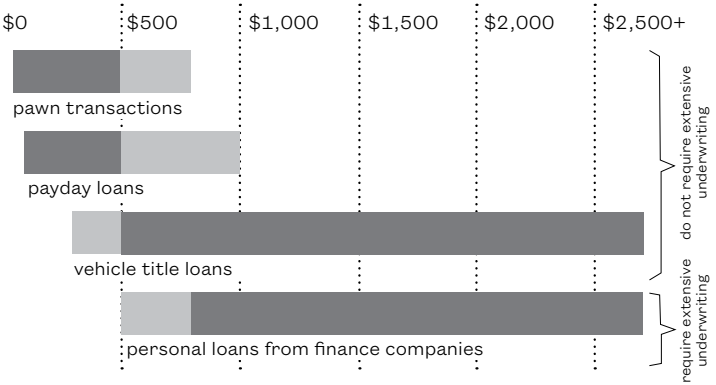
Borrowers who do not qualify for a personal loan and do not want to pledge assets to obtain cash might seek a payday loan. Not all borrowers who want a payday loan can obtain one. Historically, to obtain a payday loan, a borrower must be over the age of 21 and have a bank account and proof of income. But there is an emerging trend in favor of offering payday loans to customers without bank accounts. The website for Same Day Payday (which is not itself a payday lender) states that some lenders now accept only proof of income or a savings account.[5]

It is useful to think in terms of loan size when thinking about pawn transactions, vehicle title loans, payday loans, and traditional personal loans, all of which have typical, or general, loan size "habitats." Figure 1 depicts the approxi-

4. On the basis of discussions with traditional nonbank installment lenders, I believe that between 40 and 60 percent of their applicants are denied credit. The rejection ratio depends on the overall state of the economy and on the particular underwriting process being used. A rigorous exploration of this topic would be of broad interest.

5. See Same Day Payday, "Payday Loan with No Checking Account," accessed June 2018, https://www.samedaypayday.com/Payday-Loan-with-No-Checking-Account. Although this option might well exist, it is not clear that it is offered by all payday lenders. Websites for CashMax (www.cashmaxohio.com), ACE Cash Express (www.acecashexpress.com), and Check 'n Go (www.checkngo.com) indicate that these companies require customers to have a checking account in order to obtain a payday loan. Advance America's website (www.advanceamerica.net), however, states that a checking account is required in most cases. (All websites accessed June 2018.)

FIGURE 1. APPROXIMATE SIZES OF SOME SMALL-DOLLAR LOAN TYPES



Note: The darker bars represent the more typical range. For example, the typical size for a payday loan is $100 to $500, but in some states, payday loans might be as large as $1,000.

Sources: Author's conversations with various lenders; Jim Hawkins, "Credit on Wheels: The Law and Business of Auto-Title Lending," Washington and Lee Law Review *69, no. 2 (2012): 546.*

mate loan size of each product. This picture is not precise—its goal is merely to show that typical loan sizes differ among the products. Pawn transactions are typically made for the lowest loan amounts, followed by payday loans, vehicle title loans, and personal loans.

Size of the Small-Dollar Consumer Credit Markets and Some Borrower Characteristics

Millions of households use nonbank credit products. The Center for Financial Services Innovation provides an annual report on the loan volume (i.e., the total amount borrowed) for the four major nonbank small-dollar credit products featured in this guide. The December 2017 edition of the report contains these data for the loan volume in 2016 and the estimated loan volume in 2017 (see table 2).[6] For each loan type, dividing the data on loan volume by the average size of the

6. Wilson and Wolkowitz, *2017 Financially Underserved Market Size Study*.

TABLE 2. AMOUNTS BORROWED IN THE US USING NONBANK SMALL-DOLLAR CREDIT PRODUCTS

	Dollars borrowed (billions)	
Type of loan	**2016**	**2017 (est.)**
Personal installment loan	$18.1	$20.0
Pawn transaction	$14.0	$13.7
Vehicle title loan	$6.3	$7.2
Payday loan (online)	$15.2	$14.5
Payday loan (storefront)	$19.9	$17.8
TOTAL	**$73.5**	**$73.2**

Note: Amounts are in current dollars.
Source: Eric Wilson and Eva Wolkowitz, 2017 Financially Underserved Market Size Study, *Center for Financial Services Innovation, December 2017.*

loan provides an estimate for how many loans were made in a given year.[7]

As an example, consider personal installment loans. About half of the personal installment loans examined in one 2017 study were for a range of 13–24 months. Half of the loans were made for amounts less than $1,000, and three-quarters of the loans were made for amounts less than $2,000.[8] Dividing the 2017 estimated volume for personal loans by an average loan size of $1,000 provides an estimate of the number of personal installment loans made in 2017: 20 million.

In the case of pawn transactions, much has changed in the past 20 years. In 1997, pawn transactions typically resulted in loans ranging from $35 to $260, with an average size of about $70. The National Pawnbrokers Association website states that the average pawn transaction currently results in a

7. Reported average values for each loan type are estimated from my own interviews and reading. The numbers I provide for averages might, in fact, be medians or modes. Therefore, I will assume that frequency distributions are unimodal and symmetrical so that the modes are approximately equal to the means. Hence, where I say typical, I mean average, without prejudice to the calculation.

8. Table 2 in Durkin, Elliehausen, and Hwang, "Rate Ceilings and the Distribution of Small Dollar Loans from Consumer Finance Companies."

loan of $150.[9] Using $150 as the average loan size for a pawn transaction and dividing it out of the 2017 estimated volume for pawn transactions results in an estimate of 91.3 million pawn transactions in 2017.

As for vehicle title loans, a 2015 Pew Charitable Trusts report states that the typical amount of these loans is $1,000.[10] Using this average and dividing it out of the 2017 estimated volume for title loans results in an estimate of 7.2 million vehicle title loans in 2017.

Payday loans are divided into two types. The Consumer Financial Protection Bureau (CFPB) reports that the median loan size is $400 for online payday loans and $350 for storefront payday loans.[11] Using these medians and dividing them out of the 2017 estimated volumes for online and storefront payday loans results in estimates of 36.2 million online payday loans and 50.9 million storefront payday loans in 2017.

At this point, it is important to note that the estimates calculated above might not reflect the numbers of loans *initiated* in 2017. If the loan volumes reported by the Center for Financial Services Innovation include **rollovers** or **renewals**, then these estimates include both new loans and extensions to existing loans. Rollovers are common in the payday loan industry. The CFPB states that more than 80 percent of payday loans are rolled over or followed by another loan within 14 days.[12]

Measuring Creditworthiness

One way to classify consumers is by their **credit scores**. Credit scores attempt to quantify the creditworthiness of a

9. The data for 1997 are from Johnson and Johnson, "Pawnbroking in the U.S." The National Pawnbrokers Association data are from "Pawn Industry Statistics," accessed February 19, 2019, https://nationalpawnbrokers.org/pawn-industry-faqs/.

10. Pew Charitable Trusts, *Auto Title Loans*.

11. Bureau of Consumer Financial Protection, Payday, Vehicle Title, and Certain High-Cost Installment Loans, 82 Fed. Reg. 54472 (November 17, 2017). The CFPB's source is Clarity Services Inc., "Profiling Internet Small Dollar Lending," 10.

12. Burke et al., *CFPB Data Point*.

borrower on the basis of the individual's historical pattern of repaying debts. A 2015 report by the Center for Financial Services Innovation finds that 108 million people in the US have a subprime credit score or are unscored. Credit scores range from 300 to 850, and borrowers are generally considered subprime if their scores fall below 580.[13]

This number is significant. Banks generally do not make small-dollar loans to borrowers with damaged credit. As a result, there are many millions of people whose credit score, or lack of a credit score, causes them to look for sources of consumer credit that lie outside the traditional banking system.

Estimating the Number of Underserved Consumers

The finance field has adopted a label for consumers who find themselves unable to make full use of the traditional banking system: "underserved." Generally, a person is considered underserved if he or she is unbanked (or "underbanked"—more on this later), has a subprime credit score (or no credit score), and has relatively low and volatile income.[14] The Federal Deposit Insurance Corporation (FDIC) has conducted a national

13. "FICO scoring is the most prominent method across the industry and is widely used by most credit bureaus. This credit score ranges from 300 to 850. Experian breaks down credit scoring classifications into five tiers. Higher credit scores are associated with good credit. This encompasses the top three tiers of borrowers, all with credit scores above 670. The top three credit score classifications are known as exceptional, very good and good. Subprime borrowers will fall in the lower two tiers which include the fair and poor categories. Fair credit category borrowers will have credit scores ranging from 580 to 669. In the poor category subprime borrowers will have a credit score of 579 or lower." Julia Kagan, ed., "Subprime Borrower," Investopedia, last modified April 10, 2018, https://www.investopedia.com/terms/s/subprime-borrower.asp.

14. For extended discussions about the unbanked and underbanked, see, for example, Servon, *Unbanking of America*; Federal Deposit Insurance Corporation, *2017 FDIC National Survey of Unbanked and Underbanked Households*; Baradaran, *How the Other Half Banks*; Center for Financial Services Innovation, "2014 Underserved Market Size."

survey of unbanked and underbanked households on a biannual basis since 2009. The most recent survey available as I write this was administered in June 2017, and the FDIC collected responses from more than 35,000 households. The FDIC uses this survey data to estimate the proportion of US households that do not have a bank account at an insured institution. The agency also estimates the proportion of households that have a bank account but also obtained non-bank-supplied financial services during the past 12 months.[15]

In its executive summary of the 2017 survey, the FDIC defines underbanked households as households that "had a bank account, but also used alternative financial services (AFS)."[16] The FDIC defines AFS to include payday loans, pawn transactions, vehicle title loans, and some other products. The report estimates how many households have used pawn transactions, payday loans, and vehicle title loans, but it does not estimate how many households borrowed money through a traditional personal lender.[17]

The FDIC report estimates that, out of the approximately 129.3 million households in the United States, 1.4 percent (1.8 million households) had made at least one pawn transaction in the previous 12 months. Further, 1.7 percent (2.2 million households) had obtained at least one payday loan, and 1.4 percent (1.8 million households) had obtained at least one vehicle title loan.[18]

The report estimates that 6.5 percent of the households in the United States were unbanked in 2017. The FDIC states that this proportion represents approximately 8.4 million households. The agency estimates that an additional 24.2 million households were underbanked—that is, approximately 18.7 percent of US households.[19] If underbanked and unbanked

15. Federal Deposit Insurance Corporation, *2017 FDIC National Survey*.

16. Federal Deposit Insurance Corporation, "2017 FDIC National Survey of Unbanked and Underbanked Households: Executive Summary," 1.

17. Federal Deposit Insurance Corporation, *2017 FDIC National Survey*.

18. Federal Deposit Insurance Corporation, *2017 FDIC National Survey*.

19. Federal Deposit Insurance Corporation, *2017 FDIC National Survey*.

consumers constitute the subprime borrower market segment, that segment comprises nearly a third of the households in America.[20]

Historically, unbanked households have not been able to use payday loans or personal installment loans from finance companies because applicants have needed to have a checking account.[21] Unbanked households, however, do have access to pawn transactions and vehicle title loans because these transactions do not require access to a customer's bank account. By contrast, consumers with a bank account can, and do, use all four of these credit products.

Two Common Repayment Methods for Nonbank Loans

The loan products detailed in this guide have repayment methods that fall into one of two categories: (1) lump-sum repayments or (2) installment payments.

The Workings of a Lump-Sum Loan

The calculations required to understand lump-sum loans are straightforward: interest is calculated using the simple interest formula. A few examples will be sufficient to demonstrate how this formula works.

Let's say John borrows $100 for one year. He is charged an annual interest rate of 10 percent. How much interest must John pay when the year is up? To find the answer, we use the simple interest equation:

$$\$\text{Interest Paid} = \$\text{Principal} \times \text{Annual Interest Rate} \times \text{Time}.$$

20. To see the estimated unbanked and underbanked data stratified by family income, education, age group, race/ethnicity, disability status, monthly income volatility, and several other variables, see table A1 in Federal Deposit Insurance Corporation, *2017 FDIC National Survey of Unbanked and Underbanked Households*: *Appendix Tables*, 1–2.

21. It appears that some payday lenders are trying to make it possible for borrowers without a checking account to get a payday loan. See Same Day Payday, "Payday Loan with No Checking Account," accessed June 2018, https://www.samedaypayday.com/Payday-Loan-with-No-Checking-Account.

In the simple interest equation, the interest paid and the principal are in dollars (or another currency). A mistake my students frequently make is forgetting to enter the annual interest rate as a decimal. If the interest rate is given as a percentage (referred to as an annual percentage rate, or **APR**), simply divide the number by 100 before you plug it into the equation. The time variable is in years (or in fractions of years).

In John's case,

$$\$\text{Interest Paid} = \$100 \times 0.1 \times 1,$$

$$\$\text{Interest Paid} = \$10.$$

So, in one year, John pays $10 of interest, meaning he pays a total of $110 to repay his loan.

Let's look at another example. Mary borrows $100 and will pay it back in six months. She is charged an annual interest rate of 10 percent. How much interest will Mary pay?

The difference between Mary's case and John's case is that Mary is holding the loan for only six months—one-half of one year. So the time variable in Mary's case is set to one year divided by two: one-half, or 0.5. It is important to remember that the time variable is measured in years, so loan terms for less than a year must be plugged into the equation as fractions of a year.

Again, we use the simple interest equation to calculate the interest that Mary will pay:

$$\$\text{Interest Paid} = \$100 \times 0.1 \times \frac{1}{2},$$

$$\$\text{Interest Paid} = \$5.$$

When Mary pays back $105 in six months, she has paid off her loan.

Take another look at the simple interest equation and count the variables: there are four. Because the equation contains one equal-sign and four variables, we need to know

three variables in order to calculate the remaining one. For John and Mary, we know the principal (the amount borrowed), the annual interest rate, and the length of time for which they were borrowing. Therefore, we can calculate the interest paid on the loan.

There is nothing special about being able to calculate the interest as opposed to the other variables: given any three of the variables in the simple interest equation, you can calculate the fourth. For example, say John took out a three-month loan for $200 and paid $10 in interest. What is the annual interest rate?

$$\$10 = \$200 \times \text{Annual Interest Rate} \times \frac{1}{4},$$

$$\text{Annual Interest Rate} = \frac{\$10}{\$200} \times 4,$$

$$\text{Annual Interest Rate} = 0.2;$$

$$\text{Annual Percentage Rate} = 0.2 \times 100 = 20 \text{ percent}.$$

There is an important difference between the annual percentage rate and the dollar cost of a loan. People do not spend percentages—people spend dollars. It is possible for a loan to have a high annual percentage rate but a low cost in dollars. Another simple example should help to illustrate how this situation is possible.

Suppose it is Friday after work and you want to go out with your friends. You go to the ATM near your office and withdraw $50. Suppose that this ATM is not connected to your bank and that your bank will not refund the ATM fee, which is $3. Both the fee and your withdrawal will be taken out of your account on Monday by close of business. You have the use of the $50 until then.

Let's look at your transaction in this manner. You get $50 today. In three days, $53 comes out of your bank account. So this situation is akin to you borrowing $50 for three days. Because the ATM fee is $3, this loan costs you $1 per

day. The $3 fee might not sound like a lot to spend for the convenience of having the cash to enjoy an evening out with friends. But if you look at this cost as an annual rate, it might seem high. To calculate the annual interest rate, multiply the periodic rate by the number of periods in a year. In this example, the period is a day. The periodic rate is equal to $1 divided by $50, or 2 percent. The number of days in a year is 365. This information enables us to calculate the annual rate:

$$\frac{\$1}{\$50} \times 365 = 7.3, \text{ or } 730 \text{ percent.}$$

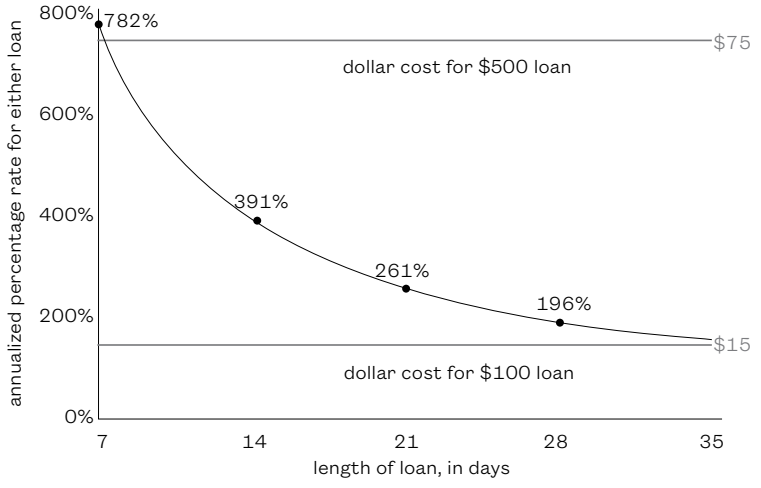
Focusing on the annual percentage rate, 730 percent, one might conclude that this transaction is expensive. Focusing on the $3 cost of the transaction, one might conclude that this transaction is inexpensive.

Two lump-sum loans that share the same annual percentage rate can have different costs. Figure 2 provides an example of this concept using two hypothetical payday loans. The two straight lines show the dollar cost of two lump-sum payday loans, one for $100 and one for $500. Both loans cost the consumer $15 per $100 borrowed. So, whether the consumer has two weeks to pay back this loan or one month, the dollar cost of the loan does not change. The flat lines show that the cost is constant regardless of when the loan is repaid. The $500 loan always costs the consumer $75, and the $100 loan always costs the consumer $15.

The curving line shows that the annual percentage rate for both of these two loans depends on the length of time the consumer has to repay the loan. These loans have the same annual percentage rate because each loan has the same periodic rate ($15 per $100). Suppose the $100 loan is held for 14 days. The number of 14-day periods in 365 days is 365 ÷ 14 = 26.071 (rounded to the third decimal place). Multiplying the periodic rate by the number of 14-day periods results in the annualized percentage rate:

$$\frac{\$15}{\$100} \times 26.071 = 3.9107, \text{ or } 391.07 \text{ percent.}$$

FIGURE 2. COMPARISON OF TWO HYPOTHETICAL PAYDAY LOANS WITH DIFFERENT DOLLAR COSTS AND THE SAME ANNUALIZED PERCENTAGE RATE



Note: The dollar costs for each loan are based on a $15 fee per $100 borrowed.

If the $100 loan is held for 28 days, the resulting (rounded) annualized percentage rate is

$$\frac{\$15}{\$100} \times 13.036 = 1.955, \text{ or } 195.5 \text{ percent.}$$

Suppose the $100 loan is due in two weeks, but the borrower pays it off in one week. In this case, the annualized percentage rate is 782 percent.

The annualized rate for the $500 loan is the same as the rate for the $100 loan if the loans are held for the same length of time. Suppose the $500 loan is held for 14 days. Again, there are 26.071 fourteen-day periods in 365 days. The $500 loan costs $15 per $100, or $75. The annualized percentage rate is

$$\frac{\$75}{\$500} \times 26.071 = 3.9107, \text{ or } 391.07 \text{ percent.}$$

This annualized rate is the same as the annualized rate for the $100 loan because

$$\frac{\$75}{\$500} = \frac{5 \text{ x } \$15}{5 \text{ x } \$100} = \frac{\$15}{\$100}.$$

The Workings of an Installment Loan

The arithmetic underlying installment loans is more complicated than that of lump-sum loans. We cannot use the simple interest equation when a loan calls for equal monthly payments. A simple example of an installment loan will demonstrate the equations used to calculate the monthly payments for such loans.

Suppose a consumer, Jane, wants to borrow $1,000 to pay for vehicle repairs. The terms of the loan are 12 months, an APR of 36 percent (3 percent per month), no fees, and no ancillary products. The following two equations are used to calculate the monthly payment for an installment loan:

$$\text{Amount Borrowed} = \text{Monthly Payment} \times \frac{1 - \text{Present Value Factor}}{\text{Monthly Interest Rate}},$$

where

$$\text{Present Value Factor} = \frac{1}{(1 + \text{Monthly Interest Rate})^{\text{Number of Months in the Loan}}}.$$

To calculate the monthly interest rate, we need the monthly percentage rate. The monthly percentage rate is the APR divided by 12 (the number of months in a year). So, in this example, the monthly percentage rate is 36 percent divided by 12, or 3 percent. The monthly interest rate in the formulas above must be a decimal, not a percentage: convert the monthly percentage rate into the monthly interest rate by dividing it by 100. So the monthly interest rate in this example is 0.03.

Before we can calculate the monthly payment, we must calculate the present value factor using the second equation

above. In this example, the number of months in the loan is 12, because Jane agrees to pay back the loan in one year. So, rounded, the present value factor is

$$\frac{1}{(1 + 0.03)^{12}} = 0.70138.$$

Inserting the present value factor, the monthly interest rate, and the amount borrowed into the first equation above, we get the monthly payment:

$$\$1{,}000 = \text{Monthly Payment} \times \frac{1 - 0.70138}{0.03},$$

$$\$1{,}000 = \text{Monthly Payment} \times 9.9540,$$

$$\text{Monthly Payment} = \frac{\$1{,}000}{9.9540},$$

$$\text{Monthly Payment} = \$100.46.$$

The total of interest and principal payments equals the monthly payment multiplied by the number of payments: $100.46 times 12, or $1,205.52. Therefore, because Jane is borrowing $1,000, she will pay $205.52 in interest over the life of the loan. Notice that she does not pay $1,000.00 × 0.36, or $360.00, of interest. The difference between $360.00 and $205.52 occurs because the amount owed each month declines, or amortizes, over the length of the loan. Even though the 36 percent APR determines the size of the monthly payment, the interest income received by the lender is $205.52, or 20.552 percent of $1,000.

Now that we have calculated the monthly payment for our example loan, we can compose an amortization table using a process known as the actuarial method. Table 3 shows an amortization table for Jane's loan.

In table 3, we see that there are 12 equal monthly payments of $100.46 each. We see four other columns: beginning principal balance, interest payment, principal payment, and ending principal balance. Notice that the beginning principal balance at month 1 is $1,000 and the monthly pay-

TABLE 3. AMORTIZATION TABLE FOR A $1,000, 12-MONTH INSTALLMENT LOAN WITH A 36 PERCENT ANNUAL PERCENTAGE RATE

Month	Beginning principal balance	Equal monthly payment	Interest payment (beginning principal balance × monthly rate*)	Principal payment (monthly payment – interest payment)	Ending principal balance (beginning principal balance – principal payment)
1	$1,000.00	$100.46	$30.00	$70.46	$929.54
2	$929.54	$100.46	$27.89	$72.58	$856.96
3	$856.96	$100.46	$25.71	$74.75	$782.21
4	$782.21	$100.46	$23.47	$77.00	$705.21
5	$705.21	$100.46	$21.16	$79.31	$625.91
6	$625.91	$100.46	$18.78	$81.68	$544.22
7	$544.22	$100.46	$16.33	$84.14	$460.09
8	$460.09	$100.46	$13.80	$86.66	$373.43
9	$373.43	$100.46	$11.20	$89.26	$284.17
10	$284.17	$100.46	$8.53	$91.94	$192.23
11	**$192.23**	**$100.46**	**$5.77**	**$94.70**	**$97.54**
12	**$97.54**	**$100.46**	**$2.93**	**$97.54**	**$0.00**
	Sum:	$1,205.52	$205.52		

** The monthly interest rate is the annual percentage rate divided by 12: 36% ÷ 12 = 3%.*
Notes: Boldface marks the months when the lender makes money on the loan. The monthly payment is $100.4621, which rounds to $100.46. Owing to rounding, the column sum for interest is off by a few cents.

ment (as for all months) is $100.46. The next two cells split month 1's payment into interest and principal portions.

To calculate the first *interest* payment, multiply the beginning principal balance of $1,000 by the monthly interest rate, which is 0.03. The result is an interest payment of $30. Then subtract $30 from the monthly payment, and this amount,

$70.46, is the first *principal* payment. To find the ending principal balance for month 1, subtract the first principal payment of $70.46 from $1,000, which gives $929.54. The ending principal balance for month 1 is also the beginning principal balance for month 2.

Let's calculate the interest and principal payments for month 2. The beginning principal balance in month 2 is $929.54 and the monthly payment is $100.46. We proceed as we did for month 1: multiply $929.54 by the monthly interest rate, 0.03. The result is $27.89. Subtract $27.89 from the monthly payment of $100.46 to get $72.58. This amount is the principal payment for month 2. Finally, subtract month 2's principal payment from month 2's beginning principal balance, which leaves $856.96. This amount is the ending principal balance for month 2 and the beginning principal balance for month 3. The remaining 10 interest and principal payments are calculated in the same way.

There are some important things to notice about table 3. First, because the monthly payment is $100.46, it would take just about 10 months for the borrower to pay back the amount borrowed—that is, $1,000. It is only after the borrower has made 10 payments that the lender begins to profit from this loan. It is in the lender's best interest for the borrower to be able to pay back the loan in full, over 12 months in this case.

Suppose a borrower only makes nine (or fewer) payments instead of the required twelve. What happens? The lender loses money on this loan. The borrower might also lose. Why? Most finance companies that make personal loans report to the three major **credit bureaus** (also called credit reporting agencies). The borrower's credit score will fall if the borrower does not pay back the loan in full. The purpose of a credit score is to classify people into groups on the basis of how they have paid their debts in the past.

Importantly, borrowers want to pay back installment loans because failure to repay these loans might result in lower credit scores. Also, lenders desire to make sure that borrowers can make all 12 payments of a year-long loan. If a borrower

makes 10 or fewer payments, the lender does not make any profit. In fact, the lender loses money.

The last two months of this loan are the months in which the lender makes money. This fact ensures that lenders lend only to people who can repay the loans. As a borrower, you want to borrow from a lender who thinks you can pay the loan back. An installment loan is a voluntary contract, in which both sides seek to follow the contract's terms.

There is another noteworthy takeaway from table 3. As with all amortizing installment loans, the interest portion of the equal monthly payment decreases over time, and the principal portion of the equal monthly payment increases over time. The noteworthy takeaway is that the sum of the 12 equal monthly payments is $1,205.52. Because $1,000 was borrowed, the interest paid is $205.52—that is, *not* $360, even though the APR is 36 percent.


PAWNSHOP

Key Products

This section contains a discussion of the features of the basic types of small-dollar consumer loan products. The key products include personal loans from finance companies, pawn transactions, vehicle title loans, and payday loans. Today, vehicle title loans and payday loans are available in two repayment styles: lump-sum and installment. In addition, payday loans are available both online and off-line in both repayment styles. This section ends with a brief discussion of online payday loans and flex loans offered by nonbank lenders.

Table 1 (page 10) summarizes the features of small-dollar loan products. Loan sizes vary from less than $100 to thousands of dollars. Loan lengths vary from two weeks to two years. Consumers choose the loan size and product that best suits their situation. The exact loan terms also depend on industry best practices and state law. Each product allows borrowers several methods of repayment, including the use of automated clearing house (**ACH**) transactions.

Personal Loans from Finance Companies

Many people are familiar with borrowing money to purchase a house, a vehicle, furniture, or appliances. The consumer takes possession of the good in question, but the title to the good is held by the lender. The consumer makes a predetermined number of monthly payments that are equal in size, and there is no extra payment at the end of the loan. We call loans with this structure installment loans, and their workings are described in detail beginning on page 23. For houses and certain other property, we call such installment loans mortgages. For vehicles, furniture, and appliances, the term for an installment loan is sales financing.

Mortgages and sales financing, though important and familiar loan types, are not the focus of nonbank small-dollar lenders. This guide focuses on other important, but not as familiar, non-bank-supplied cash loans. As noted earlier, a cash loan is a loan that is not tied to the purchase of any specific good. Borrowers can use the proceeds from a cash loan in any manner they wish.

A personal loan from a finance company generally has equal payments over a set period of time. When the time comes for the final payment, there is no "balloon" amount left to pay—the final payment is equal to the others and completely pays off the remaining interest and principal. In other words, the loan has been fully amortized. Personal loans work like mortgages or automobile loans, but they generally are for much smaller amounts. As of 2016, a common APR cap for personal cash installment loans is 36 percent.[22]

In the early 20th century, many social reform causes, collectively known as the Progressive movement, were underway in the United States. One social cause was the battle against illegal "loan sharks." Consumer advocates formed an alliance with capitalists who were willing to risk capital in the venture of lending small-dollar amounts. The Uniform Small Loan Law of 1916 codified their agreement on the

22. For a table of interest rate caps, by state, for consumer installment loans, see Black and Miller, "Examining Some Arguments Made by Interest Rate Cap Advocates."

workings of a new legal loan product designed to compete against the loan sharks. By 1940, all but nine states had adopted some version of this model legislation.[23]

Reformers encouraged state legislatures to pass laws that allowed specially licensed lenders to make small consumer loans at rates well above state-imposed interest rate caps.[24] Through a series of rigorous studies, the reformers determined that the costs and risks of small-dollar installment lending merited a monthly interest rate of 2.5 percent for amounts over $100 and 3.5 percent for amounts up to $100.[25] These rates—translating to APRs of 30 and 42 percent, respectively—were, on average, six times higher than the existing rate caps. The 36 percent rate cap prevalent today stems from this legislation.

Pawn Transactions, Commonly Called Pawn Loans

A pawn transaction enables a borrower to get cash in exchange for an asset. Pawn loans are among the oldest forms of credit, extending back thousands of years.[26] Despite their long history, financial economists have devoted little collective effort to studying the pawn industry and its benefits to consumers.[27]

23. For a short history of the Uniform Small Loan Law of 1916, see Calder, *Financing the American Dream*.

24. In addition to agreeing that legal installment lenders must be able to earn a reasonable profit, the parties writing the Uniform Small Loan Law defined small loans as "up to $300" (in today's dollars, more than $7,000) and agreed that the maximum allowable interest rate would be reexamined periodically to sustain the industry. See Carruthers, Guinnane, and Lee, "Bringing 'Honest Capital' to Poor Borrowers."

25. The Russell Sage Foundation, as well as the Progressive movement of the early 20th century, placed considerable weight on the value of rigorous research to underpin social legislation. This emphasis extended to the setting of interest rates. Nonetheless, more than 100 years later, the Talent-Nelson Amendment and the national usury ceiling proposed by Senator Richard Durbin (D-IL) both propose keeping annual interest rate caps of 36 percent.

26. Durkin et al., *Consumer Credit and the American Economy*.

27. For a discussion of the handful of academic studies of the pawn industry that do exist and a detailed description of the pawning process, see Bos, Carter, and Skiba, "Pawn Industry and Its Customers."

In a pawn transaction, a consumer offers a tangible item to a pawnbroker, who pays cash to the consumer and takes possession of the item. Today, the most commonly pawned items are jewelry, televisions, and other consumer electronic goods.[28] The pawnbroker generally asks whether the consumer wants to sell or pawn the item. If the consumer wishes to pawn the item, the parties negotiate the amount that the pawnbroker will advance on the item. The consumer delivers possession of the item to the pawnbroker in exchange for the agreed-upon cash amount. The pawnbroker gives the consumer a pawn ticket that precisely details the terms of the transaction and the cost of redemption. In a typical pawn transaction, to redeem the pawned item, the consumer must pay various charges for interest, storage, and other fees, in addition to the sum originally advanced by the pawnbroker. The maximum allowable fees vary according to state law.[29]

A pawn transaction is not a loan in the traditional sense. Why? The consumer has no obligation to repay the sum obtained in the pawn transaction. The pawnbroker does not report on the consumer's repayment (or lack of repayment) to a credit bureau. The pawnbroker has no recourse if the consumer abandons the pawned item. Therefore, a pawn transaction can be understood as a sale with a renewable, month-to-month repurchase agreement.

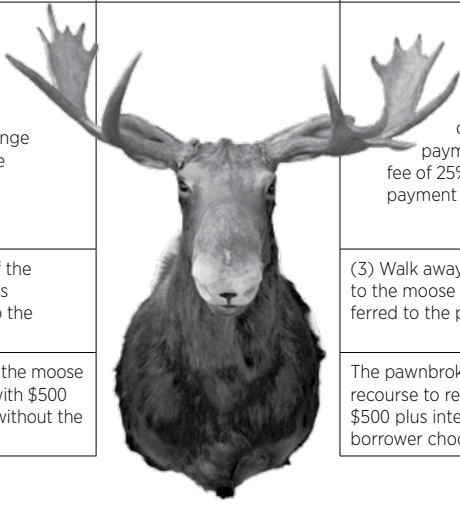
Figure 3 provides an example of a typical pawn transaction. Suppose a person brings a mounted moose head to a pawnshop, and suppose state law does not prohibit the pawning of animal horns. The pawnbroker assesses the pawn value of this personal treasure at $500, a number lower than the market value of the moose head (which, in turn, could be less than its sentimental value to the customer). Assume that, in the state

28. Carter and Skiba, "Pawnshops, Behavioral Economics, and Self-Regulation."

29. In Mississippi, for example, the Pawn Shop Act sets these amounts: "A pawnbroker may contract for and receive a pawnshop charge in lieu of interest or other charges for all services, expenses, cost and losses of every nature not to exceed twenty-five percent (25%) of the principal amount, per month, advanced in the pawn transaction." Mississippi Pawn Shop Act § 75-67-313 (2013).

where the pawn transaction occurs, all allowable charges amount to 25 percent per month. If the pawnbroker charges the maximum amount allowed by law, at the end of one month the customer has three choices: (1) abandon the property and keep the $500, (2) extend the pawn another month by paying $125 (0.25 × $500), or (3) pay $625 and reclaim the property. If the customer chooses the first option, the title to the moose head transfers to the pawnbroker, who can sell the moose head for its market value.[30]

FIGURE 3. WORKINGS OF A PAWN TRANSACTION WITH A 25 PERCENT MONTHLY FEE

TODAY: Owner takes a moose head to a pawnbroker.		**IN 30 DAYS:** The owner of the moose head has three choices:
The pawnbroker and the owner negotiate and agree on the pawn value of the moose head: $500.	**IN THE INTERIM:** The pawnbroker stores, cares for, and protects the moose head.	(1) Pay the 25% fee ($125) to extend the contract, or
The pawnbroker gives $500 in cash in exchange for the moose head.		(2) Redeem the moose head for the original cash payment plus a fee of 25% of the cash payment ($625), or
Possession of the moose head is transferred to the pawnbroker.		(3) Walk away. The title to the moose head is transferred to the pawnbroker.
The owner of the moose head leaves with $500 in cash (and without the moose head).		The pawnbroker has no recourse to reclaim the $500 plus interest if the borrower chooses (3).

30. In 2017, the redemption rate for pledged collateral in the United States was 85 percent, according to the National Pawnbrokers Association. National Pawnbrokers Association, "Pawnbroking around the World," accessed February 19, 2019, https://nationalpawnbrokers.org/2017/06/19/pawnbroking-around-the-world/. A study published by the Credit Research Center, Johnson and Johnson's "Pawnbroking in the U.S.," reports survey results that show an average redemption rate of two-thirds.

Vehicle Title Loans

Today, vehicle title loans are available in two different versions. Loans of one type could be called "vehicle title pawn loans" because of their structure: in many ways, these loans work like ordinary pawn loans. Vehicle title loans of the other, relatively new, type could be called "vehicle title installment loans."

Differences in state laws lead to differences in vehicle title loan transactions. Some states, for example, specify a maximum amount for a vehicle title loan. Under various state laws, the word "vehicle" might include automobiles, motorcycles, mobile homes, pickup trucks, vans, and any other vehicles that can be operated on public highways and streets. The example of a vehicle title pawn loan provided in the subsection below accords with state law in Georgia, while the example of a vehicle title installment loan on page 37 accords with state law in Virginia.

Vehicle Title Pawn Loans

A vehicle title pawn loan is similar to a pawn loan, but with an important difference. In a pawn transaction, the consumer gives possession of the item to the pawnbroker. Under the terms of a title pawn loan, the borrower retains possession of the pledged collateral. As in a pawn loan, if the borrower defaults on a vehicle title pawn loan, the lender takes ownership of the collateral (the vehicle). The results of a vehicle title pawn loan have no impact on a borrower's credit score.

A basic vehicle title pawn loan is a nonrecourse, one-month, lump-sum loan, with the principal and interest due at the end of the month. In some states, if the borrower cannot repay the principal at the end of the month, the title lender can accept an interest-only payment to roll the loan over for another month.[31] To secure a vehicle title pawn loan,

31. An interest-only payment works as follows. Suppose the lump-sum loan is for $2,000 and the interest rate is 20 percent per month. To extend the loan for a month, the borrower pays $2,000 times 0.2, or $400, to the lender.

the borrower must have a clear title to the vehicle and must allow the title lender to place a lien on the vehicle.[32] The borrower does not need to provide a credit history.

As with pawn loans, vehicle title pawn loans are nonrecourse: the lender cannot demand repayment if the borrower defaults on the loan. Unlike pawn lenders, title lenders have to repossess the vehicle and prepare it for sale. If the vehicle is sold for less than the outstanding amount owed, the borrower does not have to make up the difference. If the vehicle is sold for more than the amount owed, the borrower generally gets a portion of the excess sale proceeds. How much of the surplus the borrower receives is set by state law.[33]

Unlike pawnbrokers that keep and store collateral, vehicle title pawn lenders must pay to repossess, store, and sell a vehicle in the event of default. Law professor Jim Hawkins argues that repossession is often not profitable for lenders because "repossessing, storing, and selling vehicles are expensive relative to the value of most pledged vehicles."[34] Vehicles often have mechanical failures or other damage that make repossession unprofitable.[35]

Figure 4 shows how a vehicle title pawn loan works. Suppose a citizen in Georgia brings an old Chevrolet to a vehicle title lender. The lender can inspect the vehicle, if it is present, and look up values for similarly equipped vehicles. Suppose this vehicle has a wholesale appraised value of about $6,000 and the lender extends $2,500 to the

32. The borrower might need to provide references and proof of income. See Hawkins, "Credit on Wheels."

33. According to the Consumer Federation of America, as of December 2012, 17 states allowed vehicle title lending. In five of these states, state law appears to be silent about the distribution of the surplus. In two states, the lender keeps the surplus, and in one state, the lender keeps 15 percent of the surplus and the rest goes to the borrower. In the remaining nine states, the borrower keeps the entire surplus. Consumer Federation of America, "Car-Title Loan Regulation."

34. Hawkins, "Credit on Wheels," 551.

35. Zywicki, "Consumer Use and Government Regulation of Title Pledge Lending." Several recent studies have found that 65 to 80 percent of title loan borrowers have another vehicle in the household, including Zywicki's study; Hawkins, "Credit on Wheels"; and Pew Charitable Trusts, *Auto Title Loans*.

Georgian.[36] Assuming the lender imposes the maximum charges allowable by state law, at the end of the month the Georgian has three choices: (1) extend the loan for another month by paying the title pawn lender $625—that is, 25 percent of $2,500, (2) pay $3,125 and have the lien removed from the vehicle's title, or (3) walk away and allow the transfer of the vehicle's ownership to the title pawn lender.

FIGURE 4. WORKINGS OF A VEHICLE TITLE PAWN TRANSACTION WITH A 25 PERCENT MONTHLY FEE

TODAY: Owner takes a vehicle to a vehicle title lender.		**IN 30 DAYS:** The owner of the vehicle has three choices:
Title to the vehicle is clear.	**IN THE INTERIM:** The owner retains possession of the vehicle. The owner has no obligation to maintain the vehicle.	(1) Pay the 25% fee ($625) to extend the contract, or
The title lender and the owner negotiate and agree on the pawn value of the vehicle: $2,500.		(2) Redeem the title for the original cash payment plus a fee of 25% of the cash payment ($3,125), or
The title lender gives the owner $2,500 in cash and puts a lien on the vehicle's title.		(3) Walk away. The title to the vehicle and the vehicle are transferred to the title lender.
The owner of the vehicle leaves with the cash (and the vehicle).		The title lender has no recourse to reclaim $2,500 plus interest if the borrower chooses (3).

36. In Georgia, state law is silent concerning the maximum size of the loan. Georgia's Pawnbroker Act states, in part, "Unless otherwise agreed, a pawnbroker has upon default the right to take possession of the motor vehicle. In taking possession, the pawnbroker or his agent may proceed without judicial process if this can be done without breach of the peace. . . . During the first 90 days of any pawn transaction or extension or continuation of the pawn transaction, a pawnbroker may charge for each 30-day period interest and pawnshop charges which together equal no more than 25 percent of the principal amount advanced." Pawnbroker Act, GA Code § 44-12-3-5 (2015).

Vehicle Title Installment Loans

A vehicle title installment loan is similar to a vehicle title pawn loan in many ways. For example, the borrower retains possession of the pledged collateral (i.e., the vehicle). The loan is secured by the clear title of a vehicle already owned by the borrower, and the borrower can use the proceeds in any manner he or she wishes. As with a vehicle title pawn loan, if the borrower defaults on a vehicle title installment loan, the lender takes ownership of the collateral (the vehicle). The major difference between the products is the form of repayment. A vehicle title pawn loan has a lump-sum payment, while a vehicle title installment loan has installment payments.

Vehicle title installment loans generally cover a short time period (4–12 months). They carry a relatively high monthly interest rate, usually 15–25 percent per month. These loans are not underwritten—the vehicle title alone secures the loan. Finally, borrowers' performances on these loans do not affect their credit scores.[37]

There is no typical state law for vehicle title installment loans.[38] State laws differ widely. To provide a correct, detailed example, the following paragraphs describe state law in Virginia.[39] Virginia prohibits lenders from making these loans to members of the Armed Forces or to their dependents. Although the Virginia statute does not specify a minimum age for the borrower, industry practice requires applicants to be at least 18 years old.

As is common in many small-dollar loan laws, the allowable interest rate for vehicle title installment loans in Virginia varies by loan size. The allowable rate is 22 percent per month on the portion of the principal that does not exceed $700; 18 percent per month on the portion of the principal

37. As of November 2016, I am aware of two states that allow vehicle title installment loans: Mississippi and Virginia.

38. The Consumer Federation of America collected and published a list of the features of various state laws for this product as of 2012. See Consumer Federation of America, "Car-Title Loan Regulation."

39. VA Code, chap. 22 (2010).

between $700 and $1,400; and 15 percent per month on the portion of the principal over $1,400.

The loan amount cannot exceed 50 percent of the fair market value of the vehicle, but there is otherwise no cap on what can be borrowed. The allowable maturity date of the loan is between 120 days and 12 months from the date of the transaction. There is no prepayment penalty. Virginia law mandates contractual language to encourage faster repayment. Vehicle title installment loans cannot be extended, renewed, or refinanced.

Vehicle title installment lenders cannot debit a borrower's account electronically.[40] A late fee of 5 percent of the payment is allowed if the loan payment is more than seven days late. Virginia law details the specific rules about when the borrower will be considered in default. Interest stops accruing on the loan after it is 60 days in arrears, unless the borrower has deliberately damaged or hidden the vehicle.

Virginia law gives borrowers who have stopped making payments time to resume making payments before the lender can repossess the vehicle. For example, the lender must give the borrower at least 10 days' advance notice that it intends to repossess the vehicle. This notice must alert the borrower that the borrower can avoid repossession by paying the stated principal and interest due. If a vehicle is repossessed, the lender must give the borrower at least 15 days' advance notice before selling the vehicle. If the vehicle is sold, the borrower is entitled to any surplus above what is owed, minus reasonable costs for repossession and sale.

Virginia requires that vehicle title installment loan agreements include contractual language to encourage the borrower to take out as small a loan as possible and pay it back as quickly as possible.[41] The following example shows this advice to be financially sound.

40. The Virginia statute forbids the lender from accepting an offer from the borrower to allow payment via an ACH transaction.

41. The statute requires the following language (and other language) to appear capitalized in at least 14-point bold type immediately above the borrower's signature: "WHEN USING THIS LOAN, YOU SHOULD REQUEST THE MINIMUM AMOUNT REQUIRED TO

In Virginia, the minimum loan term is four months. If a consumer borrows $2,000 at 18.5 percent per month for four months, the installment payment is $750.72. After all four payments, the borrower has paid $3,002.88 in total principal and interest, of which $1,002.88 is interest.

If, instead, a consumer borrows $2,000 at 18.5 percent per month for 12 months, the installment payment is $425.50. After all 12 payments, the borrower has paid $5,105.98 in total principal and interest, of which $3,105.98 is interest. This interest amount exceeds the interest *and principal* of the four-month loan (by $103.10).

As is common for installment loans today, the Virginia statute states, "The borrower shall have the right to prepay the title loan prior to maturity by paying the outstanding balance at any time without penalty."[42] Suppose the borrower makes four payments and then pays off the loan. The borrower's total cost is the sum of the four monthly payments plus the loan payoff amount (which is the beginning principal balance in month five):

$$(\$425.50 \times 4) + \$1{,}708.46 = \$3{,}410.46.$$

This total payoff amount is $407.58 more than the principal and interest of the four-month loan.

This example shows the financial benefit of taking out a short-term loan versus a longer-term loan. It also shows the benefit of paying off a loan early. There might also be costs of doing so: The borrower might not be able to afford the higher payments required by the shorter-term loan. The borrower might not be able to come up with the amount of money needed to pay off the longer-term loan earlier than its original maturity. Borrowers must weigh the costs and benefits of different loan terms and choose terms that best fit their expected cash flows.

MEET YOUR IMMEDIATE NEEDS AND YOU SHOULD REPAY THE LOAN AS QUICKLY AS POSSIBLE TO REDUCE THE AMOUNT OF INTEREST YOU ARE CHARGED." VA Code, chap. 22 § 6.2-2215(e) (2010).

42. VA Code § 6.2-2215, ¶ 3 (2010).

Storefront Payday Loans

When they emerged in the 1990s, payday loans were offered as lump-sum loans. As of 2019, payday loans are available in both lump-sum and installment versions.

Single-Payment-Style Payday Loans

A traditional payday loan is a short-term, lump-sum loan. Most payday loans are for a term of 30 days or fewer. Payday loans are also known as cash advance loans, delayed deposit loans, and deferred presentment loans. In a traditional payday loan, a borrower writes a check to a lender in exchange for a short-term cash loan. The lender agrees not to cash the check until a date specified in the loan agreement.

To obtain a payday loan, lenders generally require borrowers to have an active checking account, provide proof of income, show valid identification, and be at least 18 years old. Payday lenders generally do not require a traditional credit report, but they have access to credit reports for subprime borrowers through companies like Clarity Services Inc.

Payday lenders operate in many US states. According to the National Conference of State Legislatures, "thirty-eight states have specific statutes that allow for payday lending. Eleven jurisdictions do not have specific payday lending statutory provisions and/or require lenders to comply with interest rate caps on consumer loans."[43]

Payday lending laws vary by state. For example, under the Mississippi Check Cashers Act,[44] a payday loan agreement must disclose the terms of the loan, including the loan amount and the APR. The lender generally requires the borrower to provide bank account access via the ACH or write a personal check for the loan principal plus a loan fee. State

43. National Conference of State Legislatures, "Payday Lending State Statutes," accessed January 23, 2018, http://www.ncsl.org/research/financial-services-and-commerce/payday-lending-state-statutes.aspx.

44. MS Code § 75-67-519 (2013).

laws have specific language concerning the nature of this fee—which, to a casual observer, is interest.[45]

The loan agreement might allow the lender to withdraw (or attempt to withdraw) the sum owed from the borrower's bank account by cashing the borrower's check at the loan's due date—regardless of whether the borrower has sufficient funds in the account. If the account does not contain sufficient funds, the bank will likely charge the borrower a nonsufficient funds fee.

As an example, under Mississippi law, the largest check a payday loan borrower may write is for $500, which must cover the loan principal and all allowable fees. For a check written for $250 or less, Mississippi law allows a payday lender to charge a fee of up to $20 per $100 advanced to the borrower. For example, if a borrower writes a check for $240, the lender advances $200 to the borrower and keeps the check, which includes $40 in fees. Assuming this loan is a two-week loan, the annualized interest rate is

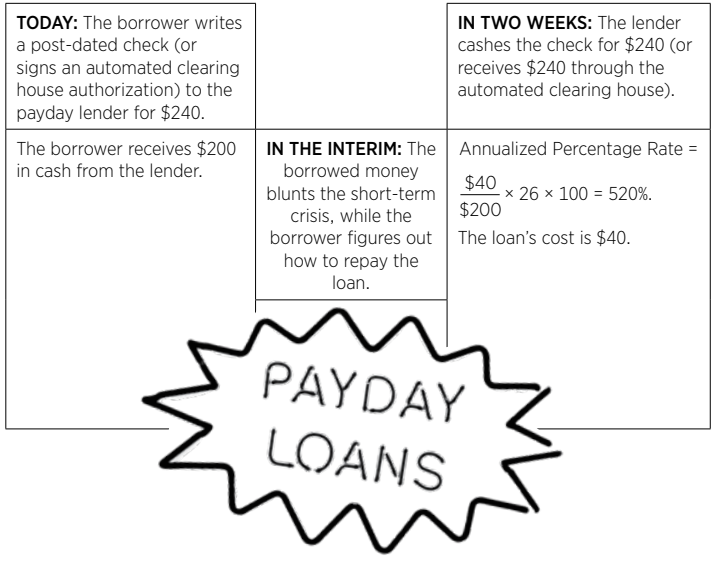
$$\frac{\$40}{\$200} \times 26 = 5.2,$$

which is a 520 percent APR. Figure 5 summarizes this transaction.

In addition, payday loan borrowers have the option to roll over their loans. Suppose a borrower has a two-week payday loan, and at the end of two weeks, the borrower cannot pay the interest and principal. If an interest payment is made, the lender can extend the loan for another two weeks. As a result, payday loans can last longer than the original borrowing period. If the loan is rolled over, the borrower will pay more interest than the amount originally agreed to. Some states regulate the number of times a loan can be rolled over. In addition, most states regulate the loan amount. The amount is either set as a flat amount or allowed to vary depending on the borrower's income (subject to a cap).

45. MS Code § 75-67-515(4) states, "Any fee charged by a licensee for cashing a check shall be posted conspicuously to the bearer of the check before cashing the check, and the fee shall be a service fee and not interest."

FIGURE 5. PAYDAY LOAN TERMS WITH A 20 PERCENT FEE



Installment-Style Payday Loans

Installment-style payday loans are a relatively new product. These loans share some features with personal installment loans made by finance companies, but they are offered by payday lenders. Installment-style payday loans can last from four to twelve months. States generally regulate the finance charge on a monthly basis. The cost of these loans, for a 12-month or longer term, is appropriately expressed as an APR.

Like personal installment loans made by finance companies, installment-style payday loans amortize fully using equal installment payments. If the borrower makes all the payments, the loan is fully paid. Unlike personal installment loans made by finance companies, installment-style payday loans entail little underwriting and little involvement of credit reporting agencies. In these regards, installment payday lenders operate similarly to lump-sum payday lenders.

Brick-and-mortar offerings of installment-style payday loans are relatively new. The following example assumes the

terms of the Mississippi Credit Availability Act, which was signed into effect on May 15, 2016.[46] Under this act, lenders can charge a handling fee for services, expenses, and costs not to exceed 25 percent of the outstanding principal balance at the beginning of the month. This fee applies for all loans up to the maximum amount of $2,500 and "shall not be deemed interest for any purpose of law."[47]

For loans up to $500, the law calls for a "fully amortizing loan, secured and unsecured, payable in equal payments of four to six months calculated on the amount initially disbursed." An initiation fee of 1 percent of the amount financed can also be charged and amortized over the life of the loan. For loans between $500 and $2,500, the number of allowable monthly payments ranges from six to twelve.

A 12-month, $2,500 installment-style payday loan with a 300 percent APR (which is 25 percent per month times 12) has a monthly payment of $671.12. The total of interest and principal is $8,053.44, which means the interest paid on this loan is $5,553.44.[48]

Online Payday Loans

Consumers value convenience in obtaining goods and services. If a product or service is expensive, consumers will look for substitutes. For consumers, including those shopping for credit, the internet has greatly increased convenience and reduced search costs.

Many types of lenders, including small-dollar lenders, use the internet to describe their loan products and to help consumers locate a brick-and-mortar location. In addition, lenders provide links to relevant regulations, loan application forms, and financial education resources.

46. MS Code § 75-67-601 (2016).

47. Notwithstanding, by treating the annualized fee as the APR, it is possible to generate an amortization table for an installment-style payday loan.

48. There is a $0.01 rounding error.

Payday lenders, for lump-sum and installment products, also use the internet to make loans to consumers. The application process is online, and the borrower provides the lender with detailed personal, employer, and banking information. The lender reviews the loan application information. If the loan is approved, the borrower allows the lender access to the borrower's bank account, and the lender transfers money directly into the borrower's bank account. Unless the borrower seeks an extension, the lender deducts principal and fees from the borrower's bank account when the loan is due. In some circumstances, the borrower can make a payment via a debit card, cashier's check, or money order.[49]

Lenders have systems and procedures in place to detect outright **fraud**. In addition, all lenders must be able to distinguish well-intentioned borrowers from thieves who are looking to steal money. In a person-to-person transaction, a skilled loan arranger can ask questions to gather information concerning the potential borrower's ability (and willingness) to repay new, and existing, debt. In the online space, these questions must be scripted in advance, reducing the directions in which the lender can take the conversation to assess this aspect of the consumer's ability to repay.[50]

One way online lenders account for increased fraud and default risk is by charging a higher price for borrowing online versus in person. For example, Clarity Services Inc. reports that the median fee per $100 borrowed in a lump-sum payday loan is $23.53, and the mean is $26.60.[51] For 2013, G. Michael Flores of Bretton Woods Inc. reports that online lending fees range from $17 to $25 per $100 borrowed.[52] By contrast, at brick-and-mortar storefront locations, the CFPB

49. CashOne home page, accessed January 25, 2018, www.cashone.com.

50. A reviewer noted that it is possible for some online lenders, in an attempt to reduce fraud and theft, to employ artificial intelligence to prepare different questions for different borrowers.

51. Clarity Services Inc., "Profiling Internet Small Dollar Lending."

52. Flores, "Online Short-Term Lending." Bretton Woods Inc. is a company that provides research on emerging trends for firms in the traditional and nontraditional financial services industries.

reports that the median fee per $100 borrowed is $15, and the mean is $14.40.[53]

In an updated report covering 2014, Flores states, but does not document, that there is a migration underway in the online market from single-payment payday loans (i.e., lump-sum loans) to installment-style payday loans. This report states there were 2.97 million lump-sum loans made online and about 772,000 installment-style payday loans made online in 2014.[54]

In terms of relative size, Flores reports that in 2014, total storefront loan volume was $28.0 billion (down from $30.0 billion in 2013) while internet loan volume was $17.3 billion (up from $15.9 billion in 2013). Flores reports storefront loan fees of $4.7 billion in 2014 (versus $4.9 billion in 2013) and internet loan fees of $4.0 billion in 2014 (versus $4.1 billion in 2013).[55] As might be expected, owing to the reporting of higher fees for internet lending, online loan volume was about 38 percent of the total, while online fees were 47 percent of the total.

Flores further reports that in 2014, the average size of a single-payment online payday loan was $428, with an average term of 20 days. For installment-style payday loans, Flores reports that the average size was $667 and the average term was 148 days in 2014.[56]

53. The CFPB states that Clarity Services Inc., through its nonPrime101 portal, is a frequently cited data source for online payday lenders. Bureau of Consumer Financial Protection, Payday, Vehicle Title, and Certain High-Cost Installment Loans, 82 Fed. Reg. 54472 (November 17, 2017). The CFPB states that "these data are not representative of the entire online industry, but nonetheless cover a large enough sample (2.5 million borrowers over a period of four years) to be significant." It further states that "more than half of the payday loans made by these online lenders are hybrid payday loans. . . . A hybrid loan involves automatic rollovers with payment of the loan fee until a final balloon payment of the principal and fee. For the hybrid payday loans, the most frequently reported payment amount is 30 percent of principal." 82 Fed. Reg. 54472, 47877.

54. Flores, "The State of Online Short-Term Lending," 5.

55. Flores, "The State of Online Short-Term Lending," 7.

56. Flores, "The State of Online Short-Term Lending," 3.

There are many online lending topics that fall outside the scope of this guide. The online lending market faces a patchwork of regulations created by 50 state governments and the federal government. This patchwork creates interesting scenarios. For example, which laws apply to online payday lenders for borrowers who live in a state that bans payday loans? How do states handle these transactions if a dispute arises? Will states uphold the agreements or declare them void and remove the borrower's obligation to repay?[57]

Flex Loans Offered by Nonbank Lenders

The loan products discussed so far share a common feature: they all have a scheduled ending date, by which time the borrower agrees to pay all interest, fees, and principal. Credit products with this feature are known as **closed-end** credit products.

By contrast, a **flex loan** is an **open-end**, or renewable, line of credit. Lines of credit share some features with credit cards. As with a credit card, borrowers who have been approved for a flex loan need not reapply each time they want to use their line of credit. As with a credit card, borrowers with a flex loan make scheduled payments of at least the minimum amount due. Unlike a credit card, a flex loan is not portable. The borrower must visit a physical store or go online to obtain cash or an ACH deposit. A 2017 report by the National Consumer Law Center discloses that 44 states have statutes governing open-end credit.[58]

Here's one example, conforming to Tennessee law: Suppose a lender grants a borrower's application for a $1,000 flex loan. The borrower obtains $400 today and agrees to make payments every 14 days. At the end of the first billing cycle, the lender can collect a "customary fee" to defray the costs of

57. The area where technology and finance intersect is known today as *fintech*. Fintech is a broad area. For an overview of some fintech regulatory issues, see Knight, "Federalism and Federalization on the Fintech Frontier."

58. Carter, Saunders, and Saunders, *Predatory Installment Lending in 2017*.

opening, monitoring, and collecting loan payments. The fee amount is seven-tenths of one percent (0.7%) of the average daily principal balance in the billing cycle. If the average daily principal balance is $400 for the 14-day billing cycle, the fee is $400.00 × 0.007 × 14 = $39.20. In addition, the lender can collect an interest payment on the $400 balance at an APR of 24 percent. Over 14 days, the interest payment is $400.00 × (14 ÷ 365) × 0.24 = $3.68. At the end of the 14-day billing cycle, the borrower can retire the debt by paying a total of $442.88 (which equals $400.00 + $39.20 + $3.68).

The borrower has the option to make a minimum payment. The minimum payment equals the sum of the fee amount, the interest amount, and the required reduction in the outstanding principal of 3 percent per calendar month. In this case, because the borrower is making semimonthly payments, the required principal reduction is $400.00 × 0.015 = $6.00. That is, if the borrower makes the minimum payment of $48.88 (which equals $39.20 + $3.68 + $6.00), the principal amount for the next 14-day period is $394.00.

Without penalty, at the end of 14 days, the borrower can make any payment, ranging from the minimum payment of $48.88 to the payment that retires the debt—that is, $442.88. Finally, the borrower can pay off the balance at any time during the 14-day billing cycle. The fee and the interest will reflect the number of days that the borrower held the flex loan.


$S = \frac{1}{2} r^2 \alpha$
$\sin 2\alpha = \frac{2\tan\alpha}{1-\tan^2\alpha}$
$\int \sin^3 x = -\cot x$
$S = \frac{(a+b)}{2} h$
$S = \frac{1}{2} ab \sin$

Setting a Rate Cap

As mentioned earlier, the prevalence of monthly interest rate caps of 3 to 3.5 percent (i.e., APR caps of 36 to 42 percent) dates from recommendations from the writers of the Uniform Small Loan Law of 1916. As of 2015, 14 states still had an interest rate cap of 36 percent, and 23 states had interest rate caps below 36 percent.[59] Four states had interest rate caps above 36 percent, and 9 had no interest rate cap.

One hundred years ago, consumer advocates, working with potential lenders with the capital to make loans, determined that a 36 percent interest rate was reasonable. Over time, however, while the revenue generated by loans of a particular size has remained constant, the costs of producing loans have increased. Costs of producing loans include employee salaries, employee benefits, rent and other operating expenses, regulatory compliance costs, and taxes.

59. Black and Miller, "Examining Some Arguments Made by Interest Rate Cap Advocates."

Today, some consumer advocates, policymakers, and the CFPB view a 36 percent interest rate cap as a "reasonable" cap.[60] The net effect of a 36 percent interest rate cap (or any interest rate cap) is that loan sizes below a certain amount are unprofitable. Loans below the breakeven amount under any rate cap, including a 36 percent interest rate cap, will not be supplied—leaving demand for those loans unfulfilled.

Given a Cost Level, What's the Breakeven APR?

The revenue for a loan is determined by the loan's size, its length, and its APR. If the loan size and length is given, there is a breakeven APR for a given cost of producing the loan. To calculate a breakeven APR, it is necessary to measure the costs faced by small-dollar lenders.

The 1972 National Commission on Consumer Finance estimated the **loan production costs** of providing small-dollar personal loans.[61] The commission's data warrant several caveats: the information came from surveys of small-dollar lenders; consequently, costs might be inflated or might simply reflect common practices rather than the lowest possible costs. In addition, the use of computers and networks has greatly advanced since 1972, and it is quite likely that operational costs have come down significantly. Still, the commission's report is the best available data on the costs of small-dollar loans. Its estimates, however, likely exemplify the high end of costs faced by modern-day finance companies.

60. For example, the CFPB acknowledges that there is a scope to its payday loan rule: "The rule applies to two types of covered loans. First, it applies to short-term loans that have terms of 45 days or less, including typical 14-day and 30-day payday loans, as well as short-term vehicle title loans that are usually made for 30-day terms, and longer-term balloon payment loans. The underwriting portion of the rule applies to these loans. Second, certain parts of the rule apply to longer-term loans with terms of more than 45 days that have (1) a cost of credit that exceeds 36 percent per annum . . ." Bureau of Consumer Financial Protection, Payday, Vehicle Title, and Certain High-Cost Installment Loans, 82 Fed. Reg. 54472, 54472 (November 17, 2017).

61. National Commission on Consumer Finance, *Consumer Credit in the United States*, chap. 7.

The 1972 report by the National Commission on Consumer Finance extended data compiled by economist Paul F. Smith.[62] Researchers Thomas A. Durkin, Gregory Elliehausen, and Min Hwang update the commission's report and state that "the Commission estimated a $370 fixed cost per loan (2013 dollars) plus a variable cost of 11 percent of the loan amount for a one-year loan (the average loan term). This cost estimate enabled the Commission to calculate break-even APRs for different loan sizes."[63] Durkin, Elliehausen, and Hwang restate the commission's estimates of breakeven APRs in terms of the cost of production in 2013 dollars. They report that a $1,000 loan has a breakeven APR of 77.86 percent, a $2,100 loan has a breakeven APR of 42 percent, and a $2,600 loan has a breakeven APR of 36 percent.[64]

Lenders that face a 36 percent interest rate cap cannot cover the costs of providing a $1,000 loan. They must increase the dollar size of the loans they make so that the increased revenue from the bigger loans exceeds the cost of making the loans. To make these larger loans, lenders engage in more rigorous underwriting, which means that fewer customers qualify as the loan size grows.

For example, suppose a consumer takes out a $1,000, 12-month personal loan, to be paid back in equal installments. (Remember that a lender's revenue from a small-dollar, traditional personal loan is the interest the borrower pays.) An estimated $370 fixed cost per loan (in 2013 dollars), plus an estimated variable cost of about 11 percent of the loan amount for a 12-month loan, results in a total cost estimate for the lender of $370 + (0.11 × $1,000), or $480.

As was shown in table 3 (page 25), the monthly payment on a $1,000, 12-month personal installment loan with a 36

62. National Commission on Consumer Finance, *Consumer Credit in the United States*, using data from Smith, "Recent Trends in the Financial Position of Nine Major Finance Companies." The data were originally compiled in Smith, *Consumer Credit Costs, 1949–59*.

63. Durkin, Elliehausen, and Hwang, "Rate Ceilings and the Distribution of Small Dollar Loans from Consumer Finance Companies," 5.

64. Durkin, Elliehausen, and Hwang.

percent APR is $100.46, which yields interest revenue of $205.52 ($100.46 × 12 = $1,205.52, $1,205.52 – $1,000.00 = $205.52). As shown in table 4, doubling the rate to a 72 percent APR results in a monthly payment of $119.277, which rounds to $119.28. With the rounded payment of $119.28, the interest revenue is $431.36 ($119.28 × 12 = $1,431.36, as shown in the table; $1,431.36 – $1,000.00 = $431.36).

TABLE 4. AMORTIZATION TABLE FOR A $1,000, 12-MONTH INSTALLMENT LOAN WITH A 72 PERCENT ANNUAL PERCENTAGE RATE

Month	Beginning principal balance	Equal monthly payment	Interest payment (beginning principal balance × monthly rate*)	Principal payment (monthly payment – interest payment)	Ending principal balance (beginning principal balance – principal payment)
1	$1,000.00	$119.28	$60.00	$59.28	$940.72
2	$940.72	$119.28	$56.44	$62.83	$877.89
3	$877.89	$119.28	$52.67	$66.60	$811.29
4	$811.29	$119.28	$48.68	$70.60	$740.69
5	$740.69	$119.28	$44.44	$74.84	$665.85
6	$665.85	$119.28	$39.95	$79.33	$586.52
7	$586.52	$119.28	$35.19	$84.09	$502.44
8	$502.44	$119.28	$30.15	$89.13	$413.31
9	$413.31	$119.28	$24.80	$94.48	$318.83
10	**$318.83**	**$119.28**	**$19.13**	**$100.15**	**$218.68**
11	**$218.68**	**$119.28**	**$13.12**	**$106.16**	**$112.53**
12	**$112.53**	**$119.28**	**$6.75**	**$112.53**	**$0.00**
	Sum:	$1,431.36	$431.32		

** The monthly interest rate is the annual percentage rate divided by 12: 72% ÷ 12 = 6%.*
Notes: Boldface marks the months in which the lender makes money on the loan. With the actual payment of $119.277, the interest revenue is actually $431.32 ($119.277 × 12 = $1,431.32; $1,431.32 – $1,000.00 = $431.32, which is the sum of the interest payments shown in the table).

Thus, even allowing for a 72 percent APR, the costs of a 12-month, $1,000 personal installment loan ($480.00) would exceed the revenue generated by the loan ($431.32). As a result, lenders would not provide loans for this amount, and demand for loans of this size would go unfulfilled.

The 1972 National Commission on Consumer Finance found that APRs would have to be high in order to make small loans profitable—likely approaching triple digits for loans in the $500 range (i.e., the size of a large payday loan). Per the National Commission of Consumer Finance, the cost of providing a $500 loan is $370 + (0.11 × 500) = $425. The APR needed to generate $425 of interest on a $500, 12-month personal installment loan is 132 percent. While this rate might appear shocking, it is about half the allowable annualized rate on payday installment loans.

Although a 36 percent interest rate might sound "high" and "profitable," personal installment loans are profitable at that rate only if the loan exceeds a certain size threshold. Therefore, personal loans, an important consumer credit option, are not available for loan sizes below the threshold. To bring personal installment loans back into this small-dollar "credit desert" created by rate cap laws, legislators would likely have to allow interest rates much higher than 36 percent.

Loan Rationing and Jurisdiction Shopping

Although personal loans from finance companies have existed for a century, there is little academic research on this market. Recent studies do show, however, that differences in interest rate cap levels create differences in the personal loan market.

Durkin, Elliehausen, and Hwang compare the small-dollar loan market in Texas with the small-dollar loan market in Pennsylvania, which has a lower rate cap than Texas. They find a lower overall number of loans in Pennsylvania. In addition, they find that the average loan size in Pennsylvania

is higher than in Texas.[65] Higher allowable interest rates in Texas mean that smaller loan sizes are profitable in Texas but not in Pennsylvania. Durkin, Elliehausen, and Hwang also find empirical evidence consistent with economists F. Thomas Juster and Robert P. Shay's theory of credit rationing. This theory predicts that borrowers who use small-dollar personal loans are "rationed borrowers"—that is, they are unable to borrow all they need at the low rates offered by banks.[66]

A study I coauthored with Ben Lukongo investigates the small-dollar installment loan market in Arkansas. Arkansas has constitutionally imposed a 17 percent interest rate cap. There are no personal finance companies that operate within the state of Arkansas, but there are such companies that operate in all six states that border Arkansas. The study finds that Arkansas residents obtain personal loans from lenders in these six other states. Additionally, Arkansas residents living in perimeter counties hold 96.8 percent of these loans—an indication that there is a small-dollar personal loan "credit desert" in the interior counties of Arkansas.[67]

Effects of a 36 Percent Rate Cap on Payday Loan Customers

Many consumer advocates claim that payday lenders are extracting vast profits by "preying" on "unsuspecting" consumers. Economics professor Jonathan Zinman points out that people who think that payday lenders are making abnormal profits cite as evidence the fact that the number of payday loan outlets exceeds the number of McDonald's and

65. Durkin, Elliehausen, and Hwang, "Rate Ceilings and the Distribution of Small Dollar Loans from Consumer Finance Companies."

66. Juster and Shay, "Consumer Sensitivity to Finance Rates."

67. Lukongo and Miller, "Some Consequences of the Binding Constitutional Interest Rate Cap in the State of Arkansas."

Starbucks franchises combined.[68] Some economists, however, might look at these numbers and conclude that they represent competition that lowers prices and increases quality for consumers.

Interest rate advocates see rate caps as the answer to what they call "predatory" lending. They press for an interest rate cap—typically 36 percent—to eliminate "abnormal profits" in small-dollar loan markets. For example, the Center for Responsible Lending states,

> A 36 percent interest rate cap for high-cost loans eliminates the predatory practice of charging 400 percent annual interest, and effectively springs the debt trap that payday lenders have set for their customers.[69]

Such proposals do not take into account the unintended consequences of rate caps. What will be the effect of a 36 percent rate cap on the market, on lenders, and on consumers? Economic theory predicts that a binding rate cap will create a shortage in the number of loans being made: the quantity demanded will exceed the quantity supplied. In addition, the capital that was available for small-dollar loans will be diverted to other, less profitable opportunities. Economic theory also predicts that if rates (i.e., prices) are not allowed to ration the supply of small-dollar loans, the supply will be rationed by other means.

Economic theory predicts that a 36 percent interest rate cap will result in zero supply of payday loans. Consequently,

68. Zinman, "Restricting Consumer Credit Access."

69. Center for Responsible Lending, "A 36% APR Cap on High-Cost Loans Promotes Financial Recovery."

for consumers experiencing financial distress in states with such a cap, payday loans will not be an option. The following example shows why rational payday lenders would not supply payday loans under a 36 percent interest rate cap.[70]

Suppose a consumer borrows $100 for two weeks from a payday lender. The loan fee in this case is $15 per $100 borrowed: in two weeks, the borrower pays back $115. The revenue to the lender for making the loan is $15. The firm Ernst & Young found in 2009 that the total cost of providing a $100 payday loan is $13.89.[71] Figure 6 contains Ernst & Young's cost findings. With revenue of $15, the lender can cover the production costs for $100 loans and will likely decide to supply them, because the lender will make a profit of $1.11 on each loan.[72]

If a 36 percent interest rate cap is imposed on this $100 two-week payday loan, however, the lender's revenue will be only $1.38. Recall the simple interest equation:

$$\$\text{Interest Paid} = \$\text{Principal} \times \text{Annual Interest Rate} \times \text{Time}.$$

In this case, the principal is $100, the annual interest rate is 0.36, and the time is two weeks, or (rounded) 0.03836 years. Therefore,

$$\$\text{Interest Paid} = \$100 \times 0.36 \times 0.03836,$$

$$\$\text{Interest Paid} = \$1.38.$$

70. Even a much higher rate cap can affect the supply of payday loans. Oregon instituted an APR cap of 150 percent in 2007. Zinman estimates that loan production costs result in a breakeven APR of 390 percent for payday lenders. Not surprisingly, after Oregon imposed the interest rate cap, the number of payday lenders in Oregon dropped from 346 to 82 by September 2008. Zinman also finds that this reduction in the supply of credit for payday borrowers worsened their financial condition. In addition, borrowers who would have been payday customers shifted to what Zinman refers to as "incomplete and plausibly inferior substitutes," such as pawn transactions and internet loans. Zinman, "Restricting Consumer Credit Access," 546.

71. Ernst & Young, "The Cost of Providing Payday Loans in a US Multiline Operator Environment."

72. Note that the estimated cost of supplying $1,000 in payday loans, $138.90 (i.e., $13.89 per $100), is roughly 30 percent of the cost of providing a $1,000 installment loan from a traditional installment lender, $480.

FIGURE 6. REVENUE AND COSTS FOR A PAYDAY LOAN, WITH AND WITHOUT A RATE CAP

	With a fee of $15 per $100	With a 36 percent rate cap
Revenue, per $100 loan:	$15.00	$1.38
Costs, per $100 loan		
Operating expenses:	$9.41	$9.41
Bad debt expenses:	$3.74	$3.74
Costs of debt/equity capital:	$0.74	$0.74
Total costs:	$13.89	$13.89
Pretax profit:	$1.11	−$12.51
Rational decision:	**provide loans**	**do not provide loans**

Source: Ernst & Young, "The Cost of Providing Payday Loans in a US Multiline Operator Environment," 2009.

In this case, as shown in figure 6, the costs of the loan ($13.89) far exceed the lender's revenue ($1.38). Lenders, therefore, will decide not to make these loans when there is a 36 percent interest rate cap. In effect, these loans will have been "legislated out of business." The economic effect will be a shortage of small-dollar, short-term loans. Borrowers might still want the loans, but the supply will be zero.

Consider another example based on unrealistically optimistic assumptions. Suppose that a payday lender's operating costs are magically zero, as are the costs of debt and the required return on equity. Moreover, suppose that the default rate on payday loans is only 1.5 out of 100 loans—a number that is lower than the delinquency rates on low-risk consumer loans made by banks.[73]

73. The Board of Governors of the Federal Reserve System reports that the delinquency rates on "Consumer Loans, Other" made by banks (and their low-credit-risk customers)

Suppose that this hypothetical payday lender makes 200 payday loans of $100 each, all with a 36 percent APR. At an assumed default rate of only 1.5 out of 100 loans, three borrowers fail to repay the interest and principal owed. The remaining 197 loans generate $1.38 of income each, or $271.86 in all. The three loans that go into default cost the lender $100 each, or $300 in all (plus $4.14 of uncollected interest). The lender's out-of-pocket net loss is $28.14 on the portfolio of 200 loans. Even in this most optimistic and unrealistic scenario, a rational lender would not supply these loans if there were a rate cap of 36 percent.

Currently, 16 states prohibit payday lending. If APRs are capped at 36 percent, this cap will act as a de facto ban.[74] The federal Military Lending Act of 2006 likewise effectively prohibits payday lending to military personnel by placing a maximum APR of 36 percent on loans offered to them.[75]

Lending small amounts of money for a short time to borrowers who have displayed a tendency to be unable to pay back loans is a high-risk, and therefore costly, business. Imposing a 36 percent interest rate cap on this market eliminates the supply of payday loans. Eliminating payday loans pushes borrowers with poor, or nonexistent, credit histories toward other options. These options include using bank overdraft protection, deferring the payment of bills (and facing the resulting unpleasant consequences), and turning to unlicensed lenders known as loan sharks.

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is 2.11 percent. Board of Governors of the Federal Reserve System, "Charge-Off and Delinquency Rates on Loans and Leases at Commercial Banks," last modified February 19, 2019, https://www.federalreserve.gov/releases/chargeoff/delallsa.htm.

74. The states that prohibit, or de facto prohibit, payday lending are Arizona, Arkansas, Connecticut, Georgia, Maine, Maryland, Massachusetts, Montana, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Vermont, and West Virginia. The District of Columbia also prohibits payday lending. Black and Miller, "Examining Some Arguments Made by Interest Rate Cap Advocates."

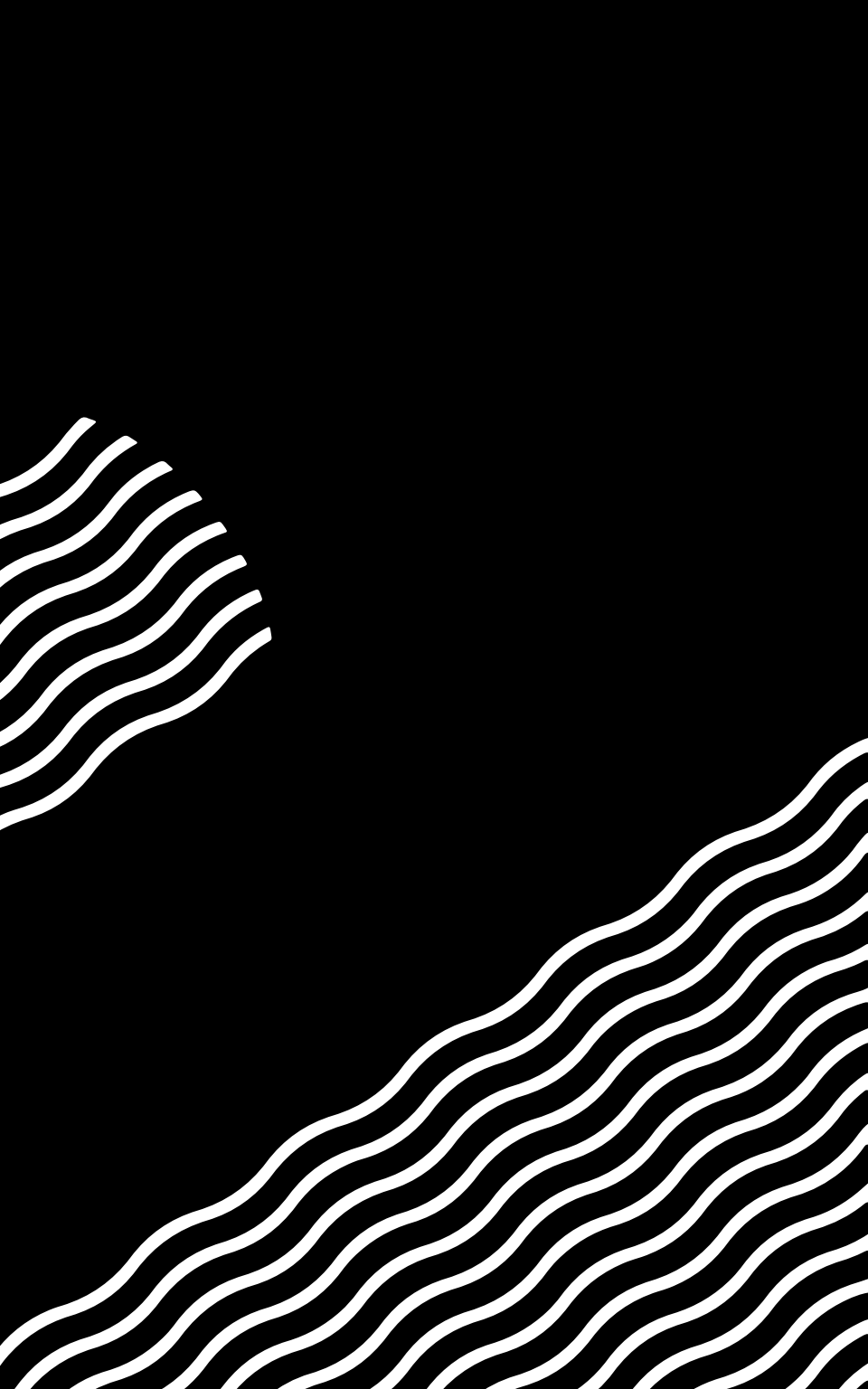
75. For an investigation of the impacts of a 36 percent payday loan rate cap on military readiness and a review of the recent literature on the welfare effects of payday borrowing and of payday loan regulation, see Carter and Skimmyhorn, "Much Ado about Nothing?"

Effects of the Military Lending Act's Rate Cap on Pawn Transactions

The Military Lending Act, and its 36 percent interest rate cap, also affects pawn transactions. A 36 percent APR is equal to 3 percent per month. Pawn transactions carry a fee, generally around 25 percent per month. Pawnbrokers, therefore, will not make pawn loans to members of the military or to their families, though they might *buy* possessions from this group of customers.[76]

A consequences of this act is that military personnel and their families lose access to pawn loans as a source of credit. This is the case even though in a pawn transaction, there is no requirement to repay the cash received, pay the pawn fee, and redeem the asset. There is no debt trap, because anyone who pawns an item has the option to walk away. Unrepaid pawn loans cause no damage to the customer's credit rating, because pawnbrokers regard each transaction independently.

76. A notable exception to this rule is the Provident Loan Society of New York, which charges a 26 percent annual fee. See Provident Loan Society of New York, "Better Than a Pawn Shop," accessed January 23, 2019, https://www.providentloan.com/en/get-a-loan/better-than-a-pawn-shop/. Other pawnbrokers in New York have a 48 percent fee (4 percent per month).



Conclusion: Now What?

Usury laws have existed in the US since colonial times.[77] State legislatures have regulated small-dollar credit products on an ongoing basis for nearly a century. In November 2017, the federal government, through the CFPB, published a lengthy rule that, in some ways, does not distinguish among the various small-dollar loan products. This rule is scheduled to take effect in August 2019. In February 2019, the bureau proposed to delay its implementation until November 2020. The bureau also proposed changes to the November 2017 "final" rule that render it less punitive to small-dollar lending institutions.[78]

In any circumstances, rulemaking should proceed if the evidence justifies the rules proposed. This evidence will emerge along with the answers to three rigorous research

77. Benmelech and Moskowitz, "Political Economy of Financial Regulation."

78. See Bureau of Consumer Financial Protection, "Payday Loan Protections," accessed February 28, 2019, https://www.consumerfinance.gov/payday-rule/.

questions: (1) Is repeated payday borrowing more harmful to consumers than the absence of the option to borrow? (2) If payday loans are harmful to borrowers, why don't the borrowers simply default? (3) Will limiting the number of payday loans (to six per year per consumer) do more good than harm?

The CFPB itself has provided answers to some of these questions. For instance, under the rule as published in November 2017, the bureau's own researchers found that "payday loan volume and revenues would decline between 60% and 81–82% under [a required] 30-day cooling off period between loans."[79] The more recent proposed changes to the rule are likely to alleviate most of this loss of revenue.

Small-dollar, nonbank loan markets, and changes to their regulation, will continue to exist. This guide is designed to be a starting point to help policymakers understand the workings of all the products available to consumers in the small-dollar loan landscape.

A mosaic of rigorous, replicable research results would broaden policymakers' understanding of the markets within this landscape. The CFPB and other agencies should push for another National Commission on Consumer Finance, in the spirit of the bipartisan commission that Congress created by the Consumer Credit Protection Act of 1968.[80] There is much to learn about how the consumer finance markets have changed over the decades since the last commission did its work. An updated, careful, and detailed study about how and why consumers use credit products could help regulators and legislators better understand the markets they are charged with regulating.

79. Bureau of Consumer Financial Protection, "Supplemental Findings on Payday, Payday Installment, and Vehicle Title Loans, and Deposit Advance Products," 139.

80. See Pub. L. No. 90-321.

Glossary of Selected Small-Dollar Loan Terms

ACH The automated clearing house (ACH) is an electronic network for financial transactions. The ACH allows money to flow into and out of consumer bank accounts. (Inflows are called credits and outflows are called debits.) One common example of a credit ACH transaction is the direct deposit of a payroll check. Common debit transactions include many types of consumer payments made directly from a bank account, such as payments for insurance, utilities, and installment loans.

APR There are several ways to think of the annual percentage rate (APR). Sometimes it is the stated interest rate used to calculate the payments for an installment loan. Other times, when loans include origination fees or other fees in addition to interest, the APR can be calculated from the series of cash flows that the borrower pays to the lender. If two loans have the same length and the same size, the loan with the lower APR will be cheaper.

Balloon payment A balloon payment is a lump-sum payment made at the end of an installment loan's term—if and only if this final payment is significantly larger than the equal payments made before the final payment.

Cash loan A cash loan is a loan that allows consumers to use the proceeds in any manner they wish. Although some cash loans are secured by collateral, the money received in a cash loan is not contracted to acquire and pay for the collateral.

Closed-end Closed-end describes a type of credit in which, at the onset of the loan contract, the borrower agrees to pay the lender all interest, finance charges, and principal in full by the end of scheduled loan term.

Collateral In some loans (or lending agreements), borrowers pledge specific property to a lender: this specific property is known as collateral. The collateral provides a means for the lender to be repaid principal and interest if the borrower defaults. When collateral is pledged in a loan agreement, the process is known as secured (or asset-based) lending.

Credit bureau A credit bureau, or credit reporting agency, collects information about how individual consumers borrow, repay debt, and pay bills. Credit bureaus use this information and their proprietary estimation models to calculate credit scores for individuals.

Credit score A credit score is a number (i.e., a score) that reflects the creditworthiness of an individual. Past behavior in paying bills (including loans) on time is correlated with future behavior—this is why higher credit scores are assigned to individuals who are deemed to be more creditworthy based on their credit history. Credit scores allow lenders to evaluate the risk that a specific potential borrower will not pay back a loan. Therefore, lenders use credit scores to decide whether to extend credit, how much money to lend, and what interest rate to charge.

Default Default occurs when borrowers fail to meet their legal obligations under the terms of a loan. A common example of default is when the borrower fails to make a scheduled installment loan payment on time.

Fee In addition to interest and principal, a loan contract might specify fees that the borrower must pay. One common fee is a loan origination fee—an upfront fee charged to initiate a loan contract. Another common fee is a late fee charged when a borrower is late in making a scheduled payment.

Flex loan A flex loan is an open-end, or renewable, line of credit. Borrowers with a line of credit need not reapply each time they want to use their line of credit. Borrowers with a flex loan make scheduled payments of at least the minimum amount due. To use their flex loans, borrowers must visit a physical store or go online to obtain cash or an ACH deposit.

Fraud In law, fraud is a deliberate deception to secure a gain. For example, a borrower might secure a loan by making false statements to the lender. The borrower might falsely claim to own assets that could be sold to repay the loan, or the borrower might even falsely claim that he or she intends to pay off the loan. Borrowers might also defraud lenders by failing to disclose debt that is not recorded by credit bureaus. Lenders can also defraud borrowers. For example, a lender might misrepresent or conceal the total cost of a loan or the consequences to the borrower of defaulting.

Garnishment If a borrower defaults on a recourse loan, the lender can seek a court order, or judgment, to collect the debt—this is known as garnishment. Garnishment allows the lender to be paid directly by the party that holds the borrower's assets. Most often, garnishment takes the form of a charge against the borrower's salary or wages, which requires that an employer pay a portion of the salary or wages directly to the lender.

Installment loan An installment loan is a recourse cash loan that is paid back in installments rather than in a lump sum. This means that the borrower makes payments over time to repay the amount borrowed plus interest. (Sales financing and home mortgages also involve payments made over time, but borrowers do not receive the cash to use as they please.)

Interest Interest is the charge paid by a borrower in exchange for the use of the money borrowed.

Interest rate The interest rate is the rate that the borrower pays the lender per dollar lent. Interest rates are generally expressed as APRs. Interest rates generate interest that compensates the lender for taking the risk that the borrower will default and for forgoing the use of the money during the time the borrower has it.

Loan agreement A loan agreement is a contract between a borrower and a lender. The agreement specifies the promises made by the borrower and the lender to each other, including the amount and terms of the loan. Loan agreements are usually in written form.

Loan production cost Loans cannot be produced without cost. Costs incurred by the lender include the cost of borrowing money to lend it, employee salaries and benefits, costs to engage in loan underwriting and collection, losses from default, regulatory compliance costs, taxes, and the costs of running a brick-and-mortar business (such as rent and utilities).

Lump-sum loan A lump-sum loan is a loan designed so that the interest and principal are paid back with a single payment—in a "lump."

Nonrecourse loan A nonrecourse loan is a loan that is secured only by a pledge of collateral. If the borrower defaults, the lender can legally seize and sell the collateral but cannot claim the borrower's other assets or force the borrower to pay the balance of the loan.

Open-end Open-end describes a type of credit that does not have a scheduled end date when the loan must be paid back in full. After reviewing a borrower's credit application, a lender might agree to allow the borrower to access a limited amount of money repeatedly. If the borrower has reached the credit limit, the borrower cannot receive more money. Open-end credit is also referred to as a "line of credit" or a "revolving line of credit."

Pawn transaction In a pawn transaction, or pawn loan, a consumer surrenders an asset and receives cash immediately. The consumer promises to pay the cash back with interest, either in a month via a lump-sum payment or, sometimes, over several months via installment payments. Generally, pawn loans are nonrecourse loans.

Payday loan A traditional payday loan is a short-term, lump-sum loan. At the due date, the borrower pays back the loan principal and a fee (usually expressed as a percentage of each $100 borrowed). Borrowers also have the option to extend, or roll over, the loan to another period by paying only the fee. Some payday loans are installment loans.

Personal loan Personal loans are small-dollar cash loans. They are generally made by finance companies in an industry that formed a century ago, aided by the Uniform Small Loan Law of 1916. Borrowers pay back these loans with equal installment payments. These loans are also known as traditional installment loans to distinguish them from other small-dollar loans, such as payday loans and title loans, which might also have installment payments.

Prime borrower When a borrower's credit score is judged to be sound, the borrower is classified as a prime borrower. Prime borrowers default on loans at a relatively lower rate than do borrowers with subprime credit scores.

Principal The loan principal is the amount of money the consumer borrows. It does not include any interest or fees.

Recourse loan A recourse loan is a loan whose agreement allows the lender to pursue legal remedies in order to collect the debt fully from the borrower in the event of default.

Renewal A loan renewal can best be described by an example. Suppose a borrower has borrowed money using a personal loan. After a period of time, the borrower might want to borrow more money from the lender. The lender will look at the borrower's pattern of payments on the original loan. If the pattern is satisfactory, the lender might agree to lend the borrower more money. The new loan will be for the amount owed on the original loan plus an additional amount. In this fashion, the original loan is said to be renewed. Note that the borrower receives a renewal only if he or she has demonstrated the ability and willingness to pay the original loan.

Rollover A loan rollover can best be described by an example. Suppose a borrower has borrowed money using a lump-sum loan, but when the loan principal and interest are due, the borrower cannot pay the amount of money needed to pay off the loan. The lender, faced with default, grants the borrower more time to pay the loan in exchange for an interest payment on the original loan amount. In this case, the loan is said to be rolled over. Note that the borrower receives a rollover option when he or she has not demonstrated the ability and willingness to pay the original loan.

Sales financing In a sales financing transaction, a consumer takes possession of an item immediately but pays for it over time. Common subjects of sales financing are furniture, automobiles, wedding rings, and consumer electronics. Generally, the item being purchased over time serves as collateral for the financing agreement.

Small-dollar loan Loans offered by lenders that are not banks or credit unions are called small-dollar loans. Most of these loans are for smaller dollar amounts than are available in loans from banks and credit unions.

Subprime borrower When a borrower has a credit score that is judged to indicate past trouble repaying debt, the borrower is classified as a subprime borrower. Subprime borrowers default on loans at a relatively higher rate than do borrowers with prime credit scores.

Underwriting Underwriting is the process lenders use to decide whether to extend credit to borrowers. To apply for loans, borrowers supply lenders with information about their income, assets, and debts. The lender reviews this information, as well as other information from credit reporting agencies, to decide whether to lend money to the borrower, and, if so, (1) how much money to lend to the borrower, (2) the cost of the loan in terms of interest charges, and (3) any conditions to attach to the loan (such as a collateral requirement).

Vehicle title loan In a vehicle title loan, a consumer receives cash immediately and promises to pay it back with interest (either in a month via a lump-sum payment or over several months via installment payments). The consumer pledges clear title to a vehicle as collateral. Generally, vehicle title loans are nonrecourse loans.

References

Aspen Institute. *Income Volatility: A Primer*. May 2016.

Baradaran, Mehrsa. *How the Other Half Banks*. Cambridge, MA: Harvard University Press, 2015.

Benmelech, Efraim, and Tobias J. Moskowitz. "The Political Economy of Financial Regulation: Evidence from U.S. Usury Laws in the 19th Century." *Journal of Finance* 65 (2010): 1029–73.

Black, Harold, and Thomas W. Miller Jr. "Examining Some Arguments Made by Interest Rate Cap Advocates." In *Rethinking Financial Regulation: Enhancing Stability and Protecting Consumers*, edited by Ben Klutsey and Hester Peirce. Arlington, VA: Mercatus Center at George Mason University, 2016.

Board of Governors of the Federal Reserve System. *Report on the Economic Well-Being of U.S. Households in 2017*. 2018.

Bos, Marieke, Susan Payne Carter, and Paige Marta Skiba. "The Pawn Industry and Its Customers: The United States and Europe." Law and Economics Working Paper Number 12-26, Vanderbilt University Law School, 2012.

Bureau of Consumer Financial Protection. "Supplemental Findings on Payday, Payday Installment, and Vehicle Title Loans, and Deposit Advance Products." June 2016.

Burke, Kathleen, Jonathan Lanning, Jesse Leary, and Jialan Wang. *CFPB Data Point: Payday Lending*. March 25, 2014.

Calder, Lendol. *Financing the American Dream: A Cultural History of Consumer Credit*. Princeton, NJ: Princeton University Press, 1999.

Carruthers, Bruce G., Timothy W. Guinnane, and Yoonseok Lee. "Bringing 'Honest Capital' to Poor Borrowers: The

Passage of the Uniform Small Loan Law, 1907–1930." *Journal of Interdisciplinary History* 42 (2012): 393–418.

Carter, Carolyn, Lauren Saunders, and Margot Saunders. *Predatory Installment Lending in 2017: States Battle to Restrain High-Cost Loans*. Boston: National Consumer Law Center, August 2017.

Carter, Susan Payne, and Paige Marta Skiba. "Pawnshops, Behavioral Economics, and Self-Regulation." *Review of Banking and Financial Law* 32 (2012): 193–220.

Carter, Susan Payne, and William Skimmyhorn. "Much Ado about Nothing? New Evidence on the Effects of Payday Lending on Military Members." *Review of Economics and Statistics* 99, no. 4 (2017): 606–21.

Center for Financial Services Innovation. "2014 Underserved Market Size: Financial Health Opportunity in Dollars and Cents." December 2015. https://cfsinnovation.org/research/2014-underserved-market-size-financial-health-opportunity-in-dollars-and-cents.

Center for Responsible Lending. "A 36% APR Cap on High-Cost Loans Promotes Financial Recovery." CRL Issue Brief. 2009.

Clarity Services Inc. "Profiling Internet Small Dollar Lending—Basic Demographics and Loan Characteristics." Report No. 1, nonPrime101, 2014.

Consumer Federation of America. "Car-Title Loan Regulation, as of December 2012." Accessed January 23, 2019. http://www.consumerfed.org/pdfs/Resources.CTL.StateLawTermChart12.2.12.pdf.

Durkin, Thomas A., Gregory Elliehausen, and Min Hwang. "Rate Ceilings and the Distribution of Small Dollar Loans from Consumer Finance Companies: Results of a New Survey of Small Dollar Cash Lenders." Working paper, George Washington University, Washington, DC, 2017.

Durkin, Thomas A., Gregory Elliehausen, Michael E. Staten, and Todd J. Zywicki. *Consumer Credit and the American Economy*. New York: Oxford University Press, 2014.

Ernst & Young. "The Cost of Providing Payday Loans in a US Multiline Operator Environment." 2009.

Federal Deposit Insurance Corporation. *2017 FDIC National Survey of Unbanked and Underbanked Households*; also *2017 FDIC National Survey of Unbanked and Underbanked Households: Appendix Tables* (published separately). October 2018.

Federal Deposit Insurance Corporation. "2017 FDIC National Survey of Unbanked and Underbanked Households: Executive Summary." October 2018. https://www.fdic.gov/householdsurvey/2017/2017execsumm.pdf.

Flores, G. Michael. "Online Short-Term Lending." Statistical Analysis Report, Bretton Woods Inc., 2014.

Flores, G. Michael. "The State of Online Short-Term Lending." Second Annual Statistical Analysis Report, Bretton Woods Inc., 2015.

Gabler, Neal. "The Secret Shame of Middle-Class Americans." *Atlantic*. May 2016.

Hawkins, Jim. "Credit on Wheels: The Law and Business of Auto-Title Lending." *Washington and Lee Law Review* 69, no. 2 (2012): 535–606.

Johnson, Robert W., and Dixie P. Johnson. "Pawnbroking in the U.S.: A Profile of Customers." Credit Research Center, Georgetown University, Washington, DC, 1998.

Juster, F. Thomas, and Robert P. Shay. "Consumer Sensitivity to Finance Rates: An Empirical and Analytical Investigation." Occasional Paper 88, National Bureau of Economic Research, New York, 1964.

Knight, Brian R. "Federalism and Federalization on the Fintech Frontier." *Vanderbilt Journal of Entertainment & Technology Law* 20, no. 1 (2017): 129–206.

Lukongo, Ben, and Thomas W. Miller Jr. "Some Consequences of the Binding Constitutional Interest Rate Cap in the State of Arkansas." Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, 2017.

National Commission on Consumer Finance. *Consumer Credit in the United States: The Report of the National Commission on Consumer Finance*. Washington, DC: Government Printing Office, 1972.

Pew Charitable Trusts. *Auto Title Loans: Market Practices and Borrowers' Experiences*. March 2015.

Servon, Lisa. *The Unbanking of America: How the New Middle Class Survives*. New York: Houghton Mifflin Harcourt, 2017.

Smith, Paul F. *Consumer Credit Costs, 1949–59*. Princeton, NJ: National Bureau of Economic Research, 1964.

Smith, Paul F. "Recent Trends in the Financial Position of Nine Major Finance Companies." In *The Consumer Finance Industry: Its Costs and Regulation*, edited by J. M. Chapman and R. P. Shay. New York: Columbia University Press, 1967.

Wilson, Eric, and Eva Wolkowitz. *2017 Financially Underserved Market Size Study*. Center for Financial Services Innovation. December 2017.

Zinman, Jonathan. "Restricting Consumer Credit Access: Household Survey Evidence on Effects around the Oregon Rate Cap." *Journal of Banking and Finance* 34, no. 3 (2010): 546–56.

Zywicki, Todd J. "Consumer Use and Government Regulation of Title Pledge Lending." *Loyola Consumer Law Review* 22, no. 4 (2010): 425–62.

Suggested Further Reading

Lendol Calder. *Financing the American Dream: A Cultural History of Consumer Credit*. Princeton, NJ: Princeton University Press, 1999. This book is a masterful summary of attitudes about consumer credit throughout the history of the United States. It provides an especially interesting description of consumer credit markets in the early 1900s.

Thomas A. Durkin, Gregory Elliehausen, Michael E. Staten, and Todd J. Zywicki. *Consumer Credit and the American Economy*. New York: Oxford University Press, 2014. This book is the encyclopedia of consumer credit. It's an indispensable resource for many topics related to consumer credit.

Mehrsa Baradaran. *How the Other Half Banks*. Cambridge, MA: Harvard University Press, 2015. This book describes the gap between people with bank accounts and people without bank accounts. It details how people without bank accounts conduct financial transactions, including obtaining credit.

Lisa Servon. *The Unbanking of America: How the New Middle Class Survives*. New York: Houghton Mifflin Harcourt, 2017. This is an intriguing firsthand account by a research scholar who worked for a check-cashing business in the South Bronx and for a payday lender in Oakland, California.

Thomas W. Miller Jr., Vera Soliman, Benjamin Klutsey, and Sloane Shearman. "Violet Needs a Loan." Mercatus Center at George Mason University. November 20, 2017. https://www.mercatus.org/essays/violet-needs-a-loan. This straightforward essay interweaves interviews with a diverse group of experts concerning various issues in consumer credit.

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Thomas W. Miller Jr. is a senior affiliated scholar with the Mercatus Center at George Mason University whose research for the Program on Financial Regulation focuses on small-dollar loans. He is also a professor of finance and the inaugural holder of the Jack R. Lee Chair of Financial Institutions and Consumer Finance at Mississippi State University. His current research concerns various aspects of consumer credit and, specifically, small-dollar installment loans.

Miller is a frequent speaker on consumer credit issues at national conferences. He has been honored with many research and teaching awards; has held positions at Saint Louis University, Washington University in St. Louis, and the University of Missouri; and has taught in Italy and France.

Miller is the co-author of two books: *Derivatives: Valuation and Risk Management* and *Fundamentals of Investments: Valuation and Management*, now in its 8th edition.

In his spare time, Miller enjoys playing blues and jazz on his tenor saxophone.

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Millions of Americans rely on small-dollar, non-bank-supplied credit products: payday, pawn, vehicle title, and personal installment loans from finance companies. Many features of these vital products, however, are not well understood. This book contains explanations of how these loans work, what features they share, and how they differ. Readers seeking to understand these products might learn something surprising. For example,

- Pawn transactions are not loans in the traditional sense.
- Interest rate caps influence the size of installment loans.
- The length of a payday loan affects its annualized interest rate.

This objective guide is a must-read resource for legislators, regulators, journalists, and anyone else who cares about access to, and regulation of, small-dollar credit.

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Thomas W. Miller Jr. is a senior affiliated scholar with the Mercatus Center at George Mason University whose research for the Program on Financial Regulation focuses on small-dollar loans. He is also a professor of finance and the inaugural holder of the Jack R. Lee Chair of Financial Institutions and Consumer Finance at Mississippi State University.

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