

# BORROWING BEHAVIOUR



A SYSTEMATIC REVIEW FOR THE  
STANDARD LIFE FOUNDATION

Authors: Sara Davies, Andrea Finney, Sharon Collard and Lorna Trend

**AUGUST 2019**



University of  
**BRISTOL**



**Standard Life  
FOUNDATION**

**UNIVERSITY OF BRISTOL**  
PERSONAL FINANCE RESEARCH CENTRE

**This report was prepared by Sara Davies, Andrea Finney, Sharon Collard and Lorna Trend**

Personal Finance Research Centre  
**University of Bristol**

### **Acknowledgements**

This systematic review was funded by Standard Life Foundation  
Our grateful thanks to David Collings for his work on the review and this report.

## Executive summary

**This report details the findings of a rapid evidence review, conducted to understand people's borrowing behaviour and how it impacts their financial wellbeing. It involved a structured, critical analysis of around 150 relevant items and an assessment of their methodological strengths and weaknesses**

### Key points:

- **Income strongly influences borrowing behaviour.** Low-income households are less likely to use consumer credit than those on higher incomes, but more likely to use high-cost lenders when they do borrow, often to make ends meet.
- **Owning assets has some relation to borrowing behaviour.** Homeowners have higher levels of borrowing than non-homeowners; their borrowing is linked to their level of housing assets. However, we lack evidence on the effects of savings on borrowing.
- **Psychological factors shape borrowing behaviour, but not as much as socio-demographics.** There are complex interactions between different psychological factors; and one can mediate (and moderate or amplify) the effects of another. Psychological effects seem less powerful in explaining borrowing behaviour than other personal factors, such as income.
- **Macro-economic conditions play a major role in shaping people's financial situations, their access to borrowing and the cost of borrowing.** Aggregate consumer borrowing rises when macro-economic conditions are good and falls when they deteriorate. At firm level, credit card design and marketing (such as credit limit increases and zero-interest offers) encourage borrowing. Speed, convenience and easy access attract borrowers to use high-cost credit, particularly where they have few other credit choices.
- **Lower financial literacy is linked to poor borrowing behaviours and over-indebtedness.** There are concerns young people, with lower financial capability overall, are particularly at risk from poor borrowing decisions. The evidence is weak regarding the impact of financial literacy programmes (which tend to focus on financial knowledge) upon financial behaviour.

## Contents

1	Introduction.....	1
1.1	Methods.....	1
1.2	Quality Assessment.....	3
1.3	This report.....	3
2	An overview of UK borrowing.....	5
3	Socio-economic factors that shape people’s borrowing behaviours.....	6
3.1	Income and borrowing.....	6
3.2	Asset holding and borrowing behaviour.....	10
3.3	Age.....	12
3.4	Gender.....	13
3.5	Ethnicity.....	14
3.6	Other factors.....	15
4	Psychological factors that shape people’s borrowing behaviour.....	16
4.1	Personality traits.....	16
4.2	General impulsivity and self-control.....	18
4.3	Spending self-control and spending orientation.....	19
4.4	Perceptions of time.....	22
4.5	Perceptions of self.....	24
4.6	Social influence.....	25
4.7	Other motivations.....	27
4.8	Cognitive capacity and bias.....	28
5	Financial literacy, financial capability and borrowing behaviour.....	32
5.1	There are links between financial literacy, borrowing and over-indebtedness.....	32
5.2	Young people require help to make good borrowing decisions.....	33
5.3	Financial education alone is unlikely to change people’s borrowing behaviour.....	33
5.4	Interventions may be more effective if they focus on psychology and behaviour ..	34
6	What external factors shape people’s borrowing behaviour?.....	36
6.1	Macro-economic conditions.....	36
6.2	Marketing.....	37

6.3	Product design: high-cost credit .....	38
6.4	Product design: Credit cards .....	39
6.5	Digital transformation of financial services .....	41
7	How does borrowing behaviour impact financial wellbeing? .....	43
7.1	Borrowing impacts on subjective financial wellbeing.....	43
7.2	Borrowing, particularly overborrowing, impacts on material financial wellbeing ...	44
8	What factors could protect against poor borrowing behaviours and potentially improve financial wellbeing? .....	47
8.1	What borrowing behaviours are linked to better financial wellbeing?.....	47
8.2	Significant evidence gaps .....	51
9	References .....	53
	Additional contextual references (not reviewed).....	64
10	Appendix .....	67
10.1	Search Terms .....	67
10.2	Non-academic search locations.....	69

# 1 Introduction

This systematic review was commissioned to help inform Standard Life Foundation's strategic plan, which focuses on improving financial wellbeing in the UK. The principal aim of this report is to provide a critical overview of the empirical research related to consumer borrowing behaviour; to highlight the strengths and weaknesses of the existing evidence; and to identify gaps in the evidence base. In line with Standard Life Foundation's strategic aims, we have drawn out conclusions that are pertinent to understanding the effect of income, of how income is spent, and levels and types of assets on borrowing behaviour.

The review had the following key objectives:

- To understand whether and how consumer borrowing behaviours influence wellbeing
- To discern the role financial capability has, if any, in borrowing behaviour
- To identify the personal factors (i.e. demographic, socio-economic and psychological characteristics) that influence borrowing behaviour
- To understand the role of external factors (e.g. the nature of the credit market) in influencing borrowing behaviours
- To identify the main factors that protect against poor borrowing/repayment behaviours and potentially improve financial wellbeing.

Where possible in the review, we distinguish between the behaviour of *taking out* borrowing and that of *repaying* borrowing, to help understand the factors that are important at different stages in the borrowing 'lifecycle'.

## 1.1 Methods

We conducted a Rapid Evidence Assessment to address the research objectives outlined above. Rapid Evidence Assessments are an established approach to the systematic review, synthesis and critical appraisal of literature when the time needed to conduct a full, systematic review is not available. It is particularly well suited as an approach to social policy questions, such as those posed here and, critically, is suited to evidence which uses a range of quantitative and qualitative research methods. Reflecting the established method, we undertook a targeted, thorough and reproducible search of the literature, combined with a systematic approach to mapping, assessing, analysing and synthesising the evidence collected. We provide below an overview of these methods. Full details are provided in the Appendix.

### 1.1.1 Scope of review

We had four core eligibility criteria for including items in the review (and these were the main grounds for excluding items from the review):

- The study should be about formal consumer borrowing behaviour (excluding student loans), not over-indebtedness or problem debt
- It should be an empirical quantitative or qualitative research study, an intervention evaluation, a literature review or meta-analyses
- It should be recent, published from 2008 onwards
- It should provide evidence about the UK population or originate in a country that is like the UK.

### 1.1.2 Search strategy

In order to include as many relevant studies as possible and to minimise selection bias, our search strategy included academic data sources (e.g. academic bibliographic databases) and non-academic sources (e.g. website searches of key UK public policy and financial organisations, think tanks, research centres, the Financial Capability Evidence Hub).

As a result, the review draws on a wide-range of types of evidence, such as academic peer-review journal articles and working papers; research reports produced by government, regulators, think-tanks, non-profit and for-profit organisations; evidence and reports from government committees and consultations; international reports and evidence produced by organisations such as the World Bank, OECD, and European research institutes.

To conduct a systematic search of data sources, we developed a list of keyword search terms (see Appendix for full list). We identified three key terms: **borrowing**, **credit** and **debt** that were applied in conjunction with one or more other search terms, chosen to cover the main areas of interest. We narrowed down the search further based on our core eligibility criteria (described above). **In total we assessed 375 items as potentially relevant, comprising 310 academic papers and 65 reports from the non-academic 'grey literature'.**

### 1.1.3 Screening and mapping

Having identified potentially relevant items through our search strategy, we then screened the 375 items with close reference to our research questions. From this we identified 243 academic papers and 43 grey literature reports that we reviewed in more detail. During this process, we excluded a further 137 papers mainly on the basis that they were out of scope; they were duplicates; or in a few cases we were unable to access a full copy. **This left us with 149 items for which we conducted a full critical review.** Key details from these items were mapped in a consistent and transparent way using a structured review protocol, including a summary of findings, research methods, an assessment of quality of the paper, context and limitations.

Throughout the report, we have drawn on other evidence to provide contextual information, such as levels and types of borrowing in the UK (Chapter 2).

## 1.2 Quality Assessment

A key part of this systematic review was to assess the quality of the evidence that we identified for inclusion. We assessed and recorded the methodological strengths and weaknesses of each piece of evidence, which was then considered in the analysis and reporting.

For papers that were subject to a full critical review, we assessed their quality on a three-point scale, where three points meant there were no concerns about the quality (i.e. high quality); two points meant there were some concerns about the quality (i.e. medium quality); and one point if there were serious concerns (i.e. low quality). The quality rating was based on criteria including the suitability of the research methods; the size of the sample and whether it was appropriate to the research methods; the representativeness of the sample; the validity of the analysis; and how the findings had been interpreted.

**Of the 149 pieces of evidence that were subject to a full critical review, we graded 87 as high quality, 57 as medium quality, and five as low quality.**

We also assessed the evidence for its relevance against our research questions, again on a three-point scale. The evidence was assessed on how pertinent it was to the research question, (primary, secondary, or tertiary) and how much evidence it lent to the questions (substantial, moderate or weak). These were combined, in half point scales, to give a score for relevance out of three. We found more of a spread in terms of the relevance of the evidence we reviewed, nonetheless **around two thirds of the papers scored two or three (i.e. they were at least moderately relevant in helping to answer the research questions).**

We summarise the quality and relevance of the evidence throughout the report. The Appendix gives a breakdown of the evidence by methodology, geography, relevance and quality.

## 1.3 This report

To put this systematic review in context, in **Chapter 2** we provide an overview of UK borrowing which describes the number of people in the UK who use consumer credit and the types of credit they use.

**Chapter 3** analyses the evidence about the socio-economic factors (income, asset holding, age, gender and ethnicity) that shape people's borrowing behaviour.

**Chapter 4** considers the evidence about the relationship between psychological factors (personality traits, self-control and spending orientation, self-perceptions, social cognition and cognitive bias) and borrowing.

**Chapter 5** looks at the evidence regarding financial literacy, financial capability and borrowing behaviour, including the effectiveness of interventions that seek to encourage good borrowing behaviour through better financial literacy and capability.

**Chapter 6** moves away from individual-level factors to consider the evidence about four external factors that shape people's borrowing behaviour: (1) macro-economic conditions;

(2) consumer credit marketing; (3) product design; and (4) the digital transformation of financial services.

**Chapter 7** uses the evidence to examine the relationship between borrowing behaviour and financial wellbeing, looking at both subjective and material wellbeing.

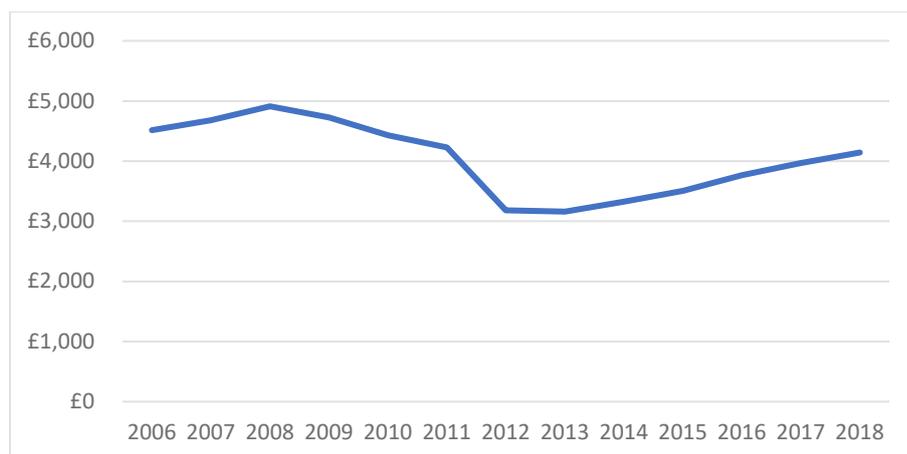
**Chapter 8** brings together the evidence from the review to consider what factors might protect against poor borrowing behaviour and potentially improve financial wellbeing.

## 2 An overview of UK borrowing

According to the FCA's Financial Lives survey, **75% of UK adults holds one or more credit or loan product<sup>1</sup>** (or has done in the last 12 months), which equates to roughly 38 million adults. Removing adults who only have credit or store cards or catalogue credit (or a combination of these) that they pay off in full every month or most months, this leaves 46% of adults (23 million people) who the FCA describes as *users* of consumer credit (FCA, 2018a).

In terms of the amounts owed by consumer credit users, at the end of October 2018, **average consumer credit borrowing stood at £4,140 per UK adult, equivalent to 15% of average earnings** (The Money Charity, December 2018). As Figure 1 shows, consumer credit borrowing has been on the rise since 2013 (when the equivalent figure was £3,160). However, the annual growth rate of consumer credit has been slowing gradually since the end of 2016, reflecting weaker flows of new lending (Bank of England, 2018), which in turn may be due to factors such as tighter regulation and economic uncertainty.

Figure 1 Average consumer credit borrowing, £ per adult



Source: Authors' analysis of *The Money Statistics* 2006-2018, based on figures published by The Money Charity in December of each year. *The Money Statistics* archive is available at <https://themoneycharity.org.uk/money-statistics/>

**Credit cards** are the most common credit product, held by 62% of UK adults. However, only 19% of UK adults use credit cards as a credit facility (i.e. they don't pay back the balance in full every or most months). We see a similar pattern for other revolving credit facilities, with ownership higher than credit use. Once we take into account these patterns of use, the most commonly used credit product becomes an **overdraft**, used by 25% of UK adults, followed by **credit cards** (19%), **personal loans and retail finance<sup>2</sup>** (both 12%), and **motor**

<sup>1</sup> These are credit or loan products that fall under FCA regulation. The numbers exclude Student Loan Company loans, loans from friends or family or loans from unregulated lenders.

<sup>2</sup> Retail finance includes catalogue credit, store cards and other retail credit.

**finance** (10%). Around one in twenty (6%) UK adults, or 3 million people, have a **high-cost loan** now or have had one in the last 12 months.

### 3 Socio-economic factors that shape people's borrowing behaviours

This chapter focusses on the influence that socio-economic factors have on borrowing behaviour. It considers the evidence about the influence of income and assets on borrowing behaviour before looking at how borrowing varies by age, gender and ethnicity. While all these factors are in some way correlated, we focus on the independent effects of these socio-economic factors where possible.

There is a large body of mostly good-quality evidence on the socio-economic factors that shape people's borrowing behaviour: around half of the 149 items we reviewed provided relevant information. There was most evidence on the effect of income (31 items), which focuses mainly on the interactions between living on a low-income, borrowing for essentials and using high-cost credit. Regarding assets, there are shown to be strong links between housing tenure and borrowing both in terms of the amount of borrowing and the types of credit used; but surprisingly little recent exploration of the links between saving and borrowing. There is worrying evidence about the growth and nature of young people's borrowing behaviour. There is limited evidence on gender and ethnicity which mainly focuses on the intersection with income.

#### 3.1 Income and borrowing

**Evidence base:** There is a large body of relevant evidence about the relationship between income and borrowing. It mostly comprises high-quality quantitative studies carried out in the UK and the US. The evidence is particularly strong regarding borrowing among low-income households. The definitions of low-income vary between studies, for example some defined it with reference to income quartiles or median income. We found no recent studies that compare in detail the differences in borrowing behaviour by income; or patterns of borrowing over time by income.

**Key findings:** Low-income households are less likely to use consumer credit than those on higher incomes. When they do borrow, it is often to make ends meet and pay for essentials; and they are more likely to use high-cost lenders. In general, loss of income is a key trigger for difficulty in repaying borrowing. There is little evidence about loss of income as a trigger for taking on new credit.

##### 3.1.1 Low-income households are less likely to use consumer credit than those with higher incomes

This finding is based on five good-quality quantitative studies that looked at consumer borrowing behaviour in the UK, US, Germany and Italy. The evidence shows that economic and financial factors (including income) exert strong influence on consumer borrowing, even accounting for personality traits (37; UK). **In the UK and elsewhere, levels of consumer**

**borrowing are lower among lower-income households; and consumer credit use generally increases as household income increases** (35 [US/UK/Ger](#); 62, [UK](#)). For example, quantitative data gathered in Germany, the USA and UK, shows that in all these countries consumer credit use is lowest amongst households in the bottom total household income quartile (35 [US/UK/Ger](#)). In the UK, consumer survey data shows that 38% of adults with household incomes less than £15,000 per year are credit users, compared with 56% of adults in the household income bracket £30,000-£50,000 and 55% with household incomes of £50,000 or more (FCA, 2017a [UK](#)).

Linked to this, there is evidence from one study in Italy that the probability of having consumer credit is significantly lower for unemployed people; although apart from unemployment, it was asset-holding rather income that (weakly) predicted probability of consumer credit holding (111 [Italy](#)).

Although they borrow less, low-income households are at more risk of financial difficulties from their debt burdens (35 [US/UK/Ger](#); 111 [Italy](#)). Borrowers with higher-income are likely to experience fewer problems repaying what they owe, for example one US study of credit card holders shows that credit card ‘transactors’ (who repay their balance in full each month) tend to have higher incomes (124 [US](#)).

### 3.1.2 Low-income borrowers use consumer credit to make ends meet

There is evidence from four good-quality studies that low-income households may use borrowing (particularly high-cost credit), to pay for essentials such as food and household bills. For example, UK qualitative research with people on lower incomes identified a group of ‘**survival borrowers**’ who have household incomes under £25,000 and use consumer credit to supplement insufficient incomes (64 [UK](#)). This group tends to report using high-cost credit, Social Fund loans, informal loans and credit union loans rather than mainstream credit. The same study cited findings from a competition investigation into payday lending that found 70% of these high-cost loans were taken out for everyday essentials.

Similarly, one online survey of young adult users of instant SMS loans in Finland (i.e. loans by text message) suggests that lower-income young borrowers were more likely to use the loan to buy necessities such as buying food or paying bills (13 [Finland](#)). In the US, analysis of household consumption data concluded that increases in debt in lower-income households was largely due to paying for housing (46 [US](#)).

While student loans were outside the scope of this review<sup>3</sup>, one US survey (142 [US](#)) found that parents in high-income households were more likely to take on child-related educational debt than those in low-income households; and take on more debt for this

---

<sup>3</sup> In the UK, student loans are the main method of direct government support for higher education students. Money is loaned to students at a subsidised rate to help towards their maintenance costs and to cover the cost of tuition fees. The Government expects that 30% of current full-time undergraduates who take out loans will repay them in full (Bolton, 2019). As the behaviours around student loans are so different to other credit products, it was agreed with Standard Life Foundation that they were outside the scope of this review.

purpose. This suggests that, where borrowing is required to purchase social goods such as education, young people from lower-income households may lose out.

### 3.1.3 Low-income borrowers are more likely to use high-cost credit than those with higher incomes

There is solid quantitative evidence from the UK and US (in the form of 12 good-quality studies) that **borrowers from low-income households are more likely to use high-cost credit** (such as payday loans, rent to own, home credit) than higher-income households (117 UK; FCA, 2017a UK; 113, US; 98; US). For example, UK households in the lowest income quintile, and those for whom social security benefits replace earnings, are significantly more likely to use short-term, non-mainstream credit (FCA, 2017a). There is some survey evidence that use of high-cost credit increased between 2011 and 2012 among UK households with the lowest incomes (below £13,500) (cited in 64 UK).

Conversely, there is a positive correlation between credit card borrowing and a higher household income (5, UK/ US, 104 SCOT/UK) and consumer credit more generally (142 US, 35 US/UK/Ger, 62, 144 UK). However, **so-called mainstream credit products like overdrafts can be costly**, and the costs are often paid by lower-income borrowers. Consumers in more deprived areas of the UK (who tend to have lower incomes), for example, are 70% more likely to use costly unarranged overdrafts than other consumers (FCA, 2018b UK).

Qualitative and quantitative evidence explains the reasons why lower-income households use high-cost credit products, which can be summed up as:

- Real or perceived lack of other, better options
- High degree of certainty about credit access, speed and convenience
- Affordable and flexible repayments
- The lenders are 'known quantities' e.g. because friends or family also borrow from them (148 UK; Davies et al, 2016 UK)

At the same time, it is important to note that not all low-income households borrow, and not all of those who borrow use high-cost credit. Qualitative research found that the lowest-income households tried to avoid payday loans because of their high cost and the perceived dangers of loan rollovers (where loans are refinanced) (64 UK).

### 3.1.4 Income shocks are a key trigger for repayment problems and financial difficulty

While the focus of this review is borrowing behaviour rather than over-indebtedness, we found strong evidence about the impact of income shocks on repaying borrowing, comprising 10 good-quality studies from the UK and US, seven of which draw on quantitative data.

**Qualitative evidence from the UK indicates that an income drop is often a trigger for payment problems and problem debt.** There is some indication that this can be more problematic for low-income households, for example with problems servicing debt that had been taken out in the past (64; 48 UK). This vulnerability to income shocks is noted in

several quantitative studies. **Low-income mortgage borrowers with consumer debt are shown to be the most vulnerable if interest rates rise:** nearly half (45%) of the poorest fifth of households demonstrate one marker of debt distress already and one-fifth of low-income groups have a high debt servicing ratio (144 UK). There is also a strong relationship between the experiences of recession-related problems, such as becoming unemployed and increased vulnerability to debt and financial difficulty (114 UK). Those who experienced a financial shock in the last 6 months were more likely to be over-indebted (78 UK).

**Income shocks can also push people into higher-cost lending,** evidenced by a US study that showed people who had experienced an income shock were more widely using rent to own credit than those who hadn't (113 US). Analysis of consumer expenditure data (59 US) found that access to **payday lending can mitigate a decline in spending after a crisis** (i.e. payday loans helped maintain the prior standard of living), and the benefits were concentrated in those with limited access to alternatives, including low-income households. The study also found that if used in periods of non-crisis, payday loans can reduce material wellbeing. As the author notes, this supports other empirical work showing that payday loans lead to greater financial difficulties for households (although how this detriment comes about is not discussed).

There is some evidence that households try and guard against the impact of income shocks through precautionary credit card borrowing. Economic modelling using US data showed a **strong correlation between households that were potentially at risk of significant temporary income drops and borrower-saver behaviour (where they have both credit card debt and liquid savings)** (61 US). An analysis of online responses to hypothetical spending situations also found a reported tendency to use high cost credit to preserve savings, however there was no difference by household income (134 US).

In an effort to understand the social meaning of debt and its impact on debt repayment, a large-scale qualitative study found that **families were reluctant to ask for assistance when getting into financial difficulty because it undermined their self-identity as financially responsible and self-sufficient** (137 US). They identified three different debt narratives that resulted in different responses in terms of debt repayment. The first narrative 'making ends meet' was considered part of juggling basic costs. The second narrative 'injustice' saw debts as unfair and often ignored (with overdraft fees as an example). Debt narratives around 'economic mobility' meant that these debts were prioritised because they were perceived as a route to a better life. While the study was conducted with low-income households, these narratives may also hold true for higher-income households.

**Implications for policy and practice:** The evidence suggests that interventions to promote income adequacy and/or curb excessive living costs (such as housing and utility costs) may have a positive 'downstream' impact by reducing the need for lower-income households to borrow for essentials. To be effective, efforts to deliver affordable credit alternatives to

high-cost credit should be designed around low-income borrowers' needs, preferences and behaviours, for example regarding product features.

### 3.2 Asset holding and borrowing behaviour

**Evidence base:** There is a good quality evidence base for asset holding and borrowing behaviour but the insights it provides are restricted mostly to housing wealth. There is limited evidence about the effect of savings on borrowing. We identified 15 relevant studies that mainly originate from the UK and US; 11 of these 15 studies used quantitative research methods.

**Key findings:** It is well-evidenced that homeowners have higher levels of borrowing than non-homeowners; and their borrowing is linked to their level of housing assets. **We found little evidence about the effect that (liquid) savings have on borrowing behaviour,** although studies have noted the importance of developing a savings pot and how a lack of savings can increase vulnerability to debt problems.

3.2.1 There is a strong link between home ownership and levels of consumer debt. In the UK, adults buying their home are more likely to be credit users than renters (62% vs. 53%) (FCA, 2017a). The evidence demonstrates a strong link between asset holding (notably home ownership) and consumer debt (55, NZ; 104, SCOT/UK; 35 US/UK/Ger), even controlling for income. Analysis of the British Household Panel Survey showed that the households with the lowest household incomes had the lowest levels of financial assets and the lowest debt levels (35 US/UK/Ger).

In New Zealand, a positive association between non-mortgage debt and house prices was evident, once other factors had been accounted for (55 NZ). Analysis of Canadian survey data found the relationship between non-mortgage debt and stronger house prices was stronger among those in the middle and older age groups; that they would take on more debt if house prices rose (92 Canada).

Indeed, according to the OECD, **residential property prices are the single most important predictor of aggregate household debt to income ratios.** Over the period 1995 to 2007, they explain between 19% and 27% out of the total 44% increase in the debt to income ratio (132 OECD). UK analysis of housing wealth and unsecured debt in the period 1995 to 2005 showed that for most households, house price movements appear to have little impact on indebtedness. However, households that were borrowing-constrained by a lack of housing equity as collateral made greater use of unsecured debt such as credit cards or personal loans. In response to rising house prices, which relaxed this constraint, these households were more likely to refinance (56 UK).

There is some evidence that challenges the links between assets and borrowing, at least for certain groups of people. One study with asset management employees found a significantly lower probability of having consumer credit among those with more wealth (111 Italy). Another (with customers of banks, traders and asset managers) found that financial wealth

was not a significant predictor of debt service to income ratio after controlling for financial literacy, impulsivity and socio-economic factors (112 [Canada](#)). The differences may be due to the samples used in these studies.

### 3.2.2 Renters are more likely to use high-cost credit

For those without any housing assets, the picture is very different. **Controlling for other factors (including income), housing tenure is found to be the strongest predictor of borrowing from high-cost lenders, with renters most likely to use this form of credit** (117 [UK](#)). As with lower-income households, renters are at most risk of financial difficulty through borrowing (64 [UK](#)).

### 3.2.3 Where homes are at risk, US homeowners may prioritise consumer debt repayment

There is some evidence that homeownership can influence debt repayment behaviour, in cases where homeowners are at risk of losing their home. This evidence relates to the US, which has different mortgage products to the UK.

Prior to 2008, US homeowners were eight times more likely to prioritize payments on mortgage debt over credit card payments. After the global financial crisis, similar consumers became as likely to default on mortgage debt as credit card repayments, according to one longitudinal study. The risk of mortgage default increased as levels of equity decreased, and when homeowners lacked the liquidity to pay their mortgage (SD 38 [US](#)).

A further study analysing credit reference data showed that homeowners who suffered a negative income shock were more likely to default on mortgage repayments if the mortgage payment was large, or if they were in negative equity (particularly if they had a non-recourse home loan where the borrower does not have personal liability for the loan). Larger unused credit card limits were associated with lower rates of credit card default. The study concludes that **payments are prioritised in such a way as to preserve access to credit**. However, once homeowners had defaulted on their mortgage (but remained in the house) for longer than nine months, there was an increased risk of credit card default.

### 3.2.4 Assets can allay the need for consumer borrowing for unexpected events or in old age

There is some evidence from the US and Australia (which have different state welfare and health systems to the UK) that asset holding can protect against the need to use consumer credit for unexpected events or in old age – and conversely that low asset holding may leave people with no option but to borrow.

In a US study, people from low-asset households were more likely to accrue unsecured debts to deal with an adverse health event, and the negative effect of that debt could be long-lasting (14 [US](#)). In a study of Australians aged 55 and older, those who did not own their home were found to be at greater risk of housing affordability stress (defined as self-reported difficulty paying shelter or utilities costs on time within the last 12 months), even accounting for other factors (138 [Aus](#)).

**We found little evidence about the effect that (liquid) savings have on borrowing behaviour**, although studies have noted how a lack of savings can increase vulnerability to debt problems (104 SCOT/UK), and the importance of developing a savings pot (38 UK). An evaluation of a government funded loan scheme found that one third of low-income households who successfully applied for a loan were regularly saving afterwards, compared with only nine per cent of unsuccessful applicants (49 UK). It was not clear what impact these savings had on their borrowing behaviour, however.

**Implications for policy and practice:** The evidence demonstrates that the interaction between assets and borrowing is not straightforward, which has implications for the design and testing of interventions. For example, while we might assume that efforts to boost saving will reduce people's need or desire to borrow, there is little evidence to show this happens in practice. The evidence also suggests that privatization of health and welfare may increase the need to borrow among people with few or no assets (particularly in the absence of good-quality, affordable insurance).

### 3.3 Age

**Evidence base:** There is strong evidence about how levels of borrowing vary by age, but very little about why young people start borrowing; or how and why patterns of borrowing change over the life-cycle. The evidence comes from 15 studies that (apart from two literature reviews) use quantitative research methods. The studies mainly originate in the US and UK.

**Key findings:** Borrowing increases with age, typically peaking when people are in their 30s and 40s and then declines. Compared to previous cohorts, young people nowadays borrow more as debt becomes normalised. At the same time, young people are vulnerable to poor borrowing decisions resulting in outcomes such as repayment difficulties and problem debt.

#### 3.3.1 Borrowing increases with age, up to a point

The consensus is that **the proportion of people in each age group who borrow increases with age, up to a point**. In the UK, 42% of young people aged 18 to 24 are credit users and this rises to 62% among 35-44 year olds before declining with increasing age, down to 14% of adults aged 75 or older. The amounts borrowed in consumer credit tend to follow this pattern as well (FCA, 2017a). Similarly, a US study of credit card use found that once people reach their thirties, credit card holding increases, debt builds and borrowers are more likely to reach their credit limits (63 US). The exception is one study that used pre-2008 data to look at household debt in Britain, the US and Germany. In Britain, it found that average total household debt (in monetary terms) was larger for younger households than older households (35 US,UKGer).

#### 3.3.2 Each cohort of young people borrows more than the last as debt becomes normalised

One US study found that **over time, each cohort of younger people borrows more than the previous one, with a shift away from mortgage debt to unsecured consumer borrowing, as well as student debt** (87 US). This supports the idea that debt is becoming normalised over

time among younger people (86 UK; 39 Aus), with an increased worry over debt levels as a result of large credit card debts, retail finance and payday loans. Patterns of borrowing among young people are nuanced, however: in Finland 18-23 year olds were shown to use small, instant SMS loans more than 25-29 year olds, who had higher levels of credit card use (13 Fin).

We found little evidence about *why* young people take out credit for the first time. In a 2016 survey, the Money Advice Trust found that 37 per cent of 18 to 24-year olds had some form of borrowing; it noted that the first application for consumer credit may be a good opportunity to offer support to young borrowers to help them understand credit and debt (109 UK).

### 3.3.3 Young people are more vulnerable to poor borrowing decisions and outcomes

While it is the young and the elderly who make the most financial mistakes and have the lowest levels of financial literacy (Argarwal et al, cited in 101 UK/Neth), **the evidence raises concerns that young people are more vulnerable to poor borrowing decisions**, which may adversely impact them in a range of ways, including debt-related stress (35 US/UK/Ger, 114UK, 124 US).

Based on an analysis of transaction data, older people are marginally less likely to overspend, miss a payment or get into financial difficulty (125 US). Age is a significant factor in the rates at which borrowers pay down credit, with younger people making repayments 24 per cent lower than their parents and 77 per cent lower than their grandparents. (5 UK&US). Younger people are also more likely to default on mortgage debt before credit card debt than older people (10 US). However, a study comparing students with young professionals noted that despite greater knowledge, young professionals were more likely to select a credit card on impulse than students, although greater knowledge did lead to better credit choices overall (39 AU).

**Implications for policy and practice:** The evidence makes a strong case for interventions that support young people to make good borrowing decisions. Chapter 5 looks at the evidence around effective interventions, which is generally weak.

## 3.4 Gender

**Evidence base:** There is relatively little evidence specifically on gender and borrowing, although what exists is good quality. One reason is that consumer borrowing is generally accounted for at a household level, which inhibits our understanding of gendered behaviours and intra-household dynamics. What evidence there is focuses mainly on single parents who tend to be women (ONS, 2017) and often on a low income (DWP, 2017). We identified six studies that discussed gender and borrowing, four of which used quantitative methods. The evidence is mainly UK-focused.

**Key findings:** Women are more likely to use some forms of high-cost credit more than men, attracted by specific product features. They can be susceptible to financial difficulties due to

factors including high debt levels (compared to income), low financial literacy and impulse buying.

#### 3.4.1 Women are more likely to use some forms of costly credit than men

In the UK, men and women are equally likely to use consumer credit. However, women (and single parents in particular) are more likely to use home credit than men (17 UK, 148 UK). The long-established product has attractive features such as weekly repayments that are designed to fit with borrower's budgets; loans that are taken out and repaid in the home; and no late payment charges. Among the downsides are the high cost of borrowing and the risk that loan agents encourage further borrowing. In Finland young single parents were found to be more likely to use small instant SMS loans (13 Fin).

#### 3.4.2 Women can be susceptible to financial difficulties for various reasons

Piecing together evidence from various studies, women may be susceptible to high debt and financial difficulties for a range of reasons. The evidence is rather thin, however.

Analysis of pre-2008 data shows that household debt in the UK, US and Germany is higher for female-headed households, although it is unclear whether these are two-adult or one-adult households (35 US/UK/Ger). UK analysis shows that single parents are disproportionately more likely to report financial difficulty (114 UK).

Amongst college age students in the US whose parents paid their debt, women scored significantly higher on a standard test of compulsive buying than men (30 US). Overall, the evidence suggests that financial literacy levels are lower among women and women are less likely to use technology to engage with financial information (17 UK).

**Implications for policy and practice:** The evidence indicates there are important gender differences in borrowing behaviour that should be considered in the design and implementation of interventions to support good borrowing behaviour (or deal with debt problems when things go wrong). While not covered in this review, intra-household dynamics may also impact borrowing behaviour, for example where women or men are coerced to borrow by a partner.

### 3.5 Ethnicity

**Evidence base:** We found limited evidence of the effects of ethnicity on borrowing, and what evidence there is largely focuses on the US.

**Key findings:** The evidence suggests that black and minority ethnic borrowers have similar borrowing patterns to lower-income households, with similar exposure to risk.

In the US, Germany and UK, pre-2008 data shows that having a non-white head of household decreases the level of both assets and debts (35 US/UK/Ger). Controlling for income and housing tenure, people from black and minority ethnic groups are found to be more likely to use rent to own products (113 US); and are especially adversely affected by debt stress (African Americans in particular) (124 US).

Regarding 'productive' borrowing, black parents in the US are more likely to take on child-related educational debt than white parents (142 US), which may in turn be linked to these parents' lower income and assets (i.e. their non-credit options are constrained).

**Implications for policy and practice:** A better UK evidence base around ethnicity and borrowing would help inform the design and implementation of interventions. The US evidence suggests this should be a priority.

### 3.6 Other factors

The influence of other factors such as health or family situation on borrowing behaviours are not well evidenced. Regarding paying for health care, one US study found that **people with multiple health issues were more likely to have higher consumer debt, lower income and lower assets**. Increased out-of-pocket expenses and insurance deductibles, and upfront payments may also mean payments by credit card (14 US).

In the UK, people with **long-term health problems or disabilities** are more likely to experience financial difficulty (114 UK), which may well be linked to low income as a result of these issues. There are also links between the use of high-cost credit, unemployment and receipt of disability benefits (148 UK).

Few studies comment directly on **the effect of children** on borrowing behaviour, although some did look at the effect on debt levels of having children in the household. One study found that having more children in a household resulted in lower assets but had no effect on debt (35 US/UK/Ger). A Norwegian study highlighted a substantial increase in bankruptcy applications from families with children between 2004 and 2011 (119 Norway). One study (with asset management employees) found that neither age, children, or gender were predictive of the probability of having consumer credit among that group (111 Italy).

**Implications for policy and practice:** A better UK evidence base around these other factors would help inform the design and implementation of interventions, including how these factors intersect with income, assets, age, gender and ethnicity.

## 4 Psychological factors that shape people's borrowing behaviour

This chapter focusses on the diverse range of psychological factors that influence individuals' borrowing behaviour, such as personality traits; individuals' ability to control their spending; how they perceive themselves, other people and the social world; and the mental short-cuts they make that can lead to biases in how they behave.

There is a large, good quality evidence base about psychological factors that shape borrowing behaviour, comprising around one-third of the total evidence we reviewed (54 of the 149 studies). Much of it focuses on the US (21 of the 54 studies) and the UK (12 studies); the rest originates from different countries in Europe, the Asia-Pacific region and Canada. Most of the evidence uses quantitative research methods. A few studies are based solely on research with university or school students, but these are the exception.

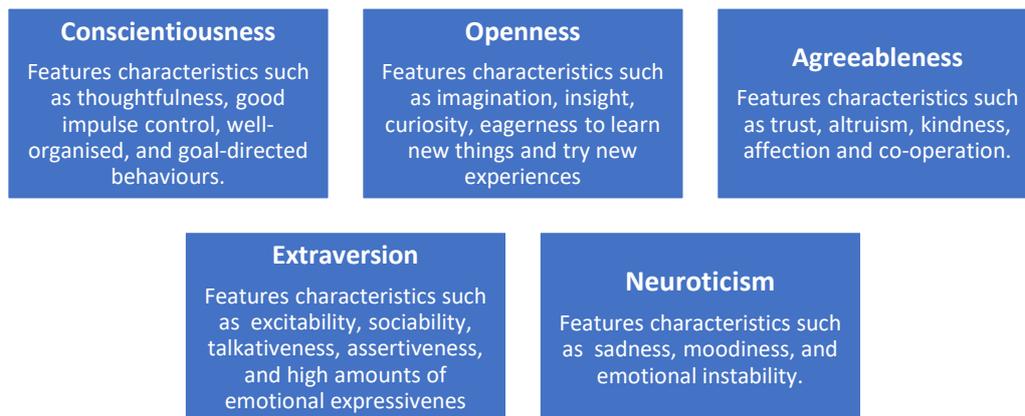
Overall, the findings emphasise the importance of acknowledging the many interactions between psychological factors and the capacity for one to mediate (and moderate or amplify) the effects of another. The evidence also suggests that the power of psychological effects to explain borrowing behaviour may be less important than other personal factors, especially income and other socio-economic characteristics.

### 4.1 Personality traits

**Evidence base:** There is only a very limited body of evidence which explores the role of the core personality traits on borrowing behaviour; we found only three in-scope papers. However, the evidence these papers present is strong and clear about the effects of the personality traits. All studies were quantitative and based on survey research and were drawn from the UK and US.

**Key findings:** Conscientiousness is a protective factor in borrowing behaviour; it is associated with lower levels of unsecured borrowing. Conversely, having an underlying personality trait that is extraverted, open to experiences and agreeable in nature predicts that people are more likely to have unsecured borrowing and to have more of it. Other studies tentatively suggest that personality is not as important as income and that its importance is weakened when people's behaviours (such as their approach to money management) are also considered.

Figure 4.1 The 'Big Five' core personality traits



Source: Cherry, K. (no date). *The Big Five Personality Traits* [online]. Retrieved from <https://www.verywellmind.com/the-big-five-personality-dimensions-2795422>

#### 4.1.1 Having a conscientious personality leads to less borrowing

The core personality traits which are most established and well-known in psychology are the 'Big Five' personality traits: conscientiousness; openness to experience; agreeableness; extraversion (or introversion); and neuroticism (or emotional stability) (Figure 4.1). The existing research, as it relates to borrowing behaviour, is sparse but robust.

Solid evidence comes from an analysis of the British Household Panel Survey, in which extraversion, agreeableness and openness to experience were all related to higher borrowing sums, independently of a range of other factors. For individuals, the largest effect was from extraversion. Across couples, agreeableness was strongest. Conversely, **conscientiousness predicted lower unsecured borrowing** in both samples. The effects for each of these traits were large and highly significant (37, UK); for example, a one-standard deviation increase in agreeableness across couples predicted a 22-percentage point increase in levels of unsecured borrowing, while a one-standard deviation increase in conscientiousness predicted a 23-percentage point decrease in the sums owed.

Extraversion, agreeableness, openness and neuroticism also positively predicted having any borrowing commitment; with conscientiousness negatively predicting this. **Neuroticism was the only trait to (positively) predict having hire purchase agreements; openness had the largest effect on credit card holding; and extraversion and neuroticism predicted overdraft holding.** There was no effect of behaviour traits on holding borrowing above the median amount of the sample (37, UK).

**Importantly, however, the effects of these traits were much smaller than the effect of income** (37, UK). In addition, the Big Five personality traits were *not* predictive of credit card borrowing in another study when someone's self-reported money management orientation and approach were accounted for (60, US). And emotional instability played a positive but

differential role in predicting compulsive buying in a study of US college students' credit card borrowing depending on who took responsibility for repaying the borrowing: emotional instability was found to be greater among those who shared responsibility with their parents than those who took most or little responsibility for it (30, [US](#)).

**Implications for policy and practice:** Unfortunately, people's underlying personality traits may not be very amenable to intervention. However, services working with people to reduce their borrowing levels may still benefit from an understanding of individual differences in personality as potential drivers (or inhibitors) of behaviour change.

#### 4.2 General impulsivity and self-control

**Evidence base:** The influence of general impulsivity or a tendency towards self-control has been the subject of several recent studies. We found 13 relevant papers all reporting quantitative research, most of very high quality. The large majority are non-UK sources, however the evidence which is available from the UK is in keeping with international evidence.

**Key findings:** The available evidence is strong and consistent, pointing clearly to an important, if potentially small, positive influence of general self-control (or low impulsivity) on people's borrowing behaviour. Moreover, the effect of general self-control appears to override the effects of other factors on borrowing behaviour, such as financial literacy.

##### 4.2.1 General impulsivity is linked to higher levels of borrowing

There is sound evidence which finds an important relationship between general impulsivity (or a lack of general self-control) and higher levels of borrowing. Measured using well-validated scales, **general impulsivity has been found to be a strong and positive significant predictor of any unsecured borrowing, debt service-to-income ratio and borrowing for daily expenses** (112, [Canada](#); 111, [Italy](#); 93, [Norway](#)). In a laboratory setting, physiological signs of arousal on the skin at the anticipation of being able to spend impulsively were predictive of having any consumer borrowing in real life; however the observed effect was only borderline (111, [Italy](#)). In qualitative research, impulsivity was one of the factors identified as characterising the use of high-cost, short-term credit (148, [UK](#); 11, [UK](#)). That said, the ability of impulsivity – and other related factors – to explain variations in levels of indebtedness overall has been found to be weak (112, [Canada](#)).

Similarly, in some studies people with higher levels of general self-control were less likely to report having 'too much' borrowing and had lower levels of total borrowing (15, [US](#); 1, [Germany](#)). In another study, having better self-control was not related to borrowing behaviour (93, [Norway](#)). And other evidence suggests that, where there is a positive association between self-control and borrowing for daily expenses, this might mean that people borrow rather than default on bills (i.e. they borrow to retain control over their regular outgoings; Kempson and Poppe 2018, [Norway](#)). A previous review also identified self-control and the ability to delay gratification as being consistently relevant to reduced credit use and risk of indebtedness (91; [International](#)).

Importantly, **borrowing behaviour is predicted by general impulsivity and self-control independently of other factors**, including socio-economic characteristics, income and financial wealth (112, [Canada](#); 111, [Italy](#)) and financial literacy (112, [Canada](#); 39, [Australia](#); 111, [Italy](#)). Other studies have identified a physiological basis for impulsive, present-biased consumer decisions, in which a gene linked to several psychiatric disorders, predicts credit card borrowing (54; [US](#)) and hyperactive-impulsive symptoms associated with Attention Deficit Hyperactive Disorder predict credit card balances and late payments, personal borrowing, and use of pawnbroking (16, [US](#)).

#### 4.2.2 General self-control influences how other factors are linked to borrowing

General self-control and impulsivity have not only been identified as important influences in their own right, but they also influence how other factors affect borrowing behaviour. In one study, the inclusion of a measure of impulsivity fully mediated (overrode) the previously observed influence of financial literacy on debt service-to-income ratios (112, [Canada](#)). In other words **the previously observed, apparently direct effect of financial literacy on borrowing was false and its effect actually operated only indirectly via impulsivity**.

In another study, increased self-esteem (brought about by online social network interaction) was found to reduce self-control and it was this in turn which led to higher levels of credit card borrowing among people with strong social network ties (145, [US](#)). Finally, in another, the level of impulsivity/self-control that borrowers displayed influenced the extent to which information disclosure encouraged them to reduce their use of high-cost, short-term credit (18, [US](#)).

In terms of the socio-demographic factors that influence general self-control, increasing age has been found to be important in one study, while gender and income were not important (1, [Germany](#)). Young professionals have been found to be more likely than students to select a credit card based on impulse (39, [Australia](#)).

#### 4.3 Spending self-control and spending orientation

**Evidence base:** The potential role of someone's spending self-control and their spending orientation (i.e. their various attitudes towards spending) in shaping their borrowing behaviour has been widely studied. We found 18 good-quality relevant papers reporting mostly quantitative research, although a minority (particularly around spending self-control) relied on hypothetical scenarios or laboratory-based studies. Many are non-UK studies, however the UK evidence which is available is consistent with the international evidence.

**Key findings:** A distinct role for spending self-control (and, conversely, compulsive spending) which is separate from general self-control, is identified, especially in relation to over-borrowing and people's willingness to pay more to borrow. Spending orientations which reflect consumerism and materialism also increase levels of borrowing, potentially via compulsive spending. The role of credit accessibility in tempting spending appears to be important but requires further exploration.

4.3.1 Spending self-control influences borrowing and the costs people are willing to pay. There is strong evidence of an important role for spending self-control specifically (and related concepts) on borrowing behaviour. In particular, credit users were more likely to report struggling with their own spending self-control than those without borrowing (79, UK). Credit-card users were also more compulsive in their shopping habits than cash purchasers (99, Taiwan/UK). **Lower spending self-control predicted reporting having too much borrowing, and compulsive buying (the inability to control purchasing behaviour) significantly predicted higher levels of borrowing on several measures** (15, US; 1, Germany; 99, Taiwan/UK; 64, US). Higher spending self-control was independently related to a modest increase in someone's ability to manage their credit use (Finney, 2016, UK).

Although over-indebtedness is out of scope of this review (with our focus instead being on borrowing behaviour) it is nonetheless notable that, among credit-using households, over-indebted households were more than twice as likely to be impulsive spenders (78, UK). Moreover, the link between poor spending self-control and over-indebtedness was stronger than between financial literacy and over-indebtedness (78, UK).

**Spending self-control also influences the costs people are willing to pay using credit.** In hypothetical buying scenarios at least, individuals with lower spending self-control and higher compulsive shopping scores were prepared to pay much higher credit card premiums or to use a credit card at all (with a cash penalty), and to be influenced more by credit limits, than those with lower spending self-control and non-compulsive shoppers (15, US; 99, Taiwan/UK).

**Implications for policy and practice:** Important ways to help borrowers reduce their borrowing levels and avoid costly or unsustainable borrowing are likely to include (1) teaching people the personal development tools they need and (2) developing products that facilitate individuals' capacity for self-control or indeed circumvent their tendencies towards impulsivity.

4.3.2 The effect of spending self-control on borrowing is distinct from general self-control. **Importantly, there is clear evidence that general self-control and spending self-control are related but distinct constructs.** In particular, a lack of spending self-control was more strongly related than general self-control to reporting having too much borrowing (15, US). The inclusion of measures of spending self-control and compulsive spending weakened the relationship between general self-control and borrowing behaviour across several measures (15, US; 1, Germany). Moreover, the link between compulsive buying and non-housing borrowing was only true among people with low general self-control, not those with high self-control (1, Germany).

In terms of the factors that influence spending self-control, increasing age has been found to predict less compulsive buying, while being female predicted more compulsive buying and household income was not important (1, Germany). In addition, the phenomenon of co-holding savings and borrowing appears to operate as a mechanism for controlling impulsive

spending (79, UK plus Telyukova and Visschers (2013) in 5, UK/US). The finding that compulsive buying was positively related to the number of credit cards students had was true only among those who were mainly responsible for repaying their credit card borrowing themselves (64, US). Self-reported impulsive spenders, however, were also more likely to have experienced financial shocks (78, UK), which highlights the potential for impulsivity and related concepts to be confused with people's actual needs and circumstances in some studies where the two are not distinctly defined and measured.

#### 4.3.3 Access to credit plays a role in the temptation to spend

A particular problem appears, from a small but consistent evidence base, to be that access to credit encourages more compulsive shoppers to overspend (99, Taiwan/UK; 146, Singapore 78, UK). In qualitative research, a tendency towards less-controlled spending and more impulsivity was typical among high-cost-credit users (148, UK). This does not account for the reality that access to credit can be necessary to enable essential spending, and the positive benefits that credit can bring to households in financially difficult times. However, **short-term users of high-cost credit avoided some high-cost types to avoid 'temptation', while habitual customers were driven more by instant gratification** (148, UK).

**Implications for policy and practice:** This evidence suggests there is an important balance to be struck, in social policy and industry practice, in providing the right level and type of access to borrowing products and at the right time, depending on the particular needs of individuals and households who need or want to borrow. This calls for further research and development to understand access needs and how to meet them.

#### 4.3.4 Consumerist attitudes lead to greater borrowing via compulsive spending

Other research, from a limited but good quality evidence base, indicates that other aspects of someone's spending orientation, including a tendency towards consumerism or materialism, may be important in borrowing behaviour. Research in Norway has consistently found that **the largest independent influence on not borrowing for daily expenses is from someone's overall financial attitudes, including their spending orientation**. More financially capable attitudes and a lower orientation towards spending reduced the propensity to borrow for everyday expenses (93, Norway; Kempson and Poppe, 2018, Norway). Such attitudes also modestly predicted restrained consumer borrowing (Kempson and Poppe, 2018, Norway). These studies controlled for a range of other factors, including other psychological factors, knowledge and skills and socio-economic and demographic characteristics. In contrast, in a US study which controlled for personality, money management and other factors, material values were *not* predictive of levels of credit card borrowing (60, US).

However, in the same US study, **the belief that material possessions provide happiness ('materialism') strongly predicted compulsive buying which did in turn predict greater credit card borrowing** (30, US). This might tend to indicate that consumerism may influence borrowing behaviour indirectly. Certainly, in qualitative research, comfort spending was

identified as one of the accelerators of credit use as consumers transitioned from manageable to unmanageable borrowing (48, UK). And a tendency towards more self-controlled spending among short-term users of high-cost credit was often related to risk-averse spending attitudes in contrast to habitual customers (148, UK). Notably, what people use credit for can influence how they prioritise repayment, affecting their outstanding balances. When consumers have multiple credit card debts, there are conditions in which they repay their borrowing more quickly if the original purchase was hedonic (pleasure-based) rather than utilitarian (practical-based; 20, US).

In another study, conversely, materialism among young adults increased their motivation for more better-informed consumer outcomes (39, Australia). This finding suggests the potential to improve borrowing outcomes by tapping into people's materialistic values.

#### 4.4 Perceptions of time

**Evidence base:** Recent evidence of the effects of how people think about and perceive time on their borrowing behaviour comes from a reasonably large body of literature. We identified 13 generally high-quality papers which reported and reviewed a mix of quantitative and qualitative studies, many from the US but others from Norway and the UK. The evidence of the effects of perception of time are mixed (and sometimes contradictory) and, given a tendency to focus on credit card borrowing in the existing literature, this may be an area which requires further research.

**Key findings:** There is some indication that a tendency to focus on and plan for the future results in lower levels of borrowing, but perhaps only indirectly. The clearest evidence is of a link between prioritising short-term over long-term interests and credit card borrowing. In this case, a focus on the present predicts higher levels of borrowing. More positively, there is also evidence to suggest that it accelerates repayment behaviour. Having a propensity to give undue priority to the present may even have physiological underpinnings.

##### 4.4.1 How people think about time may influence their borrowing indirectly

There is high-quality, if mixed, evidence about how people think about time might influence their borrowing behaviour. First, **some studies have found that the extent to which someone 'lives' in (or prioritises) the past, present or future ('time orientation') does not predict heavy credit card debt or the propensity to borrow for everyday purposes** (60, US; 93, Norway). Similarly, the tendency to value more highly closer events in time than events in the longer-term future ('time discounting') did not predict borrowing among credit union members on several measures (74, UK). These studies controlled for a range of factors, including other psychological dimensions and money management and were conducted in the context of potential financial difficulties (rather than borrowing per se).

In contrast, **a few studies have found that a greater focus on the future and a greater propensity to plan are indirectly related to or otherwise indicative of better borrowing behaviours.** In the study noted above, a future time orientation did influence people's spending self-control, which we have seen above does influence borrowing behaviour

positively (and it improved their saving behaviour; 93, Norway). Other research found that having a greater propensity to plan money for the long-term predicted higher credit scores (which denote better credit-worthiness; 103, US). In a study of students, a greater focus on the future also weakly predicted less compulsive buying among those with responsibility for repaying their credit card debt (but not for those whose parents were wholly or jointly responsible for paying debt). In turn, those with a future time orientation were more likely to think about and plan for the future which might help them consider the longer-term cost of borrowing (30, US).

From limited evidence, it also appears that **time influences people's repayment decisions in some conditions**. Borrowing for hedonic purchases (i.e. for pleasure) that were taken out in the distant past amplified a tendency to repay these, often smaller, balances than balances with higher interest rates. This was because the enjoyment of hedonic purchases depreciated to a greater extent over time (20, US). A tendency for some people to underrate the likelihood of future change ('projection bias'), such as income loss, also increases people's expectations about their future ability to repay their debt (148, UK), suggesting that it may falsely reduce their current repayment rates.

**Implications for policy and practice:** The question for interventions that aim to reduce borrowing is how to encourage individuals to think more about and plan more for the future; perhaps to make the future feel more tangible and 'real'; and to re-balance the needs of the future against the more immediate wants and needs. Helping people focus on their more costly commitments first may help borrowers to repay their borrowing more quickly and cost-effectively; it might even help people to consider when and how much they can afford to borrow in the first instance.

#### 4.4.2 Having an undue focus on the present increases the tendency to borrow

Meanwhile, there is a smaller, but sound and consistent, evidence base which finds that **bias towards prioritising short-term over long-term interests ('present bias') results in higher levels of borrowing**; and that this may even have a physiological basis.

A previous review of credit card research found that present bias and spending on credit cards are linked (5, UK/US). Original studies have found that present-biased individuals were significantly more likely to have credit card debt and to have accumulated substantially more borrowing on these (108, US). Similarly, people who focussed on the present more strongly financially had greater credit card borrowing (27, US). The effect of present bias has been found to be independent of demographics, financial shocks and credit card characteristics (108, US). It persisted in relation to credit card borrowing a year later (108, US) and was evident among many longer-term customers of high-cost-credit in qualitative research (148, UK).

A recent review of research concluded that present bias in borrowing behaviour can be explained by the tendency to greatly over-value outcomes that will occur in the near future compared with objectively much better outcomes that will occur in the distant future

(‘hyperbolic time discounting’; 6, [International](#)). Other studies have noted a correlation between present bias and Attention Deficit Hyperactive Disorder (16, [US](#)) and that a gene may be associated with present-biased decisions which lead to credit card debt (54; [US](#)). This suggests **a specific physiological basis has been identified for present bias which contributes negatively to borrowing behaviour.**

Notably, one study found that a consumer’s decision to pay down borrowing was *positively* influenced by their level of impatience (Kuchler, 2015 in 6, [International](#)). In other words, a present bias may tend to bring repayment forward.

**Implications for policy and practice:** where borrowers do display a strong tendency to prioritise the present, they may be more amenable to intervention which emphasises how they can repay their borrowing more quickly, which might then be re-directed into positive saving behaviour.

#### 4.5 Perceptions of self

**Evidence base:** There appears to be very little recent research of some of the constructs which relate to people’s self-perceptions. However, the quality of the evidence we can draw on is generally high, and the findings are consistent. We report the findings from six studies from the UK, US and Australasia which used a range of methodologies.

**Key findings:** There appears to be clear evidence of a detrimental effect of measures related to someone’s self-identity (for example, of self-worth and self-esteem) on borrowing, regardless of the particular construct. There is also tentative support for a positive effect of self-confidence on borrowing behaviour, while a negative effect of over-confidence is more consistently identified. Delineation between over-confidence and self-confidence has not yet been explored fully in relation to borrowing behaviour and might be a focus for future research.

##### 4.5.1 Borrowing can be used to maintain a positive sense of self

**There is limited but clear evidence which shows that someone’s borrowing behaviour can be influenced negatively by their need to maintain a positive self-perception and a positive self-identity.** One qualitative study identified the particular role of borrowing for non-essential, material goods among recent home-leavers as a means of establishing a sense of total self-identity during this transition (107, [New Zealand](#)); another found that borrowing for spending which promoted self-worth was one of the accelerators of credit as consumers moved from manageable to unmanageable borrowing (48, [UK](#)). In a series of five laboratory and field experiments, increased self-esteem from online social network interaction led, via a reduction in self-control, to higher levels of credit card borrowing for social media users with strong social network ties (145, [US](#)).

In a general population sample, people experiencing recent financial difficulty were most likely to maintain a self-perception of personal responsibility by borrowing from friends, family or revolving credit rather than seek formal advice or support (43, [Australia](#)).

Experimental research similarly found that consumers' desire to maintain their self-perception as responsible (and avoid self-guilt) can lead them to co-holding borrowing and savings, whereby borrowing serves to protect valued, earmarked savings (134, US). Notably, people also prioritised borrowing repayment when they perceived this as sustaining a self-sufficient identity (137, US).

**Implications for policy and practice:** These findings suggest that there may be scope, in interventions, to challenge how people self-identify. This might help people form perceptions of themselves which emphasise borrowing *and* saving, rather than only borrowing, or the repayment of borrowing, rather than its accrual through spending.

#### 4.5.2 Confidence in oneself can encourage positive borrowing behaviour

Though drawn from a small number of studies, there is also sound evidence showing that **a moderate level of confidence in one's own abilities and a belief that we effect our own positive outcomes in life has a positive effect on borrowing behaviour**. In quantitative research, higher levels of self-confidence in financial management and decision-making predicted a modest increase in someone's capability at managing their credit use (Finney, 2016, UK). Conversely, a tendency to attribute one's successes and failures to external sources beyond one's own control ('external locus of control') has been linked to a greater tendency to borrow for daily expenses and higher levels of credit card borrowing (93, Norway; 60, US). These effects were independent of personal and dispositional characteristics and money management behaviours.

#### 4.5.3 But over-confidence has a detrimental impact on borrowing.

In other quantitative research, **high self-reported knowledge combined with low objectively-measured knowledge ('over-confidence') has been linked to poorer borrowing behaviour** in a US general population sample and among college students specifically (147, US; 115, US). Similar findings come from qualitative research too. One study identified over-confidence among high-cost credit customers' understanding of how promotional offers operated and the likely costs of repayments once the interest free period had expired and money was still owed. They also demonstrated over-confidence in their ability to maintain repayments throughout the period of the loan (148, UK). A separate study found that a substantial minority (15 per cent) of affordable-loan applicants were initially over-confident in their financial capability; they were disproportionately likely to be parents receiving social security benefits (120, Australia).

To the extent that it affects borrowing behaviour, the distinction between self-confidence (which is self-reported, by definition) and over-confidence is not well explored in the existing literature. This might be a likely candidate for further research, especially in relation to the threshold at which the positive effects of confidence become detrimental.

## 4.6 Social influence

**Evidence base:** This section draws on 12 primary quantitative and qualitative studies from the UK and elsewhere and one international narrative review. Most of this literature

considers the extent to which social interaction and concerns about social comparison, identity and status relate to borrowing. The quality of this research is generally high, and it is reasonable to treat the findings as conclusive. The influence of social norms (and perceptions of these) on borrowing is surprisingly under-researched in the recent literature. This may represent a gap for future research to explore.

**Key findings:** The research consistently finds that social interaction and concerns about social comparison, identity and status increase borrowing. However, the existing evidence only tentatively identifies a role for a negative effect on borrowing levels from social norms and no clear effect of people's general trust in others.

#### 4.6.1 Greater social interactions predict greater borrowing

Several studies have explored the influence of how people think about their social interactions and how other people perceive them (their 'social cognition') in their borrowing behaviour. Certainly, **greater social interaction and closeness of social bonds predicted greater credit use**, across all types. The independent effect on any borrowing and the total amount owed was large, and it was bigger for overdrafts but smaller for credit cards (33, UK). Frequent social network users with strong network ties had higher levels of credit card debt, independently of their wider internet usage and offline ties (145, US). This suggests that these social interactions are important for informing how we, as social individuals, should be and for encouraging us to use borrowing to live up to those expectations.

#### 4.6.2 Concerns about social status increase borrowing

**A solid evidence base identifies the role of borrowing in social status and identity specifically.** A previous review describes several studies which link the propensity for social comparison and a desire to keep up with peers ('the Joneses') with increased borrowing. The authors of that review conclude that increased borrowing in this context is the result of the drive to: establish a self-identity through social relations and consumption; to own possessions which 'important' others own; and even to express status and power through the use of money (91, International).

In robust, primary quantitative studies, concern about social status predicted a modest increase in the propensity to borrow for daily expenses (93, Norway) and social comparison was associated with someone's overall level of borrowing (34, Australia). **Concern with relative social standing also independently increased a household's borrowing** across several measures if they perceived their income to be lower than the perceived average income of their social circle (80, Netherlands).

The importance of social identity is supported in qualitative research. Studies have found that people who are struggling financially are reluctant to ask friends and family for assistance (and do it only as a last resort) while they try to uphold a social identity of responsibility and self-sufficiency (64, UK; 137, US). In a study of home-leavers, credit use helped establish and express a 'total self', where borrowing for non-essential consumption promoted group belongingness. For recent home-leavers, this operated through material

items (including gifts), while for more established home-leavers it was effected through participation in social experiences (107, [New Zealand](#)).

**Implications for policy and practice:** Working with borrowers to understand their peers' values (and to a great extent their circumstances) might be one way for interventions to correct unaffordable levels of borrowing, by helping people to understand how their social perceptions shape their behaviour.

4.6.3 What other people do matters for borrowing and our perceptions of problem debt  
A small body of research from the UK suggests that **the normalisation of borrowing and of problem debt may influence how much people borrow**. In particular, in local areas where problem debt is prevalent, the **social norm** effect of problem debt (e.g. lower stigma) lessened the worry and anxiety caused by someone's financial difficulty (77, [UK](#)). The normalisation effect of debt over the ten years between 2004 and 2014 has also been observed in relation to young adults, in a qualitative shift in the numbers with large overdrafts to a majority and an increase in the use of retail credit and payday loans (86, [UK](#)). Together, these findings suggest that the normalisation of borrowing serves to increase borrowing and the time it takes for individuals to recognise their own problem debt but, through lower stigma, facilitates advice-seeking to reduce it. The effects of social norms, and of individuals' perceptions of social norms on borrowing behaviour, are surprisingly under-researched, however and represent a gap in the research.

Separately, **the belief that most people can be trusted ('social trust') does not appear to be important for borrowing behaviour**. In a study of credit union members, social trust did not predict levels of indebtedness on any measure when controlling for other personal, psychological and money management factors (74, [UK](#)). The importance of social trust has been noted in relation to product choice and switching generally, however (100, [UK](#)).

#### 4.7 Other motivations

**Evidence base:** The effects of other motivations on consumer borrowing behaviour are under-researched in the recent literature. We found seven studies, several of them reviews, from the UK and elsewhere. With a few exceptions, definitions of the psychological concepts measured are unclear and the research is not apparently of the highest relevance or reliability. Other potentially-relevant motivations, such as someone's belief in their own ability (self-efficacy) and attitudes more generally are missing from the evidence base and might be candidates for further research.

**Key findings:** Where studies have explored other psychological influences on borrowing behaviour, the research has tended to focus on people's risk preferences and optimism. The effect of risk preference on borrowing behaviour, whether positive or negative, is currently inconclusive. The most consistent evidence from the literature is a negative effect on borrowing behaviour from *over-optimism*.

#### 4.7.1 The role of risk preferences on borrowing behaviour is unclear

Previous research has considered only a limited range of other possible psychological factors which may motivate people to borrow or not to borrow. **Attitudes to risk are potential determinants; but the findings are mixed, and inconclusive.** In the general population, risk aversion predicted lower levels of accumulated unsecured debt independently of a range of other factors (36, [US](#)). Among credit union members, however, risk preferences were not significant predictors of debt to income ratio, use of high-cost credit or the number of lenders someone used in the last 12 months (74, [UK](#)). And in a third study, greater tolerance to risk was associated with *lower* levels of credit card debt independently of other influences, and money management<sup>4</sup> remained the strongest predictor of borrowing levels (60, [US](#)).

#### 4.7.2 Over-optimism is a particular risk factor for poor borrowing behaviour

In previous reviews, **optimistic consumers had around twice the amount of borrowing as their pessimistic counterparts** (91, [International](#)) and *over-optimism* predicted greater credit card use and a preference for low fees over low APRs (5, [UK/US](#)). In primary research, Finnish households making the largest optimistic forecasting errors had higher borrowing on several measures (89, [Finland](#)); and *moderate* optimists displayed reasonable financial behaviour generally, while *extreme* optimists displayed imprudent behaviour (Puri & Robinson (2007) in 6, [International](#)). However, a subjective feeling of financial threat brought about by high total debt (and other factors) has also been linked to greater willingness of individuals to change their financial situations (68, [Canada](#)).

**Implications for policy and practice:** These findings point tentatively to the need for a 'correction' factor in the design and marketing of borrowing products, much in the way the UK credit card sector has reformed in recent years, to better emphasise the total costs of borrowing, the time it will take to repay and the risk of debt-escalation from non-payment. Introducing a little breathing space (a pause and review) in the application process for new borrowing and more-structured interim reviews for revolving credit might help consumers check their optimism and adjust their approach to borrowing in response.

#### 4.8 Cognitive capacity and bias

**Evidence base:** Despite the natural limits on people's cognitive capacity and a wealth of literature on the role of bias in decision-making and behaviour generally, there has been surprisingly little research relating cognitive biases – the systematic errors in the heuristics (short-cuts) we use in our thinking and judgements – to borrowing specifically. The 14 studies we found are wide-ranging and cover several biases which can be divided into behavioural and informational biases. The better evidence, in terms of quality and range, relates to the behavioural biases.

---

<sup>4</sup> defined as self-reported spending orientation and identification with money management practices

Other biases which are acknowledged in relation to financial behaviour generally do not appear to have been addressed in relation to borrowing specifically. These include the effects of choice overload when people are faced with too many options and tendencies: to procrastinate ('inertia'), to focus on readily-available information in decision-making rather than less prominent important information ('myopia'); to seek out only sufficient information to satisfy a decision rather than making truly informed choices ('satisficing'); and to value more highly goods and services believed to be in short supply ('scarcity mind-set'). Some of these other biases might be candidates for future research.

**Key findings:** The clearest effects from cognitive biases on borrowing behaviour are evidenced in relation to behavioural biases, which relate to how people deal with their money and think about dealing with their money. In particular, they help explain the (seemingly) irrational behaviours of co-holding borrowing and savings, of prioritising repayment on smaller accounts than the more costly ones and of a tendency to borrow larger sums. The effects of biases in the way people use information (informational biases) are less well-researched, although there are tentative indications that how and when information is presented can each lead to more borrowing.

#### 4.8.1 Cognitive capacity and biases matter for decision-making

The consequences of poor decision-making are high; and poor cognitive and mathematical abilities and inattention have been linked explicitly to financial mistakes and poor financial decision-making in previous reviews (6, [International](#)). In particular, financial mistakes are common in relation to the repayment of credit cards after interest-free periods and balance transfers (Agarwal & Mazumder, 2013, in 6, [International](#)). A decline in cognitive and mathematical capacity with age has been linked to poorer borrowing decision-making (66, [International](#)) and rapid learners in an experimental gain/loss learning game had fewer debts and smaller debt-to-asset ratios, independently of other factors (95, [US](#)). **Limits to our cognitive capacity have been associated, in behavioural economics, with cognitive biases. These are the psychological short-cuts or heuristics which people use to make decisions.** Several of these biases have been identified in relation to borrowing behaviour, some behavioural, some informational.

#### 4.8.2 Behavioural biases lead to avoidable borrowing and make borrowing more costly

There is solid evidence that thinking about money separately, as different 'pots' for different purposes ('mental accounting'), impacts on borrowing. Several studies have noted the effect of this bias in the tendency to co-hold savings and borrowing: as a means of preserving savings and facilitating liquidity (79, [UK](#); Telyukova and Visschers (2013) in 5, [UK/US](#); Agarwal et al (2009) in 6, [International](#); 43, [Australia](#)); and as a means of avoiding guilt and maintaining a responsible self-perception (134, [US](#)). The effect can be so powerful as to be counter-intuitive, **the value placed on savings leading people to protect these in favour of borrowing, despite the additional cost incurred, and in some cases believing this to be responsible** (134, [US](#)). Users of high-cost credit have also been observed to allocate money so rigidly to retail credit repayments that they take on new borrowing through the same

credit line once repayment is complete rather than using it to repay other borrowing; an effect the authors call 'narrow bracketing' (148, UK).

Other studies have consistently noted **the tendency for borrowers to repay their smallest debts first, even if this means they incur greater expense from higher interest on other borrowing** (9, US; 20, US). This tendency (the 'debt accounting bias') has been linked to an instinctive desire to achieve tangible progress towards debt repayment (9, US). In one study it was observed only in relation to borrowing for hedonic purchases and only when the smallest balance also had the lowest APR (20, US). In another study, it was particularly likely to occur among credit card revolvers if a windfall was too small to clear a larger, costlier debt entirely (9, US).

Consumers also tend to underestimate the cost of instalment loans ('payment bias'). This is because they often under-estimate the effect of the interest, and therefore the true cost of the loan and the time needed to repay it, effectively over-estimating how long they borrow the original loan amount for. The effect is that **more-biased households borrow more and this is amplified for short-term loans, where the principal declines quickly** (130, US). Among payday loan customers, providing information about accumulated fees reduced the payment bias, resulting in moderately less borrowing (18, US).

Other studies have noted that **a tendency to feel financial losses more greatly than equivalent gains** ('loss aversion') may help some people avoid higher levels of borrowing (95, US), or for loss aversion/fear of regret (in not buying a product) to increase borrowing and limit shopping around (148, UK).

**Implications for policy and practice:** Encouraging borrowers to take a more holistic view of their borrowing (and saving) and giving them better information about the true cost of their borrowing and repayment behaviour may help reduce these biases and the impact of poor borrowing decisions. In other words, training and support complemented by better information may be key to correcting these behavioural biases.

4.8.3 Informational biases make borrowers prone to marketing and poor decisions  
Biased or unclear information is problematic. Where information is uncertain even 'smart' individuals rely more on cognitive biases (Korniotis and Kumar, 2013, in 6, International) and these often persist and fail when faced with abstract or infrequent financial decisions (130, US).

**Consumers in financial markets have consistently been shown to be vulnerable to how risks, and the potential for losses and costs, are presented** (or 'framed'; 100, UK). In a study of high-cost credit customers, such framing effects were evident in relation to lack of comparison against other products and the narrow amount of information customers had been exposed to about the product they were taking out (148, UK). When faced with debt consolidation marketing, which tends to stress short-term benefits and understate risks, money management intentions were undermined if someone already viewed debt

consolidation favourably (23, [US](#)). One study suggested that a tendency to drawdown savings rather than borrow was due to framing (28, [International](#)). Separately, an experiment found an ‘easy-money’ effect of credit cards in some conditions, in which spendthrifts in particular were willing to spend more money after exposure (‘priming’) to a credit card cue (146, [Singapore](#)).

In a review of credit card research, there was also evidence that consumers tend to base their repayment level on the minimum repayments given on their statements (‘anchoring’). As such, the presentation of **minimum repayment information resulted in lower repayment amounts in both the US and UK** ([Stewart \(2009\)](#) and [Navarro-Martinez et al \(2011\)](#) in 5, [UK/US](#)). However, consumers might anchor their decisions selectively: in another study, 29 per cent of credit card users pinned their repayment amount against the required minimum but only one per cent adopted the recommended 36-month repayment plan ([Wang and Keys, 2014](#), in 6, [International](#)).

**Implications for policy and practice:** Consumers appear to be at an inherent disadvantage when it comes to the marketing and presentation of product information. In their requirement to treat customers fairly, therefore, providers and especially lenders have an increasing onus on them to present information about their products in more mindful and responsible ways. The use of role models which ‘prime’ positive borrowing behaviour, for example, in social marketing, may represent another route to explore in tackling these informational biases.

## 5 Financial literacy, financial capability and borrowing behaviour

In this chapter we explore the evidence about the links between financial literacy, financial capability and borrowing behaviour. Box 5.1 looks at how ‘financial literacy’ and ‘financial capability’ are generally defined.

**Evidence base:** The findings are drawn from 28 studies reporting mainly quantitative research of moderate relevance; and medium to high quality. Most of the evidence focuses on the UK (12 studies) and US (10 studies).

**Key findings:** Lower financial literacy is linked to poor borrowing behaviours and over-indebtedness, with concerns that young people are particularly at risk. The evidence is weak regarding the impact of financial literacy programmes (which tend to focus on financial knowledge) upon financial behaviour. The limited evidence appears stronger for financial capability and coaching programmes that focus more on psychology and behaviour.

### **Box 5.1 Defining financial literacy and financial capability**

**Financial literacy** tends to be narrowly defined as the knowledge that people need to make informed decisions about the use and management of money. This might include knowledge of the financial marketplace; knowledge and understanding of financial concepts, such as inflation and compound interest; applied numeracy and the ability to read and extract information from financial documents (19, UK). Historically, financial education programmes to improve financial literacy have tended to assume a causal chain reaction from knowledge, to skills and behaviour (Lundberg and Mulaj, 2014).

In the last 20 years, the concept of **financial capability** has shifted the focus away from what people know to how they behave. It is generally accepted that knowledge and understanding (i.e. financial literacy) is only one element of financially capable behaviour. Other important elements include skills, confidence and attitudes. Financial capability is also influenced by a person’s experience, their circumstances, their personality and the environment in which they operate (Kempson et al, 2017). Programmes that aim to improve financial capability can be varied, and in some cases combine financial education with other mechanisms. (Lundberg and Mulaj, 2014).

### 5.1 There are links between financial literacy, borrowing and over-indebtedness

Six medium-quality quantitative studies provide evidence about the links between financial literacy, borrowing and over-indebtedness. Levels of financial literacy have been related to a variety of spending and borrowing behaviours including impulsivity and debt service ratios (112 Canada), consumer credit portfolios (57 UK) and levels of credit and savings co-holding (78 UK). Studies find links between financial illiteracy and over-indebtedness; as well as between low financial literacy, high impulsivity and over-indebtedness (see for example 78 UK).

While a few studies have shown that credit users from low-income households display lower financial capability when borrowing or repaying, overall the evidence is weak. One quantitative study (122 [Canada](#)) found that borrowers from poorer households were significantly more likely not to pay their credit card minimum payment even though funds were available in a deposit account, compared with those from wealthier households, and that education levels were not significant. However, other studies (144 [UK](#), 131 [US](#)) indicate that attitudes are more important than income in borrowing behaviour.

## 5.2 Young people require help to make good borrowing decisions

Five mostly good-quality studies provide information about young people's borrowing decisions. Generally, there is some evidence that young people's financial capability is low (38, [UK](#)); and young people and the elderly are most likely to make the most financial mistakes (Argarwal et al, cited in 101 [UK/Neth](#)).

Survey evidence from one US study finds that **young people are especially susceptible to pressure to spend from their close associates, causing overspending** (129, [US](#)). Other studies suggest that young people in a variety of countries are using instant forms of high cost credit for lifestyle choices (13, [Finland](#)). In an online survey carried out in the UK, young people said they find money management difficult and worrying about money was common among them. They reported wanting further support, but few seek professional advice, preferring to speak to parents instead (109, [UK](#)).

## 5.3 Financial literacy education alone is unlikely to change people's borrowing behaviour

Overall the balance of evidence (based on nine studies, eight of them quantitative) suggests that using financial education to improve financial literacy has little or no long-lasting effect on people's borrowing behaviour in the face of other factors such as behavioural biases.

One US research study found weak evidence that financial literacy and perceived financial literacy influenced financial behaviours (8 [US](#)). Other studies show that financial knowledge alone does not result in more financially prudent behaviour or lower levels of financial stress, whilst there are financial attitudes and demographic variations that influence financial behaviours (115, [US](#)). Nor does greater knowledge necessarily lead to better credit choices amongst young people (39 [AU](#)). In terms of what financial educators should teach, numerous studies note that money management skills, rather than numeracy skills, are important determinants of financial outcomes (74, [UK](#)).

**A recent narrative review of evidence confirms that financial literacy interventions are very ineffective at modifying behaviour and finds that any positive effects are time limited** (6, [International](#)). Data analysing the effects of compulsory personal finance education for US high school students found no causal outcomes regarding savings, investment or credit management, although additional mathematics training was linked to greater market participation (47 [US](#)). In other recent work, the influence of financial literacy on debt

burden was nullified by impulsivity (112 [Canada](#)). In addition, behavioural biases such as the propensity to pay off smaller debt balances, even when this is sub-optimal (9 [US](#)), or preference for constant or falling repayment schedules (84 [Austria](#)), appear to have strong influences upon consumer behaviour.

#### 5.4 Interventions may be more effective if they focus on psychology and behaviour

While the findings above suggest that financial literacy education has little impact on behaviour, it is suggested that interventions may be more effective if they also address psychological and behavioural topics (106 [UK](#)). There is a body of mostly high-quality evidence for these other types of interventions, although some relates to money management generally rather than borrowing behaviour specifically; and the amount of evidence per intervention type is small.

**One study shows that tailored ‘financial conversations’ at the loan application stage can influence behaviour in the short-term.** Evidence from a study with low-income microfinance loan applicants found that loan applicants were less likely to use high-cost credit options straight after having a tailored ‘financial conversation’ with the microfinance lender (120, [AU](#)). However, the effect reduced over time – suggesting that ongoing reinforcement is needed. The time limited benefits of such interventions are documented in other evidence (6 [International](#)). One qualitative study suggests that appealing to positive self-sufficient identities or offering rewards that further people’s goals can positively influence behaviour (137, [US](#)).

**There is evidence from one study that behaviourally-focused money management coaching can positively influence financial behaviours.** In a quantitative study, low- to middle-income participants who completed a financial coaching programme (using the participants’ own financial goals) were shown to have increased savings, reduced levels of debt and reported increases in financial wellbeing (51, [US](#)). Even those ‘on the path to financial exclusion’ self-report being more likely to save and shop around for utilities and less likely to need to borrow after taking part in a financial capability workshop - although whether they acted on their intentions is unknown (44, [UK](#)).

**There is some evidence that information and advice can help offset low financial literacy, reducing the effects of behavioural biases for some.** Providing information regarding the total cost of credit has been shown to moderate consumer misunderstandings relating to the product APR (105 [UK](#)). Seeking external advice is also shown to inhibit the effect of some behavioural biases (130 [US](#)). However, consumers require more than numerical information to be able to select appropriate products, assessing marketing claims and evaluating financial information in order to make optimal choices regarding consolidation loans (23 [US](#)). Opportunities to offer financial education and information at a consumer’s first application for credit or via employers have been highlighted as being a potentially important opportunity to increase financial literacy (109, [UK](#)).

**There is a small amount of evidence about interventions targeted at people with mental health problems or that can help relieve stress for people with money worries.** In one UK study, participants with acute or chronic mental health conditions who took part in a financial capability programme reported increased confidence regarding budgeting and managing money; but borrowing and debt remained difficult to talk about (4 UK).

A larger-scale US study linked increased stress with lower financial management skills, noting therefore that improving financial capability could reduce stress levels (124 US). A small-scale feasibility study carried out in the UK with university students suggests that online CBT (cognitive behavioural therapy) for those in debt and experiencing associated stress, could be beneficial (127, UK). Further research is needed to explore improvements in wellbeing, mental health and debt.

The need to ‘seek help early’, ‘recognise the warning signs of problem debt’ and ‘knowing where to access help and support’ are key messages that those who have experienced difficulties highlight as necessary public messages (48, UK; LT 52, UK).

**Implications for policy and practice:** The evidence demonstrates links between financial literacy and borrowing behaviour, but also the importance of other factors like peer pressure for some groups such as young people. While traditional financial education approaches targeting knowledge are shown to have little impact, there have not yet been any major breakthroughs in relation to delivering potentially more effective alternatives at scale.

## 6 What external factors shape people's borrowing behaviour?

Earlier chapters set out the evidence about the relationship between individual-level factors and borrowing behaviour. In this chapter, we look beyond the individual to consider the evidence about external factors that shape people's borrowing behaviour. We identify four main factors: (1) macro-economic conditions; (2) consumer credit marketing; (3) product design; and (4) the digital transformation of financial services.

**Evidence base:** We identified 24 studies that were relevant to understanding the influence of external factors on borrowing behaviour. These were generally high-quality and originated mainly in the UK and US. About half of the studies reported quantitative findings; the rest were either qualitative studies or narrative reviews. There was a strong focus on credit card borrowing and high-cost credit use in the evidence. None of our evidence looked at the impact of the digital transformation of financial services on borrowing behaviour.

**Key findings:** Macro-economic conditions play a major role in shaping people's financial situations, their access to borrowing and the cost of borrowing (although more for mortgage borrowing than consumer credit), which in turn impact their borrowing behaviour. Marketing generally, and specific credit card marketing practices, are shown to influence borrowing; as do the incentive and reward structures for salespeople. In the high-cost credit market, 'frictionless' online lending and quick and easy access to offline borrowing are attractive to borrowers but give rise to fears of over-borrowing and financial difficulty; as do patterns of persistent use of revolving credit products. The impact of the digital transformation of financial services on borrowing behaviour is largely unknown.

### 6.1 Macro-economic conditions

Our evidence about the effect of macro-economic conditions on borrowing behaviour comes from seven high-quality studies covering a range of issues, that mostly originate in the UK and US.

Put simply, aggregate consumer borrowing rises when macro-economic conditions are good and falls when they deteriorate. As noted in Chapter 3, data analysis of the drivers of household debt in OECD countries (including the UK) between 1980 and 2011 found that **residential property prices were the most important predictor of aggregate household debt to income ratios** (SD 173, [international](#)). Recent growth in UK consumer borrowing has been driven by higher-income households (144 [UK](#)), who are also likely to be homeowners.

**Low interest rates are shown to be the second most important predictor of household debt to income ratios** (SD 173, [international](#)). Supporting this, other analysis shows that consumers appear sensitive to credit card interest rate rises, with credit card debts declining in response to increases in interest rates and vice versa (Gross and Souleles, 2002a, cited in 5 [US/UK](#)). That said, gross credit card lending in the UK has been rising (UK Finance, 2018) even though average interest rates on credit card balances have increased from 16% in 2010 to over 18% in 2018 (Harari, 2018).

As reported in Chapter 3, in the case of a downturn in the housing market and the onset of negative equity, two US studies suggest that homeowners with higher-cost, non-recourse home loans (where the borrower does not have personal liability for the loan) and non-prime mortgage-holders are more likely to default on their mortgage than their credit card debt (or in one study credit card and car finance debt). **This suggests a strategic decision by US homeowners to preserve their access to consumer credit, possibly because they have few other credit options** (42, 10 US). We found no evidence of this behaviour in the UK, which suggests there may be a research gap around the unsecured borrowing behaviour of sub-prime mortgagors in the UK.

There is some evidence (from a UK evidence review) that **stricter borrowing requirements imposed by mainstream lenders since the financial crash have pushed new customers towards considering higher-cost credit**. At the same time, some of the ‘good risk’ high-cost credit customers have been able to access alternative (potentially cheaper) products online (17, UK). As we saw in Chapter 3, another qualitative study coins the term ‘survival borrowers’ for people who use high-cost consumer credit to get by on a low-income in the absence of cheaper borrowing options and a low likelihood of any improvement in their situation (64, UK).

**Implications for policy and practice:** Along with interventions to ensure income adequacy as discussed in section 3.1.3, the evidence here suggests that interventions are best focused on making sure that lenders conduct proper affordability checks to avoid over-lending (especially in ‘boom’ times); and there is good access to affordable credit (especially when credit conditions tighten).

## 6.2 Marketing

There is robust evidence from nine high-quality studies (mostly from the UK and US) about the strong influence of marketing practices on people’s borrowing behaviour, across a range of credit products.

There are concerns in the UK and elsewhere that **lenders’ marketing practices can increase the risk of over-borrowing and problem debt** (66, UK; 126, Croatia). Qualitative research with debt advice clients suggests that **being offered credit by lenders can be interpreted by borrowers as a tacit signal that they can manage further borrowing**, even when their financial situation is precarious (48, UK).

The combination of **technology and consumer data means that lenders can target specific customer segments and needs more precisely than ever before** (FCA, 2019, UK). Personal relationships remain an important marketing strategy for some credit products, though, such as between home credit borrowers and loan agents (17, 64 UK). There is some evidence (from one US study that analysed archival data and laboratory studies) that **consumers are more willing to borrow for experiential purchases** (to attain a life experience that typically has a shorter physical duration) than they are for material purchases (for ownership and possession of something over time) (141, US).

Empirical studies and evidence reviews using data from a range of Western economies indicate that **pre-approved credit card solicitation, reward programmes and zero-interest offers (also called 0% balance transfers) encourage credit card borrowing** (22 [international](#); 5 [US/UK](#)). For example, by tracking credit card accounts a US study showed that cash-back incentives increased spending and higher balances were maintained (Agarwal, Chakravorti and Lunn, 2010, cited in 5 [US/UK](#)). Other analysis – of credit card data from the 1980s – showed that borrowers were over-sensitive to promotional ‘teaser’ interest rates but insensitive to the go-to post-teaser rates which meant they risked paying a good deal more when their promotional offer ended (Ausubel, 1991, cited in 6, [US](#)).

There is also evidence that borrowers who respond to solicitation are more likely to have higher risk characteristics, particularly those who respond to poorer offers (5 [US/UK](#)). In turn, **poor lending decisions can lead to higher levels of default**. For example, when a large US commercial bank incentivized loan officers to bring in new business, the unintended consequences were a significant loss of critical soft information about borrowers and their situations; larger loans; poorer credit quality, and higher default rates (Agarwal & Ben-David, 2014 cited in 6 [US](#)). A large-scale field experiment in South Africa suggested that ‘moral hazard’ was the cause of 13-21% loan defaults – in other words, lenders sold loans to borrowers even though they expected that borrowers could not maintain payments over time (Karlan and Zinman, 2009, cited in 5 [US/UK](#)).

There is a different set of marketing issues in the UK’s non-profit lending sector. Studies show **there is low awareness of alternative credit options such as credit unions and non-profit lenders can face challenges marketing to new target audiences** (148, 50 [UK](#)).

**Implications for policy and practice:** The evidence suggests that supply-side intervention (e.g. tighter regulation) may be required to curb marketing practices that exploit common behavioural biases and risk people over-borrowing. At the same time, affordable credit lenders need help to reach their target audiences.

### 6.3 Product design: high-cost credit

We have solid evidence about the links between the product design of high-cost credit and borrowing behaviour from seven studies that mainly originate in the UK and are generally high-quality. Three of the studies used quantitative methods; three were qualitative; and one was a narrative review.

Evidence from a UK narrative review and quantitative research carried out in Canada shows that **speed, convenience and easy access attract borrowers to use high-cost credit such as payday loans**, particularly in the context of limited other credit choices (69, [Canada](#); 65, [UK](#)) and pervasive marketing. Where non-profit lenders can offer online loans with these features, there is evidence from one small quantitative study that they are valued by borrowers who also prefer the confidentiality of online lending to taking out a loan at the lenders’ premises (50 [UK](#)).

In addition, UK qualitative research shows that the lowest-income households are attracted to consumer credit products that they can be fairly certain of getting; sourced from familiar or trusted lenders (e.g. those used by friends or family); and where the lender offers some flexibility regarding loan repayment, meaning that the borrower can retain some control (64 UK). **This means that low-income borrowers are likely to stick with tried and tested lenders even if the cost of credit is high.**

Recent research has started to explore the idea of ‘**friction**’ in online lending. Qualitative research confirms that web interfaces for online payday lending in the UK are designed to be frictionless to prevent borrowers dropping out of the loan application process (12 UK). Introducing friction to the process to give borrowers time to consider their decision may not necessarily be a positive step, however, for example if people are borrowing for necessities or to avoid paying high bank charges (11 UK).

Other evidence related to payday loans (based on analysis of data from one US lender) showed that **reducing the maximum amount that an individual may borrow decreases the amount individuals choose to borrow** (even those not constrained by the maximum), decreases the time the loan is held, and decreases the probability of default (97 US).

**Implications for policy and practice:** The evidence suggests that product design plays a key role in people’s use of high-cost credit. Non-profit lenders may have to mimic the most valued features of these products if they are to be regarded by borrowers as a viable alternative. The evidence also shows how responsible lending policies protect consumers from potential harm.

#### 6.4 Product design: Credit cards

Credit cards are meant to be a short-term way to smooth income and expenditure. However, there is strong and consistent evidence from 10 studies in the UK and US that the way credit cards are designed and marketed (notably with regard to credit limit increases and minimum payment features) can risk people borrowing on credit cards over long periods of time; borrowing more; and paying more to borrow. Most of this evidence comes from quantitative studies and narrative reviews.

**There are concerns in the UK about patterns of persistent borrowing on credit cards.** The regulator estimated in 2016 that 5.1 million credit card accounts would take 10 years to repay at current repayment levels, if there was no further borrowing. This can be an expensive way to borrow and puts borrowers at risk of financial shocks and under a heavy debt burden (66 UK). Regulatory action has been taken to discourage this type of persistent credit card use, by requiring firms to either help customers repay more quickly or exercise forbearance where customers cannot afford to do this (FCA, 2018c). A similar picture is seen in relation to overdrafts, where repeat overdraft users pay most costs. FCA analysis found that 14% of customers used an overdraft every month in 2016. These customers borrowed 81% of all overdraft lending and paid 69% of all arranged, unarranged, and refused payment fees (FCA, 2018b).

Two features of credit cards have been the subject of specific research in the UK and US: credit limit increases and minimum payments, the key findings from which are set out below.

#### 6.4.1 Credit limit increases on credit cards

Several quantitative studies confirm that **credit limit increases on credit cards lead to increased credit balances** (22 [international](#), 5 [US/UK](#), FCA 2017b). Using US credit card data from the 1990s, one study found a 10-14% increase in credit balances over a 24-month period where card credit limits had been increased (either by the bank or the customer), with larger balance increases among card-holders who were nearer their credit limits (Gross and Souleles, 2002a cited in 5; [US](#)). In UK analysis of 2014 data, accounts that received a credit limit increase had an average balance £458 higher at the end of the year than those that did not receive an increase (FCA, 2017b; [UK](#)). In qualitative research, users of high-cost credit felt that unsolicited credit limit increases were not helpful, precisely because they increased the temptation to spend (148, [UK](#)).

#### 6.4.2 Credit card minimum payments

A credit card minimum payment is the amount that a borrower must repay to their card provider every month to avoid extra charges. The monthly minimum payment is worked out based on the credit card's APR and the amount borrowed. In the UK it is estimated that 1.6 million credit card borrowers make systematic minimum repayments, i.e. they have made nine or more minimum repayments, while also incurring interest charges over 12 months (FCA, 2017b). This makes credit card borrowing very expensive for these consumers, particularly as the average credit card interest rate in December 2018 was 18.66% (The Money Charity, 2019).

UK and US evidence (comprising survey data analysis and online experiments) shows **that credit card minimum payments act as an 'anchor' or 'target value' for borrowers that biases credit card repayment downwards** (5 [US/UK](#), 2 [UK](#), 6 [US](#)). One study has estimated that at least 10% of all consumer credit card accounts in the US anchor to the minimum payment and anchoring occurs for both increases and decreases in the minimum payment (Keys and Wang, 2016). Strategies that seem to encourage borrowers to pay more than the minimum include higher minimum repayments (5 [US/UK](#)) and removing the minimum payment amount from bills (2). **Providing information on credit card statements about the cost of minimum payments and alternative payment options has been shown to have little impact on borrowing behaviour** based on studies in the US (Keys and Wang, 2016; 90 [US](#); 7 [US](#)) and field trials in the UK (Adams et al, 2018 [UK](#)). There is some evidence (from a US natural experiment) that total cost disclosure did impact significantly and negatively on frequency of rent-to-own use (113; [US](#)).

**Recent analysis in the UK highlights the complexity of consumers' repayment decisions, which can produce unintended consequences for policy interventions.** In a real-world test of credit card users carried out in the UK, removing an explicit option for the minimum

payment amount from the direct debit setup screen on lenders' websites caused more people to choose higher direct debit amounts and moved people away from minimum payments. It did not reduce credit card debt, however, because some consumers offset higher direct debit payments with lower manual payments; while others were deterred from setting up a direct debit at all. Targeting information to consumers with a direct debit already set up for the minimum amount caused only a small decrease in minimum payments and did not reduce debt (Adams et al, 2018 UK).

**Implications for policy and practice:** The evidence on credit cards highlights how product design and marketing can shape borrowing behaviour in ways that risk being harmful. Efforts to date suggest that supply-side intervention (i.e. regulation) may be required to tackle or prevent harm, because giving consumers more information seems to make little difference to their behaviour.

## 6.5 Digital transformation of financial services

In a relatively short time, the digital transformation of financial services has completely changed the way many people in the UK interact with their money and with financial services firms. A large proportion of payments (including debt repayments) are now made electronically; the internet is a major source of information about products and services; and online applications (including credit applications) are routine. In the 'back office' of firms, there is automation of routine processes (such as credit scoring and underwriting) and the use of data and machine learning to segment consumers in a more granular way (Collard et al. 2016).

There is also credit product innovation and evolution. For example, in three years from 2014-2017, **there was a 40-fold increase in monthly spend on contactless credit and charge cards**, from £14.8 million in March 2014 to £590.6 million in June 2017 (with an average value per transaction of £9.59) (UK Finance, 2018).

In addition, **new entrants aim to capitalise on consumer take-up of mobile and digital technologies and the ready availability of consumer and financial data** (Bouyon and Ayoub, 2018) to provide a new generation of credit products such as new revolving lines of credit e.g. SafetyNet Credit, Drafty and CreditSpring (Financial Services Consumer Panel 2017; Reynolds 2017); 'buy now, pay later' facilities like Klarna that are marketed at young online shoppers (Lunn, 2018); new credit services like Bud and CreditLadder that help renters to record and share their rent payment data, to help them improve their credit score (GOV.UK, 2018a); and new data-driven personalised apps and services designed to help people manage their personal finances (Edmonds 2018; Reynolds 2017).

**In our evidence review, we found very little research or discussion about the impact of these changes on consumer borrowing behaviour or about consumer views and experiences of the changes.** For fintech entrants that are relatively new to the market, this is perhaps not surprising. More notable is the absence of evidence about longer-term innovation delivered by established firms to large numbers of consumers. Indeed, we were

unable to find basic facts and figures such as the number of consumers who take out credit online either direct from a lender or through a credit intermediary. These seem like significant research gaps.

## 7 How does borrowing behaviour impact financial wellbeing?

Research that has explored the relationship between borrowing behaviour and financial wellbeing is comparatively sparse, with the focus instead on the impacts of over-indebtedness on financial wellbeing (out of scope here). The available evidence identifies financial wellbeing in relation to subjective financial wellbeing and more material measures of financial wellbeing outcomes. Other research has indicated the potential pathways through which borrowing behaviour impacts financial wellbeing.

**Evidence base:** We identified 20 studies that provide good-quality, relevant evidence about the relationships between borrowing behaviour and financial wellbeing. Most of the evidence originates in the UK (nine studies), while the rest comes from the US (four studies) and a range of other countries including Norway, Canada, Australia and Switzerland.

**Key findings:** Across a range of measures of financial wellbeing and borrowing behaviour, the balance of evidence is towards the detrimental effect of borrowing on wellbeing. This occurs in relation to exposure to any borrowing; types of borrowing (mostly focused on credit cards and high-cost credit); persistent borrowing; and the reasons for borrowing. The amount borrowed in relation to someone's income and assets did not feature in the literature, however. There is some evidence to suggest that the cost of credit per se is problematic, although this is not unequivocal. How households respond in relation to their borrowing behaviour when they get into financial difficulty is crucially important for their outcomes.

### 7.1 Borrowing impacts on subjective financial wellbeing

Subjective wellbeing has been explored in the literature in relation to measures such as financial satisfaction, stress and feeling comfortable financially.

Seven studies have looked at the influence of **levels of borrowing**. In one study, lower-income households reporting having any debt were more likely to report being very concerned about the current amount of their debts (secured and unsecured; (144, UK). In other work, total debt was positively related to the subjective financial 'threat' individuals experienced, defined as fearful-anxious uncertainty about one's current and future financial situation (68, Canada), and of their financial satisfaction and subjective prosperity (34, Australia). Elsewhere, financial satisfaction was significantly lower where households were in arrears (133, Switzerland; 21, Switzerland) with more frequent arrears also associated with lower financial satisfaction (133, Switzerland). In qualitative research, unmanageable debts increased psychological, subjective experience of financial detriment (64, UK). In a previous review, risky credit card borrowing (revolving balances, missing payments or borrowing up to their limit) had a negative effect on subjective financial distress and wellbeing (Gutter and Copur, 2011 in 93, Norway).

The **types of credit used and persistence of borrowing also plays a role**. In evaluation research, access to affordable forms of alternative credit (government-subsidised loans)

increased subjective financial wellbeing compared with borrowing from high-cost sources (49, UK). When households in arrears had to resort to bank credit (overdrafts) the effect on financial satisfaction was exceptionally lower (133, Switzerland). However, in qualitative research, the cost of borrowing per se did not influence self-reported financial difficulties (71, UK). And in another study, short-term credit card debtors exhibited around twice the levels of psychological ‘debt stress’ than longer-term credit-card debtors although they were also less pessimistic about their financial futures (124, US).

**How borrowing is repaid is also important.** Avoiding credit card debt by settling the balance every month predicted lower levels of financial stress (115, US). Similarly, being good at managing credit use (by avoiding credit use where possible or otherwise making strong efforts to repay borrowing) strongly influenced a composite measure of subjective financial wellbeing and ability to meet financial commitments independently of other financially capable behaviours, attitudes and skills and demographics (Finney, 2016, UK).

Finally, quantitative research finds that **not borrowing for daily expense is associated with a greater feeling of being comfortable financially.** This was independent of a wide range of other factors, including other financial behaviours and demographics (93, Norway). It was not the strongest predictor of all kinds of financial behaviours considered, but it was important. In a follow-on study, when the ‘being comfortable’ measure was expanded to include two types of borrowing, not borrowing for daily expense was still significant but played much less of a role, and the effect of restrained consumer borrowing – a new measure of borrowing behaviour – was nearly as strong. (Kempson and Poppe, 2018, Norway).

Notably, however, people who felt more financial ‘threat’ were more willing to act to change their financial situations (68, Canada). This would have the potential to make their material financial situations better than their counterparts who were less susceptible to feeling threatened by their financial situation.

**7.2 Borrowing, particularly overborrowing, impacts on material financial wellbeing**  
Studies of material or objective financial wellbeing have considered financial wellbeing on a range of measures, including those which reflect short-term and longer-term wellbeing. Often, these are composite measures which include some elements of subjective wellbeing incorporated (where noted). In other cases, they are less well defined.

In quantitative analysis, **not borrowing for daily expenses strongly predicted someone’s ability to meet their current financial commitments as well as their financial resilience** for the future (93, Norway; Kempson and Poppe, 2018, Norway). In qualitative analysis, it was clear that behaviour was the key determinant of financial wellbeing and that not borrowing for essentials was key within this (93, UK), and how the use of borrowing for everyday expense had a problematic tendency to creep up on households until it became unmanageable (71, UK). And in a previous review, the use of borrowing for everyday expenses had a direct, negative influence on a composite measure of financial wellbeing

(which included some subjective elements) across the short and long-term (Delafrooz and Paim, 2013 in 93, [International](#)).

**Restrained consumer borrowing has also been identified as one of the strongest predictors of someone's ability to meet their current financial commitments** and especially their future financial resilience from a range of behaviours considered (Kempson and Poppe, 2018, [Norway](#)). Similarly, being good at managing credit use strongly influenced current financial wellbeing (a composite measure combining subjective and objective elements) and, more weakly, longer-term financial security (another composite measure, but based mainly on material financial wellbeing), and this was true independently of other financially capable behaviours, attitudes and skills and demographics (Finney, 2016, [UK](#)).

In addition, **over-borrowing was identified in one qualitative study as compounding financial difficulties** and this was particularly the case during multiple episodes of income drops or increased expenditure, or a slow decline in income, when the realities of financial difficulties were slow to reveal or were resisted by a desire to maintain spending levels. Maintaining access to borrowing on an unused credit facility (for example, by keeping an unused credit card for a rainy day), even after consolidating previous balances, and a willingness to resort to high-cost credit contributed to deterioration into financial difficulty when a rainy day came. A tendency to focus on credit card minimum repayments and the resulting effect on increasing balances also contributed to a decline in financial wellbeing (71, [UK](#)).

In turn, the impacts of unmanageable debts have been found to include a reduced ability to work (64, [UK](#)), highlighting the cyclical nature of financial difficulties. That said, net wealth has been found to be driven more by changes in households' assets than their borrowing because households prefer to drawdown and increase their assets more readily than increase or clear their debts (28, [International](#)).

As we saw in relation to subjective wellbeing, **there is some indication that the type of credit matters**. One study found that owing money on a credit card and the use of high-cost credit were closely associated with difficulty managing financially (104, [SCOT/UK](#)). Of a range of commitments which included borrowing and household bills, illegal loans and payday loans were the most harmful on an index which included measures of the legal consequences of borrowing, affordability, risk of multiple debts and social and psychological consequences (Salter, 2014 in 38, [UK](#)).

#### 7.2.1 The context of the borrowing affects the impact on material wellbeing

**The role of borrowing is context-dependent**, however. In a natural experiment, access to payday lending after environmental crisis (extreme weather events) and the increased borrowing associated with this led to increased material wellbeing by mitigating a reduction in spending (on non-durables generally and food, housing payments and home repairs specifically) among lower-income households which would otherwise have limited access to credit. In periods of non-crisis, in contrast, access to payday lending led to lower household

material wellbeing by *reducing* household spending (59, US). In another study, short-term users of credit cards missed more payments than users with longer-term credit card debts (124, US).

The **financial costs of borrowing also appears to be important**. In one study, the longer-term use of credit card borrowing was costlier to individuals and this in turn led to more persistent use of debt (i.e. greater reliance; 102, UK). The use of also high-cost credit also led to greater financial cost to consumers overall and reduced costs associated with lowering the total interest and fees chargeable on these would reduce levels of short-term borrowing overall (117, UK). At an aggregate level, however, higher levels of borrowing among households with credit cards was independently associated with *lower* borrowing costs (88, US).

**Implications for policy and practice:** Interventions that influence borrowing behaviour, particularly with the aim of reducing levels of borrowing, are likely have a positive effect on wellbeing.

## 8 What factors could protect against poor borrowing behaviours and potentially improve financial wellbeing?

This systematic review shows that how people borrow, and the amount they borrow, is shaped by a complex mix of psychological traits, their socio-economic position, the particular macro-economic conditions in which they are borrowing, and the way in which lenders operate. While the evidence indicates that borrowing can be detrimental to financial wellbeing, there are also instances where it serves useful functions if used and managed sensibly, such as dealing with unexpected crises or paying for education.

In this final chapter, we consider the specific borrowing behaviours that the evidence shows are linked to better financial wellbeing and the possible levers that can be used to bring about these behaviours (noting however that our evidence review provides limited information in this respect). We also set out the research topics where there remain significant gaps in evidence.

### 8.1 What borrowing behaviours are linked to better financial wellbeing?

On balance, socio-economic factors seem to exert more influence on borrowing behaviour than either psychological factors or socio-demographic ones. We identified two patterns of borrowing behaviour that are driven by people's socio-economic situation:

- For individuals in average or above-average income households, levels of consumer borrowing rise in line with income and assets; and borrowing tends to level off at around middle age and then decline. While individual factors influence exact levels and types of debt held by these individuals and households, **this pattern of borrowing generally does not become problematic unless there is an income shock. There is a risk of persistent long-term debt, however, particularly on credit cards.**
- People in lower-income households have lower levels of borrowing (although it may be high relative to income), but they are more likely to use high-cost credit products and to borrow for essentials such as food and bills. As we saw in Chapter 7, **there is a strong negative correlation between paying for essentials on credit and financial wellbeing**, with the behaviour more likely amongst certain groups such as single parents, renters, and people from black and minority ethnic groups.

Bringing this together with our other evidence on financial wellbeing, **there are five borrowing behaviours associated with good financial wellbeing:**



- Not needing to borrow to pay for essentials
- Borrowing with restraint and avoiding over-borrowing
- Keeping on top of debt repayment
- Reducing the costs of borrowing
- Recognising and acting on the warning signs of potential problems e.g. income shocks.

**To bring about these borrowing behaviours is likely to require different levers, used on their own or in combination.** In the following sections, we consider what these levers might be. The evidence we reviewed provides limited information about these potential levers, except for interventions to improve financial literacy and financial capability; and some evidence about the positive effect of access to affordable credit. Moreover, our evidence highlights the complexities and tensions that shape people’s behaviours in ways that look surprising to an observer but make sense to the borrower. In other words, in practice these suggested levers may not work as intended on paper.

#### 8.1.1 **Borrowing behaviour:** Not needing to borrow to pay for essentials

**Possible levers:** Boosting income; reducing living costs

In both the UK and Finland, there is evidence that people living in low-income households borrow to pay for everyday living expenses, such as food and household bills. This strongly suggests that **boosting income** (from wages or benefits) could have a positive impact for these borrowers. While the UK has policies to ensure minimum incomes for employees, such as the statutory National Minimum Wage and the voluntary Living Wage, there seems to be no evaluation of their impact on borrowing behaviour. Instead, the focus is on the cost to employers and the impact on the UK labour market.

Regarding people who receive social security benefits, **there is evidence that welfare reforms have adversely affected the income and living standards of individuals who were already the most likely to be disadvantaged**, including disabled people, lone parents, larger families and people from black and minority ethnic groups (Hudson-Sharp et al, 2018).

**Reducing low-income households’ living costs** is likely to reduce their need to borrow to pay for essentials. Notably, low-income renters spend a higher portion of their income on rent than higher-income renters, even after accounting for the help they get through housing benefit (Joyce et al, 2017). Aside from housing, some of the main poverty premiums paid by low-income households relate to energy costs, insurance and borrowing (we consider access to affordable credit below) (Davies et al, 2016).

### 8.1.2 Borrowing behaviour: Borrowing with restraint and avoiding over-borrowing

**Possible levers:** Credit market regulation; advice and support for borrowers

Our evidence review highlights a combination of lender and borrower behaviours that can risk over-borrowing and potential problem debt. As we saw in Chapter 6, lender practices such as targeted, personalised marketing (facilitated by technology), frictionless lending, and credit limit increases can all encourage borrowing and may risk people over-borrowing. Recent proposals by the UK regulator aims to tackle some of these issues, for example working with industry to give credit card users greater control over credit card credit limit increases (FCA, 2018c); and issuing new guidance to lenders on assessing creditworthiness and affordability (FCA, 2018d).

Our evidence shows that **young people in particular might benefit from advice and support to make good borrowing decisions (including deciding not to borrow), especially as credit marketing is increasingly blended with social media**. The evidence about the impact of interventions to improve people's financial capability is mixed, although it does suggest that psychologically and behaviourally-oriented interventions might be more effective. The evidence also suggests there are opportunities to engage young people in financial coaching or other support at key life events such as their first credit application; and for smartphone apps to give information and 'nudges' around spending and borrowing. For positive borrowing messages to stick, they need to be repeated and reinforced over time.

### 8.1.3 Borrowing behaviour: Keeping on top of debt repayment

**Possible levers:** Credit market regulation; advice and support for borrowers

How borrowing is repaid has an important effect on subjective wellbeing, which means encouraging and helping borrowers to keep on top of their debt repayments. Chapter 6 highlighted evidence about borrowers who persistently use credit cards and overdrafts (that are really designed for short-term borrowing) over extended periods, which is costly and potentially masks serious financial difficulties. The UK regulator has brought in **new rules and guidance that requires banks and credit card firms to do more to identify borrowers in persistent credit card and overdraft debt and help them reduce their borrowing** (FCA, 2018b, 2018c). As above, there may also be a place for **psychologically and behaviourally-oriented interventions** to provide borrowers with advice and support to keep on top of their debt repayment. As part of its action on overdrafts, the regulator proposes that firms provide alerts to make customers aware of their overdraft use, online tools to help them calculate overdraft costs and clearer information about overdrafts at account opening (FCA, 2018b).

#### 8.1.4 **Borrowing behaviour:** Reducing the cost of borrowing

**Possible levers:** Credit market regulation; boost affordable credit

High borrowing costs are associated with lower financial wellbeing and so there is significant potential benefit (especially for lower-income borrowers) from using regulation to reduce the costs of high-cost credit; and boosting the availability and take-up of affordable credit e.g. provided by credit unions and other non-profit lenders or social enterprises.

In the UK, a **price cap was introduced on high-cost short term credit** (i.e. payday loans) in 2015. A review of the price cap showed improved outcomes for borrowers who not only paid less but also repaid on time more often and were less likely to need help with these loan products from debt charities. Although the cap reduced access to credit for some people, there was no evidence of negative consequences for those who were unable to borrow. There was however a growth in firms offering longer term, multiple instalment loans (FCA, 2017c). The regulator also proposes to introduce a price cap for rent to own products; and make changes to reduce the cost of unarranged overdrafts.

Regarding boosting access to affordable credit for people who lack access to the prime or near-prime credit markets, an evaluation of government-subsidised lower-cost loans as alternative to high cost credit estimated total interest savings per borrower of between £377 and £425 over the lifetime of their current credit obligations, and a reported decrease in use of high cost credit (49 UK).

**The past few years have seen renewed interest in growing the market for non-profit affordable credit**, for example through social investment (Social Investment Scotland 2018) and acceleration programmes (Wayra Fair By Design 2017). In its 2018 Budget, the Conservative Government announced the Affordable Credit Challenge Fund, a £2 million fund to promote innovative fintech solutions to challenges faced by credit unions, community development finance institutions and other social lenders (GOV.UK, 2018b). As noted in Chapter 6, efforts to boost affordable lending will have to also consider how products are marketed to the target audiences, who may already have long-established relationships with (high-cost) lenders that they are reluctant to forgo. However, a wider government provided safety net, such as the Social Fund will also play an important role.

#### 8.1.5 **Borrowing behaviour:** Recognising and acting on the warning signs of potential problems

**Possible levers:** Credit market regulation, lender innovation, advice and support for borrowers

While over-indebtedness and problem debt are outside the scope of this review, we know that how households respond when they get into financial difficulty is crucially important for their outcomes; and that serious problem debt often results in significant detriment. There seems therefore a strong case to help borrowers recognise and act on the warning signs of potential problems – something that has proved challenging to achieve, according to lenders and debt advisers.

As noted above, the UK regulator has proposed **new rules and guidance for firms** to identify borrowers at risk of financial difficulty and to intervene earlier to help them. **The growth in personal and transaction data** may offer one way to do this, which could also be utilised by borrowers (for example through smartphone apps designed to aid money management). US evidence shows that data on spending patterns and spatial-temporal mobility (where and when people are shopping) can predict the likelihood of financial difficulties to a greater degree than comparable demographic models (125, US). This offers the potential to use data to give borrowers feedback and helpful behavioural nudges.

## 8.2 Significant evidence gaps

In this final section, we set out four significant gaps in the evidence that we identified in the course of our review. These relate to young people; what people borrow for; the role of technology in borrowing behaviour; and the role of social norms in borrowing behaviour.

### 8.2.1 Young people

The evidence provides a good general picture of the way in which people take on and repay consumer credit, but there is less information about borrowing patterns by income, age or life-stage. In particular, while the evidence draws attention to the potential vulnerability of young people to poor outcomes as a result of their borrowing behaviour and low financial capability, we found little information about why young people borrow, what motivates them to start borrowing, and what influences their credit choices.

### 8.2.2 What people borrow for

In addition to the gaps in evidence for young people, there is also a surprising absence of recent evidence about what borrowers in general use consumer credit for – apart from low-income households using credit for essentials; and borrowers ‘hoarding’ credit cards for liquidity reasons. While some studies infer spending patterns by looking at consumer expenditure in conjunction with levels of borrowing, we found no major recent studies that look at what borrowers use credit for and whether different types of credit are used for different purposes.

### 8.2.3 The role of technology in borrowing behaviour

In the last decade, there has been a marked increase in the number of people accessing consumer credit online, and yet the effects of this on borrowing behaviour go largely unremarked in the evidence we reviewed. This may in part be due to the time lag between social changes occurring, the collection of data about these social changes (including in large-scale social surveys like the Wealth and Assets Survey) and the publication of research studies about them. As a result, data and published research may start to come on line. In the meantime, this remains a major evidence gap.

### 8.2.4 The role of social norms in borrowing behaviour

The evidence shows that social norms influence borrowing. In other words, ‘keeping up with Jones’ increases borrowing, as does increased social interaction. There is also evidence of

'debt normalisation' among young people that seems to grow stronger with each new generation. Evidence about the effect of pervasive and immersive social media on social norms around borrowing was absent.

## 9 References

- 1 Achziger, A, Hubert, M, Kenning, P, Raab, G and Reisch, L (2015) Debt out of control: The links between self-control, compulsive buying, and real debts. JOURNAL OF ECONOMIC PSYCHOLOGY Volume 49 Pages 141-149
- 2 Adams, P, Guttman-Kenney, B, Hayes,L, Hunt, S, and Stewart, N (2018) *Increasing credit card payments using choice architecture: The case of anchors and prompts* Occasional Paper 42 FCA
- 3 Adams, P, Guttman-Kenney, B, Hayes,L, Hunt, S, Laibson, D and Stewart, N (2018) *The conflict between consumer intentions, beliefs and actions to pay down credit card debt* Occasional Paper 44 FCA
- 4 Advice NI (2018) *Managing Change: project evaluation report*. Money Advice Service
- 5 Agarwal, S, and Zhang, J (2015) *A review of credit card literature: perspectives from consumers*. FCA. London
- 6 Agarwal, S, Chomsisengphet, S, Lim, C, Lo AWand Merton RC(2017) What Shapes Consumer Choice and Financial Products? A Review. ANNUAL REVIEW OF FINANCE ECONOMICS VOLUME 9 Pages 127–46
- 7 Agarwal, S, Chomsisengphet, S, Mahoney, N and Stroebel, J (2015) Regulating Consumer Financial Products: Evidence from Credit Cards. QUARTERLY JOURNAL OF ECONOMICS Volume 130 Issue 1 Pages 111-164
- 8 Allgood, S, Walstad, WB (2016) THE EFFECTS OF PERCEIVED AND ACTUAL FINANCIAL LITERACY ON FINANCIAL BEHAVIORS. ECONOMIC INQUIRY Volume 54 Issue 1 Pages 675-697
- 9 Amar, M, Ariely, D, Ayal, S, Cryder, CE and Rick, SI (2011) Winning the Battle but Losing the War: The Psychology of Debt Management. JOURNAL OF MARKETING RESEARCH Volume 48 Special Issue SI Pages S38-S50
- 10 Andersson, F, Chomsisengphet, S, Glennon, D and Li, F (2013) The Changing Pecking Order of Consumer Defaults. JOURNAL OF MONEY CREDIT AND BANKING Volume 45 Issue 2-3 Pages 251-275
- 11 Appleyard, L, Gardner, J and Rowlingson, K (201) *Introducing a time delay on access to credit Is it just delaying the inevitable?* University of Birmingham
- 12 Ash J, Anderson B, Gordon R, Langley P. (2018) *Digital Interface Design and Power: Friction, Threshold, Transition*. Environment and Planning D: Society and Space
- 13 Autio, M, Wilska, TA, Kaartinen, R and Lahteenmaa, J (2009) The use of small instant loans among young adults - a gateway to a consumer insolvency?. INTERNATIONAL JOURNAL OF CONSUMER STUDIES Volume 33 Issue 4 Pages 407-415
- 14 Babiarz, P, Widdows, R and Yilmazer, T (2013) BORROWING TO COPE WITH ADVERSE HEALTH EVENTS: LIQUIDITY CONSTRAINTS, INSURANCE COVERAGE, AND UNSECURED DEBT. HEALTH ECONOMICS Volume 22 Issue 10 Pages 1177-1198

- 15 Bearden, WO, Haws, KL (2012) How low spending control harms consumers. JOURNAL OF THE ACADEMY OF MARKETING SCIENCE Volume 40 Issue 1 Pages 181-193
- 16 Beauchaine, TP, Ben-David, I and Sela, A (2017) Attention-deficit/ hyperactivity disorder, delay discounting, and risky financial behaviors: A preliminary analysis of self-report data. PLOS ONE Volume 12 Issue 5
- 17 Bermeo, E (2017) *Women and high cost credit: a gender analysis of the home credit industry in the UK*. Univerity of Bristol
- 18 Bertrand, M and Morse, A (2011) Information Disclosure, Cognitive Biases, and Payday Borrowing The Journal of Finance, Vol. 66, No. 6, p.1865-1893
- 19 Besharat, A, Carrillat, FA and Ladik, DM (2014) When Motivation Is Against Debtors' Best Interest: The Illusion of Goal Progress in Credit Card Debt Repayment. JOURNAL OF PUBLIC POLICY & MARKETING Volume 33 Issue 2 Pages 143-158
- 20 Besharat, A, Varki, S and Craig, AW (2015) Keeping consumers in the red: Hedonic debt prioritization within multiple debt accounts. JOURNAL OF CONSUMER PSYCHOLOGY Volume 25 Issue 2 Pages 311-316
- 21 Bialowolski, P (2018) Hard Times! How do Households Cope with Financial Difficulties? Evidence from the Swiss Household Panel. SOCIAL INDICATORS RESEARCH Volume 139 Issue 1 Special Issue Pages 147-161
- 22 Bijak, K, Mues, C, M-C So and Thomas, L (2015) *Credit card market literature review: Affordability and Repayment* Southampton Business School
- 23 Bolton, LE, Bloom, PN and Cohen, JB (2011) Using Loan Plus Lender Literacy Information to Combat One-Sided Marketing of Debt Consolidation Loans. JOURNAL OF MARKETING RESEARCH Volume 48 Special Issue SI Pages S51-S59
- 24 Bover, O, Casado, JM, Costa, S, Du Caju, P, McCarthy, Y, Sierminska, E, Tzamourani, P, Villanueva, E andZavadil, T(2016) The Distribution of Debt across Euro-Area Countries: The Role of Individual Characteristics, Institutions, and Credit Conditions. INTERNATIONAL JOURNAL OF CENTRAL BANKING Volume 12 Issue 2 Pages 71-128
- 25 Bover, O, Schurz, M, Slacalek, J and Teppa, F (2016) Eurosystem Household Finance and Consumption Survey: Main Results on Assets, Debt, and Saving. INTERNATIONAL JOURNAL OF CENTRAL BANKING Volume 12 Issue 2 Pages 1-13
- 26 Boyce, CJ, Delaney, L, Ferguson, E and Wood, AM (2018) Central bank interest rate decisions, household indebtedness, and psychiatric morbidity and distress: Evidence from the UK. JOURNAL OF AFFECTIVE DISORDERS Volume 234 Pages 311-317
- 27 Bradford, D, Courtemanche, C, Heutel, G, McAlvanah, P and Ruhm, C (2017) Time preferences and consumer behavior. JOURNAL OF RISK AND UNCERTAINTY Volume 55 Issue 2-3 Pages 119-145

- 28 Breuer and Soypak (2015) Framing effects in intertemporal choice tasks and financial implications
- 29 Bridges, S, and Disney, R (2010) *Debt and depression* Journal of Health Economics 29(3):388-403
- 30 Brougham, RR, Jacobs-Lawson, JM, Hershey, DA and Trujillo, KM (2011) Who pays your debt? An important question for understanding compulsive buying among American college students. INTERNATIONAL JOURNAL OF CONSUMER STUDIES Volume 35 Issue 1 Pages 79-85
- 31 Brown, J, Wappling, A, Woodruffe-Burton, H and Black, K (2017) The orbit of consumer credit choices. JOURNAL OF FINANCIAL SERVICES MARKETING Volume 22 Issue 2 Special Issue Pages 85-96
- 32 Brown, M, Stein, S and Zafar, B (2015) The Impact of Housing Markets on Consumer Debt: Credit Report Evidence from 1999 to 2012. JOURNAL OF MONEY CREDIT AND BANKING Volume 47 Pages 175-213 Supplement 1
- 33 Brown, S, Ghosh, P and Taylor, K (2016) Household Finances and Social Interaction: Bayesian Analysis of Household Panel Data. REVIEW OF INCOME AND WEALTH Volume 62 Issue 3 Pages 467-488
- 34 Brown, S, Gray, D (2016) Household finances and well-being in Australia: An empirical analysis of comparison effects. JOURNAL OF ECONOMIC PSYCHOLOGY Volume 53 Pages 17-36
- 35 Brown, S, Taylor, K (2008) Household debt and financial assets: evidence from Germany, Great Britain and the USA. JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES A- STATISTICS IN SOCIETY Volume 171 Pages 615-643
- 36 BROWN, S, GARINO, G, and TAYLOR, K (2013) HOUSEHOLD DEBT AND ATTITUDES TOWARD RISK Review of Income and Wealth Series 59, Number 2,
- 37 Brown, S. and Taylor, K. (2014) *Household Finances and the 'Big Five' Personality Traits*. Journal of Economic Psychology, 45. pp. 197-212. ISSN 0167-4870
- 38 Cadywould, C (2016) *Banking for all* Demos. London
- 39 Cakarnis, J, D'Alessandro, SP (2015) Does knowing overcome wanting? The impact of consumer knowledge and materialism upon credit card selection with young consumers. YOUNG CONSUMERS Volume 16 Issue 1 Pages 50-70
- 40 Campbell, JR, Hercowitz, Z (2009) Welfare implications of the transition to high household debt. JOURNAL OF MONETARY ECONOMICS Volume 56 Issue 1 Pages 1-16
- 41 Carnegie UK (2018) *Repay Right* Carnegie UK Scotland

- 42 Chan, E, Haughwout, A, Hayashi, A and Van Der Klaauw, W (2016) *Determinants of Mortgage Default and Consumer Credit Use: The Effects of Foreclosure Laws and Foreclosure Delays*, Journal of Money, Credit and Banking. 48(2-3):393-413
- 43 Citi Australia (2010) Evidence versus emotion: How do we really make financial decisions?
- 44 Clark, Y and Webster, A (2018) *Final Evaluation Report: Citizens Advice Southwark*. Money Advice Trust
- 45 Cloyne, JS, Surico, P (2017) Household Debt and the Dynamic Effects of Income Tax Changes. REVIEW OF ECONOMIC STUDIES Volume 84 Issue 1 Pages 45-81
- 46 Cohen, JN (2016) The myth of America's "culture of consumerism": Policy may help drive American household's fraying finances. JOURNAL OF CONSUMER CULTURE Volume 16 Issue 2 Special Issue Pages 531-554
- 47 Cole, S, Paulson, A and Shastry, GK (2016) High School Curriculum and Financial Outcomes The Impact of Mandated Personal Finance and Mathematics Courses. JOURNAL OF HUMAN RESOURCES Volume 51 Issue 3 Pages 656-698
- 48 Collard, S, Finney, A and Davies, S (2012) *Working households' experiences of debt problems*. Stepchange
- 49 Collard, S, Hale, C and Day, L (2011) *Evaluation of the DWP growth fund : final report*. HMT. London
- 50 Conduit Scotland (2018) *An Evaluation of the initial phase of the Community Development Finance Institution (CDFI)*. Money Advice Service
- 51 Consumer Financial Protection Bureau (2016) Financial coaching: A strategy to improve financial well-being
- 52 Crack, TF, Roberts, H (2015) Credit card balances and repayment under competing minimum payment regimes. REVIEW OF QUANTITATIVE FINANCE AND ACCOUNTING Volume 45 Issue 4 Pages 785-801
- 53 Crook, J, Banasik, J (2012) Forecasting and explaining aggregate consumer credit delinquency behaviour. INTERNATIONAL JOURNAL OF FORECASTING Volume 28 Issue 1 Pages 145-160
- 54 De Neve, JE, Fowler, JH (2014) Credit card borrowing and the monoamine oxidase A (MAOA) gene. JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION Volume 107 Special Issue Pages 428-439
- 55 De Veirman, E, Dunstan, A (2012) Debt Dynamics and the Relationship Between Consumption and Cyclical Wealth Changes. ECONOMIC RECORD Volume 88 Issue 282 Pages 330-340
- 56 Disney, R, Bridges, S and Gathergood, J (2010) House Price Shocks and Household Indebtedness in the United Kingdom. ECONOMICA Volume 77 Issue 307 Pages 472-496

- 57 Disney, R, Gathergood, J (2013) Financial literacy and consumer credit portfolios. JOURNAL OF BANKING & FINANCE Volume 37 Issue 7 Pages 2246-2254
- 58 Dobbie, W, Skiba, PM (2013) Information Asymmetries in Consumer Credit Markets: Evidence from Payday Lending. AMERICAN ECONOMIC JOURNAL-APPLIED ECONOMICS Volume 5 Issue 4 Pages 256-282
- 59 Dobridge, CL (2018) High-Cost Credit and Consumption Smoothing. JOURNAL OF MONEY CREDIT AND BANKING Volume 50 Issue 2-3 Pages 407-433
- 60 Donnelly, G, Iyer, R, Howell, RT (2012) The Big Five personality traits, material values, and financial well-being of self-described money managers. JOURNAL OF ECONOMIC PSYCHOLOGY Volume 33 Issue 6 Pages 1129-1142
- 61 Druedahl, J, Jorgensen, CN (2018) Precautionary borrowing and the credit card debt puzzle. QUANTITATIVE ECONOMICS Volume 9 Issue 2 Pages 785-823
- 62 Ejebu, OZ (2018) Exploratory Study of Comparison Income and Individual Debt Using British Household Panel Survey. REVIEW OF ECONOMIC ANALYSIS Volume 10 Issue 2 Pages 181-202
- 63 Ekici, T, Dunn, L (2010) Credit card debt and consumption: evidence from household-level data. APPLIED ECONOMICS Volume 42 Issue 4 Pages 455-462
- 64 FCA (2014) *Consumer credit and consumers in vulnerable circumstances* retrieved from
- 65 FCA (2015) Consumer credit: proposals in response to the CMA's recommendations on high-cost short-term credit
- 66 FCA (2016) Credit card market study: Final findings report
- 67 FCA (2017) *Preventing financial distress by predicting unaffordable consumer credit agreements: An applied framework* Occasional Paper 28
- 68 Fiksenbaum, L, Marjanovic, Z, and Greenglass, E (2017) *Financial threat and individuals' willingness to change financial behavior*, Review of Behavioral Finance, 9:2, 128-147
- 69 Financial Consumer Agency of Canada (2016) Payday loans: market trends.
- 70 Finney, A (2009) 'The role of personal relationships in borrowing, saving and over-indebtedness' in J.Miles and R.Probert (2009) *Sharing lives divided assets: an interdisciplinary study*. Oxford:Hart Publishing.
- 71 Finney, A. (2015), 'Descent into financial difficulty and the role of consumer credit' in *Consumer Vulnerability: Conditions, contexts and characteristics*. ed. / Kathy Hamilton; Susan Dunnett; Maria Piacentini. Routledge, 2015. 185-197
- 72 Fitzpatrick, K (2015) The Effect of Bank Account Ownership on Credit and Consumption: Evidence from the United Kingdom. SOUTHERN ECONOMIC JOURNAL Volume 82 Issue 1

- 73 French, D McKillop, D and Stewart, E (2018) *Money Matters: A Queen's University Study into the effectiveness of smart phone apps on financial capability*. The money advice aservice
- 74 French, D, McKillop, D (2016) Financial literacy and over-indebtedness in low-income households. *INTERNATIONAL REVIEW OF FINANCIAL ANALYSIS* Volume 48 Pages 1-11
- 75 Friedline, T, Song, HA (2013) Accumulating assets, debts in young adulthood: Children as potential future investors. *CHILDREN AND YOUTH SERVICES REVIEW* Volume 35 Issue 9 Pages 1486-1502
- 76 Gardner, J and Rowlingson , K (2015) *High-cost credit and welfare reform* In *Defence of Welfare* 2:32-35
- 77 Gathergood, J (2012) Debt and Depression: Causal Links and Social Norm Effects. *ECONOMIC JOURNAL* Volume 122 Issue 563 Pages 1094-1114
- 78 Gathergood, J (2012) Self-control, financial literacy and consumer over-indebtedness. *JOURNAL OF ECONOMIC PSYCHOLOGY* Volume 33 Issue 3 Pages 590-602
- 79 Gathergood, J, Weber, J (2014) Self-control, financial literacy & the co-holding puzzle. *JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION* Volume 107 Special Issue SI Pages 455-469
- 80 Georgarakos, D, Haliassos, M and Pasini, G (2014) Household Debt and Social Interactions. *REVIEW OF FINANCIAL STUDIES* Volume 27 Issue 5 Pages 1404-1433
- 81 Gibbons, D (2016) *Using insight and innovation to benefit low income households*. Centre for Responsible Credit
- 82 Gutierrez-Nieto, B, Serrano-Cinca, C and de la Cuesta-Gonzalez, M (2017) A multivariate study of over-indebtedness' causes and consequences. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES* Volume 41 Issue 2 Pages 188-198
- 83 Henry, P, Garbarino, E and Voola, R (2013) Metacognitions About Consumer Protection and Individual Responsibility in the Credit Card Domain. *JOURNAL OF PUBLIC POLICY & MARKETING* Volume 32 Issue 1 Pages 32-44
- 84 Hoelzl, E, Kamleitner, B and Kirchler, E (2011) Loan repayment plans as sequences of instalments. *JOURNAL OF ECONOMIC PSYCHOLOGY* Volume 32 Issue 4 Special Issue Pages 621-631
- 85 Hojman, DA, Miranda, A and Ruiz-Tagle, J (2016) Debt trajectories and mental health. *SOCIAL SCIENCE & MEDICINE* Volume 167 Pages 54-62
- 86 Horton, J (2017) Young people and debt: getting on with austerities. *AREA* Volume 49 Issue 3 Pages 280-287
- 87 Houle, JN (2014) A Generation Indebted: Young Adult Debt across Three Cohorts. *SOCIAL PROBLEMS* Volume 61 Issue 3 Pages 448-465
- 88 Huston, SJ (2012) Financial literacy and the cost of borrowing. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES* Volume 36 Issue 5 Pages 566-572

- 89 Hyytinen, A and Putkuri, H (2018) *Household Optimism and Overborrowing* Journal of Money, Credit and Banking; 50:1
- 90 Jones, LE, Loibl, C and Tennyson, S (2015) Effects of informational nudges on consumer debt repayment behaviors. JOURNAL OF ECONOMIC PSYCHOLOGY Volume 51 Pages 16-33
- 91 Kamleitner, B, Hoelzl, E and Kirchler, E (2012) Credit use: Psychological perspectives on a multifaceted phenomenon. INTERNATIONAL JOURNAL OF PSYCHOLOGY Volume 47 Issue 1 Pages 1-27
- 92 Kartashova, K, Tomlin, B (2017) House prices, consumption and the role of non-Mortgage debt. JOURNAL OF BANKING & FINANCE Volume 83 Pages 121-134
- 93 Kempson, E, Poppe, C and Finney, A (2017) Financial Well-Being A Conceptual Model and Preliminary Analysis; Project Note 3; SIFO
- 94 Kettle, KL, Trudel, R, Blanchard, SJ and Haubl, G (2016) Repayment Concentration and Consumer Motivation to Get Out of Debt. JOURNAL OF CONSUMER RESEARCH Volume 43 Issue 3 Pages 460-477
- 95 Knutson, B, Samanez-Larkin, GR and Kuhnen, CM (2011) Gain and Loss Learning Differentially Contribute to Life Financial Outcomes. PLOS ONE Volume 6 Issue 9 Article Number e24390
- 96 Krumer-Nevo, M, Gorodzeisky, A and Saar-Heiman, Y (2017) Debt, poverty, and financial exclusion. JOURNAL OF SOCIAL WORK Volume 17 Issue 5 Pages 511-530
- 97 Li, ML, Mumford, KJ and Tobias, JL (2012) A Bayesian analysis of payday loans and their regulation. JOURNAL OF ECONOMETRICS Volume 171 Issue 2 Pages 205-216
- 98 Lim, Y, Bickham, T, Broussard, J, Dinecola, CM, Gregory, A and Weber, BE (2014) The Role of Middle-Class Status in Payday Loan Borrowing: A Multivariate Approach. SOCIAL WORK Volume 59 Issue 4 Pages 329-337
- 99 Lo, HY, Harvey, N (2011) Shopping without pain: Compulsive buying and the effects of credit card availability in Europe and the Far East. JOURNAL OF ECONOMIC PSYCHOLOGY Volume 32 Issue 1 Pages 79-92
- 100 Lowe, J (2017) *Consumers and competition: Delivering more effective consumer power in retail financial markets*
- 101 Lusardi, A (2015) *Financial literacy: Do people know the ABCs of finance* Public Understanding of Science; 24(3) 260–27
- 102 Lyall, S and Gibbons, D (2017) *Tackling persistent credit card debt: a response to the FCA consultation*. New economic Foundation
- 103 Lynch, JG, Netemeyer, RG, Spiller, SA and Zammit, A (2010) A Generalizable Scale of Propensity to Plan: The Long and the Short of Planning for Time and for Money. JOURNAL OF CONSUMER RESEARCH Volume 37 Issue 1 Pages 108-128

- 104 Martin, C (2018) *Use of credit and financial resilience. Analysis of the Scottish Household Survey* Carnegie UK
- 105 McHugh, S, Ranyard, R and Lewis, A (2011) Understanding and knowledge of credit cost and duration: Effects on credit judgements and decisions. *JOURNAL OF ECONOMIC PSYCHOLOGY* Volume 32 Issue 4 Special Issue Pages 609-620
- 106 McNair, S, Summers, B, de Bruin, WB and Ranyard, R (2016) Individual-level factors predicting consumer financial behavior at a time of high pressure. *PERSONALITY AND INDIVIDUAL DIFFERENCES* Volume 99 Pages 211-216
- 107 McNeill, LS (2014) The place of debt in establishing identity and self-worth in transitional life phases: young home leavers and credit. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES* Volume 38 Issue 1 Pages 69-74
- 108 Meier, S, Sprenger, C, (2010) Present-Biased Preferences and Credit Card Borrowing. *AMERICAN ECONOMIC JOURNAL-APPLIED ECONOMICS* Volume 2 Issue 1 Pages 193-210
- 109 Money advice Trust (2016) *Borrowed years; a spotlight briefing on young people, credit and debt*
- 110 Opinion Research Services (2018) *Evaluation of the 'Your Money Your Home Project'*. Money Advice Service: London
- 111 Ottaviani, C, Vandone, D (2011) *Impulsivity and household indebtedness: Evidence from real life* *Journal of Economic Psychology*, 2011, vol. 32, issue 5, 754-761
- 112 Ottaviani, C, Vandone, D (2018) Financial Literacy, Debt Burden and Impulsivity: A Mediation Analysis. *ECONOMIC NOTES* Volume 47 Issue 2-3 Special Issue Pages 439-453
- 113 Pak, TY (2018) Financial literacy and high-cost borrowing: Exploring the mechanism. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES* Volume 42 Issue 3 Pages 283-294
- 114 Patel, A, Balmer, NJ and Pleasence, P (2012) Debt and disadvantage: the experience of unmanageable debt and financial difficulty in England and Wales. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES* Volume 36 Issue 5 Pages 556-565
- 115 Peach, ND, Yuan, HW (2017) Assessing the Financial Knowledge, Behaviours, and Attitudes of Undergraduates. *E-JOURNAL OF BUSINESS EDUCATION & SCHOLARSHIP OF TEACHING* Volume 11 Issue 2 Pages 27-38
- 116 Penalzoza, L, Barnhart, M (2011) Living US Capitalism: The Normalization of Credit/Debt. *JOURNAL OF CONSUMER RESEARCH* Volume 38 Issue 4 Pages 743-762
- 117 Personal Finance Research Centre (2013) *The impact on business and consumers of a cap on the total cost of credit*. London: Department for Business Innovation and Skills
- 118 Petersen, JA, Kushwaha, T and Kumar, V (2015) Marketing Communication Strategies and Consumer Financial Decision Making: The Role of National Culture. *JOURNAL OF MARKETING* Volume 79 Issue 1 Pages 44-63

- 119 Poppe, C, Lavik, R and Borgeraas, E (2016) The dangers of borrowing in the age of financialization. ACTA SOCIOLOGICA Volume 59 Issue 1 Pages 19-33
- 120 Randrianarisoa, A. & Eccles, K., (2016) *Pathways to resilience: The impact of financial conversations on the financial capability of NLS applicants*, Good Shepherd Microfinance, Melbourne
- 121 Salisbury, LC (2014) Minimum Payment Warnings and Information Disclosure Effects on Consumer Debt Repayment Decisions. JOURNAL OF PUBLIC POLICY & MARKETING Volume 33 Issue 1 Pages 49-64
- 122 Scholnick, B, Massoud, N and Saunders, A (2013) The impact of wealth on financial mistakes: Evidence from credit card non-payment. JOURNAL OF FINANCIAL STABILITY Volume 9 Issue 1 Pages 26-37
- 123 Shefrin, H, Nicols, CM (2014) Credit card behavior, financial styles, and heuristics. JOURNAL OF BUSINESS RESEARCH Volume 67 Issue 8 Pages 1679-1687
- 124 Shen, SY, Sam, AG and Jones, E (2014) Credit Card Indebtedness and Psychological Well-Being Over Time: Empirical Evidence from a Household Survey. JOURNAL OF CONSUMER AFFAIRS Volume 48 Issue 3 Pages 431-456
- 125 Singh, VK, Bozkaya, B and Pentland, A (2015) Money Walks: Implicit Mobility Behavior and Financial Well-Being. PLOS ONE Volume 10 Issue 8 Article Number
- 126 Skalamera-Alilovic, D, Dimitric, M, Jurcic A, Oreski DandMikic M(2017) (IR)RESPONSIBLE LENDING AND PERSONAL INDEBTEDNESS: CONSUMER CREDIT MARKETING.ECONOMIC AND SOCIAL DEVELOPMENT: BOOK OF PROCEEDINGS. Varazdin Pages 390-401.
- 127 Smail, D, Elison, S, Dubrow-Marshall, L and Thompson, C (2017) A Mixed-Methods Study Using a Nonclinical Sample to Measure Feasibility of Ostrich Community: A Web-Based Cognitive Behavioral Therapy Program for Individuals With Debt and Associated Stress. JMIR MENTAL HEALTH Volume 4 Issue 2 Article Number UNSP e12
- 128 Soll, JB, Keeney, RL and Larrick, RP (2013) Consumer Misunderstanding of Credit Card Use, Payments, and Debt: Causes and Solutions. JOURNAL OF PUBLIC POLICY & MARKETING Volume 32 Issue 1 Pages 66-81
- 129 Sotiropoulos, V, d'Astous, A (2012) Social Networks and Credit Card Overspending Among Young Adult Consumers. JOURNAL OF CONSUMER AFFAIRS Volume 46 Issue 3 Pages 457-484
- 130 Stango, V, Zinman, J (2009) Exponential Growth Bias and Household Finance. JOURNAL OF FINANCE Volume 64 Issue 6 Pages 2807-2849
- 131 Stango, V, Zinman, J (2016) Borrowing High versus Borrowing Higher: Price Dispersion and Shopping Behavior in the US Credit Card Market. REVIEW OF FINANCIAL STUDIES Volume 29 Issue 4 Pages 979-1006

- 132 Stockhammer, E, Wildauer, R (2018) Expenditure Cascades, Low Interest Rates or Property Booms? Determinants of Household Debt in OECD Countries. REVIEW OF BEHAVIORAL ECONOMICS Volume 5 Issue 2 Pages 85-121
- 133 Sullivan, JX (2008) Borrowing during unemployment - Unsecured debt as a safety net. JOURNAL OF HUMAN RESOURCES Volume 43 Issue 2 Pages 383-412
- 134 Sussman, AB, O'Brien, RL (2016) Knowing When to Spend: Unintended Financial Consequences of Earmarking to Encourage Savings. JOURNAL OF MARKETING RESEARCH Volume 53 Issue 5 Pages 790-803
- 135 Sweet, E (2018) Like you failed at life": Debt, health and neoliberal subjectivity. SOCIAL SCIENCE & MEDICINE Volume 212 Pages 86-93
- 136 Szmigin, I, O'Loughlin, D (2010) Students and the Consumer Credit Market: Towards a Social Policy Agenda. SOCIAL POLICY & ADMINISTRATION Volume 44 Issue 5 Pages 598-619
- 137 Tach, LM, Greene, SS (2014) Robbing Peter to Pay Paul": Economic and Cultural Explanations for How Lower-Income Families Manage Debt. SOCIAL PROBLEMS Volume 61 Issue 1 Pages 1-21
- 138 Temple, JB (2008) Correlates of housing affordability stress among older Australians. AUSTRALASIAN JOURNAL ON AGEING Volume 27 Issue 1 Pages 20-25
- 139 Temple, JB, Williams, R (2018) Financial well-being of older Australians with multiple health conditions. AUSTRALASIAN JOURNAL ON AGEING Volume 37 Issue 2 Pages 127-134
- 140 Thompson, S, Lane, J, Hardy, G and Falconer, A (2017) *Stuck in debt: Why do people get trapped in problem debt?* Citizens Advice London
- 141 Tully, SM, Sharma, E (2018) Context-Dependent Drivers of Discretionary Debt Decisions: Explaining Willingness to Borrow for Experiential Purchases. JOURNAL OF CONSUMER RESEARCH Volume 44 Issue 5 Pages 960-973
- 142 Walsemann, KM, Ailshire, JA (2017) Student Debt Spans Generations: Characteristics of Parents Who Borrow to Pay for Their Children's College Education. JOURNALS OF GERONTOLOGY SERIES B-PSYCHOLOGICAL SCIENCES AND SOCIAL SCIENCES Volume 72 Issue 6 Pages 1084-1089
- 143 Whittaker, M (2013) *Closer to the edge? Debt repayments in 2018 under different household income and borrowing cost scenarios* Resolution Foundation
- 144 Whittaker, M (2018) *An unhealthy interest? Debt distress and the consequences of raising rates* Resolution Foundation
- 145 Wilcox, K, Stephen, AT (2013) Are Close Friends the Enemy? Online Social Networks, Self-Esteem, and Self-Control. JOURNAL OF CONSUMER RESEARCH Volume 40 Issue 1 Pages 90-103
- 146 Wong, KY, Lynn, M (2017) The easy-money effect: credit card spending and hard-work reminders. JOURNAL OF CONSUMER MARKETING Volume 34 Issue 7 Pages 541-551

- 147 Woodyard, AS, Robb, C, Babiarz, P and Jung, JY (2017) Knowledge and Practice: Implications for Cash and Credit Management Behaviors. FAMILY & CONSUMER SCIENCES RESEARCH JOURNAL Volume 45 Issue 3 Pages 300-314
- 148 Worton et al (2018) *Usage and experiences of High Cost Credit Consumer research report*. FCA. London
- 149 Zanoni, L., Warburton, W., Russell, R., Warburton, M., & Flynn, L. (2016). *Evaluating the Wesley Mission In charge of my money financial literacy program for vulnerable populations*. Sydney: Wesley Mission

### Additional contextual references (not reviewed)

Adams, P, Guttman-Kenney, B, Hayes, L. and Hunt, S. (2018). *Helping credit card users repay their debt: a summary of experimental research*. Financial Conduct Authority Research Note. Retrieved from <https://www.fca.org.uk/publication/research/research-note-helping-credit-card-users-repay-their-debt-summary-experimental-research.pdf>

Bank of England (2018). *Money and Credit, November 2018*. Retrieved from <https://www.bankofengland.co.uk/statistics/money-and-credit/2018/november-2018>

Bolton, P. (2019). *Student loan statistics*. House of Commons Library Briefing Paper Number 1079. Retrieved from <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN01079>

Bouyon, S. and Ayoub, J. (2018). *Consumer credit, digitalisation and behavioural economics. Are new protection rules needed?* ECRI Policy Brief No.9. Retrieved from [https://www.ceps.eu/system/files/ECRI%20PB%20No%209\\_SB\\_ConsumerCredit\\_0.pdf](https://www.ceps.eu/system/files/ECRI%20PB%20No%209_SB_ConsumerCredit_0.pdf)

Collard, S., Coppack, M., Lowe, J., & Sarkar, S. (2016). *Access to financial services*. London: Financial Conduct Authority. Occasional Paper 17. Retrieved from <https://www.fca.org.uk/publication/occasional-papers/occasional-paper-17.pdf>

Davies, S., Finney, A. and Hartfree, Y. (2016). *Paying to be poor: uncovering the scale and nature of the poverty premium*. Bristol: University of Bristol Personal Finance Research Centre. Retrieved from <http://www.bristol.ac.uk/media-library/sites/geography/pfrc/pfrc1615-poverty-premium-report.pdf>

DWP (2017). *Households below average income, 1994/95-2015/16*. Retrieved from <https://www.gov.uk/government/statistics/households-below-average-income-199495-to-201516>

Edmonds, T. (2018). *Open Banking – Banking but not as we know it?* Commons Briefing papers CBP-8215. Retrieved from <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8215#fullreport>

FCA (2019). *Sector views*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/corporate/sector-views-january-2019.pdf>

FCA (2018a). *The financial lives of consumers across the UK. Key findings from the FCA's Financial Lives Survey 2017*. London: FCA. Retrieved from <https://www.fca.org.uk/publication/research/financial-lives-consumers-across-uk.pdf>

FCA (2018b). *High-cost credit review: Overdrafts consultation paper and policy statement. Consultation Paper CP18/42*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/consultation/cp18-42.pdf>

FCA (2018c). *PS18/4: Credit card market study: persistent debt and earlier intervention - feedback to CP17/43 and final rules*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publications/policy-statements/ps18-04-credit-card-market-study>

FCA (2018d). *Assessing creditworthiness in consumer credit – Feedback on CP17/27 and final rules and guidance. Policy Statement PS 18/19*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/policy/ps18-19.pdf>

FCA (2017a). *Understanding the financial lives of UK adults*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/research/financial-lives-survey-2017.pdf>

FCA (2017b). *Credit card market study: Persistent debt and earlier intervention remedies - feedback on CP17/10 and further consultation. Consultation Paper CP17/43*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/consultation/cp17-43.pdf>

FCA (2017c). *High-cost credit including review of the high-cost short-term credit price cap. Feedback Statement FS 17/2*. London: Financial Conduct Authority. Retrieved from <https://www.fca.org.uk/publication/feedback/fs17-02.pdf>

Financial Services Consumer Panel (2017). *Consultation Response: High-cost short-term credit price cap review*. Retrieved from [https://www.fs-cp.org.uk/sites/default/files/fscpr\\_response\\_hcstc\\_price\\_cap\\_review.pdf](https://www.fs-cp.org.uk/sites/default/files/fscpr_response_hcstc_price_cap_review.pdf)

GOV.UK (2018a). *Tech firms win prize to help UK's renters onto the housing ladder*. Retrieved from <https://www.gov.uk/government/news/tech-firms-win-prize-to-help-uks-renters-onto-the-housing-ladder>

GOV.UK (2018b). *Budget 2018*. Policy Paper. Retrieved from <https://www.gov.uk/government/publications/budget-2018-documents/budget-2018>

Harari, D. (2018). *Household debt: statistics and impact on economy*. House of Commons Briefing Paper 7584. Retrieved from <http://researchbriefings.files.parliament.uk/documents/CBP-7584/CBP-7584.pdf>

Hudson-Sharp, N., Munro-Lott, N., Rolfe H. and Runge, J. (2018). *The impact of welfare reform and welfare-to-work programmes: an evidence review*. EHRC Research report 111. London: Equality and Human Rights Commission Retrieved from <https://www.equalityhumanrights.com/sites/default/files/research-report-111-cumulative-impact-assessment-evidence-review.pdf>

Joyce, R., Mitchell, M. and Norris Keiller, A. (2017). *The cost of housing for low-income renters*. London: Institute for Fiscal Studies. Retrieved from <https://www.ifs.org.uk/uploads/publications/comms/R132.pdf>

Lundberg, M. and Mulaj, F. (2014). *Enhancing financial capability and behavior in low and middle-income countries*. Washington DC: The World Bank. Retrieved from <http://documents.worldbank.org/curated/en/870211468159324306/Enhancing-financial-capability-and-behavior-in-low-and-middle-income-countries>

Keys, B.J. and Wang, J. (2016). *Minimum payments and debt paydown in consumer credit cards*. NBER Working Paper 22742. Retrieved from <http://www.nber.org/papers/w22742>

Lunn, E. (2018). *Klarna: 'buy now, pay later' system that is seducing millennials*. The Guardian (online). Retrieved from <https://www.theguardian.com/money/2018/nov/17/klarna-buy-now-pay-later-system-that-is-seducing-millennials>

ONS (2017). *Families and households, 2017*. Retrieved from <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2017>

Reynolds, F. (2017). *Open Banking: A consumer perspective*. London: Barclays Bank. Retrieved from <https://www.openbanking.org.uk/wp-content/uploads/Open-Banking-A-Consumer-Perspective.pdf>

Salter, J. (2014). *The Borrowers*. London: Demos

Social Investment Scotland (2018). *The new Carnegie UK Loan Fund*. Retrieved from <http://www.socialinvestmentscotland.com/new-carnegie-uk-loan-fund/>

The Money Charity (2019). *The Money Statistics, February 2019*. Retrieved from <https://themoneycharity.org.uk/money-statistics/>

UK Finance (2018). *Contactless card statistics – June 2017*. Retrieved from <https://www.ukfinance.org.uk/statistics/cards/>

Wayra Fair By Design (2017). *Companies selected for Wayra Fair By Design programme*. Retrieved from <https://wayra.co.uk/companies-selected-for-wayra-fair-by-design-programme/>

## 10 Appendix

### 10.1 Search Terms

Primary term	Synonyms and similar terms	Records returned
<b>Borrowing OR Credit OR Debt plus</b>		
Financial...wellbeing	Resilien* Satisfaction Secur* Stress Strain Vulnerab* Difficulty Over-indebtedness	351
Financial capability	Money manag* Manag* debt Spend* Budget* Keep* track Financial decision-making Financial literacy	270
✓Saving*	Investment/investing Financial products Home owner* Housing wealth Housing assets Assets Wealth Mortgage borrowing Liabilities Business loans	1508
Personality	Traits Individual differences Motivations Locus of control Extroversion Introversion Agreeableness Conscientiousness Self-confidence Self-efficacy Big five Attitudes	175

Primary term	Synonyms and similar terms	Records returned
<b>Borrowing OR Credit OR Debt plus</b>		
Consumerism	Materialism	60
Self-control	Gratification Future-orientation Time-horizon Impulsiveness Compulsiveness	67
Psychology	Behavioural economics Nudge Cognitive bias Heuristics Poverty myopia	93
Age	Life stage Life cycle Children Family Life events death Bereavement Birth Marriage Retirement	155
Social class	Income Work status Employment status Social grade Socio-economic Poverty	198
Advertising	Marketing	222
Peer pressure	Media Social media Joneses Social norms Normative perceptions	92
Internet	Online	73
Regulation	Regulatory change Cap on total cost of credit Interest rate cap Markets Government	415

## 10.2 Non-academic search locations

Centre on Household Assets and Savings Management

Financial Capability Evidence Hub

Financial Conduct Authority

Financial Services Consumer Panel

Joseph Rowntree Foundation

New Economics Foundation

Parliament Treasury Committee Enquiries

Personal Finance Research Centre

Resolution Foundation

Social Market Foundation