



# Payday lending: fixing a broken market

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This report analyses online payday lending business models and outlines a proposed framework to be used to determine the level for the cap on the cost of credit, which both allows lenders to cover their costs and results in affordable loans for borrowers.

# Payday lending: fixing a broken market

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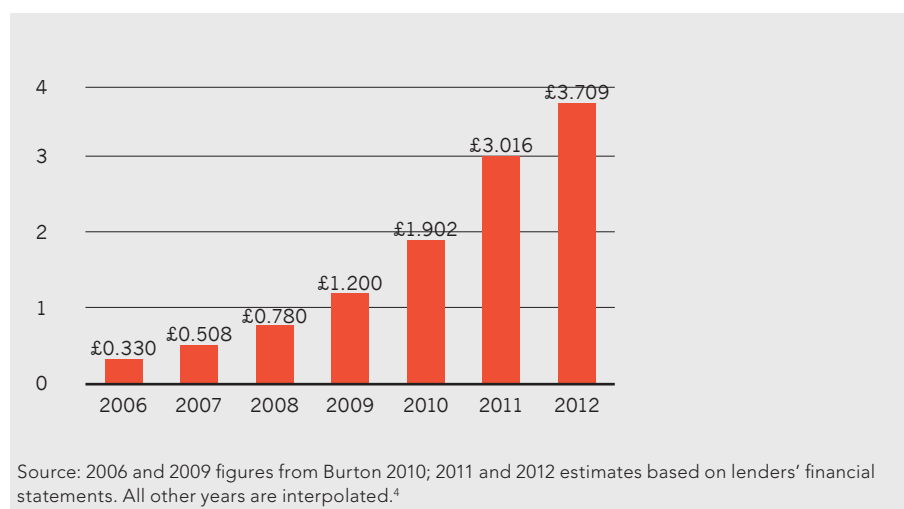


## 1. Introduction

In 2012 over 12m short-term cash advance or 'payday' loans<sup>1</sup> were arranged in the UK. A total of £3.7bn-worth of credit was extended in this way and UK borrowers paid over £900m in interest and charges.<sup>2</sup> The lack of appropriate regulation, post-crisis constrictions in traditional forms of unsecured lending and a large population struggling with falling real incomes have combined to create an attractive market for payday loans in the UK. As we can see in Figure 1.1, growth since 2006 has been explosive.

A payday loan is a small, short-term unsecured loan with both principal and interest scheduled to be repaid on a single date. The average payday loan is currently around £270 for 30 days (Office of Fair Trading 2013b). Payday loans represent one of the highest-cost forms of credit available, interest charges range from £15 to £35 per £100 borrowed for 30 days, equivalent to between 448% and 3,752% Annual Percentage Rate (APR). Late payment and transmission fees further increase the Total Cost of Credit (TCC) associated with these small loans. Payday loans are the fastest way to obtain credit: first-time, store-based loans take about an hour to process (BBC One 2012), first-time online loans can take as little as 15 minutes,<sup>3</sup> and repeat loans are even faster to obtain. Online lenders are open 24 hours a day seven days a week.

Figure 1.1: Total UK originations (billions)



1. The generic term 'payday loan' is used throughout to refer both to traditional payday loans and short-term cash advance loans.

2. Estimates based on lenders' financial statements and Office of Fair Trading (2011a) estimates of market shares.

3. Online lenders' own estimates from their websites.

4. In their *Payday Lending Compliance Review Final Report*, The Office of Fair Trading (2013b) appear to have based their estimate of the size of the UK payday lending market of £2.0bn to £2.2bn on 'initial loans' only. We include all loans in order to allow comparison between years.

Those in favour of payday loans typically advance one of four main arguments in support of the product. First, the high interest rates charged simply reflect the high costs involved in providing small sum, short term loans. Second, the low absolute cost of each loan means they are often cheaper than alternative sources of short term credit such as unauthorised overdrafts. Third, the 'bullet' structure (principal and interest repaid on a single date) of payday loans makes the product simple to understand and means prolonged indebtedness is less likely. And fourth, lenders have a clear incentive to lend responsibly: they want to get their money back. For its supporters, a payday loan is a useful income-smoothing tool with clearly stated terms.

On the other hand, critics assert that the very high interest rates charged are predatory by definition (see, for example, Mendick 2012). They argue that the bullet style of repayment makes payday loans very hard to repay and means borrowers are often sucked into a 'debt spiral': unable to pay back their first loan they take another loan (called 'rolling over', 'extending', 'refinancing' or 'renewing'), incurring more and more charges. And they are concerned that the increasing numbers of borrowers reporting problems repaying such loans<sup>5</sup> constitutes clear evidence of irresponsible lending.

The industry's own regulator, the Office of Fair Trading (OFT), has found that 'The payday loans market is not working well for many consumers. Our review has found evidence of widespread non-compliance with the Consumer

Credit Act and other legislation' (Office of Fair Trading 2013b: 2) and that 'Payday lenders are also not meeting the standards set out in our 'Irresponsible Lending Guidance, (Office of Fair Trading 2013b: 2) The entire industry has now been referred to the Competition Commission and the Banking Reform Bill will confer a 'duty to cap interest rates' (HM Treasury 2013) on the Financial Conduct Authority (FCA).

The level and form of this new interest rate cap is yet to be determined. There are questions, however, as to whether a cap on APR alone will be sufficient to make the payday lending market function well for borrowers. In particular, the potential for lenders to derive revenue from interest charges and from default fees and interest accrued post-default means a cap on the TCC may well be more appropriate.

The purpose of this report is to develop a detailed understanding of the business models driving UK payday lending in order to inform the debate about the level and structure of the new interest rate cap and to examine which other regulatory interventions may be necessary to create a small-sum lending market which allows lenders to innovate and also delivers good outcomes for borrowers. This report is designed to support the ongoing work of the Competition Commission (CC) and the FCA, but it may also be of interest to consumer groups and, ultimately, to investors.

## **SMALL LOANS – HIGH CHARGES**

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The payday lending industry's principal defence of the high interest rates charged is that they simply reflect the high costs involved in providing small sum, short-term loans (see, for example, Booth 2012). This implies that their pricing policy is based on a cost plus pricing methodology.

The Consumer Finance Association (CFA) currently has this Industry Briefing regarding APRs on its website: 'the costs of lending this way are high. The cost of lending someone a small amount, eg £200, is the same as lending a larger amount, eg £5000. It entails the same credit checks, bank verification checks, fraud prevention checks and regulatory requirements including anti-money laundering, mental capacity and responsible lending checks. Underwriting 25 × £200 loans (£5,000 total) clearly increases the cost to the lender 25 fold.' (Consumer Finance Association 2013b)

Similarly, Wonga.com's founder and former CEO Errol Damelin commented that 'We do small, short-term things, and the cost of delivering that service is high' (Shaw 2011). The CFA further argues 'Set the rate (cap) too low and payday lenders will no longer be able to afford the high operational costs ... thereby putting them out of business' (Consumer Finance Association 2013b).

Determining how much 'headroom' – in the form of profit and costs which could be reduced while still providing loans – exists in prevailing business models is therefore now critically important in the determination of a cap that is fair both to borrowers and lenders.

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5. For example, the number of people contacting the Consumer Credit Counselling Service (CCCS; now called 'StepChange') about payday debt more than doubled between 2010 and 2011 (Hall 2012).



This report will examine in detail the following areas.

**Do charges faced by borrowers really correlate to the operating costs incurred by lenders? What are the costs involved in providing online payday loans?**

To answer these questions we construct a simple model using cost information taken from Cash America's financial statements. We argue that the level and structure of advertising and marketing costs exceed income on first-time loans. If this is the case then online business models are reliant on repeat lending for their profitability.

**What proportion of lenders' revenues is absorbed by losses due to default?**

We examine the relative riskiness of online and retail payday lending in the UK.

We develop a simple methodology to estimate the numbers of loans borrowers have difficulty repaying, using the percentage of revenues lenders are willing to lose to defaults. It is not surprising that these estimates are broadly consistent with the OFT's finding that '...around a third of loans are repaid late or not at all.' (Office of Fair Trading 2013b: 2)

We develop an understanding of the distribution of defaults and argue that if, as the evidence suggests, elevated losses are associated with new borrowers, this increases prevailing business models' reliance on repeat lending for their profitability.

We examine the extent to which defaults are a function of the creditworthiness of the pool of borrowers and the extent to which they are the function of underwriting standards.

We explore the potential for adverse selection and product design to contribute to high levels of defaults.

**How profitable are rollovers?**

We extend the simple model using a theoretical distribution of rollovers based on that found in the OFT's Payday Lending Compliance Review Final Report (Office of Fair Trading 2013b) and find that rollovers are disproportionately profitable – accounting for 200% of our model business's profits. (Rollovers are loan extensions. They are fully defined and discussed at the beginning of Chapter 7.)

**Has innovation in the form of charging interest on a daily basis actually resulted in shorter, cheaper loans for borrowers?**

We construct another simple model using revenues earned, average loan sizes and average loan lengths taken from Wonga.com's 2011 financial statements in order to examine the possible distributions of loan sizes and lengths.

**Why is competition not working for consumers and which policy options could improve the functioning of the payday lending market?**

We examine market failure and argue that there is a risk that multiple loans allow lenders to finance each others' activities – more payday loans may lead to more payday loans.

We also argue that existing regulation may allow 'bad' behaviours to be more profitable than 'good' ones and that this can lead to the crowding out of responsible lenders.

**Could a new framework be devised to determine the level of the new rate cap?**

We outline a proposed framework for determining the level of the new rate cap. We argue that the low elasticity of demand exhibited by existing payday borrowers makes a 'cost plus' approach to pricing inappropriate for this market. Building on the work of the National Consumer Law Center in the US we argue that affordability should be of primary importance in setting the new rate cap and that the patterns of repayment and default experienced by existing payday borrowers can help inform our thinking about affordability.

## 2. The structure of the UK payday lending market

There are two markets for payday lending in the UK, the retail market and the online market. These markets have distinct characteristics and customer bases.

### THE RETAIL MARKET

Payday lending first started in the UK in pawnbroking and cheque-cashing shops. There are currently estimated to be around 1,800 stores providing payday loans as part of their product offering. For some alternative financial providers payday lending provides a significant revenue stream, while for others it is a small part of their overall business.

The retail market is dominated by two US companies: Dollar Financial and Axxess Financial (both of which operate under multiple brand names on the high street). Other retail lenders include: Cash Converters, Albemarle and Bond/Herbert Brown (which recently acquired a small online lender). Ramsdens and, until recently, H&T (Farrell 2013), all of their operations are dwarfed by those of the big two.

It is difficult to comment in detail on the business model driving retail payday lending for two reasons:

Most of the retail providers are privately owned (rather than listed on a stock exchange) making it difficult to obtain detailed information about their operations.

The 'multiline' nature of the business. Retail payday loans are always offered as part of a broader product offering, there are no standalone payday lending shops in the UK. This means that while revenue streams can be categorised by product, even lenders themselves find it difficult to accurately attribute costs to different products offered in the same shop.

### THE IMPORTANCE OF THE ONLINE BUSINESS MODEL

Online payday lending is a distinct business from traditional retail payday lending. Online lending businesses face:

- lower operating costs
- higher marketing costs – in particular the use of third party 'lead generators' – companies that specialise in sourcing the personal details of prospective borrowers
- higher loss rates due to greater difficulties in assessing creditworthiness and preventing fraud.

The online and retail business models are significantly different; this is evidenced by the fact that successful, experienced retail lenders have not always been able to make the online business model work. In the US the largest retail lender does not underwrite online loans, choosing instead to act as an online broker for a competitor.<sup>6</sup> In the UK few retail lenders underwrite online loans and those that do have typically grown via the acquisition of established online businesses.<sup>7</sup>

Similarly, the OFT, consumer advocacy groups, and lenders all report little overlap between the online and retail customer bases in the UK. Online lenders have reached different demographic groups, attracted by the anonymity and speed of online loans (and, no doubt, encouraged by high-profile advertising campaigns).

The focus of this report is the online market for a number of reasons:

- The online market is significantly larger than the store based market with around two thirds of loans now originated online.<sup>8</sup>
- The online market is growing faster than the store-based market and is of increasing importance.<sup>9</sup>
- Online loans carry higher charges than store-based loans, so prolonged use carries a greater risk of consumer detriment.
- Default rates among online borrowers are significantly higher than among store-based borrowers.<sup>10</sup>

8. Evidence from lenders' financial statements combined with the OFT's analysis of overall market size and 2010 online market shares (Office of Fair Trading 2011a).

9. Evidence from lenders' financial statements combined with OFT estimates of 2010 online market shares. The rapid growth of online lending is best illustrated by considering Cash America and Wonga.com, both of which operate exclusively online and entered the UK market in 2008. In 2012 they accounted for over £1.75bn of the total £3.7bn of credit extended – that is over 47% of the combined retail and online markets.

10. A detailed discussion of levels of default in both retail and internet businesses is presented in Chapter 6, 'Loss rates'.

6. Cash America's subsidiary, CashNetUSA.com (formerly Enova), offers online loans marketed through Advance America's website [www.advanceamerica.net](http://www.advanceamerica.net)

7. Dollar Financial has expanded into the UK online lending via the acquisition of various online lending businesses, including Month End Money (MEM). Cash America expanded into global online lending via the acquisition of CashNetUSA/Enova.

This report concentrates on the three biggest online lenders operating in the UK: Dollar Financial, Cash America, and Wonga.com. These lenders have been selected for three main reasons:

- They are the largest lenders: together they account for around 70% of the online payday lending market in 2010 (Office of Fair Trading 2011a).
- They are among the most responsible lenders operating in the UK. The purpose of this report is not to highlight areas of exceptionally poor practice by 'rogue' lenders, but to further the understanding of the online payday lending market as a whole.
- It is possible to bring together sufficient data to understand the business models of each of these lenders.

### 3. Literature review

#### UK RESEARCH

This is a relatively new product in the UK so there has been little prior research into payday lending here. None of the existing UK research deals with the payday lending business models, or with the relative profitability of first-time and repeat loans, focusing instead on international regulatory alternatives and borrowers' reported experiences.

#### INTERNATIONAL RESEARCH INTO RETAIL PAYDAY LENDING BUSINESS MODELS

##### Revenues from repeat lending

In the US, where payday lending is well established, concerns have frequently been raised about the length of time borrowers remain indebted to lenders and the proportion of revenues generated by repeat loans (King and Parrish 2011; King, Parrish and Tanik 2006). The Center for Responsible Lending, based in Durham, North Carolina, has published two reports of particular relevance:

- *Financial Quicksand* (King, Parrish and Tanik 2006) used data from regulatory databases and found that 90% of retail payday lenders' revenues come from borrowers who take five or more loans per year
- *Payday Loans Inc.* (King and Parrish 2011), tracked 11,000 borrowers over the two years following their first loan and found that 'in their first year of payday loan use, borrowers are indebted an average of 212 days. Over the full two-year period, borrowers are indebted a total of 372 days on average;' and that 'Payday borrowers' loans increase in size and frequency as they continue to borrow. Those payday borrowers who continue to take out loans over

a two year period have 12 payday transactions in their second year of borrowing, up from 9 transactions in the first year. In addition, evidence suggests that borrowers' loan sizes increase after their initial loan.'

##### The profitability of repeat lending

A number of attempts have been made to assess not just the revenues generated by repeat borrowing but the profitability of repeat borrowing. Stegman and Faris (2003) used loan-level data from payday lending stores in North Carolina to conclude that repeat business was a key determinant of financial performance. Conversely, Flannery and Samolyk (2005), again using loan level data provided by US payday lenders, concluded that while repeat borrowing contributed to loan volumes it is no more profitable than first-time borrowing. Both these studies used multivariate regression analysis to determine the impact of repeat borrowing on revenues (Stegman and Faris 2003) and profitability (Flannery and Samolyk 2005). While regression analysis is a useful tool, it has many limitations and is by no means a substitute for the business model approach this analysis takes.

In 2004, Ernst & Young was commissioned by the Canadian Association of Community Financial Service Providers (CACFS – the payday lenders' industry association whose members include both Dollar Financial and Cash America) to conduct an objective, independent survey on the costs of providing payday loans. The resulting report, *The Cost of Providing Payday Loans in Canada* was prepared with the cooperation of 19 payday lenders and provides the best available analysis of the business models of payday lenders. Crucially, Ernst and Young identified that the costs associated with providing first-time

loans were significantly higher than the costs associated with repeat loans. They concluded that, 'The operating costs of servicing new customers represent over 85% of the total costs across the industry.' (Ernst & Young 2004: 34) And, 'Clearly, the long-run survival of a payday loan operator will depend on achieving a steady repeat customer business' (Ernst & Young 2004: 37)

(It should be noted that when the CACFS commissioned a number of follow-up reports into the cost of providing payday loans in individual Canadian provinces, data on the relative costs of first-time and repeat loans do not appear to have been made available again.)

While providing by far the best available insight into the payday lending business model, the scope of the Ernst and Young report is limited to costs; it contains no analysis of how revenues and therefore profits are generated. It also does not go far enough in its analysis of patterns of default. Losses due to default are assumed to be evenly distributed across all loans when, in fact, loans to new borrowers carry a greater risk of default, further increasing the costs associated with first-time loans. It also contains no analysis of the online lending business model, as the vast majority of payday loans were originated in store rather than online in 2004.

## 4. Data sources

The principal motivation behind this report is the need to improve transparency. The biggest barrier to fully informed debate about payday lending in the UK is a lack of hard data. Payday lenders are currently under no obligation to release data into the public domain, where independent researchers would be able to carry out their own analysis of the industry and individual firms operating in the market. This report aims to bridge this information gap as far as possible:

In order to ensure the accuracy of calculations, only lenders' own data regarding costs and revenues contained in their published financial statements<sup>11</sup> are used.

Also, in the case of Dollar Financial and Cash America, both of which are publicly traded, additional information needed to separate information pertaining to their UK operations from information pertaining to their international operations and to enhance the analysis of costs and patterns of default is drawn from investor relations materials and earnings calls.<sup>12</sup>

In the case of Wonga.com, which is privately held, additional information is drawn from their Written Evidence to Parliament, testimony to the Public Accounts Committee, company approved interviews in the press, and statistics provided via their OpenWonga website.

High-level information on the market in general is drawn from the publications and press releases of the CFA – the trade body representing 70% of UK payday lenders, including Dollar Financial and Cash America – and the OFT, and from a report by the Personal Finance Research Centre at the University of Bristol (2013).

All information used is publicly available.

(This work has been undertaken on a 'best efforts' basis and enormous care has been taken to maintain a high level of accuracy and to provide a fair representation of lenders' activities. By necessity some assumptions are made. These are explicitly highlighted in the text and the basis on which they are made is fully explained.)

Table 4.1 presents a summary of statistics for the 'big three' lenders for 2011. (The most recent year sufficient information can be found in lenders' financial statements.)

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11. For Wonga.com these consist primarily of their accounts filed at Companies House and their 2012 published annual report. For Dollar Financial and Cash America these consist of their statutory filings with the Securities and Exchange Commission (SEC), in particular, the "Form 10k" – a detailed, audited annual filing essentially a very detailed annual report and "Form 10q" – a less detailed, unaudited quarterly filing.

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12. An earnings call is a conference call in which senior management of a listed company discuss the company's results with a panel of investment analysts. It is intended to provide investors and analysts with deeper insight into the company's operations. Cash America and Dollar Financial webcast their earnings calls via their investor relations websites. For this report the relevant earnings calls were accessed via the lenders' websites as they became available and were transcribed by the authors. Interested readers may access historical earnings calls free of charge at [earningscast.com](http://earningscast.com) or transcripts may be purchased from a number of online providers

**Table 4.1: Statistics for 2011**

	Dollar Financial (Online only)	Wonga	Cash America
Total credit extended	£495m <sup>a</sup>	£707m <sup>a</sup>	£507m <sup>h</sup>
Total revenue	£122m <sup>a</sup>	£184m <sup>a</sup>	£114m <sup>h</sup>
Revenues as a % of credit extended	25%	26%	22%
Losses as a % of revenues	35% <sup>b</sup>	36% <sup>a</sup>	45% <sup>i</sup>
Average loan size	£270 <sup>c</sup>	£287 <sup>f</sup>	£336 <sup>h</sup>
Average revenue per loan	£66	£75	£75
Average number of loans per borrower	3.68 <sup>d</sup>	3.00 <sup>g</sup>	3.68 <sup>d</sup>
Average revenue per borrower	£243	£225	£276
<b>Key and sources</b>			
a Includes estimated full-year activities of Month End Money (MEM). Source: Dollar Financial 10ks and 10qs.(DFC Global Corp 2011a, b, c and 2012b) MEM accounts filed at Companies House (MEM 2011)			
b Includes estimated full-year activities of Month End Money (MEM). Source: DFC Global Corp 2012a			
c Source: OFT2013b			
d Source: Consumer Finance Association 2012a			
e Source: Wonga.com accounts filed at Companies House (Wonga.com Limited 2012)			
f Source: Wonga.com accounts filed at Companies House (Wonga.com Limited 2012)			
g Source: UK Government 2011			
h Source: Cash America 2012a			
i Source: Cash America 2012a			

## 5. Customer Acquisition Cost

Lenders' principal justification for their high charges is that the set-up, or operating, costs of a loan (things like credit checks, verification of borrowers' details, setting up payments, etc) are broadly the same regardless of the loan's size and length. This, unavoidably, makes small-sum, short-term loans such as payday loans very expensive in APR terms.

The CFA currently has this Industry Briefing regarding APRs on its website: 'the costs of lending this way are high. The cost of lending someone a small amount, eg £200, is the same as lending a larger amount, eg £5,000. It entails the same credit checks, bank verification checks, fraud prevention checks and regulatory requirements including anti-money laundering, mental capacity and responsible lending checks. Underwriting 25 x £200 loans (£5,000 total) clearly increases the cost to the lender 25 fold' (Consumer Finance Association 2013b).

Similarly, Wonga.com's founder and former CEO Errol Damelin commented 'We do small, short-term things, and the cost of delivering that service is high' (Shaw 2011). The CFA further argues 'Set the rate (cap) too low and payday lenders will no longer be able to afford the high operational costs...thereby putting them out of business' (Consumer Finance Association 2013b). Determining how much 'headroom' there is in existing business models is therefore now extremely important.

However, if operating costs are the principal determinant of payday interest rates, firms facing the lowest costs should charge the lowest interest rates. Why, then, do online lenders, who face substantially lower operating costs than retail lenders, charge the highest APRs?

Far from competing with retail payday lending and driving prices down in both markets, online payday lending charges started high and have remained high. Why is this? What costs do lenders actually face? A Dollar Financial executive commented: 'as we've said before internet loans typically carry higher loan losses but with significantly lower fixed operating costs than the company's existing store based businesses in those countries.' (DFC Global Corp 2012a) One of Cash America's executives identifies the two key drivers of costs in his lending business as: 'it's a function of, obviously, loss rates, it's a function of customer acquisition cost.' (Cash America 2012b)

Loss rates and Customer Acquisition Cost explain why online payday lenders charge higher prices than retail payday lenders. They also have important implications for the length of time borrowers remain indebted and the number of borrowers experiencing repayment difficulties.

Loss rates, and the patterns of default they imply, are examined in detail below in First Customer Acquisition Cost, the total cost of acquiring a new borrower, is explored.

### WHAT IS CUSTOMER ACQUISITION COST?

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Customer Acquisition Cost (CAC) is the cost to a business of acquiring each new customer. CAC is computed as total acquisition cost, ie the sum of all expenses related to introducing new customers to the company's goods and services, divided by the number of new customers. For online payday lenders total acquisition cost includes money spent (or revenue foregone) on the following:

- lead purchase
- TV, radio and print advertising to new customers
- internet advertising ('pay per click', 'pay per call' and search engine optimisation) to new customers
- sales and marketing headcount costs attributable to new customer acquisition
- 'Refer a friend' programmes
- discounting of first loans
- additional work involved in processing the borrower's initial application
- processing initial applications which are subsequently declined.

### How significant is CAC?

Advertising and marketing often seem like optional extras that help a business grow but are not central to its survival. However, online businesses often need to spend significant amounts on advertising as they lack a physical presence with which to draw attention to their products. For online payday lenders CAC is significant and a key driver of overall profitability.

Peer-to-peer payday lender Lending Well claims that CAC is one of the main reasons the APR of 4,200% it charges borrowers is so far above the rate of return of 12% it pays investors. 'One of the main reasons that payday lending can seem expensive is that the cost of customer acquisition, credit checking and so forth is fixed and high' (Insley 2012).

Removing or restricting CAC can significantly reduce APRs, as in the case of US lender BillFloat (now called 'Better Finance'), which offers short-term loans to utility companies' customers via their websites: 'BillFloat CEO Ryan Gilbert says his company's loans, which max out at \$200 (£120), don't exceed a 36 percent APR. The much lower cost doesn't come so much from better risk assessment, though that plays a part, Gilbert says. Instead, he says, BillFloat can keep its own costs low because it doesn't have to spend money on getting new customers. Rather than having to advertise, BillFloat just shows up as another option alongside Visa and Mastercard when you sign in to pay your bill' (Wohlsen 2013).

### THE RELATIONSHIP BETWEEN CAC AND REPEAT LENDING

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No business spends more money on customer acquisition than it expects to get back through increased sales. For payday lenders increased sales means more loans – specifically, more loans to the same borrowers.

How many more loans? Each new loan generates revenue in the form of interest charges and fees, but not all of this revenue is available to offset the CAC. This is because there are other costs associated with making loans, regardless of whether the borrower is a new customer or not, things like financing cost, some operating costs and administrative costs, etc. Only the pre-tax profit – interest and fees minus other costs but before taxes – is available to offset CAC. Lenders only break even when the sum of all pre-tax profits<sup>13</sup> the borrower generates – called the 'Customer Lifetime Value' (CLV) – exceeds the CAC. (To break even is obviously a baseline scenario, in fact, a good online business aims to generate CLV many times greater than CAC.)

Whatever form it takes, CAC is always an up-front cost paid out by lenders before even the first loan is repaid. Lenders really put their money where their mouths (or, rather, their statistical models) are when it comes to the amount they are willing to pay to acquire new borrowers. They are acutely aware of advertising and

marketing spend and the return it generates. In the words of Dollar Financial 'We actively measure and conduct testing of our advertising programs to ensure we achieve a positive return on investment' (DFC Global Corp 2012e: 16). Therefore, analysis of CAC yields very robust information regarding lenders' expectations of CLV and hence levels of repeat borrowing.

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13. Technically, the pre-tax profit should be discounted from the date it is accrued to the date the CAC was incurred at the lender's cost of capital. As we do not know when the borrower will take each loan and as the effect of discounting will always be to increase the number of loans required to break even (the lender's cost of capital is always greater than zero) this step has been omitted in the interests of simplicity. The analysis presented here could be extended to add this extra level of complexity if required.



### BOX 5.1: EXAMPLE, CAC–CLV

The relationship between CAC and CLV can be visualised as a seesaw: on the left-hand side the CAC, the money spent to get the borrower through the door, weighs the seesaw down (Figure 5.1).

At the end of the first loan the borrower repays the principal plus interest and fees generating a small pre-tax profit for the lender; this money goes on the right-hand side of the seesaw (Figure 5.2).

Each time a loan is repaid some more pre-tax profit is generated and some more money can be added to the right-hand side of the seesaw. It is only when the two sides of the seesaw are perfectly balanced that the lender breaks even and can start to make a profit (Figure 5.3).

For example, if CAC is £100 and pre-tax profit per loan is £50 the lender breaks even when the borrower takes two loans ( $2 \times £50 = £100$ ). If pre-tax profit is only £25, however, the lender requires the borrower to take four loans ( $4 \times £25 = £100$ ) in order to break even.

In the simple examples illustrated, each loan is equally profitable. This need not be the case; perhaps the borrower takes a mixture of small and medium-sized loans, generating a mixture of small and medium profits, or one large loan generating a single large profit. Whatever the exact pattern of loans, one thing is certain: only when the sum of the pre-tax profits adds up to CAC will the lender begin to make a profit.

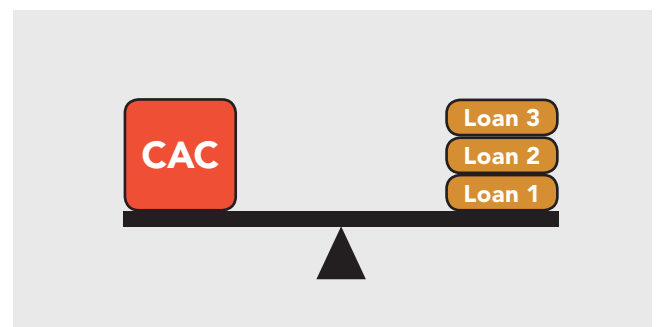
**Figure 5.1: CAC and CLV at the inception of the first loan**



**Figure 5.2: Customer Acquisition Cost and Customer Lifetime Value at the end of the first loan**



**Figure 5.3: Customer Acquisition Cost and Customer Lifetime Value at the end of the third loan**



## CASE STUDY: CUSTOMER ACQUISITION COST

By far the best insight into CAC comes from the prospectus Cash America produced in September 2011 ahead of its (subsequently cancelled) attempt to spin off its internet lending operations, which it calls Enova International, Inc.

Cash America's Enova business operates in the US, the UK, Australia, and in three provinces of Canada. It offers payday loans in all locations and, since 2010, instalment loans in the US and the UK only (Table 5.1). Revenues from foreign operations are a significant and growing percentage of total revenues

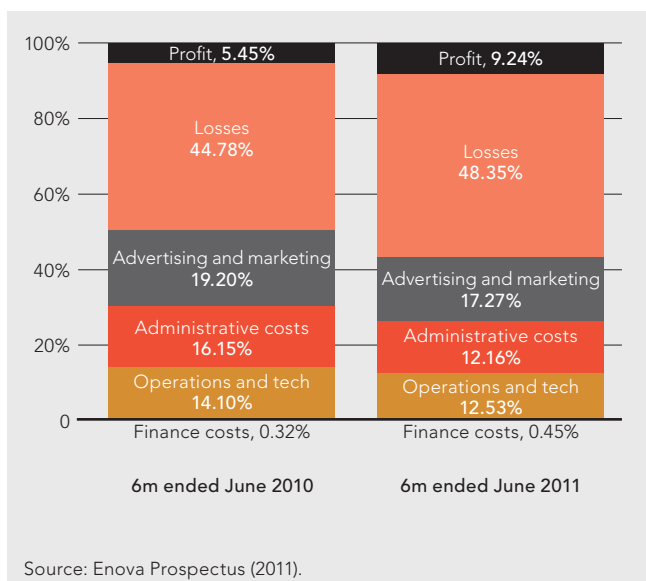
**Table 5.1: Cash America revenues (online lending only)**

Country	2010	2011	2012
US	73.0%	53.0%	50.5%
UK	25.0%	44.0%	46.5%*
Canada and Australia	2.0%	3.0%	3.0%*

\*For 2012, 49.5% of total revenues came from outside the US, primarily the UK. We have assumed Canada and Australia continued to contribute 3% of total internet revenues.

Source: Enova Prospectus (2011) and Cash America (2013)

**Figure 5.4: Cash America profit and costs – UK, Canada and Australia online lending only**



Cash America do not customarily split out details of their costs by geographic region but in the Enova prospectus they did so. Figure 5.4 shows the percentages of revenue spent on different categories of costs

This information presents a unique opportunity to gain insight into the costs associated with providing online payday loans in the UK.

The cleanest data, from 2010, forms the basis of the Customer Acquisition Cost case study presented here. (Analysis of the 2011 data generates similar results but requires some additional assumptions.) In order to analyse the data a few simplifying assumptions are required:

- The percentages of revenue spent on the various categories of costs remained the same for full year 2010.<sup>14</sup> (The figures in the Enova prospectus were for the first half of the year only.)
- Instalment lending constituted less than 1% of total lending for the year, hence all loans are treated as if they were payday loans.
- As instalment customers were overwhelmingly recruited from the pool of existing payday borrowers, all instalment loans are treated as repeat loans.
- As 93% of revenues came from the UK the entire foreign business is assumed to be representative of the UK.

14. The figures in the Enova prospectus were for the first half of the year only. The purpose of a prospectus is, however, to accurately represent the nature of the business to potential investors. Coupled with the fact that there is no evidence of 'seasonality' in UK payday lending, this means it is safe to assume that the structure of costs in the first half of the year did not diverge significantly from that in the second half of the year, as this would have been noted in the prospectus.

## Case study: continued

### DATA AND METHODOLOGY USED

- Cash America generated foreign online lending revenues of £65,846,799 and gross profit of £3,585,668.
- Number of first loans made = 151,000.<sup>15</sup>
- Number of repeat loans made = 772,474.<sup>16</sup>
- We divide the costs into three broad categories:
  - Advertising and Marketing £12,645,149.
  - Administration, Operations and Technology, and Financing £20,130,354.
  - Losses £29,485,628.

We now build a model of a payday lending business with the same characteristics. Ignoring losses for the time being (they are explored in much greater detail in Chapter 6) a simplified model of costs can be built in the following way:

### ADVERTISING AND MARKETING

Assume that 80% of the model business's advertising and marketing spend was aimed at acquiring new customers. How reasonable is this assumption? The figure of 80% may seem extreme and, perhaps, arbitrary but it is consistent with everything that is known about online payday lending customer acquisition in the UK.

First, Cash America sources over half of its borrowers (globally) via lead generators –third-party companies that specialise in sourcing prospective borrowers (Enova Prospectus 2011). According to the OFT, successful sales lead cost £80 in 2010 (Office of Fair Trading 2010b: 87).

15. Cash America online added the following numbers of new customers in 2010: 138,000 UK; 9,000 Australia; 4,000 Canada.

16. Includes 5,018 instalment loans. We understand the borrowers who took out instalment loans were overwhelmingly existing customers, so these loans are included in the category 'repeat loans'. They represented a tiny fraction of the business in 2010, so their treatment has little impact on our model.

Second, Cash America and the other big lenders used Google Adwords to acquire an undisclosed number of borrowers. Borrowers acquired in this way were even more expensive (with individual acquisition costs potentially running into the hundreds of pounds) to acquire than those acquired via lead purchase.

(Both lead purchase and the use of Google Adwords are discussed in detail below under 'Shared acquisition strategies'.)

Lenders are known to be very keen to retain borrowers; however, customer retention is significantly cheaper than customer acquisition, particularly as lenders are very 'tech-savvy' and target existing customers via text messaging and email at minimal cost. Further, as will become clear, because borrowers frequently cannot repay on time and so roll over or refinance, they are effectively retained without additional cost to the lender.

Table 5.2 gives a breakdown of advertising and marketing spend.

**Table 5.2: Advertising and marketing spend**

Total advertising and marketing spend on customer acquisition	£10,116,119
Total advertising and marketing spend on customer retention	£2,529,030
Number of customers acquired	151,000
Number of repeat loans made	772,474
Advertising and marketing spend per customer acquired/first loan	£66.99
Advertising and marketing spend per repeat loan	£3.27

### ADMINISTRATION, OPERATIONS AND TECHNOLOGY AND FINANCING COSTS

First loans are more expensive to make than repeat loans. Additional work is required to process the borrower's initial application and a large number of initial applications are processed but subsequently declined.

This additional work and expense can be represented in the model by assuming first loans cost twice as much to make as repeat loans do. This is similar to the approach taken by Ernst & Young in their report *The Cost of*

## Case study: continued

Providing Payday Loans in Canada (2004); however, they applied this simplified methodology to all costs, whereas in Table 5.3 it is used only for this sub-set of costs.

**Table 5.3: Administration, operations and technology and financing costs**

Total administration, operations and technology and financing costs	£20,130,354
Total Number of Loans made	923,474
Number of first loans made	151,000
Number of repeat loans made	772,474
Administration, operations and technology and financing costs per first loan	£37.47
Administration, operations and technology and financing cost per repeat loan	£18.74

### TOTAL COSTS

Adding the two categories of costs together gives total cost per loan (Table 5.4)

**Table 5.4: Total cost per loan**

Total cost per first loan	£104.46
Total cost per repeat loan	£22.01

### REVENUES

The other side of the equation is, of course, revenues. Assume that the size of first-time loans is 60% of the size of repeat loans. How reasonable is this assumption? Lenders routinely restrict the size of first loans to new customers to mitigate losses due to defaults. Table 5.5 presents average loan sizes.

**Table 5.5: Average sizes of first time and repeat loans**

Average loan size	£321.41
Average first loan size = 60% of repeat loan size	£207.55
Average repeat loan size	£345.92

Cash America normally charges between 20% and 29.5%. A weighted average interest rate of 22.65% ensures the model business's total revenue matches Cash America's reported revenue.

Cash America routinely offers a 25% discount on first time payday loans to new customers. We apply this discount to all first-time loans extended by the model business (Table 5.6).

**Table 5.6: Revenues including discounting of first-time loans**

Revenue per first loan	£47.01
Discounted revenue per first loan	£35.26
Revenue per repeat loan	£78.35

It is immediately striking that in our model the revenue per first loan, £35.26, is significantly lower than the cost per first loan, £104.46. The first loan is a 'loss leader' and it follows that the model business is dependent on repeat lending for its profitability.

### BREAK-EVEN POINT

In fact, it is not until the borrower repays the third loan that the model business reaches the break-even point (Table 5.7).

**Table 5.7: Breaking even**

	Cost	Revenue	Profit/loss	Cumulative Profit/loss
Loan 1	-£104.46	£35.26	-£69.21	-£69.21
Loan 2	-£22.01	£78.35	£56.34	-£12.87
Loan 3	-£22.01	£78.35	£56.34	£43.48

Note that this is a stylised model. It seems unlikely that new borrowers step straight up from a small first loan to a large second loan and perhaps not all borrowers receive the 25% discount.

Whatever the exact pattern of loans taken by each individual borrower it is clear from the case study that high CAC means lenders cannot breakeven before borrowers have taken multiple loans. It therefore follows that profitability is dependent on repeat lending.

Of course, not all borrowers take three loans. Some take a single loan, repay it and walk away. These borrowers are using payday in the way lenders claim it is designed to be used, to overcome an exceptional and very short term cash shortfall. Unfortunately, due to high CAC each borrower who walks away after a single loan leaves the lender out of pocket; in order for lenders to make a profit (which they do) another borrower must be take more than three loans to make up the difference. In fact, the more people who use payday as advertised, the worse things must be for the unfortunate sub-set of repeat borrowers.

Just as the CAC of £94 (computed as the total cost of a first loan, £104.46, plus the discount on first loans, £11.75, minus the total cost of a repeat loan, £22.01) is an average, so is the number of loans needed to recoup it an average. Behind the average of three loans lies a distribution.

Furthermore, because three loans are required just to reach the break-even point, this represents a baseline scenario. A good online business model has an expected CLV many times greater than CAC. In order to make profits, our model business requires borrowers to take more than three loans each on average.

## HOW TYPICAL IS CASH AMERICA'S CUSTOMER ACQUISITION COST?

While each lender employs its own unique set of customer acquisition strategies some strategies are common to all three large lenders, in particular:

- Lead purchase.
- Additional work involved in processing the borrower's initial application.
- Processing initial applications which are subsequently declined.
- Use of Google Adwords.

First, these shared acquisition strategies are discussed in detail and then specific details of spending and strategies employed by Wonga.com and Dollar Financial are discussed.

## SHARED ACQUISITION STRATEGIES

### Lead purchase

Lenders routinely purchase the details of prospective borrowers, called 'leads', from third-party companies that specialise in sourcing prospective borrowers, called 'lead generators', or 'lead providers'. Lead generators run websites where prospective borrowers fill in their details (borrowers are often unaware that they are not dealing directly with the lender). The lead generator then acts as a credit broker, passing each borrower's details to a lender or lenders.

According to the report by the Personal Finance Research Centre, University of Bristol (2013), in order to generate the highest revenues, "lead generators may develop a 'ping tree', which is a panel of online lenders that are ranked in order of how much commission they pay for each lead. The 'first look lead' pays the

highest commission and the 'last look lead' pays the lowest commission in the ping tree. The lead generator works with a network of 'affiliates' (eg online loan brokers, email and SMS marketers) that run marketing campaigns to increase the volume of leads.

The lead (ie prospective borrower) submits one loan application via an affiliate's website. Their details are passed across the 'tree' of lenders until one of the lenders accepts (or else presumably the application is rejected). The most common ways in which lenders pay for these services seem to be pay per lead (eg for each application that is submitted) or pay per sale (ie when a loan is made)." (Bristol 2013: 41)

Due to high rejection (on the part of the lender) and high refusal (on the part of the borrower) rates 'pay per sale' prices are much higher than 'pay per lead' prices. The OFT believes that 'a successful lead will generate a payment of around £80 (regardless of the sum borrowed by the borrower) from the payday lender to the lead generator' (Office of Fair Trading 2010b: 87).

This is absolutely consistent with the CAC modelled in the Customer Acquisition Cost case study. Crucially, the 'sales lead' cost of £80 is paid regardless of the amount of the loan. The price of £80 is a lot of money to pay to acquire someone looking to borrow a small amount for a very short time. If anything, lead prices are now even higher. One of Dollar Financial's executives stated that 'The (UK) internet lending market has become highly competitive with many providers bidding up new customer leads to cover shortfalls in revenue stemming from limitations on rollovers' (DFC Global Corp 2013d). Where borrowers are acquired via lead purchase, profitability is absolutely dependent on repeat borrowing.

In the US consumer advocates have already noted that high lead purchase costs make lenders reliant on repeat lending to break even. According to Jean Ann Fox, Director of Consumer Protection at the Consumer Federation of America: 'the use of lead generators makes it an even higher priority for payday lenders to push borrowers into multiple loans. "The price structure for marketing payday loans online makes loan flipping economically essential for lenders to make a profit," she says. "Payday lenders pay up to \$125 per qualified lead, which requires several loan renewals just to recoup the cost of acquiring the borrower"' (Sandman 2012).

Cash America sources over half of its borrowers (globally) via lead generators, relying on just seven companies to provide 81% of leads (Enova Prospectus 2011). They are not alone, all three of the big lenders purchased significant numbers of leads in 2010 (Figure 5.5).

According to the OFT, in 2010 Cash America purchased 20% of all payday leads sold in the UK, as did Dollar Financial (including Month End Money<sup>17</sup>), while Wonga.com purchased 10%.

Lenders are competing with each other for leads; it is therefore reasonable to assume that they face similar costs per lead. High CAC is endemic in online payday lending in the UK (and internationally).

#### Additional processing time

While lenders have been able to automate much of the application process, credit- checking, income and identity verification, etc, they still spend more time on the average first-time application by a new borrower than they do on repeat applications by existing borrowers. Even Wonga.com, which prides itself on its automated lending process, employs a 'verification team' to

verify some applicants' bank account details manually. It seems reasonable to assume that such verification is more frequently required for first-time applicants than for returning borrowers.

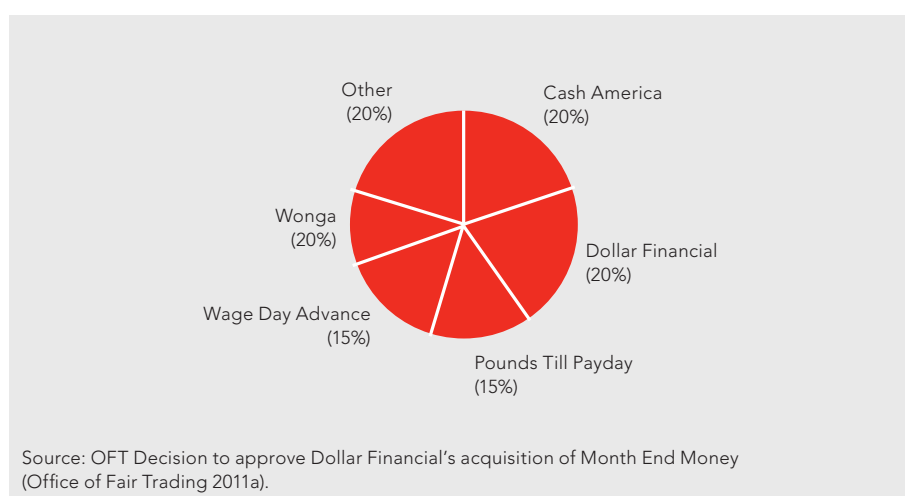
In December 2011 Cash America launched a 'Pay per call' programme (Nemechek 2011) (in addition to its 'Pay per click' marketing efforts), as they receive a significant number of enquiries by telephone. Again, it is reasonable to assume that a disproportionate number of first-time applicants require telephone assistance.

#### Applications that are subsequently declined

Wonga.com rejects over 60% of applicants (UK Government 2011);<sup>18</sup> the CFA say their members routinely reject over 90% of applicants. According to one Dollar Financial executive talking about the UK online payday lending business, 'we only...approve, I should say, about 15% of the applications we get and then the customer only accepts that funding and puts a loan on the books for us for maybe 25% of that' (DFC Global Corp 2013a). This implies that just 3.75% of applications are actually converted into loans.

There are costs associated with the approval process. Running a credit check, for example, appears to cost around £2 (UK Government 2013: 39). The costs associated with the approval of applicants who do not take a loan must be borne by those who do: this is part of their CAC.

Figure 5.5: Share of leads purchased



17. Month End Money was acquired by Dollar Financial in April 2011.

18. OpenWonga.com statistics downloaded July 2012 and January 2013.

### Google Adwords

The use of Google Adwords is probably the most expensive customer acquisition strategy lenders employ. Google allows advertisers to pay to have their link appear at the top of the results page generated whenever someone searches for their chosen 'adword'. Advertisers pay for the prominent positioning of their link on a 'pay-per-click' (PPC) basis. The adword 'payday' sells for over £20 per click, ie in order to appear in one of the top three spots on the 'payday' results page, lenders must pay over £20 for every click on their link (Sommerlad 2014).

Not all clicks convert into loan applications and lenders routinely reject 90% of applications, so the costs of PPC advertising quickly mount up. Even if a loan was generated for every 10 clicks on a lender's link, this would imply an external CAC of £200 for loans generated in this way.

### Wonga.com

It is no secret that Wonga.com run very high profile (and expensive) advertising campaigns. Their advertising spend was estimated by the agency AC Nielsen MMS to be £16m in 2011 (Gentleman 2012) and included, 'sponsorship of all three CSI series and The Mentalist on Channel 5, using the Rawhide theme tune for its commercial radio ads, and plastering buses throughout London. The company sponsors Blackpool and Heart of Midlothian football teams and advertises on football clubs' websites' (Neate 2012). In 2012, Wonga.com signed a deal with Newcastle United reported to be worth £24m over four years (Conn 2012). As well as television and online advertising and sports sponsorship, Wonga.com acquires customers through a variety of channels, including 'refer a friend' programmes, discounting of first loans, affiliate marketing and lead purchase.

### Refer a friend scheme

Wonga.com encourages existing borrowers to introduce new borrowers to them via the 'Refer a Friend scheme'.

#### How does the 'Refer a Friend' scheme' work?

'We give each of our customers a unique "refer a friend" code. You can find yours by logging into the My Account section in our website. If you know someone who wants to take a loan with us, you can give them your code to enter in the "promocode" box under the sliders, when they apply. If this is their first Wonga.com application, we will remove our £5.50 transfer fee from their loan balance. If your friend's loan is for £50 or more and meets our refer a friend criteria...we will send £20 cash straight to your registered bank account as a thank you for introducing a new customer to us'.

(WONGA.COM WEBSITE N.D., 3)

This equates to an external CAC of £25.50 not including the internal headcount cost of administering the scheme.

Payment can even be offset against a referrer's existing arrears. It is easy to imagine a borrower in an extremely difficult situation exploiting their knowledge of another person's situation (ie straying into what would be considered 'aggressive' commercial

practices, were they to be performed by a paid agent) when this kind of 'refer a friend' scheme is allowed.

Discounting Wonga.com routinely distributes discount codes, offering to waive the £5.50 transmission fee on first-time loans to new customers.

Total advertising and marketing spend is likely to be significantly higher than the advertising budget estimated by AC Nielsen MMS, as this figure does not include internal marketing and advertising headcount or lead purchase costs and is therefore not directly comparable with Cash America's total advertising and marketing spend detailed above.

### Dollar Financial

Dollar Financial reports advertising and marketing expense at the global level, ie consolidated across all business lines in all countries. However, there was a significant increase in global advertising and marketing expense (Figure 5.6) after their acquisition of the Month End Money UK online payday lending business in April 2011.

March 2010 – March 2011 Total global Advertising Spend £14.4m.

March 2011 – March 2012 Total global Advertising Spend £31.3m.

Global advertising spend for the 12 months after MEM was acquired was £16.9m higher than for the previous 12 months. This significant change in spending generated some interest from investment analysts covering Dollar Financial's stock.

### BOX 5.2: DOLLAR FINANCIAL EARNINGS CALL

Here is an excerpt from the Dollar Financial Earnings Call Q2 2012 (ie for the three months ended Dec 2011) (DFC Global Corp 2012a):

Analyst:

My other question, concerns advertising spend, that was up a lot year over year, was that mostly UK and Canada?

Dollar Financial executive:

Yes, certainly the rapidly growing internet lending business has quite a little bit of advertising attached to it and of course you'll remember a couple of acquisitions we haven't lapped ourselves yet, MEM was an April acquisition so we're comparing to a quarter that doesn't have any in it in the prior year and the same is true of Risicum which was acquired in July.

Analyst:

Right and that 14m dollars is that the kind of run rate maybe we should be modelling in going forward?

Dollar Financial executive:

Yes that's a pretty good number I would say as a percentage of revenue. Obviously, as the top line grows, the absolute number grows too and as internet grows as part of the mix which it will do as it's growing faster than everything else. We spend more advertising on the internet than we do in our store-based business.

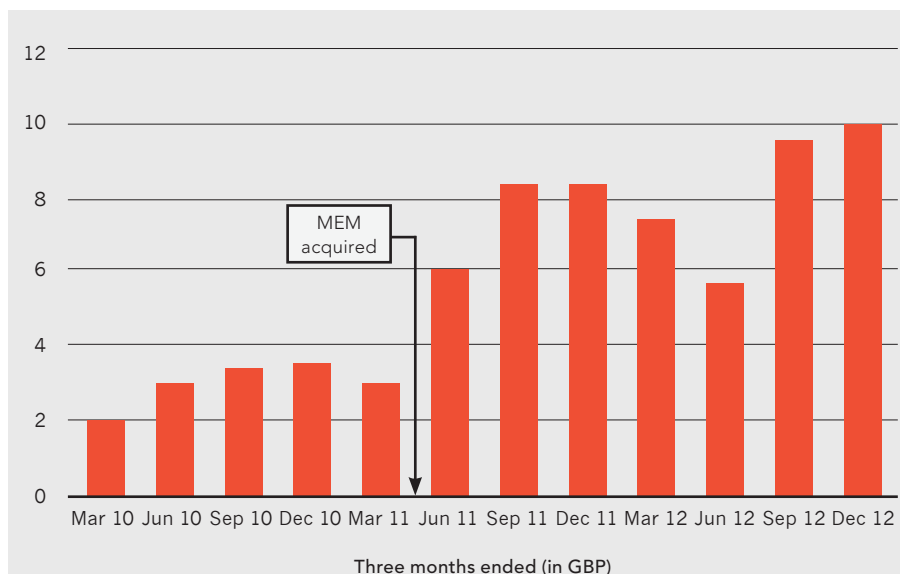
The executive quoted in the Dollar Financial Earnings Call (Box 5.2) attributes the jump in spending to internet lending in the UK, Scandinavia and Eastern Europe (ie Risicum), and Canada. Of these businesses, the UK internet lending business is by far the biggest contributor to global revenue, so it seems reasonable to assume that a large proportion of the £16.9m increase was directly attributable to Dollar Financial's UK online payday lending business (Table 5.8).

**Table 5.8: Dollar Financial's internet business**

% Global revenue attributable to:	
UK internet	21.1%
Scandinavia and eastern Europe internet	3.3%
Canada internet	0.5%

Source: DFC Global Corp 2012c: 6.

**Figure 5.6: Dollar Financial quarterly advertising spend**



Source: Dollar Financial 10ks and 10qs.



## 6. Default

The cost of defaults is borne ultimately not by lenders who operate profitably, but by borrowers in the form of high charges and fees. Reducing losses could therefore result in a lower cost loan product for borrowers.

In this chapter we use two simple metrics – the loss rate and losses as a percentage of originations – to develop an understanding of how much of the high cost of payday loans is due to losses and how many loans are repaid late.

We will explore:

- the distribution of defaults, in particular, evidence of higher default rates among 'unseasoned' (new) borrowers and 'seasoned' (repeat) borrowers and the implications this has for the profitability of repeat lending
- the extent to which defaults are a function of the creditworthiness of the pool of loan applicants and the extent to which they are a function of underwriting practices
- the role 'adverse selection' may play in high defaults experienced by online payday lenders.

### LOSS RATES: THE PERCENTAGE OF REVENUES ABSORBED BY LOSSES

Dollar Financial and Cash America and the analysts who cover their stocks use the loss rate as a key metric in assessing the performance of their payday lending businesses. The loss rate is the loan loss provision for potential losses due to defaulting borrowers during the period as a percentage of revenues for the same period. What is the loan loss provision?

Simply put, the loan loss provision is the lender's best estimate of losses associated with the revenue recorded in a specified period but yet to be received.

The loan loss provision appears in the US lenders' financial statements as an expense in the income statement. The loan loss provision increases the loan loss allowance or reserve, which appears as a liability in the balance sheet. The loan loss allowance or reserve is, in turn, the amount of money the lender considers necessary to absorb the losses inherent in the portfolio of loans it currently holds as an asset (ie amounts receivable) in the balance sheet. Any recoveries on loans charged against income are then credited to the loan loss allowance or reserve.

The comparable amount in Wonga.com's income statement is the Loan Impairment Charge. In 2011 Wonga.com generated revenues of £184.2m and its loan impairment charge was £66.4m, so its loss rate was 36% (Wonga.com Limited 2012: 24).

As we can see from Table 6.1, losses absorb between one-third and half of the total charges faced by borrowers at all the major lenders.

**Table 6.1: 2011 loss rates (UK online payday loans only)**

Wonga.com	36%
Dollar Financial	35%*
Cash America	45%**

\* DFC Global Corp 2012a

\*\* Cash America reported a loss rate of 48.35% for its foreign online lending business for the first half of 2011. This included 6.5% of total loans made, which were instalment loans. Instalment loans carry a higher loss rate than short-term payday loans, particularly when first written. The loss rate for the payday lending business only has therefore been adjusted down from 48.35% to 45%.

## FLUCTUATIONS IN LOSS RATES AND WHAT THEY IMPLY

### Dollar Financial's experience

In Figure 6.1 we can see how Dollar Financial's global loss rate has fluctuated over time. It is important to note that this is information at the global level, ie including all Dollar Financial's consumer lending operations across all jurisdictions.

The loss rate has trended higher since the end March of 2011 and the company attributes this to an increase in online lending and a higher mix of new borrowers.

There is also a significant increase in Dollar Financial's forecasted quarterly loss rate from end Dec 2013 onwards. This is attributed to the 'Impact of transition to responsible lending

guidelines in the UK'. We believe this is due to the crystallisation of losses as the numbers of rollovers have been reduced and collections have been impacted by limitations on the use of Continuous Payment Authority (DFC Global Corp 2014).

The evolution of Dollar Financial's loss rate over time highlights two important facts:

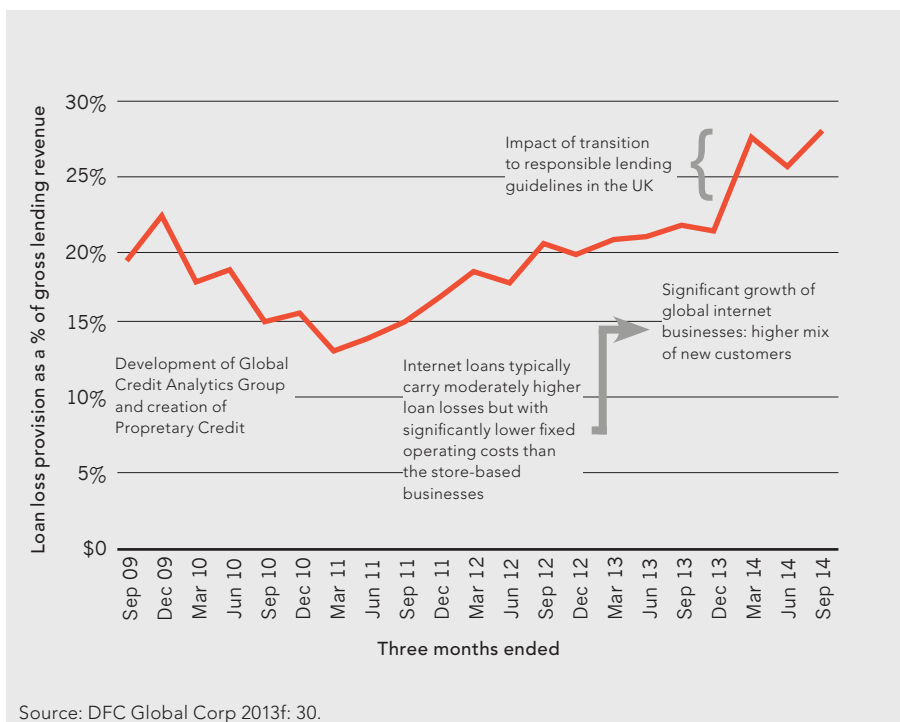
- losses on internet loans are higher than on retail loans
- new borrowers pose an elevated risk of default: 'Loans made to newer customers tend to carry higher loss rates until our level of experience (ie knowledge of customer behavior) with the customer increases' (DFC Global Corp 2012e: 47).

How much higher are losses on internet loans? Dollar Financial do not split out their loan loss provision for UK online lending only; however, they did offer an insight into loss rates during one of their earnings calls.

'It was about 15% in US retail, it was about 11% in Canadian retail, in UK retail it was about 25% and you know the internet businesses as you know we've said before, typically range around 35%.' (DFC Global Corp 2012a)

This gives a good idea of the relative credit-riskiness of Dollar Financial's different lending businesses. Online lending involves more underwriting risk than retail lending.

Figure 6.1: Loan losses trended higher due to change in mix



### Cash America's experience

Cash America only operates online in the UK. In its first full year of operation (Figure 6.2) its loss rate was 79%; as the business matured and extended a greater percentage of loans to seasoned borrowers its loss rate fell to around 48%. New borrowers presented a very high risk of default.

Once other costs were taken into account Cash America's UK operation generated a loss for 2008, as shown in Table 6.2 (Enova Prospectus 2011):

This has important implications for the profitability of repeat lending. Loans made to seasoned borrowers will have lower loss rates and therefore be more profitable than loans made to unseasoned borrowers.

**Table 6.2: Cash America's UK results 2008**

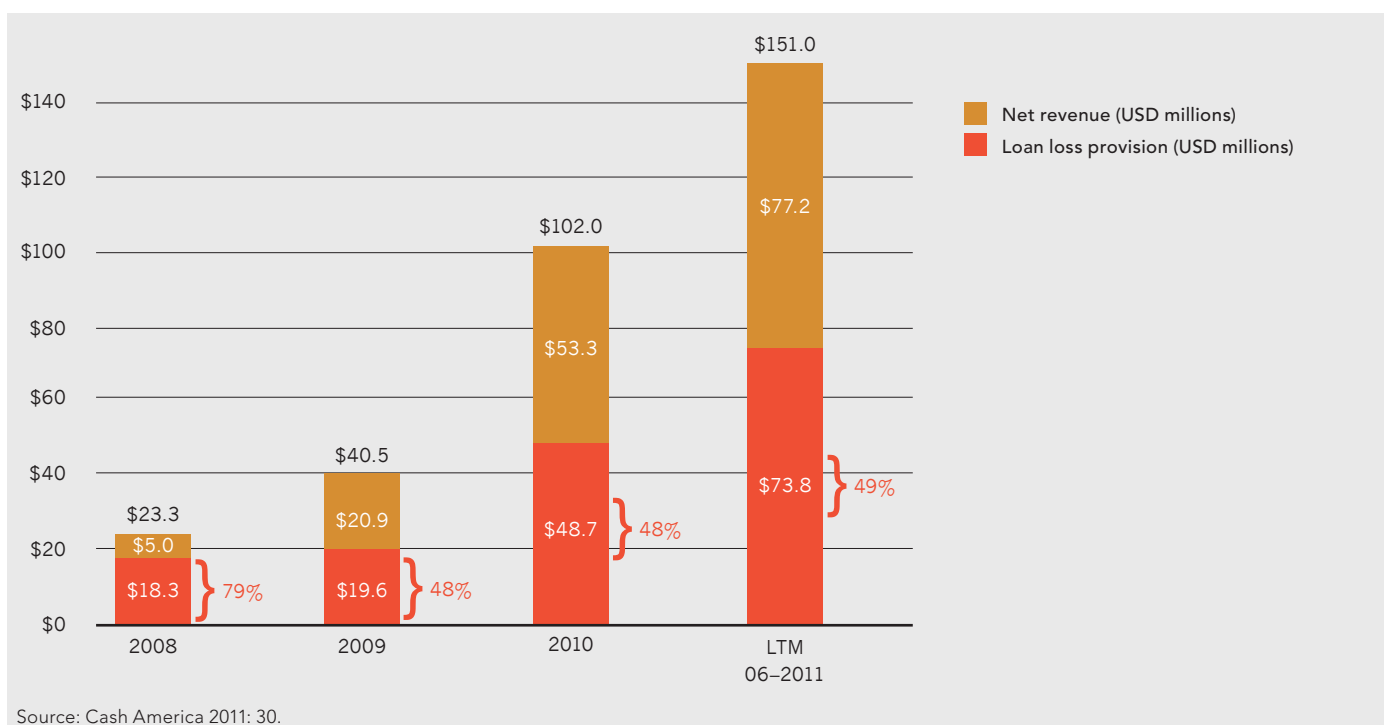
Year ended 31 December 2008	Foreign operations (GBP, thousands)
Revenue	£12,533
Loan loss provision (LLP)	£9,859
LLP/Revenues	78.66%
Gross profit	£2,674
<b>Expenses:</b>	
Marketing	£1,366
Operations and technology	£2,194
Administration	£585
Depreciation and amortisation	£21
Total expenses	£4,166
Income (loss) from Operations	- £1,492

### Wonga.com's experience

We cannot obtain the same level of detailed information regarding the evolution of loss rates over time for Wonga.com. We do know that Wonga.com's former CEO and co-founder Errol Damelin has stated that when SameDayCash.co.uk (the predecessor to Wonga.com) commenced operations, 50% of first loans to new borrowers went into arrears: 'Over the coming weeks, the pattern repeated itself: for every successful loan, there was a defaulter. If this were all there was to the business plan, SameDayCash would have been an expensive catastrophe' (Shaw 2011).

The evidence above and the framework we develop below both suggest that this may well be consistent with the other large lenders' experiences.

**Figure 6.2: Foreign e-commerce: total revenue breakdown**



## LOSSES AS A PERCENTAGE OF ORIGINATIONS – USING LOSS RATES TO UNDERSTAND LEVELS OF DEFAULT

US lenders refer to the total dollar amount of loans made in a given period as 'originations'. (For example, if a lender makes 10 x £300 month-long loans, total originations would be 10 x £300 = £3,000.) 'Losses as a percentage of originations' is the loan loss provision expressed as a percentage of originations:

losses as a % of originations = loss rate x revenues as a % of originations.

**Table 6.3: Dollar Financial, Wonga.com and Cash America: losses as a percentage of originations for 2011**

Dollar Financial	
Loss rate	35.0%
Revenues as a % of originations	24.6%
Losses as a % of originations	8.6%
Wonga.com	
Loss rate	36.0%
Revenues as a % of originations	26.0%
Losses as a % of originations	9.4%
Cash America	
Loss rate	45.0%
Revenues as a % of originations	26.0%
Losses as a % of originations	10.1%

Source: DFC Global Corp 2012a, Wonga.com Limited 2012: 24, Cash America 2012a

Losses as a % of originations is a useful metric when looking at the relative credit-riskiness of different lending businesses (Table 6.3) or the same business over time. It does not, however, tell us directly how many loans are repaid late. In order to estimate the percentage of loans that are repaid late we need to take two further steps.

First, lenders provision not only for the principal of the loans which they lose because of defaults but also (because of the way accounting works) for the revenue, or accrued interest, they forgo at default. Consider a simple example:

A lender makes a single, month-long £100 loan at 30%. It is only at maturity that the lender realises the loan is not going to be repaid on time. At this point the lender has recorded £30 in revenue and £100 in originations. The lender believes he will not recover any of the money so he creates a loan loss provision. The amount of the loan loss provision needs to be £100 (the principal) plus £30 (the accrued interest) = £130 even though the economic loss the lender has suffered is £100. If the lender only provisioned £100, this would not be sufficient to reverse the revenue of £30 and reflect the loss of £100.

The loan loss provision therefore contains two components: a principal component and an accrued interest component. When we consider:

losses as a % of originations =  $\frac{\text{loan loss provision}}{\text{originations}}$

The accrued interest component appears in the numerator – the loan loss provision – but not in the denominator – the originations, or total principal lent. Therefore, if we do not strip out the accrued interest component we will overestimate the number of loans which are repaid late.

We use revenues as a % of originations as an estimate of the % of the loan loss provision which is due to accrued interest. (This is equivalent to assuming all loans accrue interest at the same

rate.) By stripping out this component of losses we can get an estimate of the principal amount lost because of defaults. To do so we divide by 1 + revenues as a % of originations.

**Table 6.4: Principal losses as a % of principal lent for the big three online payday lenders in 2011**

Dollar Financial	
Principal losses as a % of originations	6.91%
Wonga.com	
Principal losses as a % of originations	7.46%
Cash America	
Principal losses as a % of originations	8.24%

The estimates presented in Table 6.4 show that 'bad debts' per £100 lent, or principal losses as a percentage of principal lent, for the big three online payday lenders in 2011 was around 7% or 8%. In order to estimate both how many loans were not repaid on time and how many borrowers experienced repayment difficulties, this analysis needs to be taken a step further by estimating recovery rates. In order to do this we first consider the effects of Continuous Payment Authority (CPA) and what it means to default on a payday loan.

## THE AFFORDABILITY ASSESSMENT AND THE NUMBER OF LOANS REPAYED LATE

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Lenders will be primarily concerned with losses. However, for borrowers, consumer advocates, and regulators it is the number of loans that are repaid late that is of primary importance. In 'Irresponsible Lending – OFT guidance for creditors' the Office of Fair Trading (2011b) state that creditors are required to make an assessment of affordability. Specifically: "Assessing affordability", in the context of this guidance, is a "borrower-focussed test" which involves a creditor assessing a borrower's ability to undertake a specific credit commitment, or specific additional credit commitment, in a sustainable manner, without the borrower incurring (further) financial difficulties and/or experiencing adverse consequences.'

Repaying a payday loan late very often leads to the borrower incurring significant financial difficulties and experiencing adverse consequences. Borrowers whose loans are repaid late will almost certainly face the following additional financial costs:

- late payment fee levied by the payday lender: typically about £12–£20
- interest accrued on the payday loan after it has been placed in arrears at the original high rate: this can be very significant if the debt is left unpaid for a number of days or weeks
- unauthorised overdraft charge levied by the borrower's bank.

Payday loans are small, short-term loans. These additional charges might be small in absolute terms but they represent a significant increase in both the TC C and the APR associated with the loan.

Many payday loan borrowers' finances are already in a precarious state; by definition they do not have enough money to make it to the next payday. While these small charges could likely be absorbed by a borrower with greater financial resilience without undue difficulty, this is not the case for the typical payday loan borrower. Late repayment is likely to cause the borrower significant financial difficulties. The Affordability Assessment should, therefore, be aimed at minimising the number of loans that are repaid late.

## CONTINUOUS PAYMENT AUTHORITY

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Lenders use Continuous Payment Authority (CPA) – a regular, automatic payment similar to a Direct Debit but with many more powers for the payee – to collect repayment. CPA has the potential to break the link between affordability and repayment. For example, a borrower with unsecured debts who has a net monthly income of £1,000 and monthly priority payments (rent, utilities, food, council tax, etc.) of £800, has a £200 monthly surplus with which to repay debts. It is for the borrower to decide how much of the £200 to devote to debt repayment and, if necessary, the borrower can prioritise the essential costs of living over debt repayment by defaulting.

The lender is affected by both what is affordable that month and the borrower's ability to manage their

money well enough to free up sufficient cash to repay the debt. This provides a natural incentive for the lender to consider both the affordability of repayments and the financial capability of the borrower when extending a loan.

A payday loan collected via CPA can have a very different effect on the borrower's finances because the payday loan will be repaid from the pay cheque first – ahead of all other payments.

Lenders typically seek to collect repayment very early on the borrower's payday (or agreed repayment date) before any other payments have been made from the account. (Wonga.com, for example, starts trying to get the money out of the borrower's account at 5am on the agreed repayment date (Wonga.com n.d.: 2).

Under a CPA, the repayment of the payday loan is prioritised above all other payments from the borrower's account. In the example above, any payday loan repayment less than £1,000 would, under a CPA, be fully collected regardless of whether or not this repayment leaves the borrower with sufficient funds to cover priority payments for the month. Payday loans are, in effect, 'secured' on the borrower's pay cheque and, indeed, on any other funds entering the account. The borrower no longer has the option to default if money becomes tight. This is a fundamental difference between payday lending and 'unsecured' consumer lending (eg credit card debt).

## PROBLEMS WITH THE CONTINUOUS PAYMENT AUTHORITY

The CPA can also be used to take unexpected amounts of money from borrowers' bank accounts at unexpected times. According to Citizens Advice: 'an in depth analysis of 665 payday loan customers who contacted the charity's consumer service between January and June 2013 found that 32% (201 people) had complaints about CPAs. Of these:

- 9 in 10 could have grounds for a complaint to the Financial Ombudsman Service
- 1 in 5 were already in financial difficulty or on a debt management plan
- 1 in 6 had money taken without their authorisation
- 1 in 6 said that the payday lender used a CPA to take more money than they had originally agreed' (Citizen's Advice 2013).

## HOW MANY LOANS ARE NOT REPAYED ON TIME? ESTIMATING RECOVERY RATES

In order to estimate the number of loans which are not repaid on time we must first estimate recovery rates for the three big lenders. The recovery rate is the percentage of total debt which is not repaid on time and which is eventually 'recovered' via CPA and other collections activities. Lenders do not routinely disclose their recovery rates (or, indeed, the numbers of loans being repaid late); the analysis presented below therefore draws on the little information we do have. This is certainly an area for further investigation.

Dollar Financial are the only one of the three lenders to publish a recovery rate. The last time they did so was at financial year end (30 June) 2011 when it was approximately 75% across their entire consumer lending portfolio (including US retail, US online, Canada retail and online, UK retail and online, other European lending) (Table 6.5).

The only other source of information regarding online payday lenders' recovery rates in the UK is the OFT. In their *Payday Lending Compliance Review Final Report*, the OFT reported that, 'around a third of loans are either repaid late (18%) or not repaid at all (14%)' (Office of Fair Trading 2013b).

**Table 6.5: Dollar Financial recovery rate for year end 2011**

	2011	2010	2009
Gross charge-offs (amounts going 1 or more days past due) as a % of originations	10.80%	9.10%	9.80%
Recoveries as a % of originations	7.60%	6.80%	7.30%
Net charge-offs (amounts that remain unrecovered) as a % of originations	3.20%	2.30%	2.50%
Recoveries as a % of gross charge-offs (the recovery rate)	70.37%	74.73%	74.49%

Source DFC Global Corp 2011b: 61

### BOX 6.1: OFFICE OF FAIR TRADING, LATE PAYMENTS AND DEFAULTS

In the accompanying *Payday Lending Compliance Review Final Report Annexe A – Quantitative Findings*, the Office of Fair Trading gave the following information regarding default and late payment:

#### Default

- A.29 In considering the extent to which borrowers default on their loans there are a number of different measures to consider.
- A.30 The data request defined 'default' as relating to customers who have failed to keep to the terms of their agreement, for example by failing to repay their loan on time or at all.
- A.31 On this basis, the 21 respondents to the detailed data request reported on average a default rate in 2011/12 of 2%.
- A.32 We also asked firms about the proportion of loans repaid on time or repaid late. On average, the data suggests that 68% of loans were repaid on time and 18% were repaid late, which implies that 14% of loans were never repaid.
- A.33 For this data to be consistent, we infer that:
- 14% of borrowers never repaid their loans
  - 6% repaid late without entering into any sort of arrangement with the lender (and so were considered to have broken the terms of their agreement)
  - 12% repaid late but entered into some sort of arrangement with the lender (and so were not considered to have broken the terms of their agreement).
- A.34 What is clear is that a significant proportion of borrowers experience difficulties in repaying. According to the above data, 32% of all loans are repaid late or never repaid at all. (Office of Fair Trading 2013c: 6)

The information given by the OFT in its *Payday Lending Compliance Review Final Report Annexe A – Quantitative Findings* (see Box 6.1) implies that for every 100 loans made, 32 will be repaid late, of which 18 are fully recovered and 14 are completely written off. Assuming all loans are the same size, that would give a rough industry-wide recovery rate of  $18/32 = 56.25\%$ . The industry-wide recovery rate could be higher than 56.25% because the 18% (see A.32 of loans going into arrears that are eventually repaid may be subject to late payment fees, allowing the lender to recover more than 100% of those loans.

As we do not have clarity regarding the precise levels of recovery rates, we calculate the number of loans repaid late using three different recovery rates: 55%, 65% and 75%, see Table 6.6).

**Table 6.6: Loans repaid late**

Recovery rate = 55%	
Lender	Loans
Dollar Financial	15.36%
Wonga.com	16.58%
Cash America	18.31%
Recovery rate = 65%	
Lender	Loans
Dollar Financial	19.74%
Wonga.com	21.31%
Cash America	23.54%
Recovery rate = 75%	
Lender	Loans
Dollar Financial	27.64%
Wonga.com	29.84%
Cash America	32.96%

Implicit in this analysis is the assumption that the average size of loans being repaid late is the same as the average size of all loans. How reasonable is this assumption? Is there any reason to think that the average size of loans going into arrears could be significantly larger or smaller than the average size of all loans?

Large loans are only extended to borrowers who are deemed to be of higher credit quality, often because they have proven repayment histories making this assumption conservative. As we have seen, first loans to new borrowers, which are generally smaller than average in size, are most likely to end in default.

Offsetting the effect of elevated defaults among new borrowers it seems logical that a number of larger than average loans go into arrears as a result of the borrower taking on more and more credit until he eventually becomes overloaded and defaults. This would push the average size of loans going into arrears back up towards the average size of all loans made, so the assumption would still hold.

In the analysis which follows we primarily use and discuss the 'middle of the road' assumption: recovery rate = 65% (shown in Table 6.7).

**Table 6.7: Loans repaid late**

Recovery Rate = 65%	
Lender	Loans
Dollar Financial	19.74%
Wonga.com	21.31%
Cash America	23.54%

## HOW MANY BORROWERS DEFAULT?

This should not be taken to mean that around 20% of borrowers experience repayment difficulties. Online payday borrowers take between three and four loans each year, implying that in 2010, for example, Cash America made 923,474 loans but only lent to around 250,000 borrowers. A default rate of 20% at the loan level therefore implies that a much higher percentage of borrowers experiences repayment difficulties (illustrated in Box 6.2).

How many loans are online borrowers taking per year?<sup>19</sup> There are a number of different estimates.

- Consumer Focus reported in 2010 that borrowers were taking an average 3.5 loans each per year and that the industry was looking to boost this to 5.5 loans. (Burton 2010)
- Wonga.com reported in December 2011 that their average borrower was taking three loans per year (UK Government 2011). By July 2012 they reported that this had risen to four loans per year (Unite 2012). For the year 2012 they reported 3.8m loans taken by just under 1m people.
- The CFA published findings from a survey of The Money Shop borrowers (Consumer Finance Association 2012a) suggesting that the average number of loans taken per year by active borrowers was 3.68 (see analysis in Chapter 8, 'Patterns of Use in the UK').

The Bristol Report (University of Bristol 2013) stated that online borrowers who borrowed within the previous 12 months (ie excluding borrowers who reported taking zero loans in that period) took an average of 3.31 loans.

In 2010 Cash America lent to either 250,944 borrowers in the UK (based on the report by the Consumer Finance Association (2012a)), or 279,841 (based on the report by the University of Bristol Personal Finance Research Centre (2013)), implying that either 76.4% of borrowers (Bristol Report) or 85.2% (CFA) experienced a single instance of repayment difficulties; or significant numbers of borrowers experienced repayment difficulties on multiple loans.

19. Some estimates of the average number of loans taken include borrowers who took zero loans in the past year. The relevant figure here is the number of loans taken by borrowers who borrowed within the last year, ie 'active' borrowers, because only active borrowers can contribute to revenues.



### BOX 6.2: BORROWERS AND THEIR LOANS

To understand the impact on payday borrowers of a given default rate at the loan level, consider the following simplified examples:

First, imagine a loan book which only makes annual loans that are all the same size. His book makes 1,000 loans to 1,000 borrowers. 10% of these loans go into arrears, implying that  $10\% \times 1,000 = 100$  loans go into arrears. Every time a loan goes into arrears a borrower experiences repayment difficulties. 100 borrowers experience repayment difficulties. As expected 10% of borrowers experience repayment difficulties.

Now consider a payday loan book which also makes 1000 loans in a year and again, they are all the same size, but in this case there are only 250 borrowers taking on average four loans each. Exactly as before, 10% of these loans go into arrears implying that  $10\% \times 1,000 = 100$  loans go into arrears. Every time a loan goes into arrears a borrower experiences repayment difficulties. Once again, 100 borrowers experience repayment difficulties. This time, however, there were only 250 borrowers to begin with; instead of 10%, 40% of borrowers experience repayment difficulties.

### LEVELS OF DEFAULT AND PATTERNS OF DEFAULT

Having established the overall levels of default in online payday lending portfolios is it possible to take the analysis further? In particular, what can be inferred regarding the pattern, or distribution, of defaults? What percentage of first loans, second loans, third loans, and so on, end in default?

#### New borrowers, small loans, large losses

When Wonga.com's former CEO Errol Damelin observed that new borrowers had a 50% probability of default, he might not have been alone, since the other two large online lenders also identified lending to new borrowers as high risk. According to Dollar Financial 'Loans made to newer customers tend to carry higher loss rates until our level of experience (i.e., knowledge of customer behavior) with the customer increases.' (DFC Global Corp 2012e: 47) Similarly, Cash America note: 'New entrants must...have sufficient capital to withstand early losses associated with unseasoned loan portfolios' (Cash America 2012a: 13).

Two aspects of the online payday lending business model make this particularly worrying.

First, lenders mitigate the size of their losses by restricting the size of first loans to new borrowers. Dollar Financial state, 'we lend smaller principal amounts to new customers, with whom we have no prior history and for whom we typically experience higher default rates' (DFC Global Corp 2012e: 13). The fact that lenders still find it costly to

take on new borrowers indicates that the number of new borrowers defaulting must be extremely high. For small loans to generate large losses, a large number of small loans must go into arrears.

Second, the overall default rate in an online payday loan portfolio is high. If new borrowers default at a noticeably higher rate than the rest of the portfolio, they must be defaulting in very large numbers.

Understanding the distribution of defaults gives significant insight into the experiences of borrowers. If defaults are clustered into first loans, this further increases their cost to the lender, implying that profitability must depend on repeat lending. How much more likely are new borrowers to default on first loans? There are two principal sources of information:

- data from a retail payday lending business in the US
- extending our analysis to Cash America's first year of operations in the UK, when it was lending to a high proportion of new borrowers.

#### Evidence from the US – levels and patterns of default in a US retail payday loan portfolio

In their 2008 paper *Payday Loans, Uncertainty, and Discounting: Explaining Patterns of Borrowing Repayment and Default* (Skiba and Tobacman 2008)<sup>20</sup> analysed a large dataset containing borrower and loan level data on all loans extended over the period September 2000 to August 2004 provided to them by a US payday lender. The paper primarily focused on the 51,636 borrowers who were always

20. Cited here with the kind permission of Dr Tobacman.

paid bi-weekly (as is standard in the US) and collectively took 335,376 loans over the period.

Figure 6.3 shows the pattern of default probabilities Skiba and Tobacman found in their sample. (This graph represents the probability of defaulting conditional on borrowing on each loan in the year following the borrower's first loan. Default is defined as the loan going one or more days past the date due, ie into arrears. Borrowers were paid twice a month, so the maximum number of loans over the year is 25, ie an initial loan plus 24 subsequent loans.)

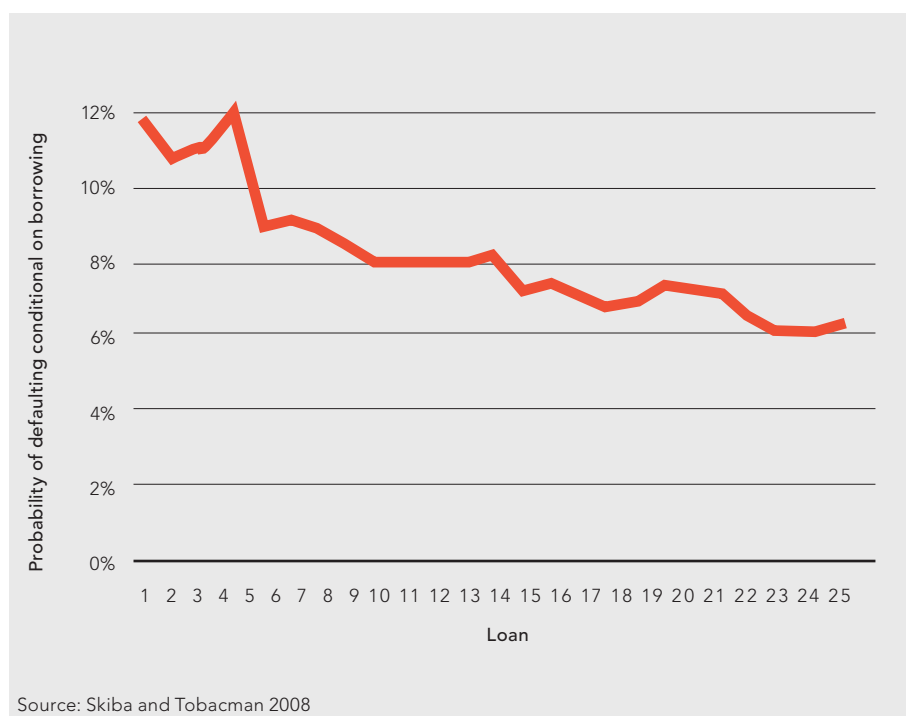
The data in Figure 6.3 show that the first three loans have a very elevated probability of default all around the 12% level, with subsequent loans being less and less risky until default probability levels out at around 6%. This would suggest that first-time loans to unseasoned borrowers are around twice as likely to end in default as loans to seasoned borrowers.

Overall, the loans included in this sample had a 9.7% probability of being repaid late: ie the weighted average of the pattern of default probabilities in the graph was 9.7%. (The authors also found that while 9.7% of loans were repaid, late borrowers had a 51% probability of experiencing repayment difficulties because they were taking multiple loans.)

This overall default level is much lower than the current overall level of default in UK online payday loan portfolios which, we have seen, is between 15% and 33% depending on the Recovery Rate used. (This is consistent with Dollar Financial running their loss rate at 15% in their mature US retail lending business but at 35% for their internet lending business).

If the level of default for first loans is elevated among online UK borrowers it is elevated above 15%–33% so it is not running at 12% but much higher; possibly even as high as 50% which would be consistent with Wonga.com's reported experience.

**Figure 6.3: Default probabilities in sample**



## CASE STUDY: CASH AMERICA, EVOLUTION OF THE LOAN LOSS PROVISION

By looking at an 'unseasoned' portfolio – one containing a high proportion of first loans to new borrowers – it is possible to get a more accurate estimate of the proportion of first loans that go into arrears.

Cash America entered the UK in July 2007. In 2008, their first full year of trading, they ran their loan loss provision at 78.7% of revenues (Cash America 2011). Employing the methodology for interpreting loss rates developed above, in Table 6.8 we assume recovery rates of 55%, 65% and 75%.

**Table 6.8: Provision for loans going into arrears, three scenarios**

<b>Recovery rate = 55%</b>	
Loss rate	78.70%
Revenues as a % of originations	23.80%
Losses as a % of originations	18.70%
Principal losses as a % of originations	15.10%
Recovery rate	55%
% Total loans made going into arrears	33.56%
<b>Recovery rate = 65%</b>	
Loss rate	78.70%
Revenues as a % of originations	23.80%
Losses as a % of originations	18.70%
Principal losses as a % of originations	15.10%
Recovery rate	65%
% Total loans made going into arrears	43.20%
<b>Recovery rate = 75%</b>	
Loss rate	78.70%
Revenues as a % of originations	23.80%
Losses as a % of originations	18.70%
Principal losses as a % of originations	15.10%
Recovery rate	75%
% Total loans made going into arrears	60.40%

Our middle scenario – a recovery rate of 65% – implies that 43.2% of loans went into arrears in 2008. These figures are for the whole year, a long time in payday loan terms, and the book had already been up and running for the last five months of 2007. These are not all first loans to new borrowers, therefore the arrears rate for those loans could well have been above 43.2%.

## THE IMPLICATIONS FOR THE PROFITABILITY OF REPEAT LENDING

### Revenues

Repeat loans made to seasoned borrowers generate more revenue than first loans made to new borrowers because lenders extend bigger loans to repeat borrowers and big loans generate more revenue than small loans.

This, for example, is Dollar Financial's policy, 'We consider customers who have remained current in their obligations with us, whether by repaying their loans within the original terms or, where permitted by law, by rolling over or extending the terms of their loans upon payment of the outstanding fees, to be in good standing with us, and we will generally lend increasingly larger principal amounts to such repeat customers. Conversely, we lend smaller principal amounts to new customers, with whom we have no prior history and for whom we typically experience higher default rates' (DFC Global Corp, 2012: 13).

Cash America offers a £1,000 maximum loan size to new borrowers but £1,500 to repeat borrowers (QuickQuid website n.d.). Wonga.com's maximum loan size for new borrowers is £400 and the average size of first loans is around £180, while the maximum loan size for repeat borrowers is £1,000 and the average size of all loans (first loans and repeat loans) is around £270 (OpenWonga 2013b).

There is absolutely nothing wrong with restricting the size of first loans to new borrowers; it is a sensible underwriting policy. However, it does imply that loans to seasoned borrowers generate higher revenues than loans to unseasoned borrowers. Revenues are an increasing

function of 'seasoning'. Mature businesses lending to seasoned borrowers will generate more revenue than early-stage businesses lending to unseasoned borrowers.

### Costs

In Chapter 5 we developed a model of a payday lending business in which the costs of making first loans to unseasoned borrowers were significantly higher than the costs of making repeat loans to seasoned borrowers. The evidence presented in this chapter suggests that the losses associated with first loans to unseasoned borrowers are also higher than the losses associated with repeat loans to seasoned borrowers. Costs are a decreasing function of 'seasoning'. Mature businesses lending to seasoned borrowers will face lower costs than early stage businesses lending to unseasoned borrowers.

### Profits

profits = revenues – costs

If revenues are an increasing function and costs a decreasing function of 'seasoning', profits are also an increasing function of 'seasoning'. Repeat lending is disproportionately profitable. In Chapter 5 we developed a case study to examine the effect of high CAC on the profitability of repeat lending. Using cost and revenue information from a real payday lending business, and a number of assumptions, we built a simple model and found that the model business became profitable when three loans had been made per borrower acquired.

That simple model ignored defaults completely. If losses due to default are also higher among first loans, this implies that once default costs are incorporated into our simple model the model business will only become

profitable when more than three loans have been made per borrower acquired. Defaults will also diminish the pool of eligible borrowers. Some payday borrowers who repay late will pay back a large portion of their debt and eventually be re-lent to (Wonga.com n.d.: 2);<sup>21</sup> however, some borrowers who repay late will be deemed uncreditworthy and will no longer be eligible for further loans from the lender. The increased number of loans required to break even will therefore be being taken by fewer and fewer borrowers.

We attach a Technical Appendix in which the model is extended to incorporate the effects of default. This extended model is not intended to mimic the evolution of a real business or to provide a definitive 'answer', but to provide a structured, logical way to think about the effects default has on profitability and the implications for repeat lending.

(The evidence and analysis presented so far has focused exclusively on borrowers' experiences with a single lender. The increasing numbers of people seeking help with multiple payday loans (Osborne 2013) indicate that many borrowers who experience repayment difficulties end up not just borrowing repeatedly from one lender but borrowing from multiple payday lenders. The effects of multiple payday loan use on payday lenders' business models are explored in Chapter 9.)

21. Wonga.com's current policy, an example: 'Can I borrow more funds whilst I am in arrears? As a responsible lender we won't allow you to borrow more cash whilst your account remains in arrears. If you settle your outstanding balance we may consider future applications, but continued failure to address the issue will have a serious impact on your trust rating.' Source: Wonga.com website (n.d.), 'Help'.

## HOW CAN THIS BE PROFITABLE?

According to the CFA there is 'no business sense' in lending to someone who will not pay back.<sup>22</sup> A business model in which 50% of first-time borrowers default certainly does not sound like a very good money-making scheme.

Actually, it could well be a case of 'fool me once, shame on you; fool me twice, shame on me'. It makes perfect business sense to lend to people who will not pay back as long as lenders do not keep on lending to them. If a subset of repeat borrowers are generating the lion's share of the loans (and paying an extremely high TCC as a result), this would make it possible to operate profitably while taking on new borrowers with very high default probabilities. If 90% of loans are made to repeat borrowers who do pay back, lenders can afford to make 10% of loans to new borrowers who have, at best, an even chance of repaying.

Still, why is a business which takes on only new borrowers with a high probability of repayment not automatically more profitable than one which takes on new borrowers with a low probability of repayment? The answer seems to lie in the tradeoff between incurring the costs associated with performing meaningful Affordability Assessments and incurring the costs of higher defaults on small first loans.

## IMPLICATIONS FOR THE AFFORDABILITY ASSESSMENT

Where lenders acquire borrowers via leads purchased through ping trees (panels of online lenders who are ranked in order of how much commission they pay for each lead), they have only a matter of seconds to accept or decline an application by a new borrower. Lenders are keen to grow market share and are competing on speed and ease of access just as much as price; declining a lead implies offering it up to a competitor. How can lenders possibly perform the required Affordability Assessment in the time available?

Dollar Financial has been operating profitably without even aggregating a borrower's outstanding payday loans across their own portfolios when 'assessing' affordability: 'It is possible for a customer to have loans with more than one of our U.K.-based retail and online business units at the same time. The application for a new loan by a customer who currently has a loan outstanding with one of our businesses in the U.K. is evaluated within our normal underwriting criteria (including review of the customer's credit report), which depending on the circumstance may or may not take into account the customer's current aggregate indebtedness to us across our UK businesses' (DFC Global Corp 2012e: 12).

If running out of money at the end of the month (ie applying for the loan in the first place) is the most salient feature of borrowers' financial situation, what kind of Affordability Assessment would have any predictive power? It appears that lenders may be using the borrower's first loan itself as a substitute credit check. According to Dollar Financial, 'We can underwrite to the ninth decimal point a customer's ability to repay...but the best proof of a

customer's willingness to repay is a customer who borrows and repays' (DFC Global Corp, 2012a).

Individual loans, particularly first loans, are very small and CPA gives lenders the chance to recover much of their money even if repayment is unaffordable for the borrower. The lender's potential loss from making the first loan without an Affordability Assessment is smaller than the potential value of acquiring the new borrower. It is cheaper to lend the money and see who pays it back than to spend time and effort performing an in-depth Affordability Assessment, which has little predictive power.

The Payday Lending Compliance Review Final Report published by the Office of Fair Trading (2013b) warned that: 'Firms that invest time and effort in proper affordability assessments may lose out to those that do not. Additionally, firms describe and market their product to consumers as one-off short term loans (costing on average £25 per £100 borrowed for 30 days), but in practice around half of their revenue comes from loans which last longer and cost a lot more because they are rolled over or refinanced. Lenders do not need to compete hard for this source of revenue because by this time they have a captive market. This, and the misuse of continuous payment authorities to reclaim monies owed, may distort incentives for lenders, encouraging them to make loans to people who cannot afford to repay them first time.'

First loans to new borrowers appear to be loss leaders with repeat loans generating the profits. Similarly, because revenues are loan-specific rather than borrower-specific it can be profitable for all the borrowers in a portfolio to default, as long as they pay multiple finance charges before doing so.

22. Russell Hamblin-Boone speaking on UK Channel 4 News, 20 November 2012.

## THE EFFECTS OF DEFAULT FEES

The imposition of default fees and the accrual of interest post-default may also allow businesses taking more underwriting risk to be more profitable than those with higher standards. Defending the company's poor profitability in the three months ended 31 March 2013, a Dollar Financial executive commented that, 'It's not necessarily a profitability issue, it's a responsibility issue. We have said in the past and we continue to believe that it is quite reasonable to take significantly higher losses by being less discriminating in underwriting by imposing late fees and other charges et cetera and make significantly more money than we make now, we just don't think it's good corporate citizenship' (DFC Global Corp, 2013c).<sup>23</sup> The implication appears to be that a number of different business models exist, all of which can be profitable but which rely on significantly different levels of responsible behaviour. It is not simply the case that the most responsible behaviours are also the most profitable.

If profitability and responsible lending are not necessarily aligned can competition in the online payday lending market ever deliver good outcomes for borrowers? A competitive market rewards successful companies with profits. If profitability and responsibility are not aligned in the payday lending market the worst behaviours will be rewarded and responsible lenders will be crowded out.

## ARE DEFAULTS A SIMPLE FUNCTION OF THE CREDITWORTHINESS OF THE POOL OF LOAN APPLICANTS?

In the absence of default, lending decisions are simple; credit can be extended to anyone and will be repaid. As credit quality deteriorates, lending decisions become more and more difficult. The credit quality of the pool of applicants attracted to expensive, easy to access, online payday loans is low. Running out of cash at the end of the month is, in and of itself, a strong indicator of financial distress and deteriorating credit quality. Credit scores such as the FICO Transaction Score<sup>24</sup> exploit the power of exactly this pattern of expenditure to indicate when a borrower's creditworthiness is deteriorating and hence when he or she will transition to a lower traditional credit score.

No one can deny that lending decisions in this market are very difficult to make. But are lenders' high losses unavoidable? Are losses simply a function of the creditworthiness of the pool of applicants? It is interesting that the credit quality of online borrowers appears to be higher than the credit quality of retail borrowers, yet online lending businesses face higher losses than retail businesses. The Bristol Report found that online payday borrowers had higher incomes, were more likely to be in employment, were more likely to have a full-time earner in their household and were less likely to be defined as 'vulnerable' than retail payday borrowers (University of Bristol 2013: 15). However, the Bristol Report also found that online borrowers were subject to less stringent affordability

assessments. Table 6.9 analyses information given by retail and online customers applying for credit.

**Table 6.9: Information provided by customers applying for short-term credit**

Percentages	Retail payday	Online payday
Information about your income	65	65
Pay slips or other proof of income	52	6
Copies of bank statements	68	3
Details of your outgoings	23	19
Information on any other credit commitments you had at the time	18	13
None of these, but asked on previous occasion	20	20
None of these	2	11
Don't know	1	2
Base	365	372

Source Bristol Report (University of Bristol 2013: 45).

It appears that the higher losses experienced by online lending businesses are due to lesser underwriting standards. This has important implications for the new cap on the total cost of credit. Losses are not externally determined, a necessary if undesirable consequence of providing credit to certain groups of borrowers. Losses are determined to a large extent by the underwriting decisions that lenders make.

(After all, responsible micro-credit providers are able to offer small loans to borrowers in developing countries whose income and financial resilience is much lower than that of online payday borrowers in the UK without being overwhelmed by bad debts.)

23. The executive was talking hypothetically about the irresponsible yet profitable behaviour of competitors.

24. See FICO Transaction Scores Product Sheet, December 2011, <<http://www.fico.com/en/Products/DMApps/Pages/FICO-Transaction-Scores.aspx>>, accessed 18 April 2014.

## ARE DEFAULTS THE RESULT OF ADVERSE SELECTION?

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In their excellent 2011 paper, 'Price-Driven Adverse Selection in Consumer Lending Markets', Phillips and Raffard (2011) suggest that adverse selection is an increasing function of price. If this is the case adverse selection may be higher in online payday lending businesses simply because the rates charged for online loans are higher than those charged for retail loans. Adverse selection is explored more fully in Chapter 9.

## ARE DEFAULTS THE RESULT OF POOR PRODUCT DESIGN?

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In order for borrowers to use a payday loan successfully they must fulfil two conditions:

- At inception their need for a small loan must be so great that it is rational for them to agree to pay 30% interest to borrow for just one month.
- At maturity, just a month later, they must have the capacity to repay both the principal and the interest in a single lump sum (or 'bullet') without undue difficulty.

Given that the average payday borrower's income is only around £1,231 net per month (Consumer Finance Association 2013a) and the average loan requires a repayment of £270 + £81 = £351, ie 28.5% of the borrower's net income, it seems logical that the design of the product itself often causes it to fail. This may also explain why online lending businesses face higher losses than retail lending businesses – the higher charges associated with online loans simply make them harder to repay.

Capacity effects may even allow payday loans to create their own demand. The high rate makes it harder for the borrower to repay in full, but, coupled with low financial capability it makes the borrower more likely either to roll over or return for another loan within a relatively short timeframe. If payday loans are frequently creating their own demand, this would explain the market's extraordinarily fast growth rate not only in this country but wherever payday lending takes hold.

## HOW THE CAP WILL HELP

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Imposing a cap on the total cost of credit, assuming it is at least high enough to cover the operating costs of making loans, implies imposing a cap on losses due to default. A cap on the total cost of credit places an upper bound on the amount of underwriting risk a lender can take in a much clearer and more straightforward way than a vague requirement to 'assess affordability'. A cap at the right level will also make loans affordable, enabling more borrowers to successfully repay in full and on time.

## 7. Rollovers and refinancing

What is a rollover? A rollover occurs when a borrower cannot repay a loan at the end of the stated term. Rather than pay off the full amount – principal plus finance charge – the borrower pays the finance charge (plus, in some cases, a percentage of the principal or an additional ‘extension fee’). The loan is extended until the next payday when the principal plus another finance charge will again become due. The second loan is typically classified as a separate and distinct loan in lenders’ financial statements.

What is refinancing? Refinancing occurs when the borrower repays the full amount – principal plus interest – on the due date. A new loan is then written immediately. This loan carries the same interest rate as the first loan. Again, the second loan is classified as a separate and distinct transaction by the lender.

In economic terms rollovers and refinancing are practically identical. In both cases the borrower faces an additional high fee. However, in both cases little to no additional credit has been extended by the lender.

### TIMESCALE/ROLLOVERS

The analysis so far has shown that lenders are reliant on repeat loans for profitability; what proportion of those loans are rollovers and what proportion refinancings? The most efficient way for the lender to recoup CAC is through rollovers or back-to-back refinancing because these are the fastest ways to get the money back.

How long does it take for lenders to recoup CAC? Taking three months-long loans in three months is obviously much more detrimental to a borrower than would be taking three month-long loans spread out over the course of, say, five years.

Lenders need to act fast. Not only is the pool of potential borrowers constantly being reduced by defaults but lenders also face three further threats to their ability to recoup CAC:

- Competition from other lenders.
- Regulation.
- A positive shock to the borrower’s income or balance sheet.

#### Competition

Lenders can only recoup CAC when a borrower takes a loan from them. Customer loyalty is low; according to evidence quoted by the OFT, ‘online borrowers were very ‘savvy’ and compared deals more quickly online by means of lenders’ websites and price-comparison websites and were generally less likely to seek a loan from the same lender than to seek the cheapest loan available’ (Office of Fair Trading 2011a).

However, lenders do not face fierce competition for all loans – just for new loans, ie loans initiated after the borrower has been loan-free for a meaningful period of time. Lenders are

not competing for rollovers and refinancings.

If lenders cannot count on a borrower returning, the best way to recoup CAC is to encourage rollovers. This explains why lenders have been seen to incentivise staff to promote rollovers (OCC 2002).<sup>25</sup> As the Office of Fair Trading (2013b) stated in its Payday Lending Compliance Review Final Report, ‘staff in two large high-street firms told us that rollovers were regarded as key “profit drivers” and that staff were encouraged to promote them – in one case this was even written into their training manual.’

#### Regulation

A significant tightening of regulation would make it difficult for lenders to recoup CAC. All three large lenders mention regulatory risk in their financial statements. Changes to regulation take time, however, so the best way to mitigate regulatory risk is to recoup CAC quickly.

#### A positive shock to the borrower’s income or balance sheet

A windfall of cash obviously decreases the probability of the borrower taking an additional loan and the lender recouping CAC. The fact that lenders have a powerful vested interest in borrowers having low levels of financial resilience creates a significant misalignment of incentives. This is explored in depth in Chapter 9.

Even when three consecutive rollovers are not achievable, it seems highly unlikely that payday lenders would be content to wait more than a year to recoup CAC.

25. In 2002 the Office of the Comptroller of the Currency found that Dollar Financial was incentivising its staff to promote rollovers (OCC 2002).



## AVERAGE LOAN LENGTH AS AN INDICATOR OF ROLLOVERS

Although lenders choose not to make their data available, the information provided in financial statements regarding average loan lengths provides compelling evidence that a large proportion of loans are rollovers<sup>26</sup> (King and Parrish 2009: 10).

Payday loans are marketed as short-term, emergency loans to cover an unforeseen cash shortfall. If they are indeed being used in this way, observed average loan lengths should be very short. People experiencing unforeseen expenses tend to run out of money towards the end of the month rather than the beginning.

Consider, for example, that a potential borrower's boiler breaks down the day after payday. She has no savings to draw on or other credit available, but most likely she can cover the repair expense using the money that just went into her bank account. It is not until later in the month, when she has had to pay for other normal expenses in addition to the negative shock of the repairs, that she runs out of money. At this point the borrower may well need a payday loan, but she would only need it for a couple of weeks or a few days to tide her over to the next payday.

Genuine emergencies are, of course, randomly distributed, so even if borrowers always initiated their payday loan the moment disaster struck, loan lengths should also be randomly distributed. Each loan would run from the moment the unexpected expense occurred to the end of the borrower's pay period. As UK borrowers are typically paid monthly, the maximum loan length should be 30 days and the minimum loan length just 1 day. A random distribution of loan lengths would therefore tend to have an average term of around 14 or 15 days, halfway between 1 day and 30 days.

Perhaps a single day is too low a minimum term. Realistically, borrowers may only think it is worth arranging a payday loan for 7 days or more. Still, randomly distributed loan lengths between 7 days and 30 days should result in an average loan length of 18.5 days.

Because a rollover occurs when the borrower has insufficient funds to repay an existing loan and extends or takes a new loan until the following payday, rollovers cover an entire month and so are, of course, always 30-day loans. A significant proportion of rollovers in the loan book will therefore drag the average loan length upwards towards the upper bound of 30 days.

## EVIDENCE FROM MONTH END MONEY

**Table 7.1: Month End Money average contractual period of loans made**

Year	Average contractual period
2008	26.3 days
2009	26.8 days
2010	27.4 days

Source: MEM accounts filed at Companies House.

In Table 7.1 MEM shows the consistency of those long loan lengths and also the upward creep possibly due to a decreasing proportion of loans being first loans to new borrowers as the business matures.

## EVIDENCE FROM DOLLAR FINANCIAL

Consolidated (ie across the entire consumer lending book) average loan term quoted in 2012 10k was 24.5 days. Assuming a 14-day average for US and Canada, where people are typically paid every two weeks, and a 30-day average for the UK, and weighting by total loans made in each country gives an average loan length of 22.4 days. So loans must be close to those upper bounds if not beyond them. The 10k filing goes on to confirm this: 'In our primary markets in the UK, Canada and the US, the term of an unsecured short-term consumer loan generally correlates to the customer's next payday. In Europe, our customers are typically paid on a monthly basis, while customers in Canada and the US are most often paid bi-weekly. As a result, loans that we originate in Canada and the United States generally are approximately 14 days in length, while in Europe loan terms are typically about 30 days in duration' (DFC Global Corp 2012e: 11).

26. This argument was first advanced by King and Parish of the Center for Responsible Lending in their 2009 paper "Phantom Demand: Short term due date generates need for repeat payday loans, accounting for 76% of total volume"

## EVIDENCE FROM DOLLAR FINANCIAL – REFINANCINGS

The ‘Lending Code for Small Cash Advances’ (Consumer Finance Association 2012b), a voluntary code of conduct signed up to by Dollar Financial, Cash America and Wonga.com, limits the number of consecutive rollovers to three. Dollar Financial added the following paragraph to their annual report a few weeks after they signed up to the code.

‘Where permitted by applicable law, we generally allow customers to repay a loan on or before its due date, and then to enter into a subsequent new loan with us, provided that the prior loan is repaid with the customer’s own funds, and not with the proceeds of another loan made by us. Consequently, a customer may have a consecutive series of short-term loans with us for the same amount and otherwise on nearly identical terms that together extend over many months or years as a result of repaying one loan and immediately taking out another loan. We categorize each such transaction as a separate and distinct loan, even when the transactions are virtually simultaneous and the amount and the terms are identical.’ (DFC Global Corp 2012e: 12)

As long as the borrower can repay their loan with their own funds once a month, Dollar Financial will rewrite that loan ‘virtually simultaneously’.

The repeat loan is technically categorised as a ‘separate and distinct loan’, not an extension or a rollover. There is no mention in the CFA’s new code of how many days or hours or even minutes are required to elapse between loans to distinguish a repeat from an extension, and there is no cap on the number of repeat loans per borrower. This strategy is sometimes

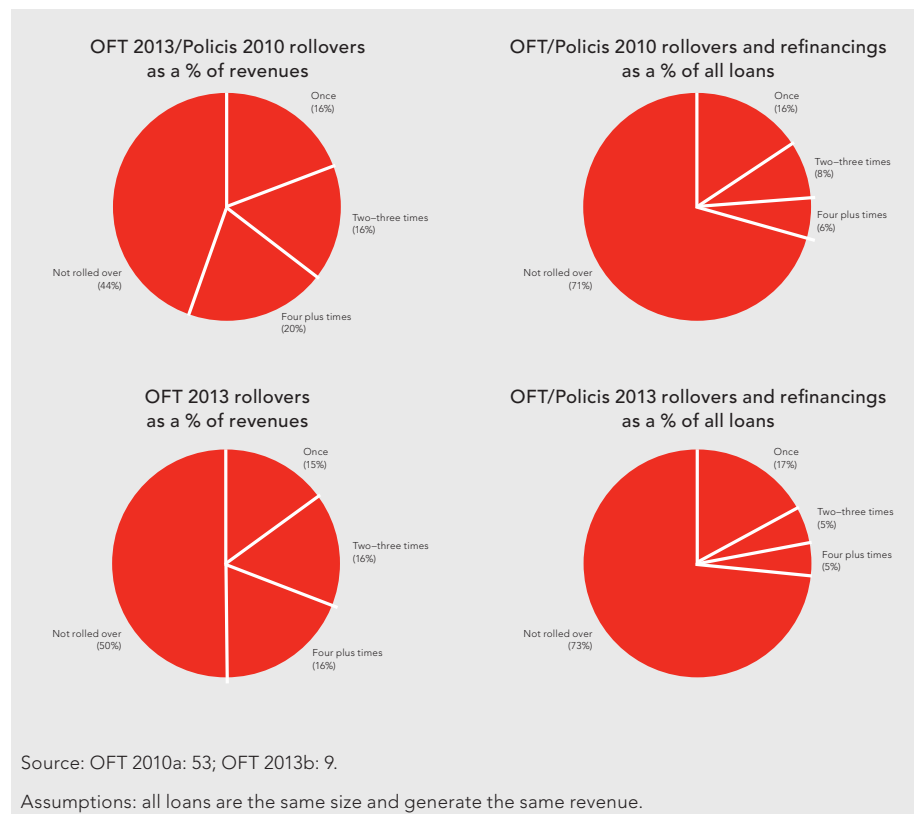
called ‘touch and go’ and it has been employed in the US before in order to get around statutory limits on rollovers.

The effect on the borrower is, of course, that as long as sufficient funds enter the bank account for them to technically repay the loan once a month, they can remain indebted to Dollar Financial, paying 357% (ie  $12 \times 29.5\%$ ) interest per annum for years at a time. As things stand this is perfectly legal in the UK.

## REVENUE ATTRIBUTABLE TO ROLLOVERS AND REFINANCINGS – EVIDENCE FROM THE OFT AND POLICIS

In its *Payday Lending Compliance Review Final Report*, the Office of Fair Trading (2013b) found that rollovers generated 50% of all payday lending revenues. Similarly, evidence provided to the OFT by Policis in 2010 (see Figure 7.1) suggests that at that time rollovers generated 56% of revenues. The fact that the proportion of revenue attributable to rollovers is consistent across these two samples supports the supposition that rollovers are an intrinsic part of the payday lender’s business model.

Figure 7.1: OFT/Policis 2010 rollovers as a % of revenues



## CASE STUDY: PROFIT ATTRIBUTABLE TO ROLLOVERS AND REFINANCINGS

The OFT has gathered information regarding the revenue generated by rollovers. Profit equals revenue minus costs, so in order to determine how much profit is coming from rollovers, it is also necessary to determine how much rollovers cost.

The analysis presented so far suggests that, due to high CACs and default costs, first loans may be 'loss leaders'. If this is indeed the case, the costs associated with loans which result from rolling over or refinancing will be significantly lower than those associated with initial loans. Rollovers generate half of revenues but may also account for more than half of profits.

In fact, it is perfectly plausible that more than 100% of payday lending profits are generated by rollovers and refinancings. To put it another way, rollovers and refinancings may well be the only profitable part of the online payday lender's business. The following example published by the CFA on their website helps to illustrate how this works:

### Figure 7.2 Consumer Finance Association: profits from rollovers and refinancings

#### Myth: Payday lenders make half their profit from rollovers

**FACT:** The OFT's suggestion that 50% of income is generated from loans being rolled over is an inaccurate evaluation of the data. The OFT's calculations included the amount of revenue earned on the initial loan and this figure was added to the value of revenue on each subsequent refinanced loan. Of course, the initial fee was not a rollover but the agreed charge for the intended period of the loan, so including the initial fee artificially inflates the overall figure.

#### Example

Initial loan: £100 + £25 fee = £125

Paid off £25 and rolled over the £100

Rollover 1: £100 + £25 additional fee

Total paid in fees = £50 on £100 but the first £25 fee isn't revenue from a roll over

The average length of a loan provided by CFA members has reduced from 54 days to 46 days, which challenges the assertion that lenders are dependent on roll overs.

Source: Consumer Finance Association website (<http://www.cfa.co.uk>).

We use the costs and revenues per loan modelled in the Customer Acquisition Cost case study in Chapter 5, and extend the case study using the CFA's categorisation of loans into 'initial loans' and 'rollovers'.<sup>27</sup>

First, we assume a theoretical distribution of rollovers (Table 7.2), similar to that found in the OFT's 2013 sample and in the evidence provided by Policis in 2010.

**Table 7.2: Assumed distribution of rollovers**

Not rolled	75.0%
Once	15.0%
Twice	2.5%
3 times	2.5%
4 times	2.5%
5 times	2.5%

In 2010 Cash America extended a total of 923,474 loans.<sup>28</sup> However, Cash America records a loan which is rolled over once as two loans, a loan which is rolled over twice as three loans, and so on.

Our model business also extends 923,474 loans and records its loans in the same way. This means that in order to make a total of 923,474 loans, the model business needs to make 615,649 of what the CFA calls 'initial loans', with the remaining 307,825 loans being what the CFA calls 'rollovers'.

The analysis in the Customer Acquisition Cost case study shows that 'first loans' – that is, initial loans made to new borrowers – are much more expensive than 'repeat loans' in terms both of CAC and default cost.

By definition, rollovers cannot be first loans. Therefore, not all initial loans are first loans, but all first loans are initial loans. The 615,649 initial loans must therefore consist of 151,000 first loans and 464,649 repeat loans. The 307,825 rollovers are all repeat loans.

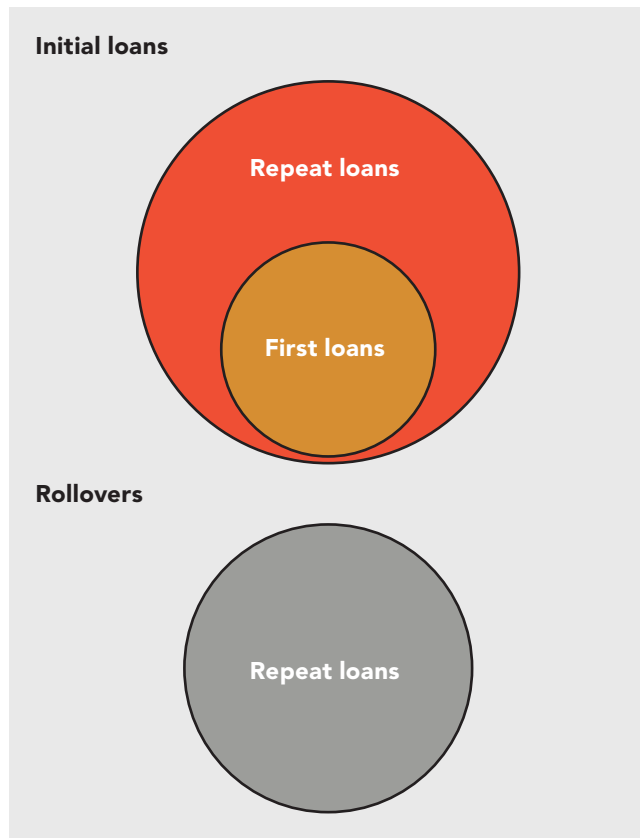
27. The Office of Fair Trading (2013b) based their estimate of the size of the UK payday lending market on 'initial loans' only.

28. The 5,018 instalment loans (see Chapter 5) are included and categorised as 'repeat loans'.

## Case study: continued

A visual representation of these sets and sub-sets of loans is provided in Figure 7.3.

**Figure 7.3: How first loans and rollovers correspond to initial loans and repeat loans.**



We use the costs and revenues for first loans and repeat loans calculated in the original Customer Acquisition Cost case study.

As is discussed in Chapter 6, the loss rate (ie losses as a percentage of revenues) is higher for first loans than it is for repeat loans. Assuming the loss rate on first loans is twice the loss rate on repeat loans gives a default cost per first loan of £29.22 and a default cost per repeat loan of £32.46. (First loans generate lower revenues than repeat loans, which offsets the higher loss rate to produce a similar absolute default cost per loan.)

As we can see in Table 7.3 initial loans on their own generate a loss of £3,765,438 while rollovers generate a profit of £7,351,032.

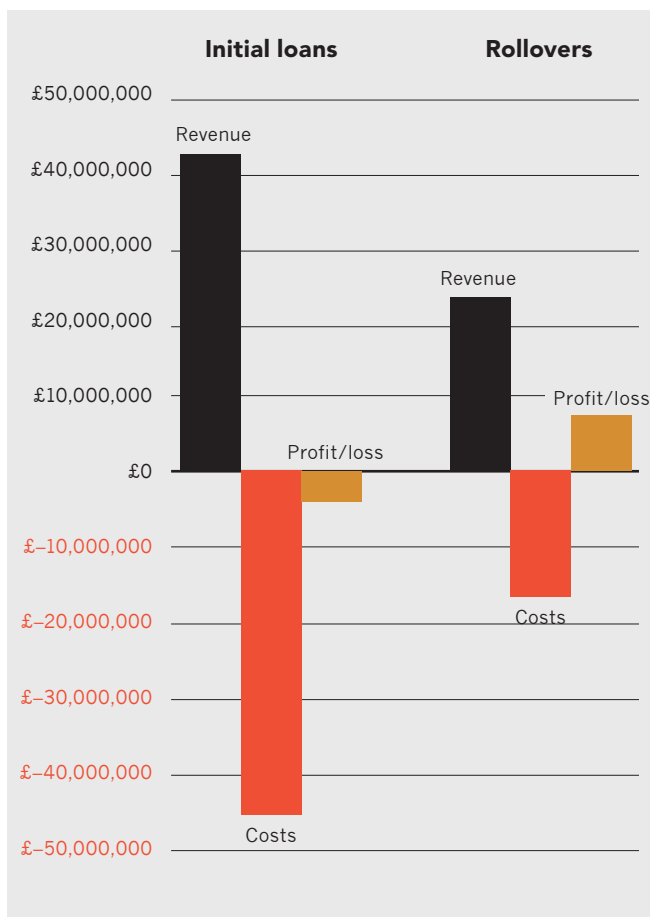
**Table 7.3: Costs, revenues and profits (or losses) attributable to initial loans and rollovers**

Initial loans	No of loans	Total cost per loan	Default cost per loan	Revenue per loan	Total costs	Total revenues	Profit/loss
First loans	151,000	-£104.46	-£29.22	£35.26	-£20,185,794	£5,324,260	
Repeat loans	464,649	-£22.01	-£32.46	£78.35	-£25,309,179	£36,405,275	
All initial loans	615,649				-£45,494,973	£41,729,535	-£3,765,438
Rollovers	307,825	-£22.01	-£32.46	£78.35	-£16,767,030	£24,118,063	£7,351,032
All loans	923,474				-£62,262,004	£65,847,598	£3,585,594

## Case study: continued

The costs, revenues and profits (or losses) in Table 7.3 are presented graphically in Figure 7.4.

**Figure 7.4: Costs, revenues and profits (or losses) attributable to initial loans and rollovers**



And in Table 7.4 we can see the percentages of total costs, revenues and profits attributable to initial loans and rollovers.

**Table 7.4 Percentage costs, revenues and profits attributable to initial loans and rollovers**

Revenue attributable to initial loans	63.37%
Revenue attributable to rollovers (using CFA definition)	36.63%
Costs attributable to initial loans	73.07%
Costs attributable to rollovers	26.93%
Profit attributable to initial loans	-105.02%
Profit attributable to rollovers	205.02%

The CFA is correct. It is a myth that 50% of profits come from rollovers, in this worked example 200% of profits come from rollovers. The exact percentage of profits derived from 'rollovers' will of course depend on multiple factors, including:

- the rate at which the portfolio is growing, ie how many new borrowers are being acquired and, hence, how many 'first loans' there are – a mature portfolio will consist almost entirely of repeat loans and will therefore be more profitable than a rapidly growing portfolio
- the exact distribution of loan sizes, revenues, losses, etc.

However, it can be stated with certainty that when CAC is high, rollovers will be disproportionately profitable.

This could explain why lenders have been seen to incentivise staff to promote rollovers.<sup>29</sup> As the OFT stated 'staff in two large high-street firms told us that rollovers were regarded as key 'profit drivers' and that staff were encouraged to promote them – in one case this was even written into their training manual' (Office of Fair Trading 2013b).

Not only do rollovers and refinancings generate 50% of payday lending revenues but they also generate far more than 50% of payday lending profits.

29. In 2002 the Office of the Comptroller of the Currency in the US found that Dollar Financial was incentivising its staff to promote rollovers (OCC 2002).

## 8. Intensity of use

Rollovers and refinancings are only two potential sources of consumer detriment. For repeat borrowers, regardless of whether they manage to avoid rollover, payday borrowing acts as an extremely expensive 'line of credit'. A line of credit is an agreement between lender and potential borrower detailing the maximum amount the borrower may borrow. The borrower is then able to borrow up to that amount at any time, up until the agreement is cancelled, and repay at any time. The borrower is charged interest on the specific amount borrowed and for the period he remains indebted only. A credit card, perhaps the most familiar and widely used consumer credit product, is essentially a line of credit.

A normal line of credit gives the borrower the option of when to borrow. Where payday loans are used repeatedly they perform much the same function as a line of credit, but the option of whether the borrower can borrow at a particular time remains with the lender.

In the US, the Federal Deposit Insurance Corporation (FDIC) recognises that intensive repeat borrowing, not just rollover and refinancing, presents risks for both borrowers and lenders. It therefore requires banks offering payday loans to 'Ensure that payday loans are not provided to customers who had payday loans outstanding at any lender for a total of three months during the previous 12 months' (FDIC 2005).<sup>30</sup> The FDIC defines intensive use as three months in total, rather than three consecutive months. When dealing with high-cost, short-term products, intensity of use matters.

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30. The FDIC (2005) further advises, 'When a customer has used payday loans more than three months in the past 12 months, institutions should offer the customer, or refer the customer to, an alternative longer-term credit product that more appropriately suits the customer's needs. Whether or not an institution is able to provide a customer alternative credit products, an extension of a payday loan is not appropriate under such circumstances.'

### PATTERNS OF USE IN THE UK

In the UK online payday borrowers currently take between three and four loans per year on average, while the average for retail borrowers is 5.1. Behind every average there is a distribution. One of the few available insights into that distribution comes from a survey of 300 borrowers from The Money Shop (Dollar Financial) released by the CFA: '50% of customers use payday once a year or less: only 6% use it monthly; and 28% use it once every 2–3 months' (Consumer Finance Association 2012a: 3)

In order to understand where lenders' revenues come from, a distribution is constructed from the information provided by the CFA above in the following way.

- Of the 150 borrowers using the product 0 or 1 time, 50 are assumed not to have used it in the current year and are therefore excluded (only borrowers taking loans generate revenues).
- Of the 84 borrowers using the product 4, 5 or 6 times per year, it is assumed that there were 28 borrowers in each category.
- There were 18 borrowers using the product 12 times per year.
- The remaining 48 borrowers are assumed to take out 2, 3, 7, 8, 9, 10 and 11 loans per year, weighting more heavily to the lower frequencies.
- All loans have the same principal, term, and fee.

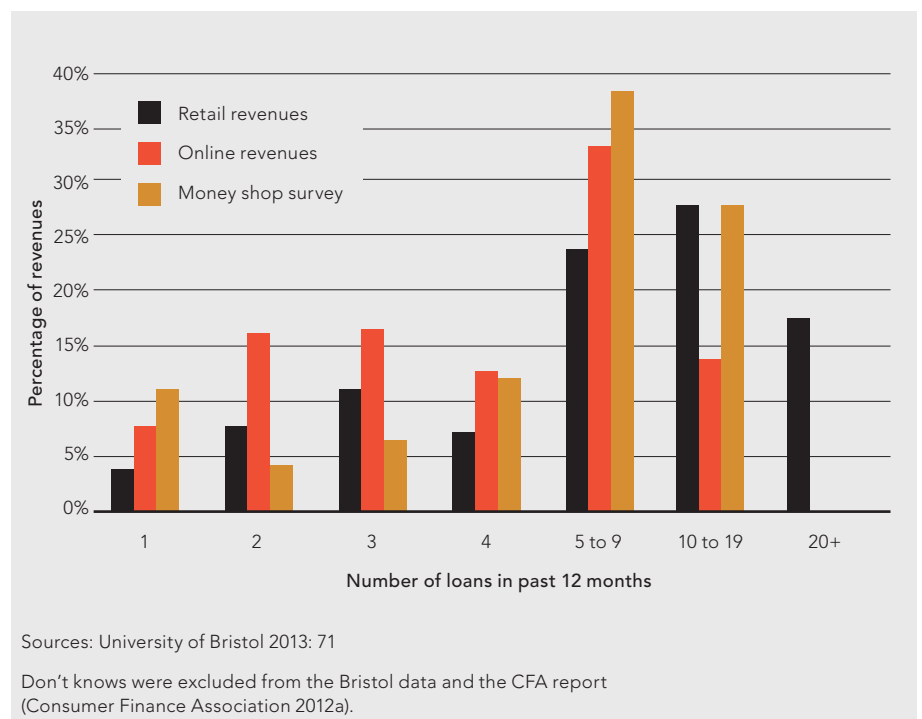
Table 8.1 shows that over 50% of revenues come from people taking 6 or more loans, with 23.45% of revenues from people taking 12 loans per year. The average number of loans per year is 3.68.

The Bristol report also contained information about the number of loans taken by borrowers each year (University of Bristol 2013: 71). Assuming again that all loans are the same size and carry the same fee, and grouping the CFA's data into the same categories reported, allows a comparison of the revenues attributable to borrowers with different intensities of use, shown in Figure 8.1 below. The percentage of revenue generated by borrowers taking five or more loans per year (ie frequent borrowers) is 66.7% (Consumer Finance Association 2012a), 68.8% (Bristol retail payday borrowers only) and 46.8% (Bristol online payday borrowers only).

**Table 8.1: Revenue attributable to borrowers by frequency of use**

Number of loans pa	Number of borrowers	Number of loans	% borrowers	% Revenues	Reverse cumulative % revenues
1	100	100	40.00%	10.86%	100.00%
2	19	38	7.60%	4.13%	89.14%
3	19	57	7.60%	6.19%	85.02%
4	28	112	11.20%	12.16%	78.83%
5	28	140	11.20%	15.20%	66.67%
6	28	168	11.20%	18.24%	51.47%
7	2	14	0.80%	1.52%	33.22%
8	2	16	0.80%	1.74%	31.70%
9	2	18	0.80%	1.95%	29.97%
10	2	20	0.80%	2.17%	28.01%
11	2	22	0.80%	2.39%	25.84%
12	18	216	7.20%	23.45%	23.45%
Total	250	921	100%	100%	

**Figure 8.1 Revenue attributable to borrowers by frequency of use**



## CASE STUDY: WONGA.COM

The analysis which follows has been undertaken in order to gain an insight into the possible level of consumer detriment experienced by Wonga.com's borrowers in the absence of publicly available data provided by the company. Transparency is critical in these types of markets if borrowers are to be able to make informed decisions and commentators and advisors to give sound opinions and counsel.

In this section, Wonga.com's business is compared with the businesses of 'traditional', online payday lenders to determine whether the risks of consumer detriment it poses actually differ significantly from other market players. (It should also be noted that the potential for the activities of unscrupulous lenders to subsidise those of more reputable lenders, a dynamic which is explored fully in Chapter 9, mean that it is not appropriate to consider any single small-sum, short-term lender's activities in isolation from the rest of the sector.)

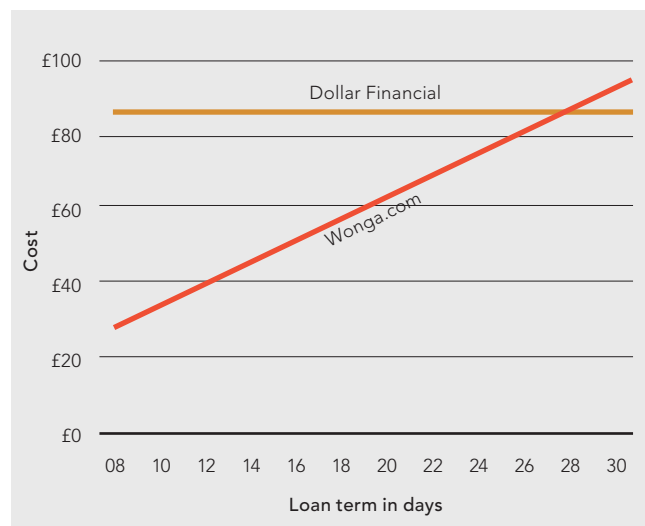
Wonga.com's publicity stresses that it does not rely on rollovers and that fewer than 10% of the loans it makes are what it calls, 'extended', ie rolled over, once or more often. In an industry where 28% of loans are rolled over or refinanced at least once (Office of Fair Trading 2013b), this is indeed quite an achievement.

Wonga.com seeks to differentiate itself from other online payday lenders, placing a great deal of emphasis on its 'innovative' approach to providing small-sum, short-term loans. The most important difference is that Wonga.com charges interest at 1% per day. This contrasts with 'traditional' payday lenders, both retail and online, who typically charge a fixed fee per part or whole month for which a loan is extended. For example, PaydayUK, which is owned by Dollar Financial, charges a fixed fee of £29.95 per £100 borrowed regardless of the exact term of the loan (as long as it is between 8 and 37 days).<sup>31</sup>

Because Wonga.com charges interest on a daily basis, borrowers taking out very short-term loans will pay less if they borrow from Wonga.com than they would pay elsewhere. However, Wonga.com also charges a £5.50 'transmission fee', regardless of the size and term of the loan. This is quite a significant fee on a small loan and has the potential to outweigh any cost reduction due to the daily interest calculation. For longer loans Wonga.com's charges are actually the highest of the big three lenders. For example, a 31-day £100 loan would cost £29.95 at Dollar Financial or up to £29.50 at Cash America, but £36.50 at Wonga.com.

Wonga.com's average loan size in 2011 was £287. Figure 8.2 shows that taking a £287 loan costs less at Wonga.com than it does at Dollar Financial, as long as the loan term is 28 days or less.

**Figure 8.2: Cost of Wonga.com's average £287 loan**



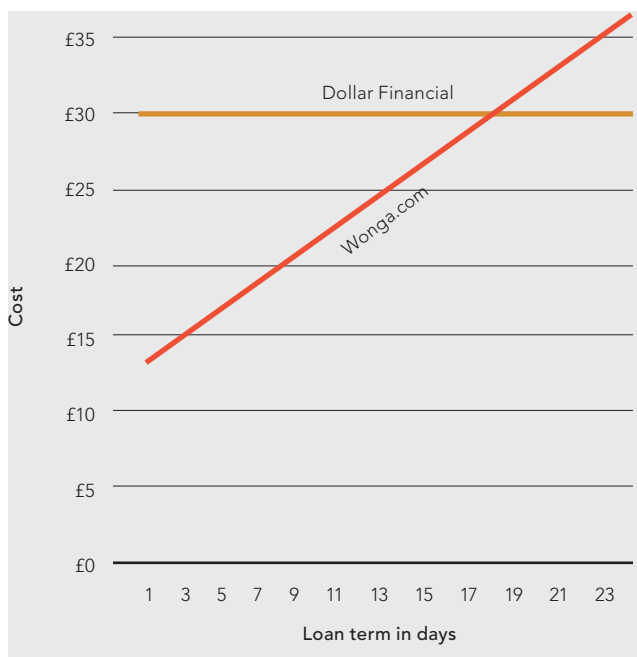
31. Cash America charges between 20% and 29.5% for a 30-day loan and offers a rebate to those who repay early, with interest calculated daily.



## Case study: continued

This effect is more pronounced for smaller loans. Figure 8.3 shows that taking a £100 loan only costs less at Wonga.com than it does at Dollar Financial if the loan term is 24 days or less.

**Figure 8.3: Cost of £100 loan**



Wonga.com charges interest by the day, so there is a clear incentive for borrowers to repay early and to keep their loans as short-term as possible. Does this automatically imply that Wonga.com causes less consumer detriment than the 'traditional' payday lenders? Key to determining the consumer detriment caused by Wonga.com's activities is the exact distribution of loan sizes and terms inside the portfolio. A detailed analysis is therefore presented below.

More broadly, over the course of 2011 did Wonga.com's borrowers spend less for each £1 of credit extended than they would have done if they had borrowed from competitor lenders? In other words, were Wonga.com's borrowers less exposed to the high APRs, the potential source of consumer detriment, than other payday borrowers? The data in Table 8.2 suggest not.

**Table 8.2: Comparison of the cost of £1 of credit extended by the big three lenders**

	Dollar Financial (Online)	Wonga	Cash America
Total credit extended	£495m	£707m	£507m
Total revenue	£122m	£184m	£114m
Revenues as a % of credit extended	25%	26%	22%
Losses as a % of revenues	35%	36%	45%
Average loan size	£270	£287	£336
Average revenue per loan	£66	£75	£75
Average number of loans per borrower	3.68	3 to 4	3.68
Average revenue per borrower	£243	£225 to £300	£276

Source: As in Table 4.1: 13

### How much does each loan cost?

Wonga.com generated revenues of £184.2m in 2011. Their average revenue per loan was therefore £75. Cash America also generated average revenue per loan of £75, while Dollar Financial UK generated £66. As is noted in Chapter 7, Dollar Financial's UK payday loans currently have an average term somewhere in excess of 30 days; they also have an average size of £270, similar to Wonga.com's average size of £287. Wonga.com was, however, able to generate more revenue per loan than Dollar Financial, which is surprising if the average loan term was significantly below 28 days.

### How many loans?

The average Wonga.com borrower took three loans per year in 2011 and this number was rising towards four. The average number of loans per borrower per year is approximately the same as other payday lenders. However, behind this average lies a distribution. Wonga.com submitted in its Written Evidence to Parliament in December 2011, 'a large proportion of successful loan applicants remain first-time users' (UK Government 2011).

## Case study: continued

As with the distributions detailed in the Consumer Finance Association: Attitudes Towards Payday Loans Amongst Payday Customers & Policymakers (Consumer Finance Association, 2012a) and the Bristol Report (University of Bristol 2013), the distribution of borrowers at Wonga.com is likely to contain a large proportion of one-off borrowers who generate little revenue and a smaller proportion of frequent borrowers who are responsible for driving the average number of loans per year up to between three and four and who generate the profits.

### How much do borrowers pay?

At Wonga.com the average revenue per borrower was therefore somewhere between  $3 \times £75 = £225$  and  $4 \times £75 = £300$ . Cash America's average revenue per borrower was £276 and Dollar Financial's was £243. Repeat borrowers are borrowing and repaying multiple times during the year as they would do with a line of credit. The frequency with which they do this and the total amounts they pay for this 'line of credit' are very similar across the three lenders.

### How many borrowers experience repayment difficulties?

In addition, as is discussed in Chapter 6, Wonga.com's 2011 loss rate of 36% and its overall loss experience is similar to that of the other lenders. From the data available publicly, the similarities here appear to be too striking to ignore – key aspects of the borrower experience at Wonga.com are virtually indistinguishable from those at the traditional payday lenders.

## ANALYSIS

### Determining the size and length of Wonga.com's loans. Are Wonga.com's loans actually shorter than other payday lenders' loans?

The information in the public domain released by Wonga.com tends to be very detailed and informative at the headline level (the total amount of credit extended, total number of loans made, amount provisioned for losses, etc.) but unfortunately is less informative at the underlying loan and borrower level. As is discussed above, the key to determining the consumer detriment caused by Wonga.com's activities is the exact distribution of loan sizes and terms inside the portfolio. This analysis is carried out in order to further this aim and is, by necessity, extremely detailed.

Wonga.com's average loan length is just 16 days (although the company introduced and promoted a 60-day loan in December 2012 due to 'customer demand') and has been very vocal in defending this statistic. In 2012 Unite commissioned independent research into payday loan use by working people and asserted that 'the average borrower is handing £66 per month in interest alone back to the company every month' (Unite 2012).

Wonga.com issued a rebuttal, disputing the average interest charge of £66: 'The average Wonga loan is £255 over 16 days, with the total interest and fees on this being £46.61. All charges are shown up front on the Wonga homepage when a customer applies for a loan. Given that the average Wonga borrower takes

four loans a year, this comes to £186.44 per year in charges' (OpenWonga 2012).

Leave aside the fact that charging £186.44 a year to provide a £255 line of credit – that is 73.1% – is deemed to be reasonable, one problem remains: in 2011 Wonga.com generated £184.2m in revenues by extending 2,460,000 loans. The average revenue per loan therefore appears to be £74.73, not £46.61. To put it another way, if all the loans that Wonga.com made in 2011 had been the £255, 16-day 'average' loan described above, they would have generated only £114.7m total revenue, not £184.2m, just enough to cover costs. Where did the extra £69.4m come from? We can deduce that the average loan size for the period was £287 rather than £255, which explains some of the additional revenue, but can an average loan length of 16 days possibly be consistent with Wonga.com's reported revenues?<sup>32</sup>

An average summarises information about the underlying distribution. Just as a class of 10 children with an average height of 4 feet need not necessarily consist of ten children each exactly 4 feet tall, so a portfolio of 2,460,000 loans with an average size of £287 and average loan length of 16 days need not consist of 2,460,000 identical loans, each exactly £287 in size and 16 days in length.

Large loans generate more revenue than small loans; crucially they generate more revenue per day than small loans. A £1 loan – Wonga.com's minimum size – generates 1p per day, while a £1,000 loan – Wonga.com's maximum size – generates £10 per day, a significant

difference. A small number of large loans made for long periods will therefore push up revenues without significantly increasing the total number of days indebted and, hence, the average loan length. Wonga.com's 2011 portfolio must have contained a large number of small loans with an average term less than 16 days plus a small number of very large loans with an average term of more than 16 days.

Further insight into the distribution of loan sizes and lengths in Wonga.com's portfolio can be gained by creating a simple model portfolio. This portfolio contains only two loan types, a 'short, small' loan and a 'long, large' loan, and is subject to all the same constraints as Wonga.com's real portfolio:

- It must generate revenues of £184.2m.
- The average loan size must be £287.
- The average loan length must be 16 days.
- The maximum possible loan size is £1,000 and the maximum term is 31 days.
- The minimum loan size is £1 and the minimum loan term is 1 day.

On each loan Wonga.com charges a transmission fee of £5.50, regardless of the size and length of loan. These fees accounted for a maximum of  $2,460,000 \times £5.50 = £13,530,000$  of total revenue in 2011. (As is discussed in Chapter 5 under 'Wonga.com', the £5.50 fee is sometimes waived in order to attract

32. Information in the Wonga.com *Annual Report 2012* (Wonga Group Limited 2013) is broadly similar: 17-day average loan length but £70–£80 average revenue per loan. The 2012 data are more difficult to interpret, as Wonga.com has diversified into multiple business lines.

new borrowers.) This total revenue figure leaves £170,640,000 of revenue to be accounted for. Analysis of the model portfolio's total revenue and average loan length quickly reveals that the long, large loan has to be very close to the maximum size and term possible. Further, over 20% of all loans have to be long, large loans. One solution is presented in Table 8.3.

In this case the vast majority of loans – 79.20% – are short, small loans, and the sub-portfolio of short, small loans has an average size of just £100 and an average length of 13 days. In contrast, 20.80% of loans are long, large loans. The sub-portfolio of long, large loans has an average size of £1,000 and an average length 28.5 days. The model business does not extend loans above

£1,000 in size; this implies that all loans in the long, large sub-portfolio must be at the £1,000 upper bound. This is a considerable divergence from the distribution of online loan sizes detailed in the Bristol Report (University of Bristol 2013: 18) reproduced in Table 8.4.

**Table 8.4: Bristol Report evidence on distribution of loan sizes**

	Online
£1–99	11%
£100–£199	29%
£200–£299	27%
£300–£499	20%
£500–£999	8%
£1,000+	1%
Not stated	4%

The model portfolio's distribution raises two major concerns:

The long, large loans generated over 80% of revenues. As lenders are keen to point out, many of the associated costs do not vary with loan size, therefore the long, large loans generated all the portfolio's profits. The business cannot exist without them.

Over 500,000 long, large loans were made. According to the CFA the average income of a traditional payday borrower is £17,582 (Consumer Finance Association 2013a). Even if the model business's borrowers are drawn from the higher end of the typical payday borrowers' income distribution, what is the likelihood that 500,000, £1,000 loans are truly affordable?

**Table 8.3: 'Long, large' loans and 'short, small' loans: revenues generated and average loan lengths**

Loan type	Size	Loan length	% of loans	Number of loans	Total credit extended	Revenue	% of revenues	Aggregate number of days
Short, small	£100	13	79.20%	1,948,320	194,832,000	£36,043,920	19.52%	25,328,160
Long, large	£1,000	28.5	20.80%	511,680	511,680,000	£148,643,040	80.48%	14,582,880
Average size	£287.20		100.00%		Total revenue	£184,686,960	Average loan length	16.224

**Table 8.5: Results of extending the simple model portfolio to include extensions**

Loan Type	Size	Loan length	% of loans	Number of loans	Total credit extended	Revenue	% of revenues	Aggregate number of days
Short, small	£100	11	71.00%	1,746,600	174,660,000	£28,818,900	15.77%	19,212,600
Long, large	£1,000	27	19.00%	467,400	467,400,000	£128,768,700	70.46%	12,619,800
Average size	£290.00		90.00%		Total revenue	£157,587,600	Average loan length	12.94
Extensions	Size	Loan length	% of loans	Number of loans	Total credit extended	Revenue	% of revenues	Aggregate number of days
	£250	27.94	8.50%	209,100	52,275,000	£17,846,685	9.76%	5,842,254
	£250	57.94	1.00%	24,600	6,150,000	£4,190,610	2.29%	1,425,324
	£250	87.94	0.50%	12,300	3,075,000	£3,140,805	1.72%	1,081,662
Average size	£250.00		10.00%		Total revenue	£25,178,100	Average loan length	33.94
Average size	£286.00				Total revenue	£182,765,700	Average loan length	16.33

## Extensions

One group of loans may have had maximum loan lengths over 31 days: extensions. While only around 10% of loans end up being extended, according to Wonga.com, these loans will be disproportionately profitable for two reasons. First they are longer, therefore interest accrues for more days; and second, a £10 extension fee is levied every time a loan is extended. A borrower who extends three times will therefore pay £30 in extension fees, plus a £5.50 transmission fee, plus the interest accrued at 1% per day. These are significant charges on a small loan. Yet, 'In practice, less than 9% of our customers extend once, with less than 1% extending three times' (UK Government 2011).<sup>33</sup>

Extending the simple model portfolio to include extensions yields the solution seen in Table 8.5.

Here, loans extended once are assumed to have an average length equal to the average length of all unextended loans plus 15 days (ie half the maximum extension); while loans extended twice are assumed to have an average length equal to loans extended once plus 30 days (ie a second extension is always for the maximum term possible); and loans extended three times are assumed to have an average length equal to loans extended twice plus a further 30 days (ie a third extension is always for the maximum term possible).

33. Further information regarding extensions from OpenWonga.com statistics, updated June 2012: 'Proportion of Wonga loans extended by customers beyond their original repayment date. An extension is defined as a customer request for a later repayment date than originally agreed (between one day and a month) and requires a part payment. Never extended 91.5%, extended once 6.6%, extended twice 1.5%, extended three times 0.4%' (OpenWonga 2013).

The average lengths of both short, small and long, large loans are reduced, but long, large loans still have an average length of 27 days. Figure 8.4 Shows that extensions contribute 14% of total revenue, long large loans 70% and short, small loans 16%.

## Default fees and accrued interest

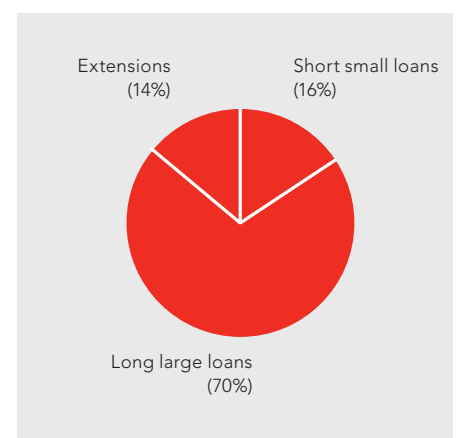
In Chapter 6 we estimated that in 2011, 21.31% of Wonga.com's loans went into arrears. Could these 524,266 loans have generated extra revenue simply because they went into arrears – ie in addition to the transmission fees and interest on the originally contracted loan?

- If Wonga.com's standard late payment fee of £20 were applied to each one, this would generate an extra £10,484,520.
- If the model business also continued to accrue interest for 60 days after scheduled repayment has been missed (as per Wonga.com's terms and conditions) (UK Government 2011) on all 524,266 loans, this would generate a further £90,397,531.
- Taken together, late payment fees plus interest accrued on loans in arrears could potentially have contributed £100,882,051. That is equivalent to 54.8% of total revenue for the year.

Of course, 'Default fees and interest are charged to customers when they fail to make a repayment within the agreed loan period. Such fees and interest are recognised as revenue when these amounts are expected to be recovered' (Wonga.com Limited 2012, 2.14 'Revenue recognition': 22). Clearly, not all loans in arrears are expected to be fully recovered. While the revenue attributable to default was surely nowhere near £100,882,051, the figures here do illustrate the startling potential profitability of imposing default fees and continuing to accrue interest at the original high rate on loans in default.

If default fees and interest accrued after default did represent a significant source of revenue, it would of course be possible to construct a portfolio with a less extreme distribution of loan sizes which, technically (ie excluding the days on which interest continued to accrue post default), had an average loan term of 16 days. However, significant revenue due to loans in arrears is of huge concern in itself.

Figure 8.4: Revenue streams



## 9. Market failure

The body of evidence that the payday lending market is failing to produce good outcomes for borrowers is now so large and so compelling that the FCA has been given a 'duty' to cap the total cost of credit in this market. In this chapter we will explore how and why the payday lending market in its current form is failing, before outlining a framework for determining the correct level of the cap.

### COMPETITION AND MARKET FAILURE

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In a well-functioning competitive market firms producing the best products are rewarded with profits and the market as a whole produces good outcomes for consumers.

'Perfect competition' requires a market to consist of infinite buyers and sellers, all of whom have perfect information regarding the product with no barriers to entry to or exit from the market. While this perfect state is unachievable in the real world, theory states that the more closely a market resembles the perfect model the better it will function.

The evidence provided in this report (and elsewhere) shows that the payday lending market is failing to produce good outcomes for consumers. Why should this be?

First, there may be barriers to entry. Advertising costs and default losses associated with setting up a new portfolio may indeed prevent new participants from entering the online payday lending market easily. However, a well-functioning market capable of producing good outcomes for consumers requires much more than

just a large number of market participants. The evidence presented below shows that even if these perceived barriers to entry could be surmounted the payday lending market would still fail to produce good outcomes for borrowers.

The main cause of market failure in the payday lending market is not a lack of competition, but 'information asymmetry'; lenders and borrowers do not have perfect information regarding the product being traded.

### MARKET FAILURE IN CONSUMER CREDIT MARKETS

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The presence of a large number of credit providers in the market may not always result in good outcomes for consumers. Research by the Bank of Canada found that 'neighbourhoods with more bank branches and payday lenders per capita (ie more competition) have looser lending standards (higher leveraged households) and experience greater bankruptcies (ie instability)' (Perkins 2013).

Similarly, competition may actually have contributed to the problems in the US subprime market, 'Intense competition for subprime mortgage business ... may also have led to a weakening of (underwriting) standards. In sum, some misalignment of incentives, together with a highly competitive lending environment ... likely compromised the quality of underwriting' (Federal Reserve 2007). Without appropriate regulation, competition can result in a race to the bottom in underwriting criteria. This effect is exacerbated when the link between borrower default and

lender loss is broken, as was the case in the US subprime mortgage market. 'In addition, incentive structures that tied originator revenue to the number of loans closed made increasing loan volume, rather than ensuring quality, the objective of some lenders' (Federal Reserve 2007).

In that case the link was broken using securitisation: the repackaging and sale of mortgages to investors; in the case of payday lending the link is broken by the employment of CPA and default or late payment fees. When lenders do not suffer losses as a result of poor lending decisions they are incentivised to extend credit regardless of affordability, potentially a bad outcome for borrowers. This effect is magnified where loans are originated via 'lead generators' (third parties, essentially credit brokers, who source borrowers' details and sell them to the highest bidder), who are paid per loan written. Lead generators have no 'skin in the game' – they get paid regardless of whether or not the loan is eventually repaid.

Competition may be particularly ineffective in delivering good outcomes for distressed borrowers. The relationship between lender and borrower is especially valuable to distressed borrowers. The ability of lenders to help borrowers through a period of financial distress in return for future profits generated when the borrower's situation has improved is eroded by competition.<sup>34</sup>

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34. Petersen and Rajan (1995) found that credit-constrained firms were more likely to receive funding in concentrated markets because lenders had a better chance of continuing to lend to the firm when their situation improved. Young firms and firms in distress received lower rates, while older firms faced higher rates in more concentrated markets.

## INFORMATION ASYMMETRY – ADVERSE SELECTION, FINANCIAL CAPABILITY AND CAPACITY TO REPAY

Competition should deliver lower prices, or better products, or, ideally, both. Online payday loans have been available in the UK since 2004; in the nine years since then there has been no reduction in interest rates in the online or retail markets and no competition-engendered reduction in the cost of any of payday's competitor products such as unauthorised overdrafts.<sup>35</sup>

Reduced origination costs due to technological advances have not been passed on to borrowers in the form of reduced APRs (annual percentage rates) but have allowed lenders to take more underwriting risk and spend more on advertising. All the lenders charge broadly the same and generate similar revenues per borrower per annum. The most successful new entrant, Wonga.com, actually has the highest charges. Why is competition not driving down APRs?

Is the high APR actually the key to drawing in borrowers with low financial capability and limited capacity to repay? Does so-called 'adverse selection' actually work to payday lenders' advantage?

While payday interest rates need to be high in order to compensate lenders for losses, this quickly becomes a chicken-and-egg problem; high losses cause high rates, but high rates cause high losses. Extremely high interest rates attract an extremely high proportion of borrowers who are predisposed to default. This adverse selection is well

documented in micro-lending markets for small-sum, high-cost loans. That payday lenders suffer from high levels of adverse selection is evidenced by recent research by Which? The consumer group reported that 29% of payday borrowers knew they could not afford their loan when they took it out (Which? 2012), (a fact that reflects badly on the way lenders conduct Affordability Assessments). The cost of this adverse selection is, of course, not borne by lenders (who operate profitably) but by other borrowers. How are lenders able to spin this straw into gold?

In their excellent 2011 paper, 'Price-Driven Adverse Selection in Consumer Lending Markets', Phillips and Raffard suggest three mechanisms through which high rates lead to high levels of default.

- Private Information. Borrowers who possess private 'adverse information', for example a string of bad job reviews, are more likely to accept high interest rates because they know they are likely to default.
- Lack of financial capability. Borrowers with poor financial capability are more likely to accept higher rates and more likely to default due to external shocks and financial mismanagement.
- Capacity to repay. If the loan repayment is a large fraction of the borrower's 'capacity' – income less non-discretionary expenditure – the borrower will be more likely to default.

Phillips and Raffards' model shows that the first two effects are most pronounced in subprime portfolios (they do not model the capacity effect). They also argue that adverse selection puts a natural brake on interest rates. High interest rates attract the 'wrong sort of borrowers' and eventually this becomes unprofitable. However, this mechanism can only work if the lender suffers a meaningful financial penalty when a borrower defaults.

The selection of borrowers with low financial capability may reduce the profits of lenders who suffer meaningful losses when borrowers default, but need not reduce the profits of a payday lending business. Borrowers with low financial capability are poor at assessing their own ability to repay and may therefore be unduly influenced by advertising. When payday loans are advertised as short-term loans, repayable on the next payday, they will be inclined to accept this as true even when a quick look at next month's expenditure and income might be all it takes for a more financially capable borrower to realise that full repayment within such a short space of time is unrealistic. Similarly, they are likely to roll over their debts repeatedly before finally realising they are unaffordable.

Capacity effects allow payday loans to create their own demand; an unaffordable loan creates a cash shortfall for the borrower, making repeat borrowing more likely. Again, lack of capacity to repay would be a problem in a conventional lending business, but rollover, refinancing, default and late payment fees and CPA can serve to make the unaffordable profitable. The

35. The Office of Fair Trading (2013a) concluded that the majority of the reduction in unauthorised overdraft charges was the result of regulatory and media pressure rather than market forces.

high rate makes it harder for the borrower to repay in time, but, coupled with low financial capability, it makes the borrower more likely to roll over.

### **INFORMATION ASYMMETRY – LENDERS’ SUPERIOR KNOWLEDGE OF PATTERNS OF REPAYMENT AND DEFAULT**

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There is another significant form of asymmetric information in the payday lending market. While borrowers have better information regarding their own individual circumstances, lenders in all markets have better information than borrowers regarding the likelihood of default in general. Normally this works to the borrowers’ advantage, as both borrower and lender are better off if the borrower repays on time and in full – their incentives are aligned.

This informational asymmetry is particularly pronounced in payday lending; the short-term nature of payday loans gives lenders exceptionally rapid feedback regarding patterns of repayment and default, allowing them to amass enormous quantities of data. Lenders are in a much better position to rationally assess how and, crucially, when borrowers will be able to repay than borrowers are themselves.

Unfortunately, however, lenders’ and borrowers’ incentives are far from aligned in this market. If, as the evidence suggests, repeat lending is disproportionately profitable, lenders will be better off if the borrower takes a further loan rather than repays in full and on time.

A borrower who is rolling over is in arrears. Instead of offering the borrower

a repayment plan at low or zero interest, the lender extends an additional loan at the original high interest rate. But part of lenders’ justification for the high rates they charge is their high losses. If defaults are factored into the high one-period interest rate, why are loans rolled over at this same high rate? The lender’s Affordability Assessment has failed, but this represents no cost to the lender; in fact, the evidence presented in this report regarding CAC suggests that this is the profitable part of their business.

### **WHAT COULD DRIVE APRS DOWN?**

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Crucially, there does not appear to be any competition-related mechanism through which rates will be reduced in this market. The potential impact of reducing information asymmetry on APRs is, however, considerable. This is evidenced by the increase in interest rates in the UK retail payday lending market from around 15–18% per month to around 25–30% per month following the phasing out of the cheque guarantee card by retail banks.

Previously, the cheque guarantee card reduced informational asymmetry (banks were quick to withdraw cards from customers who were bad credit risks) and allowed rates to find a much lower equilibrium. The Bristol report quoted one trade association, ‘The best single tool we’ve had in the last 10 years has been whether the customer is in the possession of a cheque guarantee card...possession of the card from somebody who knows that customer’s affairs better than any credit referencing agency, ie the bank, is the biggest single indicator as to whether that person is likely to repay’ (University of Bristol 2013: 44).

There are two conclusions to be drawn:

- Rates can only be reduced by external forces, for example, regulation.
- Retail banks, with their unparalleled access to transactional data, are uniquely positioned to identify customers who are struggling financially and, therefore, to help them.

### **THE EFFECTS OF MULTIPLE LOANS ON LENDERS’ BUSINESS MODELS – FINANCIAL RESILIENCE AND ‘GOOD’ VS ‘BAD’ LENDERS**

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Those with low levels of financial resilience (in the forms of savings and other assets) are likely to be tempted by payday loans. Lenders therefore have a vested interest in borrowers having weak balance sheets and little financial resilience. This is a significant misalignment of incentives. The damage done to borrowers’ financial resilience by unaffordable loans serves only to improve lenders’ chances of future profits. It also implies that lenders have little to fear from each other; the more payday loans that are extended, the greater the likelihood that the borrower will need further loans. Unaffordable payday lending creates rather than satiates demand for more loans. This means that the presence of multiple lenders in the market does not necessarily create a competitive environment.

The increase in defaults experienced by Dollar Financial following the implementation of the three rollovers limit, for example, comes not just from the acceleration to default status of borrowers rolling over loans with Dollar



Financial themselves, but also from a more general 'credit crunch', as other lenders have restricted borrowers' access to rollovers. Less lending by competitors has resulted in less profit for Dollar Financial (DFC Global Corp 2013).

Differences in underwriting criteria mean that not all borrowers can borrow from all lenders, so lenders are directly competing only with other lenders who are close to them in the price/underwriting criteria matrix. Far from competing with the more responsible lenders, those lenders with looser underwriting criteria could potentially serve to finance the activities of those above them in the food chain.

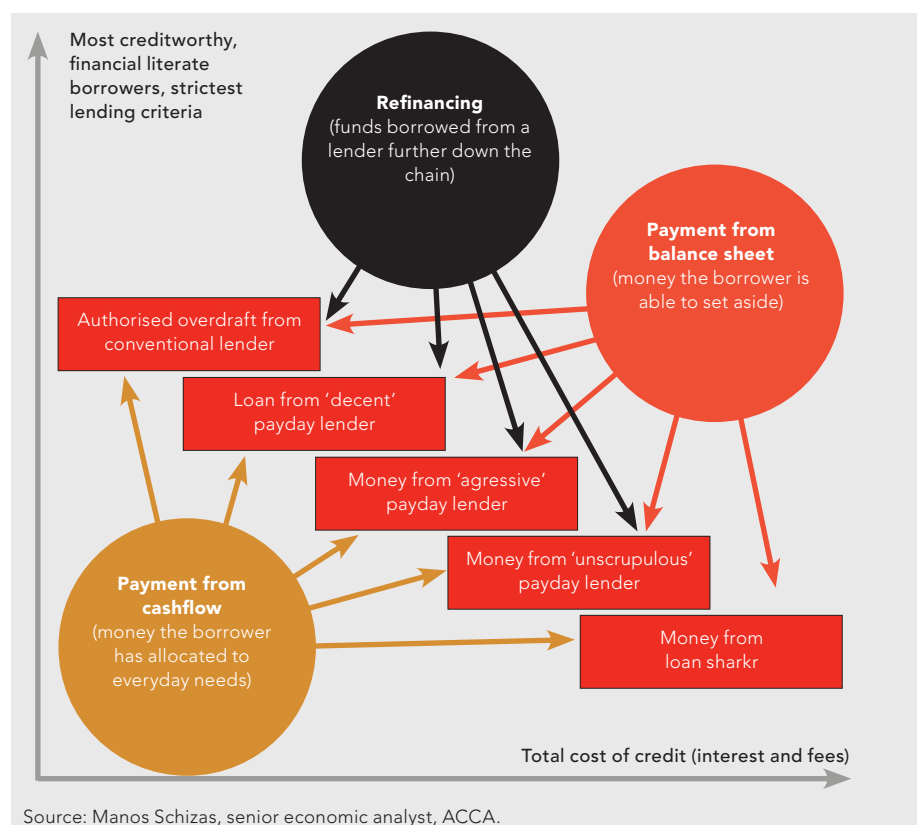
Unscrupulous lenders are not incentivised to tighten their underwriting criteria, because good underwriting analytics and establishing a 'brand' through advertising and marketing involve a massive amount of upfront investment; but it appears that unscrupulous lenders may be able to operate profitably without these factors by imposing default fees, selling receivables, etc.

### How the long-tail bailout works

In order to understand how this dynamic works, consider the options available to a borrower who cannot repay his or her payday loan (Figure 9.1). The borrower can:

- take another payday loan from the same lender – ie rollover or refinance as discussed above.
- use assets from his or her personal balance sheet – savings or sale of possessions.
- use income by cutting down discretionary spending.
- take another payday loan from a different lender.

Figure 9.1: Options open to insolvent borrowers



### BOX 9.1: HOW REPUTABLE LENDERS CAN PROFIT FROM THEIR LESS SCRUPULOUS RIVALS

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A simplified example will help to illustrate how reputable lenders can profit from the activities of more unscrupulous lenders:

#### Example

The market consists of three lenders:

**Lender A** charges 25% for a 30-day loan and has the tightest underwriting criteria – Lender A only lends to borrowers whose probability of repaying in full and on time is 70% or higher.

**Lender B** charges 30% for a 30-day loan and has the second tightest underwriting criteria – Lender B only lends to borrowers whose probability of repaying in full and on time is 60% or higher.

**Lender C** charges 40% for a 30-day loan and has the loosest underwriting criteria – Lender C lends to borrowers who only have a 50% probability of repaying in full and on time.

A borrower decides to take her first payday loan of £100 and is accepted by Lender A.

At the end of month 1 the borrower cannot repay and Lender A allows her to roll over the £100 original loan as long as she pays the finance charge of £25.

At the end of month 2 the borrower cannot afford to repay the £100 principal or the £25 finance charge she owes Lender A.

Lender B, however, accepts borrowers of lower credit quality. Lender B offers the borrower a £150 loan for one month at 30% interest. The borrower uses the proceeds of Lender B's loan to repay Lender A.

At the end of month 3 the borrower cannot afford to repay the principal of £150 or the interest charge of £45. Lender B uses CPA to recover £50 from the borrower's account but the borrower is technically in default and incurs a further charge of £20.

The borrower still owes Lender B £165.

The borrower is now much less creditworthy than when she took her initial loan. Only Lender C will lend the borrower £165 for one month at 40% interest.

At the end of month 4, the borrower owes Lender C £231. The borrower cannot afford to repay in full but pays the £66 interest charge and rolls over.

As things stand, the imposition of default fees, fees for letters demanding repayment, the use of CPA and the sale of receivables to debt collection firms all allow unscrupulous lenders to operate profitably. These poor practices may even allow liquidity to funnel upwards to those lenders who are keen to portray themselves as responsible as the example in Box 9.1 illustrates. And the 'good' lenders are well aware of this dynamic, as the exchange between the Dollar Financial executive and the Analyst in Box 9.2 shows.

### **BOX 9.2: FUNDING OTHER LENDERS, THE INSIDE VIEW**

Dollar Financial executive:

And we don't want to be in the position of funding a competitor's aggressive customer base which will go delinquent under the new affordability repayment guidelines and that doesn't seem to us to be sensible. So we would rather let the process, process and kind of have a level playing field so that we can apply our credit analytics as we do across a broad spectrum of customers.

Analyst:

Does this imply that the new affordability regulations has (sic) effectively reduced the addressable market that you can lend to?

Dollar Financial executive:

It's not that, we just don't want to be the second or third lender to that customer or the fifth or sixth!

Source: DFC Global Corp, 2013a

The corollary of this is that while lenders do not want to fund someone else's book, they are certainly not averse to other lenders extending them the same service. The first lender profits from the activities of the second, third and fifth and sixth lenders regardless of the aggressive methods employed by those later lenders to extract their own profits. It is not possible to quantify the extent to which lending businesses may be capable of financing one another in this market. If it is possible, however, there are two potentially worrying conclusions:

If reputable lenders are able to profit from the activities of less scrupulous lenders in this way there will be little incentive for them to clean up the practices of the industry as a whole.

Responsible lenders may not be able to enter the market without inadvertently financing their competitors' businesses.

### **WHY SELF-REGULATION CANNOT WORK IN THE PAYDAY LENDING MARKET**

This dynamic of 'bad' lenders subsidising the activities of 'good' lenders means that the payday lending market is wholly unsuited to self-regulation. In its report, Policy Statement: The Role of Self-Regulation in the OFT's Consumer Protection Work, the OFT states that an industry suited to self-regulation is one: 'where market players have concern that the reputation of the whole industry could be harmed by the bad behaviour of a few and want to change the incentives for, and police their (sic) behaviour of, those who have less to lose' (Office of Fair Trading 2009: 3.15). In the payday

lending market 'good' lenders may potentially profit from 'the bad behaviour of a few'; for 'good' lenders any reputational damage that behaviour causes to the industry as a whole may be a price worth paying. It is not obvious that there is any incentive for 'good' lenders to police 'bad' lenders.

### **HOW UNAFFORDABLE LENDING INTERACTS WITH ILLEGAL LENDING**

There are also important implications for the relationship between legal and illegal lending. Illegal lenders lie at the very bottom of the underwriting heap. Legitimate lenders are under no compulsion to continue to lend to borrowers. This is exactly as it should be but it does mean that households whose financial situation deteriorates as a result of unaffordable credit use will eventually run out of legitimate options, potentially making them more, not less, vulnerable to loan sharks. Recent research by the Centre for Responsible Credit (Gibbons 2012) shows that illegal lending grew in lockstep with legal lending during the high-cost credit boom in Japan in the 1990s. Illegal lenders preyed on those who had become so over-indebted that legal lenders could no longer lend to them profitably.

The relationship between unaffordable high-cost lending and illegal lending is considerably more complex than the simple 'either/or' it is sometimes portrayed as. Legitimate payday lending does not necessarily act as a bulwark against illegal lending. This area has not been the main focus of this research and remains not yet fully explored – the topic would certainly be worthy of further analysis in the future.

## 10. Framework for setting the Rate Cap

How should the FCA go about setting a cap on the total cost of credit? In order to be effective the cap must be:

- High enough to allow firms to cover the costs of making loans and generate sufficient profits to incentivise them to enter or remain in the market.
- Low enough to ensure that loans are affordable and enable borrowers to repay the vast majority of loans in full and on time.

We will explore each constraint in turn.

### **SUPPLY: COVERING COSTS AND ENSURING ACCESS TO CREDIT**

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A cap which is too low will mean that profitability will not be sufficient for lenders to participate in the market. This is the main concern associated with setting a cap on the cost of credit: potential constriction in supply. It is important, then, to have a robust definition of supply.

The existing measure of supply is an output-based one. All initial loans (ie those excluding rollovers and instantaneous refinancings) are counted – this is the measure that gives a market size of between 2.0bn and 2.2bn reported by the OFT in its Payday Lending Compliance Review Final Report (Office of Fair Trading 2013b), or, if rollovers and refinancings are included, gives the market size of around 3.7bn estimated in this report.

This output-based definition, simply counting the number and size of loans (outputs) extended, ignores the outcomes of those loans:

- A loan which is repaid in full and on time and does not create a cash shortfall for the borrower is a good outcome.

- A loan which ends in default, rollover or refinancing or creates the need for repeat borrowing is a bad outcome.

The aim of the cap is to produce more good outcomes and fewer bad outcomes. A cap could potentially achieve this end even if it results in a reduction in the overall supply of loans (outputs).

Measuring the supply of loans (outputs) alone is not sufficient to assess the supply of good outcomes and bad outcomes. It may be necessary to monitor levels of default on an ongoing basis to ensure that irresponsible lending is not taking place and to assess whether the cap is working.

### **DEMAND: PRICE-INSENSITIVE BORROWERS**

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The evidence in this report and elsewhere suggests that a significant proportion of payday borrowers are choosing to borrow more than they can realistically repay in full and on time.

Evidence from the US suggests that even when some borrowers fully comprehend the terms and conditions of payday loans and know they will be difficult to repay, they will still take them. The Pew Charitable Trusts' report, *How Borrowers Choose and Repay Payday Loans*, found that 37% of survey respondents would have taken a payday loan on any terms offered (Pew Charitable Trusts 2013: 20). In the UK high numbers of borrowers using payday loans to cover essential costs such as food and utility bills, which also suggests low price sensitivity (Christians Against Poverty 2013).

Demand for credit among the segment of borrowers currently using payday loans appears to be very price insensitive. The implications that

inelastic demand has for the pricing of payday loans are explored in detail above

While existing payday borrowers may exhibit low price sensitivity, this does not automatically imply that reducing the cost of payday loans significantly using a cap will not increase demand for the product. More creditworthy borrowers who are price sensitive and would not therefore consider a payday loan at current high price levels may well be drawn in at lower price levels. This could result in something of a virtuous circle, with lower-priced products offered to a broader pool of borrowers, enabling more loans to be repaid in full and on time, thereby reducing losses and keeping costs in check.

### **PRICING – SHIFTING FROM COST-PLUS TO TARGET COSTING**

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The price of loans (in the forms of high interest charges and additional fees) is the primary cause of the detriment being experienced in the payday lending market. How are loans currently being priced?

The simplest and most intuitive approach to pricing is a cost-plus approach: ie price equals the sum of all costs involved in producing the product, plus the desired profit margin or mark-up. When a cost-plus pricing strategy is employed, revenues are to some extent driven by costs – once a cost is incurred the business must seek to recoup it in order to generate a profit. The CFA's comments strongly suggest that lenders currently employ a cost-plus approach to pricing. 'Set the rate (cap) too low and payday lenders will no longer be able to afford the high operational costs...thereby putting them out of business' (Consumer Finance Association 2013b, 'Should APRs be capped in the UK?').

Cost plus has some important shortcomings when applied to the pricing of payday loans. First, all costs are passed directly to the borrower – particularly when price elasticity of demand is low – so there is no clear incentive for lenders to cut costs (Merritt 2014). This may explain why the reduced operating costs associated with online lending have not resulted in lower prices for borrowers. The cost savings afforded by operating online have been offset by higher costs in terms of advertising and losses due to default.

Second, although cost-plus pricing in its simple form makes no reference to demand or profit maximisation – the price is based exclusively on costs plus mark-up – it can be extended to take profit maximisation into account. In this case the profit maximising mark-up will be an inverse function of elasticity of demand (Graham 2013). When elasticity of demand is low the profit maximising mark up will therefore be high and, as we have explored, the elasticity of demand for high-priced payday loans appears to be very low.

An alternative approach to pricing is target-costing, which uses price less the required profit margin to determine cost. In a functioning market the price would be determined by what the market will bear and producers then examine all costs in order to reduce them to the point at which the necessary profit margin can be achieved. This approach puts pressure on producers to design products which are as low-cost as possible.

Target costing is obviously appealing for a market in which price itself is the principal cause of consumer detriment. A cap on the total cost of credit would effectively shift the entire sector to a target-costing pricing strategy.

## **DETERMINING THE MINIMUM COSTS ASSOCIATED WITH PRODUCING GOOD OUTCOMES**

Prevailing business models in this market are not producing good outcomes. We cannot, therefore, take prevailing business models as our guide when it comes to determining the minimum costs associated with providing small-sum, short-term loans in the UK.

It is important, therefore, to analyse the categories of costs lenders currently incur and to determine whether money spent in each category increases or decreases the likelihood of the business producing good outcomes.

As we have explored in this report, sometimes the way costs are incurred makes bad outcomes more likely. For example, high CAC associated with first loans arguably puts pressure on lenders to encourage repeat borrowing – a key source of detriment. Similarly, incurring high losses due to default will put pressure on lenders to recoup costs through default fees and interest accrued post-default – another source of detriment. Some costs then, serve to increase the probability of bad outcomes. Other costs, such as costs associated with credit checking and identity and income verification serve to increase the probability of good outcomes.

(Prevailing business models, particularly in the online space, appear to favour spending on advertising and marketing and losses due to default over spending on credit checking and identity and income verification. This implies only that the expected return on those activities is higher, not that they are more likely to produce good outcomes for borrowers.)

It is crucial that the cap should be as low as possible for two reasons. First, the cause of the detriment is the high price itself. Second, a low cap will allow the product to appeal to a broader pool of borrowers, which should reduce default rates.

Therefore, it is important that every penny of cost be a penny well spent, ie a penny capable of producing good outcomes. Concrete evidence must be provided regarding the mechanism by which costs incurred in each area increase the probability of good outcomes.

The costs faced by payday lenders can be broken down into the following categories (with more information it may well be possible to break them out further):

- Financing costs, including profits
- + operating costs
- + credit-checking costs
- + advertising costs
- + losses
- + collections costs.

Although we do not have as much information as we would like regarding each category, we can now discuss each in turn and highlight areas for further investigation.

### **Financing costs, including profits**

Lenders must be able to generate profits. However, with both financing costs and profits there is circularity: for a given level of return, rational investors should always opt for the lowest risk project capable of generating that return. Hence, businesses taking the most underwriting risk will also

theoretically be required to generate the highest profits (profits are a risk-adjusted return on investors' capital, so more risk, more required return). It is doubly important, then, that more research should be undertaken into the amount of underwriting risk small-sum, short-term lenders need to take.

It is important to note that risk-free rates, a key determinant of financing cost, have never been lower than they are now. (Usury caps in the US, for example, were lifted in the 1970s partly because risk-free rates were very high at that time, therefore lenders could not operate under the caps.)

#### **Operating costs**

Some 'bare bones' operating costs are unavoidable.

#### **Credit-checking costs**

These are the costs which are most clearly linked to good outcomes.

#### **Advertising and marketing costs**

There does not appear to be any evidence that costs incurred in this area increase the probability of good outcomes. They may have a role to play in allowing businesses to scale up to a more viable size, although there are many small lenders operating in the payday lending market. There is evidence, presented in this report, that high advertising and marketing costs may even increase the probability of bad outcomes.

Some business models, notably workplace lending schemes, should be able to combine customer acquisition and some elements of credit- and identity-checking, reducing costs in both areas simultaneously.

#### **Losses**

Losses are by far the most complex category of costs. Losses are both a determinant of and (via adverse selection and capacity effects) a function of the cost of loans.

The assumption that an extremely high level of losses is somehow external to a lender's business model and therefore necessary or unavoidable must be tested. In order to determine the true minimum level of losses lenders must operate with, more evidence needs to be gathered regarding:

The extent to which losses are a function of underwriting criteria rather than a function of the creditworthiness of the pool of borrowers.

The ways in which microcredit providers and social enterprise lenders mitigate losses. (The amortisation of principal appears to be a particularly effective way of ensuring repayment (White 2012).)

The potential impact of reinstating some form of cheque guarantee card – perhaps in a digital form. This was previously a very effective underwriting tool capable of limiting losses due to default in the retail payday lending space.

Decreasing the costs due to losses may involve more spending in other categories of costs, principally credit checking and income and identity verification. These additional checks may in turn slow down the approval process. It may be necessary to consider other regulatory interventions to prevent lenders with lesser underwriting criteria from out-competing more responsible lenders on the basis of speed alone.

#### **Collections costs**

Collections costs are obviously a function of losses – anything that can be done to reduce losses will have an additional impact by reducing the need for collections activities. Restricting the use of CPA, while extremely important, will have the unfortunate side effect of increasing the cost of collections.

Once all costs have been quantified it should be possible to determine an average cost per loan of £X. We can then calculate the total cost of credit that will allow the cost £X be recouped from the borrower quickly and affordably.

#### **AFFORDABILITY, NOT PROFITABILITY**

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We now turn our attention to the other side of the equation: how to ensure that the level of the cap gives borrowers a realistic chance of repaying in full and on time.

The level of consumer detriment currently being experienced in the payday lending indicates that relying on borrowers to behave rationally and not borrow more than they can afford to repay will not work. Lenders and regulators need to be on the same page here. Lenders are not bound by theories of rational behaviour, they deal with real behaviours (it is real behaviours and not theories which generate cash flows). Regulation must therefore also be rooted in real behaviours if it is to be effective.

Affordability is the key to producing more good outcomes and fewer bad outcomes. Affordability represents an upper bound on the repayments that can be scheduled without engendering

default. Of course, loans which are correctly judged to be affordable at inception can end in default due to changes in circumstances during the course of the loan. Losses due to default are an integral part of any lending business. However, loans which are unaffordable at inception will always end in default – a bad outcome for both borrower and lender – or in a repayment that causes significant financial hardship – again a bad outcome for borrowers.

Business models are adaptable, but affordability is not.<sup>36</sup> No amount of innovation or competition between credit providers can make the unaffordable affordable. Similarly, affordability cannot be influenced by regulators. It can, however, be observed. How can we determine what is ‘affordable’?

### USING REAL PATTERNS OF REPAYMENT TO INFORM THE STRUCTURE AND LEVEL OF THE RATE CAP

The way payday borrowers actually use the product, as opposed to the way it perhaps should be used, reveals a lot about affordability. Many payday loans are rolled over or refinanced. Even when they avoid rolling over or refinancing, borrowers often return to take a repeat loan, borrowing and repaying what is essentially the same small loan multiple times per year. The evidence coming from Dollar Financial’s escalating losses as rollovers have been curtailed suggests that repayment of the full amount often triggers default. (New York Times 2014).<sup>37</sup>

36. The argument that business models can adapt but affordability cannot was advanced by Damon Gibbons of the Centre for Responsible Credit.

37. See paragraph 14 for a discussion of losses in the UK.

This leads to the conclusion that small monthly payments are affordable, but ‘bullet’-style repayments of interest plus principal are not.

Can we use these observed patterns of repayment and default to help set the level of the new rate cap? The US National Consumer Law Center’s The History, Use and Purpose of the 36% Interest Rate Cap (Saunders 2013: 6) presents just such an argument: ‘Given that the typical payday borrower takes at least four months to pay off a loan, it is instructive to compare the cost of that loan to a 36% installment loan covering roughly the same time period. If a borrower took out a 90-day, \$300 installment loan carrying a 36% APR, the borrower would have to pay about \$48 every two weeks, including interest and a portion of the principal. That is virtually the same as the \$45 fee that payday borrowers commonly now pay every two weeks to carry over a payday loan without making progress on the principal.’ (NB In this example ‘APR’ appears to refer to a non-compounded rate. The equivalent compounded APR would be 42.98%.)

Here, the level of the cap is informed by observing how borrowers actually behave. Setting a cap at such a level would encourage lenders to design products which fit how borrowers

actually behave, not how they say they will behave. This pragmatic approach is obviously appealing. Such products would be ‘affordable by design’ rather than rely solely on lenders’ willingness and ability to assess affordability.

Employing this methodology but with monthly payments (more usual in the UK) yields the example in Table 10.1 of repayments for an affordable short-term, small-sum loan at 3% monthly interest (equivalent to 42.6% APR):

In this example a typical £300 loan generates £22.83 of revenue and monthly repayments are 27% of the original principal amount, broadly in line with the 25%–30% monthly payment faced by borrowers who roll over without repaying their payday loans. Much more research is needed to determine whether £22.83 is enough to cover the minimum costs of making this small loan.

#### Lack of data

US researchers have the obvious advantage of access to data about patterns of repayment recorded on regulatory databases. The data for the UK does exist, but it is held by lenders. The FCA and the Competition Commission may be able to consult lenders to work out an appropriate level for the cap from the data.

**Table 10.1: Repayments – example**

Principal start of period	Repayment	Principal repayment	Interest repayment	Monthly rate
£300.00	£80.71	£71.71	£9.00	3%
£228.29	£80.71	£73.86	£6.85	3%
£154.43	£80.71	£76.08	£4.63	3%
£78.36	£80.71	£78.36	£2.35	3%
		£300.00	£22.83	

## AREAS FOR CONSIDERATION

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As we are constrained by a lack of data we can now only outline the areas for further consideration.

### Limiting maximum loan size

Larger loans generate more revenue, so there may be a tendency for lenders to increase loan sizes to recoup lost revenue if the TCC is capped. In order to ensure affordability it may be necessary to limit the maximum loan size to a set percentage of income.

### Limiting the number of loans outstanding

Similarly, the cap will have most impact on borrowers' welfare if the number of loans outstanding at any one time is restricted.

### Early Repayment Option

A high proportion of the cost of making small-sum, short-term loans is independent of the term of the loan. If the new cap is low, loans repaid early will not have generated sufficient interest payments to cover the costs associated with making them. There are two ways to allow for this:

Allow penalty charges for early redemption to be levied only on those loans which are actually repaid early. This could potentially lead to borrowers facing a high total cost of credit if they repay early and subsequently take another loan.

Add a margin to cover the value of the embedded option to repay on the cost of every loan. This would raise the level of the cap slightly.

### Refinancing

Although regulation of the traditional 'single pay' payday loan product in the US has increased significantly in recent years, instalment lending has grown outside the scope of that regulation.

There are now concerns regarding the tendency of US lenders to encourage borrowers to 'refinance' instalment loans. A refinancing typically involves a payment from the lender to the borrower of any principal they have paid off a few weeks into the original term of the loan. The loan term is then extended and the repayments continue as before. The borrower frequently ends up with a longer loan involving the repayment of much more interest than they originally signed up for. Sometimes the principal amount is increased above the original amount when the loan is refinanced. In some extreme cases borrowers have been reported finding themselves in a seemingly never-ending cycle of debt. Some lenders have also been reported to impose large fees for missed payments (Hartman 2013).

The instalment loan product has not been the main focus of this research. It would obviously be advantageous for UK regulation to stay one step ahead of these potential pitfalls.

### Correlation between loan size and repayment behaviours

Are small loans repaid more frequently than large loans? If so, is there a case to be made for a tiered cap, with a higher cap in TCC terms for micro-loans (maybe under £100), which would allow lenders to recoup set-up costs on very small loans which would otherwise be uneconomic. This would need to be carefully controlled to avoid borrowers being required to take multiple small loans rather than one large loan in order to circumvent the cap.



## 11. Conclusion

Payday lending is currently causing enormous consumer detriment and harm, often to people who are among the most beleaguered and vulnerable in our society. The UK has the most sophisticated financial services sector ever to exist, yet the OFT found evidence of a borrower who has been so poorly served by that sector that they had rolled the same loan over 36 times.<sup>38</sup>

That borrower is not alone. In 2012 borrowers spent over £900m on payday loans, with £450m spent on loans which were subsequently 'rolled over'.<sup>39</sup>

The evidence presented in this report suggests that existing online payday lending business models are reliant on repeat borrowing for their profitability. Consumer detriment, in the forms of default, repeat borrowing and the taking of multiple loans from different lenders, appears to play a highly profitable role in existing business models. It seems that many payday loans serve only to increase the likelihood of future indebtedness.

Money spent on rollovers flowed out of the hands of people with a high marginal propensity to consume and into the hands of shareholders, company directors and venture

capitalists, all with a much lower propensity to consume. Not only would many payday borrowers have been better off without these loans but our economy would also have been boosted had that money been left in their pockets.

Allowing capital to flow into the development of products which cause consumer detriment also carries a high opportunity cost. True innovation is stifled and products capable of answering consumers' needs cannot be developed. This issue is of increasing importance and relevance to all of us; unless an economic miracle occurs, a growing proportion of our population will need to seek recourse to the high-cost credit sector.

Appropriate regulation has the potential to fix the payday lending market, which is currently failing due to asymmetric information and poor product design. The new cap on the total cost of credit, in particular, could transform this industry.

The FCA now has a unique opportunity to enable the high-cost credit sector to evolve into a sector which is genuinely 'fit for purpose'.

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38. The OFT *Payday Lending Compliance Review Final Report* states, 'In a visit to one large lender, officers found internal file notes debating whether a customer who had rolled over 36 times should be removed from collections and considered for a hardship plan' (Office of Fair Trading 2013d: 4).

39. The OFT found that borrowers spent £860m on payday loans in the period April 2011–March 2012 and that half of this revenue, £430m, was attributable to 'initial' loans which were subsequently 'rolled over' plus 'rollovers'. Large online lenders' financial statements show that revenues continued to grow at a fast pace during 2012. Total revenues are therefore conservatively estimated to have been £900m for calendar year 2012.

## 12. Technical appendix

### THE EFFECTS OF DEFAULTS ON REPEAT LENDING

We now extend the model to incorporate the effects of default. This extended model is not intended to mimic the evolution of a real business or to provide a definitive 'answer', but to provide a structured, logical way to think about the effects default has on profitability and the implications for repeat lending.

Default has the potential to impact on the profitability of a lending business in two ways:

- losses due to default are a cost to the business
- defaults reduce the number of borrowers eligible to take repeat loans

These models deal with repeat lending and not rollovers, which are a special form of repeat lending. We do not comment here on the timescale required for these model businesses to break even.

### CASE STUDY: MATURINGDOSH

#### SCENARIO 1: 20% OF LOANS ARE REPAYED LATE

We use the costs and revenues from Chapter 5.

Total cost per first loan	£104.46
Total cost per repeat loan	£22.01
Discounted revenue per first loan	£35.26
Revenue per repeat loan	£78.35
First loan size	£207.55
Repeat loan size	£345.92

The lender acquires 1,000 new borrowers and grants each one a £207.55 loan (Loan 1).

Total costs are  $£104.46 \times 1,000 = £104,460$

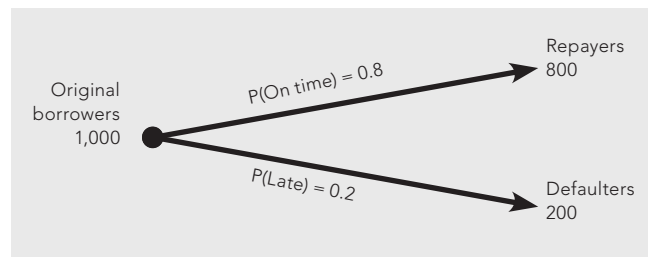
In the Chapter 5 'Customer Acquisition Cost' Case study we assumed that all borrowers repaid in full and on time. This time we assume that the probability of repaying late,  $P(\text{Late}) = 20\% = 0.2$  and the probability of repaying on time,  $P(\text{On Time}) = 1 - P(\text{Late}) = 0.8$ .

At maturity of Loan 1 there are 800 borrowers who repaid on time and 200 borrowers who defaulted.

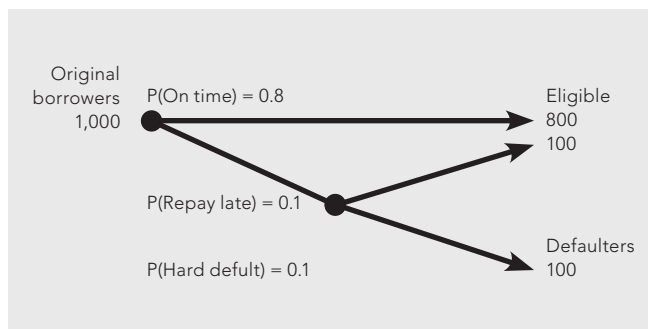
Some payday borrowers who repay late will pay back a large portion of their debt and eventually be re-lent to;<sup>40</sup>

40. For example, Wonga.com's current policy: 'Can I borrow more funds whilst I am in arrears? As a responsible lender we won't allow you to borrow more cash whilst your account remains in arrears. If you settle your outstanding balance we may consider future applications, but continued failure to address the issue will have a serious impact on your trust rating.'

however, some borrowers who repay late will be deemed un-creditworthy and will no longer be eligible for further loans from the lender.



We assume that half of borrowers who repay late suffer a 'hard default' and are excluded from the pool of borrowers.  $P(\text{On Time}) = 0.8$ ,  $P(\text{Repay Late}) = 0.1$ ,  $P(\text{Hard Default}) = 0.1$ .



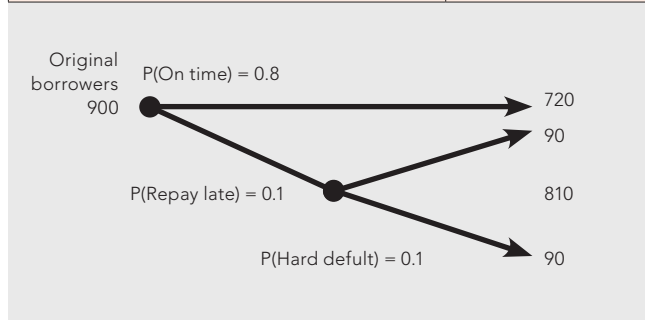
## Case study: continued

Assuming a 65% recovery rate, the costs and revenues associated with Loan 1 are: as follows.

Loan 1	
<b>Cost of making loans (Including CAC)</b>	<b>-£104,460</b>
Principal amount repaid late	£41,510
Interest amount repaid late	£7,052
Recovery rate	65%
<b>Bad debt cost</b>	<b>-£16,997</b>
Revenues	£35,260
<b>Total profit or loss</b>	<b>-£86,197</b>

There are now only 900 borrowers who are eligible for a repeat loan. We repeat the process for Loan 2 with the same probabilities but with the larger repeat loan size used in the Chapter 5 'Customer Acquisition Cost' case study:

Loan 2	
<b>Cost of making loans</b>	<b>-£19,809</b>
Principal amount repaid late	£62,266
Interest amount repaid late	£14,103
Recovery rate	65%
<b>Bad debt cost</b>	<b>-£26,729</b>
Revenues	£70,515
Total profit or loss	£23,977
<b>Cumulative profit/loss</b>	<b>-£62,220</b>

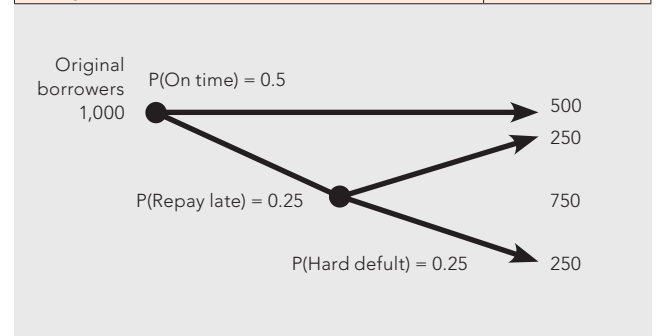


And so on. The extra costs due to losses and the reduction in the numbers of eligible borrowers due to defaults compared to the default-free scenario modelled in Chapter 5 mean that this model lending business does not break even after three loans, but after four loans.

## SCENARIO 2: 50% DEFAULTS AMONG NEW BORROWERS

We repeat the same case study but use different probabilities of default for each loan. In keeping with the evidence gathered regarding new borrowers' high probability of default for Loan 1 we use  $P(\text{On Time}) = 0.5$ ,  $P(\text{Repay Late}) = 0.25$ ,  $P(\text{Hard Default}) = 0.25$ .

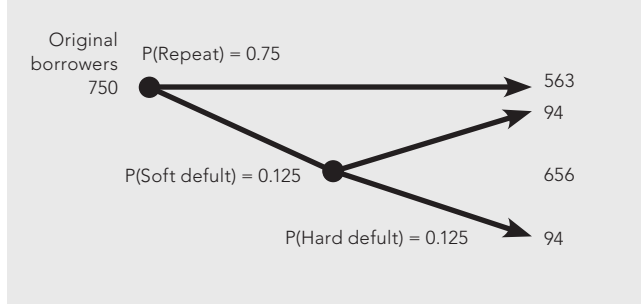
Loan 1	
<b>Cost of making loans (Including CAC)</b>	<b>-£104,460</b>
Principal amount repaid late	£103,775
Interest amount repaid late	£17,630
Recovery rate	65%
<b>Bad debt cost</b>	<b>-£42,492</b>
Revenues	£35,260
<b>Total profit or loss</b>	<b>-£111,692</b>



### Case study: continued

We repeat for Loan 2, as the evidence suggests repeat loans are less likely to end in default we adjust the probabilities using  $P(\text{On Time}) = 0.75$ ,  $P(\text{Repay Late}) = 0.125$  and  $P(\text{Hard Default}) = 0.125$ .

Loan 2	
<b>Cost of making loans</b>	<b>-£16,508</b>
Principal amount repaid late	£64,860
Interest amount repaid late	£14,691
Recovery rate	65%
<b>Bad debt cost</b>	<b>-£27,843</b>
Revenues	£58,763
Total profit or [loss]	£14,412
<b>Cumulative profit/loss</b>	<b>-£97,279</b>



We repeat the same process for all remaining loans but assume the risk of default is now reduced with  $P(\text{On Time}) = 0.9$ ,  $P(\text{Repay Late}) = 0.05$  and  $P(\text{Hard Default}) = 0.05$ .

The higher costs associated with the high levels of early defaults and the faster reduction in the numbers of borrowers eligible for repeat loans mean that this model lending business does not break even until Loan 6 has been repaid.

### SCENARIO 3: EXITING BORROWERS

We have not modelled the scenario under which some non-defaulting borrowers do not take further loans despite being eligible to do so, ie they exit the book of their own volition rather than being excluded by the lender. If the model were extended to incorporate this, the effect would be to reduce the pool of eligible borrowers and therefore the business would require more loans (more repeat lending to non-defaulting borrowers) to break even.

These models are consistent with the general conditions we have been able to observe in lenders' financial statements (high defaults associated with first loans to new borrowers, losses associated with unseasoned, early-stage lending businesses). However, they are extremely crude compared with the advanced statistical models big lenders actually use. These models need data and more computing power!

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