Defining, measuring and predicting financial capability in the UK

Technical report

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Glossary of statistical terms

Confidence interval

A confidence interval is the range in which the true value in a population is likely to lie based on the estimate produced from a sample. The normal convention is that there is a 95 per cent likelihood that the true value will lie in this range. The concept is closely related to statistical significance (see below).

Correlation

A correlation is a statistical measure of the strength of co-dependence, or relationship, between two measures. A correlation coefficient varies between a value of -1.0 (a perfect inverse relationship), through 0 (no relationship) to 1.0 (a perfect positive relationship).

Mean

A mean is a measure of the distribution of scores on a scale variable which represents the arithmetical average of all scores within a sample.

Median

A median is a measure of the distribution of scores on a scale variable which represents the middle value if all the scores within a sample were to be placed in ascending order.

Multiple regression analysis

Multiple regression analysis identifies which of a set of independent variables (characteristics of individuals and their households) are independently associated with a continuous dependent variable (in this case, financial capability component scores). It also estimates the combined power of the independent variables in predicting scores on the dependent variable. See Appendix 1 for more details.

Principal components analysis

Principle components analysis (PCA) is an exploratory multivariate technique for reducing a large set of variables into a smaller set of underlying components. See Appendix 1 for more details.

Statistical significance

Statistical significance is a measure of the likelihood that a finding observed based on a sample is representative of the population from which it is drawn. The usual convention is to a use a threshold of 95 per cent likelihood.

1. Contents

1. Introduction

The Money Advice Service's 2015 survey of financial capability was undertaken by GfK and achieved a nationally representative quota sample of some 3,461 respondents across the UK.[1] The purpose of the analysis reported here was to derive components which capture different aspects of financial capability and explore levels and patterns of financial capability based on these.

As such, this report describes the process of deriving 13 financial capability components based on a combination of theoretical underpinning and statistical analysis. The mean (average) and distribution of scores for each component across the population of the UK are reported, along with breakdowns by key demographic and socio-economic groups. The relationships between the components are explored, including to understand the predictive power of components at lower levels of the framework on the scores of components at each of the higher levels. A range of potential mediators, including demographic and socio-economic characteristics, are tested to understand their additional influence on financial capability scores.

The components can be replicated for data collection and measurement in future editions of the Financial Capability Survey. However, the particular focus of the development of the 2015 survey and the resulting constraints of the questions included also means that it has not been possible to cover all potential dimensions of financial capability in the components (or analysis) produced here. Equally, some components may be improved in the future with the availability of new questions or alternative question wording. For example, it has not been possible to adequately represent insurance provision, pension saving or households approaches to maximising income within the components.[2]

A conceptual framework for financial capability

Components have been derived statistically, and reconstructed manually, to reflect an a priori conceptual framework – developed initially by Professor Elaine Kempson and modified slightly to reflect the Money Advice Service's preferred terminology – which describes three principal levels of financial capability:

- Financial wellbeing outcomes;
- Financially capable behaviours; and
- Financial capability enablers and inhibitors.

According to this framework, financial capability enablers and inhibitors are hypothesised to influence financially capable behaviours, while financially capable behaviours, in turn, are assumed to influence financial wellbeing outcomes. In practice, some enablers and inhibitors may also directly influence outcomes. The conceptual framework also identifies the role of mediating and other explanatory factors such as demographics, such as income and age, in financial capability, which may intervene (or mediate) at any level of the framework. The framework is shown diagrammatically in Figure 1.

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[1] This excludes booster samples for the devolved nations of the UK, which are analysed separately.

[2] In relation to insurance, we have only been able to include a measure of whether people have up to three different types of loss protection: wills, home contents and life insurance. In relation to pension saving, we have only been able to include measures, including attitudinal measures which relate generally to planning and saving for retirement. And in relation to maximising income, we have only been able to include an attitudinal question on the importance of shopping around to make money go further.

Figure 1: A conceptual framework for understanding financial capability

| Enabler/inhibitor 1 |
| Enabler/inhibitor 2 |
| Enabler/inhibitor 3 |
| Enabler/inhibitor 4 |
| Enabler/inhibitor …1 |

Behaviour 1

Behaviour 2

Behaviour …

Outcome 1

Outcome …

Mediator 1	Mediator 4
Mediator 2	Mediator 5
Mediator 3	Mediator…
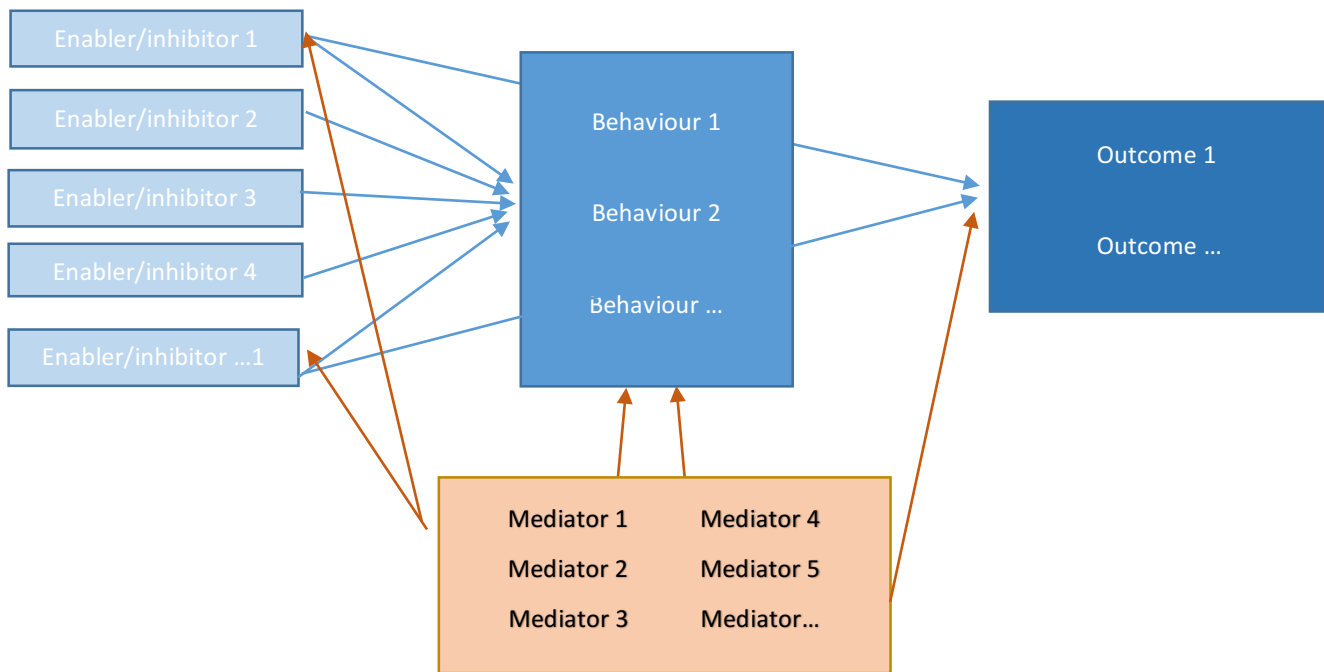
Framework developed by Elaine Kempson (for publication in forthcoming work) and modified for reference here in collaboration with the Money Advice Service.

Report structure and overview of findings

Chapter 2 describes the process of deriving components of financial capability, which represent composite measures of the underlying constructs of financial capability represented in the data. Thirteen components, produced through a mixture of statistical analysis and manual reconstruction, have been shown to be robust financial capability components falling under the a priori conceptual framework of financial capability outcomes, behaviours and enablers and inhibitors. Outcome components encompass current and longer-term financial wellbeing, and behaviours reflect day to day financial management and managing and preparing for life events. Enablers and inhibitors, meanwhile, represent an individual's background skills, attitudes, knowledge and financial disposition. The resulting components have been designed to apply universally across the population (regardless of, for example, retirement status and debt problems).

As Chapter 2 describes in detail, the resulting components are:

Outcomes

1. Current financial wellbeing
2. Longer-term financial security

Behaviours

Manages well day to day ('day to day')

1. Manages credit use
2. Active saver
3. Keeps track

Manages and prepares for life events ('life events')

1. Building resilience
2. Works towards goals

Enablers and inhibitors

1. Saving mindset
2. Financial numeracy
3. Internet engagement
4. Financial confidence
5. Self-controlled spending
6. Financial engagement

With each component being scored on a scale ranging from a possible minimum of 0 and a maximum of 10, Chapter 2 also describes how the average scores varied across the resulting components. It finds that they varied in ways which can reasonably be expected, based on previous research and experiential evidence working with people with low financial capability and debt problems. For example, average current financial wellbeing scores are far higher than those for longer-term financial security.

Chapter 3 explores the determinants of financial capability, across all of the components. It does so using multiple regression analysis, a statistical method which enables the independent effects of multiple characteristics on an outcome (in this case, financial capability) to be assessed at the same time, while simultaneously controlling for the effects of all of the other characteristics included in the analysis. The analysis starts with a consideration of the pairwise correlations between all of the components before identifying the independent importance of components at lower levels of the conceptual framework in influencing those at the higher levels.

Chapter 3 finds that correlations between pairs of components tend to be low overall, and particularly between components within the same level of the conceptual model. Where correlations are higher they are mostly higher between the behavioural components and the longer-term financial security outcome. Financially capable behaviours are important predictors of financial capability outcomes, especially managing credit use in relation to current wellbeing and building resilience in relation to longer-term security.

In turn, enabler and inhibitor components are moderately important determinants of most financially capable behaviours as well as current financial wellbeing. Financial confidence is particularly important, being a significant predictor of three of the behaviours – 'manages credit use', 'active saver' and 'building resilience' – and the strongest of the enablers and inhibitors in predicting 'current financial wellbeing' and 'longer-term financial security'. As such, most financially capable behaviours are moderately well explained by enabler and inhibitor components.

Chapter 4 explores the wider determinants of financial capability. It shows that average scores varied by a range of key personal and household demographic and socio-economic characteristics, again usually in a direction which might be expected. For example, scores on current financial wellbeing ranged from 7.0 out of a possible 10 among people aged 25 to 34 to 8.8 among those aged 75 and over, while longer-term financial security ranged from 1.9 among the unemployed to 4.6 among the part-time self-employed and 4.7 among retirees.

However, chapter 4 also extends the regression analysis from chapter 3 to include an analysis of the factors which are independently associated with component scores when a wide range of personal and household characteristics are also considered. It finds that enablers and inhibitors are mostly only moderately well explained by the wide range of demographic characteristics and other mediating factors considered (which include attitudinal and other measures which could not be included in the construction of the components). This is true with the exception of 'Internet engagement' (partly by definition when including the number of Internet-enabled devices a household has access to as a mediator) and arguably of 'financial numeracy'. Nonetheless, the addition of enablers and inhibitors and wider mediating factors improves our ability to explain statistically, and therefore understand, variations in financial wellbeing behaviours and outcomes, both current and for the longer term.

Notably, we find that the enablers and inhibitors together explain the largest share of variation in current financial wellbeing on their own (33 per cent), followed by the key mediators (means and pressures) and other mediators (each 26 per cent), with the behaviours explaining a similar, 25 per cent. However, when the behaviours and enablers and inhibitors are both included, they together account for some 44 per cent of the variation in current financial wellbeing scores, with the mediators subsequently adding only a further 13 percentage points to the explained variation. Conversely, the set of behavioural components explain the largest share of longer-term financial security in their own right (43 per cent), with the enablers and inhibitors (24 per cent) and key mediators (30 per cent) playing a relatively small role by themselves, and the other mediators also explaining a large share (39 per cent). When included together, the behavioural and enabler and inhibitor components explain 51 per cent of the variation, taking into account the overlap between them in predicting longer-term financial security; and when included in addition to these components in a step-wise fashion, the mediators overall add another 14 percentage points of explanatory power.

Among the key demographic measures, socio-economic factors, and especially household income, play an important role on financial capability scores at all levels of the conceptual model. Someone's age and tenure are particularly important determinants of the two outcome components, with ethnicity also playing a role, albeit much more weakly. Characteristics of an individual's financial management approach and situation, such as their responsibility for managing their household's finances and their access to a current account, are particularly important for explaining their levels of financial capability on the enabler and inhibitor components, although the effects of these individual measures are weaker when predicting behaviour and outcome scores, presumably because their effects are largely accounted for by the enablers and inhibitors at these higher levels of the conceptual framework. Although this report has not attempted to explore the determinants of financial capability within subgroups of the population (e.g. by life stage or income level), it is likely that the relative importance of these demographic and other mediating factors could vary considerably by subgroup.

Chapter 5 summarises the results and draws some overarching conclusions from them. In particular, it concludes that financial capability wellbeing outcomes are well explained by financially capable behaviours and enablers and inhibitors. In turn, behaviours are moderately well explained by enablers and inhibitors. This is true even in the presence of other potentially mediating factors, other characteristics associated with the individual and their household, although these also add to our ability to explain variations in financial wellbeing outcomes. This tends to support the design of a conceptual framework which distinguishes different financial capability levels and sees a wider range of influences which impact at each level.

2. Deriving components of financial capability

Our approach to the construction of financial capability components was a multi-stage and iterative process which began with consideration of the conceptual model developed by Professor Elaine Kempson and modified collaboratively with the Money Advice Service reflect prevailing terminology within the Service. As illustrated in Figure 1, this framework distinguishes:

- Outcome measures
- Behavioural measures
- Enabler and inhibitor measures, and
- Mediator (or explanatory or control) measures.

As such, the process partly reflects a theoretical, or normative, approach to the derivation of financial capability components, but it is also strongly data-driven within this framework. The derivation process resulted in 13 components which can be replicated for data collection and measurement in future editions of the Financial Capability Survey.

A necessarily iterative process, an overview of the approach we took to defining and refining the components, along with the final analysis we undertook is shown in Figure 2 below.

Figure 2: Overview of the process of defining and analysing the financial capability components
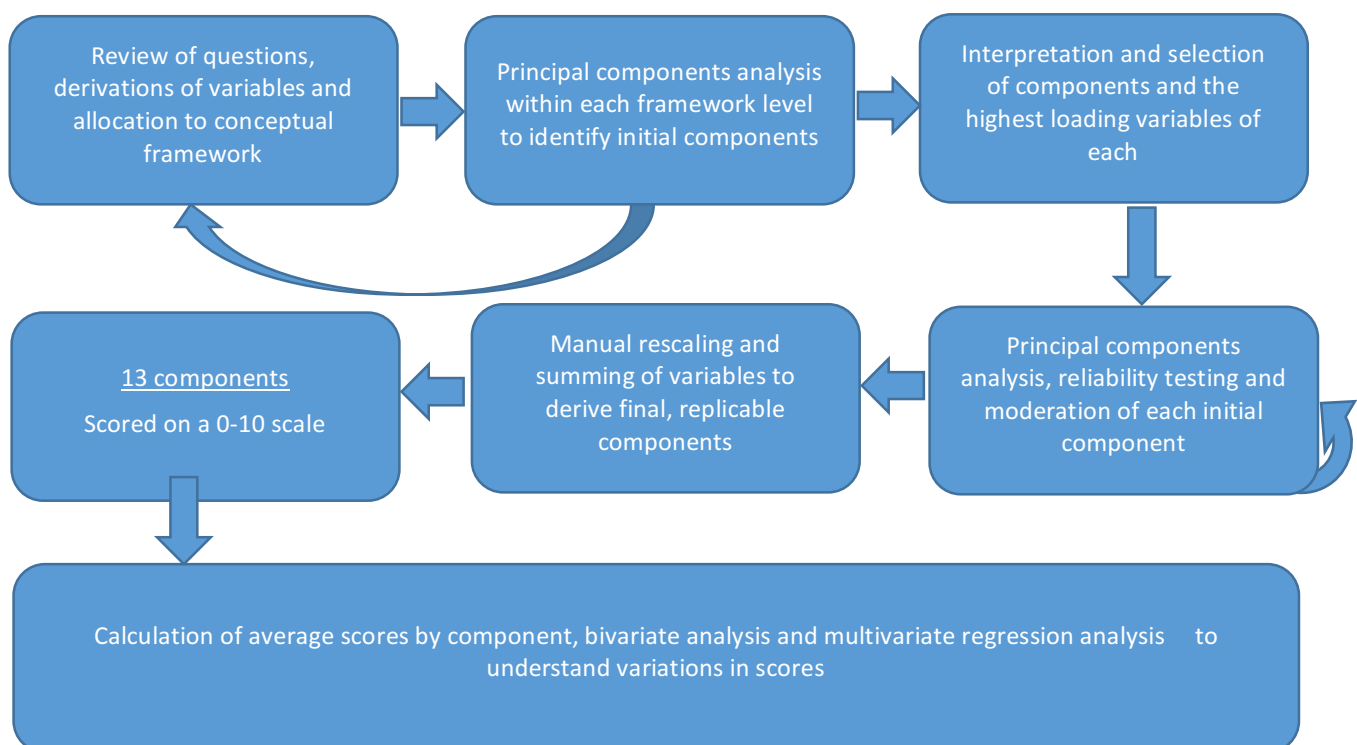
We draw out the key stages from this process in the sections which follow.

Initial allocation of variables to the conceptual framework

We initially categorised every question within the questionnaire in relation to the conceptual framework, allocating each question in turn, normally to only one and occasionally to two categories of the framework. Within the behavioural category, we additionally distinguished between questions relating to 'managing well day to day' and 'preparing for and managing life events', to reflect the domains outlined in Money Advice Service's own normative model for understanding financially capable behaviours.

Some questions could not be allocated to any of the categories, either because they were not felt to reflect, or because the initial question construction meant they did not quantify, any aspect of financial capability in a meaningful way. These questions were either removed or held back for further consideration as mediating, control or explanatory measures for use in later stages of the analysis. Other questions were removed which related to rather specific subsets of the respondents, for example those in retirement or those who reported debt problems. It was not possible to include these because the partial bases, rather than the meaningful content of these questions, would drive the identification of any resulting components. It was important that only questions with universal relevance were included, and that any more specialised questions sets should be considered separately, outside this process.

Our next step was to examine the outcome, behavioural and enabler and inhibitor questions in more detail to derive versions which ordered the response categories from least to most financial capable (or vice versa). In some instances, this involved collapsing responses across two or more closely related questions. In a minority of instances, it involved deriving two variables from a single question, although not all questions could be scaled even in combination. In most instances, this also involved re-categorising respondents who were unable to answer ('don't know') or who declined to answer ('prefer not to say', both cases of 'user missings') as well as those not routed to a question ('system missings'). This was essential for ensuring that we retained the full sample of respondents for the next stage of analysis and to include them within the most appropriate valid response category within the resulting scale. Except where missing categories could be re-categorised based on clear logic (e.g. those without credit cards were assumed to be equivalent to those who repaid their credit cards 'in full' each month), they were either recoded parsimoniously to the middle value of the scale if attitudinal in nature (e.g. 'neither agree nor disagree') or to the most common (modal), value.[3]

This process resulted in the following numbers of measures to take forward for further consideration:

- Outcome: nine measures
- Behavioural
  - Managing well day to day: 19 measures
  - Managing and preparing for life events: nine measures
- Enabler and inhibitor: 24 measures
- Mediating/control/explanatory: 32 measures

Exploring relationships between variables and refining components

For each of the categories of the conceptual framework, we used principal components analysis, a statistical technique, to identify clusters of related survey measures. In principal components analysis, the resulting clusters of measures are indicated as measuring a latent, or underlying, construct to a greater or lesser extent. The underlying constructs are in turn interpreted based on the measures (and the direction of the scoring of those measures) which map most strongly onto them.

The resulting constructs, our interim components, from this analysis were interpreted and subject to a process of refinement. This involved minor modifications to remove certain variables which had not worked as intended, or to revise their position within the conceptual framework. Weakly-loading measures (those of little importance to a component)[4] were also removed in this process, as were whole interim components which could not be interpreted. A comprehensive review of the full set of questions and measures available from the survey was also undertaken at this stage. This enabled us to identify further, apparently related, questions which could be added to the pool of questions available for a particular interim component. Particular efforts were also made to ensure financial wellbeing outcomes adequately represented both current and longer-term wellbeing.

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[3] While more sophisticated methods of imputation are available, the over-riding purpose of the approach we undertook was to ensure that it was simple, logical and replicable. For details of the recoding of specific measures, please contact Money Advice Service or the author directly.
[4] A weakly loading variable was defined by a structural coefficient of less than .30.

Subsequent principal components analyses were undertaken for each interim component in turn, taking into account the revised pools of measures available for it. Again, unimportant (weakly loading) measures, and any which substantially weakened the internal reliability of a component,[5] were removed. A final principal components analysis was run on each subset of remaining measures to check and validate the resulting components.

The number of components resulting from this iterative process of refinement was as follows:

- Outcome: two components, based on a total of ten measures
- Behavioural
    - Managing well day to day: three components based on 14 measures
    - Managing and preparing for life events: two components based on six measures
- Enabler and inhibitor: six components based on 14 measures

Manual replication of the resulting components

The last step in the construction of the components was to derive manually-scored scales based on the 13 finalised components validated in the principal components analyses. This step was necessary to ensure that the resulting components can be reconstructed and measured adequately for comparisons in future years. The manual reconstruction also has the advantage of enabling comparisons of scores between components, because they can be re-scaled to be measured on equivalent, absolute scales.[6] In this instance, the scales for each resulting component were scored from 0 to 10, where 0 indicates lowest possible financial capability on the combination of variables making up the component, and 10 indicates highest possible capability.[7]

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[5] As measured by Cronbach's Alpha.

[6] This is in contrast to component scores derived directly from PCA which are, by definition, relative scores based on the sample from which they have been derived. In other words, a PCA score can only be interpreted with reference to other people's scores in the sample: they are average, higher or lower than for the sample as a whole and do not carry an absolute value (e.g. 8.2 out of ten). Manually re-deriving the component based on an absolute, rather than relative, scale creates a more meaningful score for the interpretation of the results and for the quantification of financial capability. It allows both for comparisons across samples, including from any future survey of financial capability, because a score of 8.2 in one sample will be equivalent to 8.2 in another sample, and it allows for comparisons across components because, subject to the validity of the measures contained, a score of 8.2 on one component indicates an equal level of financial capability as a score of 8.2 on another component.

[7] The starting point for the manual reconstruction of the components was the carefully derived variables which were used as input to the initial PCAs, rather than any PCA output. These variables were all categorical with carefully ordered and numbered categories such that the category number provided the raw scores to work with. Where necessary, the order of the categories was reversed, so that low to high capability on every measure was indicated by low to high scoring. Then, individually for each final component identified by the PCA, all variables identified for inclusion within the component were first multiplied up on to an identical range, based on the common denominator for that set of variables and the number of categories for that variable. Next, the resulting scores were summed together across the variables within the set. Finally, they were divided by the product of the common denominator and the number of variables included divided by 10, to produce the combined summed score on a scale of 0-10, where 0 was the lowest score available and 10 was maximum possible score (even if the theoretically minimum and maximum scores were not observed in the data).

Our interpretation of the resulting components, and the measures which comprise them, are shown in Table 1. The relevant question numbers are shown in parentheses, and an asterisk indicates an attitudinal question (for which respondents had to rate their agreement, or similar, on a scale, e.g. of 0 to 10).

Table 1: Resulting financial capability components and their constituent measures

Final Outcome Components: Financial wellbeing

1. Current financial wellbeing

Satisfaction with financial circumstances (B2)*

Self-reported burden of bills/credit commitments (C1&C2)

Capacity to pay an unexpected bill of £300 (I10)

Self-reported keeping up with bills and commitments (J1)

Number of types of missed payments or incurred charges in last 6 months (J3)

Thinking about my financial situation does not make me anxious (O2B)*

2. Longer-term financial security

Savings to income ratio (derived) (respondent and partner)

Count of number of types of loss protection from: will, home contents and life insurance (E12&E13)

Count of types of longer-term savings products held (G1)

Biggest unexpected bill could pay (respondent and partner) (I9)

Table continues….

Final Behaviour Components: Managing well day to day

1. Manages credit use

Level of plan for paying down debts (D3_2)

Total unsecured borrowing (E7) (respondent and partner)

Unsecured borrowing more/less than average (E8)

Method of credit card repayments (E10)

Credit card balances compared with a year ago (E11)

I hate to borrow – I would much rather save up in advance (O2F)*

2. Active saver

Frequency of saving (G3, G2)

Number of types of expected expense saves for (G7a)

Number of types of unexpected expense saves for (G7b)

3. Keeps track

How accurately knows current account balance (F2)

How often checks current account balance (F5)

Whether keeps track of income and expenditure (I1)

Methods used to keep track of income and expenditure (I5)

I adjust the amount of money I spend on non-essentials when my life changes (O4B)*

Final Behaviour Components: Managing and preparing for life events

1. Building resilience

Total savings (G5, G6) (respondent and partner)

Number of types of expected expense saves for (G7a)

Number of types of unexpected expense saves for (G7b)

Count of what planned expenses are saving for (G8)

2. Works towards goals

Count of financial goals (D2)

How specific plans are for achieving goals (D3)

Final Enabler and Inhibitor Components		
1. Saving mindset	**2. Financial numeracy**	**3. Internet engagement**
How important is it to save money for a rainy day (O3A)*	Financial numeracy quiz correct responses: read a bank balance; inflation vs interest; calculate simple interest (N1,N2,N3)	Happy to use the Internet to carry out day to day banking (O2G)*
How important is it to put aside money for your retirement (O3B)*		Hours spent using Internet in the last week (R9)
How important is it to keep track of income and expenditure (O3C)*		
How important is it to shop around in order to make your money go further (O3D)*		
4. Financial confidence	**5. Self-controlled spending**	**6. Financial engagement**
How confident managing your money (B3)*	I often buy things on impulse (O4A)*	I prefer to live for today rather than plan for tomorrow (O2A)*
How confident making decisions financial products & services (B4)*	Feel under pressure to spend like my friends (O4C)*	Nothing I do will make much difference to my financial situation (O2C)*
		I am too busy to sort out my finances at the moment (O2D)*

* Indicates attitudinal questions with response scales of agree/disagree, like me/not like me, important/not important, confident/not confident.

Of particular note from Table 1 is that the outcome 'current financial wellbeing' and the behaviour 'manages credit use' are jointly based on the most measures, each being a composite of six measures. The more measures components comprise the more likely they are to be robust to the concepts they represent. Only one component (the enabler and inhibitor 'financial numeracy') is based on a single measure; however, this measure in turn is derived from three survey questions. The rest are based on two to five measures.

It is important to point out that the measures of 'number of types of expected expense saves for' (G7a), and 'number of types of unexpected expense saves for' (G7b) are used in the construction of two components. These are the 'managing money day to day' behaviour component of 'active saver' and the 'managing and preparing for life events' behaviour component of 'building resilience' (which is made up entirely of saving-based measures). The decision to include these measures in two principal components analyses reflected the view that they were relevant to both behavioural domains in the conceptual framework. The principal components analyses confirmed that they were relevant to both.

Additionally, enabler and inhibitor components 2 and 3 were, during the initial stage of refinement, split out manually from a single component returned by the principal components analysis. The single component was difficult to interpret, and our ability to distinguish financial numeracy from Internet engagement was deemed to be of paramount importance.

The scores for the resulting components and their distribution in the population are discussed in the next section.

Levels of financial capability in the UK

In this section, we examine average financial capability scores across the 13 components described in the previous section. The descriptive statistics across the UK, including the arithmetic average (mean) scores for the resulting 13 components, are shown in Table 2.

Table 2: Descriptive statistics of financial capability scores in the UK

	No. of derived variables	Min	Max	Mean	Std Dev	Median
Outcomes						
1. Current financial wellbeing	6	0	10	7.5	1.83	7.6
2. Longer-term financial security	4	0	10	3.8	2.32	3.3
Behaviours: managing well day to day						
1. Manages credit use	6	0.3	10	7.3	1.65	7.6
2. Active saver	3	0	10	3.3	2.49	3.3
3. Keeps track	5	0.4	10	6.9	1.78	7.1
Behaviours: Managing and preparing for life events						
1. Building resilience	4	0	10	2.1	2.34	1.8
2. Works towards goals	2	0	10	3.6	2.77	4.2
Enablers and inhibitors						
1. Saving mindset	4	0	10	7.9	1.82	8.1
2. Financial numeracy	1	0	10	6.8	3.64	6.7
3. Internet engagement	2	0	10	5.9	2.91	6.3
4. Financial confidence	2	0	10	7.3	1.99	7.5
5. Self-controlled spending	2	0	10	6.4	2.56	6.5
6. Financial engagement	3	0	10	6.2	2.20	6.7

3,461 respondents (full sample), weighted to be representative of the UK population

Of particular interest is that scores for all but two of the components span the full range from 0 to 10, the exceptions being: the day to day behaviours 'manages credit use', which ranges from 1.8 to 9.6, and 'keeps track', which ranges from 0.4 to 10 according to the data on which these results are based. In other words, at least one person in the sample on which these population estimates are based scored the minimum and at least one scored the maximum, except for these two measures. This need not have been the case on this occasion and may not be the case if the same questions are asked in future years.

Also of note is the variation in the mean values by component shown in Table 2. Some components score fairly highly on average, including the outcome measure 'current financial wellbeing' which scored 7.5 (on average across the population), day to day behaviour 'manages credit use', which scored an estimated 7.3, and the enabler and inhibitor 'saving mindset', which scored 7.9 out of a possible 10 in the population. This contrasts with the life event behaviour 'building resilience', which scored only 2.1 out of a possible 10.

On the whole, adults in the UK scored poorly on the behaviours which were derived to represent managing and preparing for life events, but relatively well overall on the enabler and inhibitor components and mostly well in relation to the behaviours derived to reflect managing well day to day. This suggests that people's intentions for building financial wellbeing may be positive but the material realisation of this, in providing for longer term benefit is less clear, perhaps due to limited financial resources, circumstances or wider skills. The high current financial wellbeing outcome score contrasted with low longer-term financial security would also appear to show a clear distinction between people's management of their short term finances compared with their approach to planning ahead.

Figure 3 shows the distribution of scores on each component graphically.

Figure 3: The distribution of financial capability scores in the UK

Outcomes	1. Current financial wellbeing
	2. Longer-term financial security
Behaviours Manages well day to day	1. Manages credit use
	2. Active saver
	3. Keeps track
Managing and preparing for life events	1. Building resilience
	2. Works towards goals
Enablers and inhibitors	1. Saving mindset
	2. Financial numeracy
	3. Internet engagement
	4. Financial confidence
	5. Self-controlled spending
	6. Financial prioritization
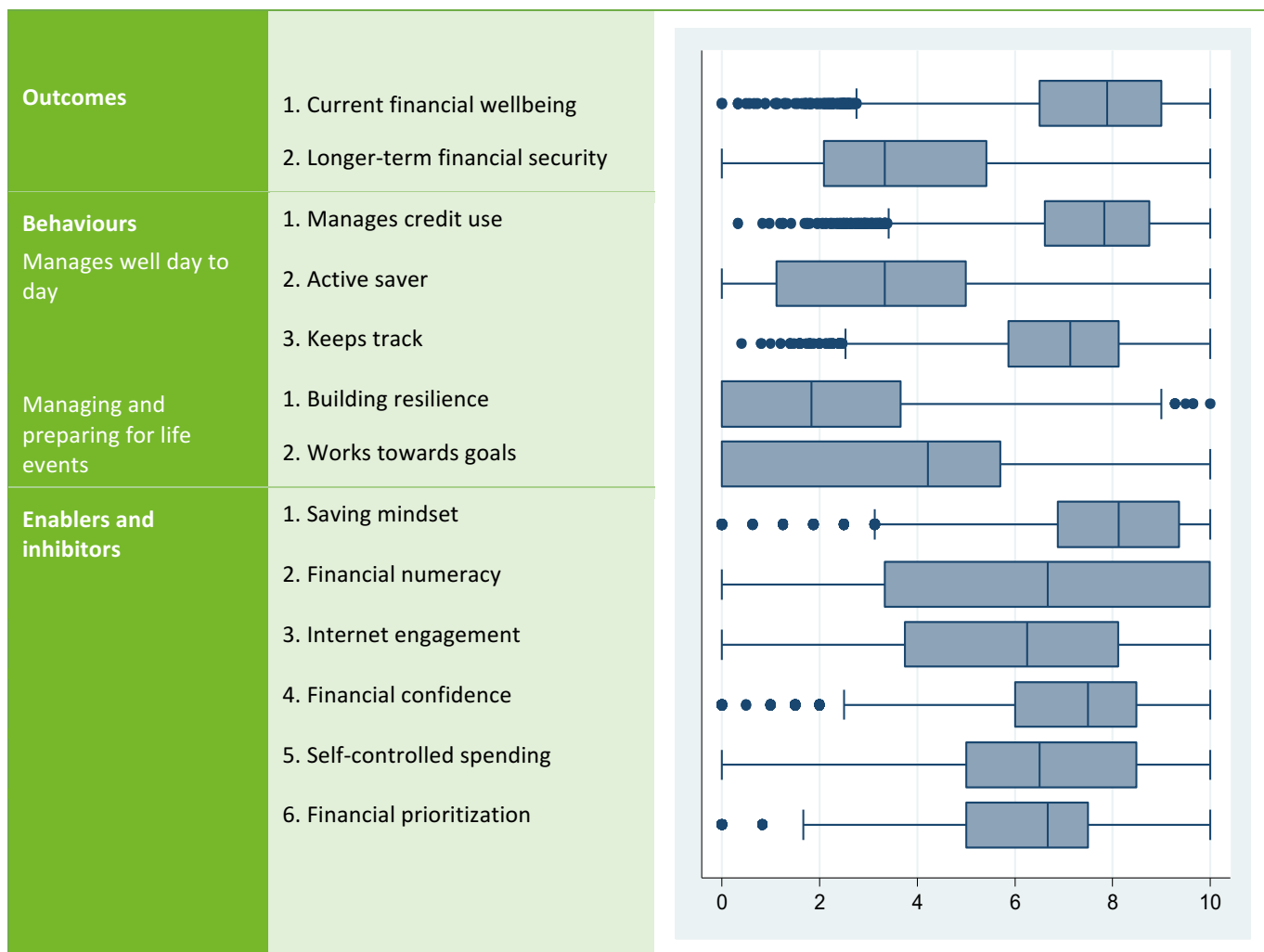
3,461 respondents (full sample), weighted to be representative of the UK population

Each component has its own box and whisker plot in Figure 3, in which the box describes the middle half of the population (that is, everyone with scores lying between the 25th and 75th percentiles) and the vertical line in the middle shows the very middle value in the population (the median, or 50th percentile). The boundaries of the whiskers indicate the values at the extremes of the distribution, with any dots showing outliers beyond these extremes. In other words, a half of the scores will fall within the box while almost all scores will fall within the boundaries indicated by the whiskers.

Figure 3 confirms how the scores for 'longer-term financial security' and both components relating to managing and preparing for life events, and especially 'building resilience' are generally towards the low end of the scale (indicated by the box), although there was a significant minority of individuals who scored well on these components (indicated by the extended right-hand whiskers). This also shows clearly how even being an 'active saver' (a component which forms part of the managing well day to day behavioural domain) also scores relatively low; this is likely to partly reflect that the 'building resilience' and 'active saver' components share two measures in common (see Table 1).

The enabler and inhibitor component 'financial numeracy' is particularly notable for the wide range in scores on this measure across the UK population (indicated by a wide box, and a lower whisker which extends the length of the possible range, in Figure 3). This is also indicated in Table 2 by a high standard deviation (a standardised measure of the distribution of scores).

Figure 3 also illustrates that the enabler and inhibitor component 'saving mindset' is the component with the highest median capability score (at 8.1, also shown in Table 2). This demonstrates a desire, if not a propensity to save; it appears that people do not always manage to save actively or build their resilience despite feeling positively towards doing so. Later stages of the analysis will explore whether a household's financial resources (such as their income) plays a role in moderating the relationship between the apparent saving intentions and behaviours.

A high median score on the outcome component 'current financial wellbeing' is also evident (7.6), as is the high score on the enabler and inhibitor 'financial confidence' (7.5). These two components also show comparatively tightly packed scores, although the dots shown to the left of the left-most whisker for 'current financial wellbeing' in particular also evidence a minority of households for whom struggling financially was a reality.

Chapter summary

This chapter has described an iterative process to the derivation of components of financial capability based on a combination of normative (theory-driven) and statistical considerations. The resulting components can be re-applied to any new data set or sample which includes the same, underlying survey questions and have been manually rescaled with possible scores on a range from 0 to 10. The chapter has also shown how the average scores on the financial capability components varied in the UK population in 2015. Typically, they varied in ways which can reasonably be expected, based on previous research and experiential evidence working with people with low financial capability and debt problems. For example, people scored more highly on current financial wellbeing than longer-term financial security, and they scored more highly on their saving mindset than their active saving or building resilience behaviours.

3. Relationships between components of financial capability

In this chapter, we extend our previous analysis to consider the relationships between the different types of financial capability components in the conceptual framework using both correlation and regression analyses. We start by exploring the pairwise correlations between the components to guide our understanding of how they relate to each other.

Correlations between financial capability components

A correlation is a measure of the strength with which different measures co-vary (that is, how closely change on one measure occurs with change on another). Table 3 shows the correlations between each pair of components. Light shading indicates that pairs of components have moderate correlations with each other (a correlation coefficient of .30 or higher) and darker shading in turn indicates that components have strong correlations (of .50 or higher). The majority of the components correlate positively with each other (in other words as the score on one increases so does the score on the other; a negative sign against a correlation indicates that as the score on one component increases the other decreases, and vice versa).

From Table 3, it is a clear that the majority of components do not correlate highly with each other. This is a positive finding, which indicates that the components are largely distinct and capture more or less different aspects of financial capability. This is particularly true within each 'block' shown in the table (which corresponds to the levels defined by the conceptual model and, within the behaviours, within either set of components). For example, of the enablers and inhibitors paired with each other. This is intuitive, and arises because of the use of statistical methods (principal components analysis; PCA) to help define the components which used the patterns of underlying correlations between the original measures to identify discrete (or different) components. Indeed, none of the pairwise correlations between components within a level of the conceptual model are greater than 0.4 when rounded to one decimal place. The two outcome components, 'current financial wellbeing' and 'longer-term financial security', are moderately correlated at 0.4, as are the two life events behavioural components, 'building resilience' and 'working towards goals'. For both of these pairs, capability on one measure increases broadly in line with the other.

Where we do see higher degrees of correlation these relate to outcome components paired with components at other levels of the conceptual model and the two sets of behavioural measures. 'Current financial wellbeing' correlates moderately strongly with financial confidence (with a correlation coefficient of 0.5), and 'longer-term financial security' correlates moderately strongly with 'active saver' (0.5) and 'building resilience' (0.6), both of which are intuitive given the composition of these capabilities, and more moderately with 'financial numeracy' (0.4).

In turn, the day to day behaviour, 'active saver' correlates particularly strongly with 'building resilience' (0.8). Again, this might be expected, because they both focus on saving and share two common measures, albeit with one focussed more on day to day saving and the other on longer-term saving behaviour. However, we do not see a correspondingly strong (or even moderate) correlation between 'active saver' and the enabler and inhibitor, 'saving mindset'. Interestingly, the behavioural components do not correlate strongly with the enablers and inhibitors, apart from a moderate correlation between 'keeps track' and 'financial numeracy' (with a correlation coefficient of 0.40) and between 'works towards goals' and 'Internet engagement' (0.40). The latter suggests that greater use of the Internet, including for banking, is an important facilitator of managing and preparing for life events effectively.

Table 3: Correlations between pairs of components

		Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors					
		1	2	1	2	3	1	2	1	2	3	4	5	6
Outcomes	1. Current financial wellbeing	1.0												
	2. Longer-term financial security	0.4	1.0											
Behaviours: managing well day to day	1. Manages credit use	0.4	0.1	1.0										
	2. Active saver	0.2	0.5	0.0	1.0									
	3. Keeps track	-0.1	0.2	-0.1	0.3	1.0								
Behaviours: managing and preparing for life events	1. Building resilience	0.2	0.6	0.0	0.8	0.2	1.0							
	2. Works towards goals	-0.1	0.1	-0.2	0.4	0.3	0.4	1.0						
Enablers and inhibitors	1. Saving mindset	0.1	0.2	0.1	0.2	0.3	0.2	0.2	1.0					
	2. Financial numeracy	0.1	0.4	0.0	0.3	0.4	0.3	0.2	0.2	1.0				
	3. Internet engagement	-0.1	0.2	-0.2	0.3	0.3	0.3	0.4	0.1	0.3	1.0			
	4. Financial confidence	0.5	0.3	0.2	0.2	0.1	0.2	0.0	0.1	0.2	0.0	1.0		
	5. Self-controlled spending	0.3	0.1	0.3	0.0	0.0	-0.1	-0.2	0.1	0.1	-0.2	0.2	1.0	
	6. Financial engagement	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	1.0

3,461 respondents (full sample), weighted to be representative of the UK population. Correlations are measured using Pearson's r. Perfect correlation is indicated by a value of 1; perfect non-correlation by a value of 0. A negative sign indicates a negative correlation (the score on one component goes up as the score goes *down* on the other); no sign indicates a positive correlation (the score on one component goes up as the score also goes up on the other). The coefficients shown have been rounded to one decimal place, however the shading (light for correlations above .30, and dark for correlations also above .50, regardless of the sign) takes into account the figures to more decimal places than shown.

The remainder of this chapter uses regression analysis to determine the influence of behavioural and enabler and inhibitor components on how people score on the outcome components and then the influence of the enabler and inhibitor components on the behavioural component scores. Regression analysis allows us draw stronger conclusions about the independent influence of each characteristic and to consider how well, as whole, predictor variables explain the total variation in scores for any outcome measure.

Influence of behaviours and enablers and inhibitors on outcomes

We start by using regression analysis to explore the independent relationship between (or influence of) the outcomes and the behaviours and enablers and inhibitor, which, according to the conceptual model are believed to underpin the outcomes.

Current financial wellbeing

Table 4 shows the results of a regression analysis which predicts scores on our first outcome component, current financial wellbeing, by the five behavioural components. Taken together, the five behavioural components alone are estimated to explain 25 per cent of the total variation in current financial wellbeing scores among adults in the UK (indicated by an adjusted R-square of 0.25),[8] which, when we take into account the wide range of other potential influences (which might include enablers and inhibitors, as well as other factors such as age and income) appears quite substantial.

That said, of primary interest here is the level of significance of each behavioural component (this being indicated by the number of asterisks),[9] and whether the coefficient is positive or negative. In combination, this tells us whether a behaviour is important for helping to independently predict the score on the outcome component and the direction of that influence.

Table 4: Regression to predict scores on outcome 1: Current financial wellbeing, by behavioural components

Behavioural components	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
Managing well day to day					
1. Manages credit use	0.44	0.000	***	0.41	0.48
2. Active saver	0.25	0.000	***	0.21	0.29
3. Keeps track	-0.07	0.000	***	-0.11	-0.04
Managing and preparing for life events					
1. Building resilience	-0.06	0.005	**	-0.10	-0.02
2. Works towards goals	-0.07	0.000	***	-0.09	-0.05
Constant	4.33	0.000	***	4.00	4.68
Adjusted R-Squared	0.25				

3,461 respondents (full sample), weighted to be representative of the UK population

Asterisks, which denote statistical significance, against each of the behaviours allow us to conclude that all of the behaviours are statistically important; in other words, they add significantly to the model. Increases in scores on two of the components (manages credit use and active saver) predict increases in scores on current financial wellbeing. Meanwhile, *decreases*, however small, in the remaining three behaviours predict increases in current financial wellbeing. The biggest influence on 'current financial wellbeing' (indicated by the coefficient) from these components appears to be the behaviour

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[8] The explanatory power of the regression analysis has been estimated based on a single regression model and has not been tested or validated using alternative samples.
[9] It is important that statistical significance and the level of statistical is not interpreted too deterministically and is used only as a guide as to the 'most important' results.

'manages credit use' which, for every one-point increase in score on this component (on a range from 0 to 10) results in a 0.44 point increase in wellbeing. 'Active saver' also has a large effect, of 0.25 points per one point increase.

A one-point decrease on the 'keeps track' component results in a 0.07 point increase in current financial wellbeing. This may indicate that keeping track of finances closely may tend to lower someone's subjective wellbeing or that those who need to keep close track are also those who are more vulnerable to financial difficulty or becoming over-indebted. While statistically significant, however, this small size of effect is unlikely to be of practical significance in intervention terms.

When we add the enabler and inhibitor components to the regression model, the total variance explained by the model increases substantially to 44 per cent. This is shown in Table 5, model 2 (and is given by an R-squared of 0.44), where model 1 repeats the analysis shown in Table 4. This informs us that enablers and inhibitors are important as a whole in directly influencing current financial wellbeing.

Table 5: Regression to predict scores on outcome 1: Current financial wellbeing, by behavioural and enabler and inhibitor components

Predictor	Model 1			Model 2			95% CI Lower	95% CI Higher
	Coeff	p-value	Sig	Coeff	p-value	Sig		
Behaviours: managing well day to day								
1. Manages credit use	0.44	0.000	***	0.28	0.000	***	0.25	0.32
2. Active saver	0.25	0.000	***	0.17	0.000	***	0.13	0.21
3. Keeps track	-0.07	0.000	***	-0.15	0.000	***	-0.17	-0.12
Behaviours: managing and preparing for life events								
1. Building resilience	-0.06	0.005	**	-0.04	0.036		-0.08	0.00
2. Works towards goals	-0.07	0.000	***	-0.06	0.000	***	-0.08	-0.04
Enablers and inhibitors								
1. Saving mindset				-0.05	0.000	**	-0.08	-0.03
2. Financial numeracy				0.02	0.002	***	0.01	0.04
3. Internet engagement				-0.05	0.000	***	-0.07	-0.03
4. Financial confidence				0.35	0.000	***	0.32	0.37
5. Self-controlled spending				0.05	0.000	***	0.03	0.07
6. Financial engagement				0.14	0.000	***	0.12	0.17
Constant	4.33	0.000	***	3.03	0.000	***	2.68	3.38
Adjusted R-Squared	0.25			0.44				

3,461 respondents (full sample), weighted to be representative of the UK population

Figure 4 shows, visually, the improvement in our ability to explain current financial wellbeing when enablers and inhibitors are taken into account. This underlines the role of both the individual effects of behavioural and enabler and inhibitor components and the added contribution of the enablers and inhibitors when behaviours are already accounted for. In particular, it emphasises the relative importance of the enablers and inhibitors (on their own, they account for 33 per cent of the variation in current financial wellbeing scores).

Figure 4: Additive and individual effects of component types on current financial wellbeing
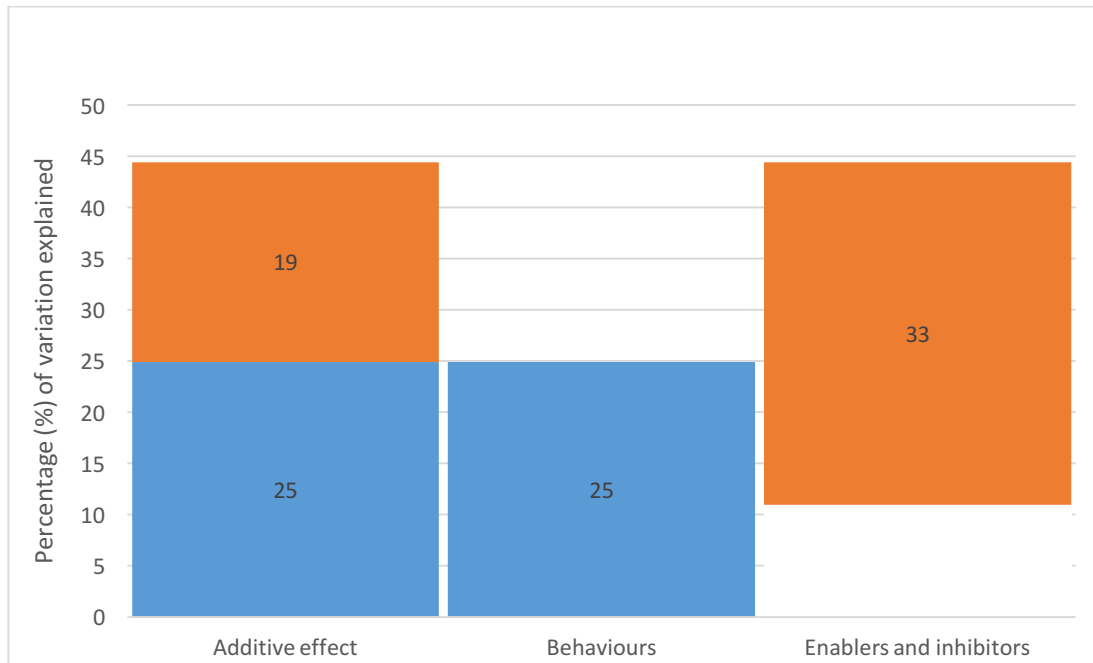
Among the enablers and inhibitors, 'financial numeracy', 'Internet engagement', 'financial confidence', 'self-controlled spending' and 'financial engagement' are all highly significant, and 'saving mindset' is weaker but still statistically significant (Table 5, model 2). For most these components, increasing capability scores are independently associated with an increase in current financial wellbeing. The exceptions are 'saving mindset' and 'Internet engagement' which, when the influence of the others components is taken into account, are associated with a decrease in wellbeing, however small (a one point increase in each of these inhibitors predicts a 0.06 point decrease in wellbeing). Overall, it is the enabler 'financial confidence' which has the largest effect; a one point increase in this is independently associated with a 0.35 point increase in wellbeing on the scale from 0 to 10. Recent research among working age Canadians has shown that financial confidence is an important predictor of outcomes associated with day-to-day money and debt management (which characterise the current outcome component of 'current financial wellbeing') but not for planning and saving outcomes (which characterise the current measure of 'longer-term financial security').[10]

The effect of introducing the enablers and inhibitors to the model has been to moderate the strength of most of the behavioural components (Table 5, model 2). 'Building resilience' has become non-significant and the effect sizes (indicated by the coefficients) of most of the remaining behaviours have reduced. This means that the effects of the behaviour components are partially accounted for by stronger and more direct effects of the enablers and inhibitors. Nevertheless, a one point increase in managing credit use still predicts a 0.28 point increase in overall current financial wellbeing, which is fairly sizeable. There is one exception, 'keeps track', for which the size of the effect has increased to -0.15; the inclusion of enablers and inhibitors has served to amplify the (negative) effect of 'keeps track' on current financial wellbeing. In other words, when you strip out the indirect influence of the enablers and inhibitors from 'keeps track', as we have conceived them, keeping track has a clearer impact on the outcome, and a negative one. This may reflect that those who keep track more closely are more susceptible to the wider means and pressures which impact on them, and that keeping track may, in some respects at least, be representing a financial capability outcome as well as also defining a financially capable behaviour. It is possible that 'keeps' track would perform quite different in similar regression analysis if it were limited to particular subgroups (e.g. by income level).

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[10] Boris Palameta, Cam Nguyen, Taylor Shek-wai Hui and David Gyarmati (2016) *The link between financial confidence and financial outcomes among working-aged Canadians*. Ottawa: Financial Consumer Agency of Canada.

Longer-term financial security

Turning to our second outcome component, longer-term financial security, the behavioural components alone explain 43 per cent of the total variance in this measure (Table 6, model 1). Both life event behaviours are highly statistically significant, although the effects are only large for 'building resilience'; for every one-point increase in this, longer term financial security is predicted to increase by some 0.67 points. This corroborates the high pairwise correlations between these variables discussed above. A one point increase in score on the component 'works towards goals' is associated with a 0.06 point decrease in longer-term financial security, which seems counterintuitive; its weak influence is possibly largely accounted for by the positive effect of the 'building resilience' component, such that those with goals but without savings (which characterises 'building resilience') struggle to establish longer-term financial wellbeing.

'Manages credit use' also has a positive independent effect on this outcome, and its effect is moderate (at 0.19 points; Table 6, model 1). The independent effect of 'keeps track' is small (at 0.11 points) but significant and – unlike for the current financial wellbeing outcome – it is in the positive direction (Table 5, model 1). The independent effects of 'active saver' is weak and negative (-0.05 points).

Table 6: Regression to predict scores on outcome 2: Longer-term financial security, by behavioural components and behavioural and enabler and inhibitor components

Predictor	Model 1			Model 2				
	Coeff	p-value	Sig	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
Behaviours: managing well day to day								
1. Manages credit use	0.19	0.000	***	0.08	0.000	***	0.04	0.12
2. Active saver	-0.05	0.048	*	-0.09	0.000	***	-0.13	-0.05
3. Keeps track	0.11	0.000	***	-0.01	0.569		-0.05	0.02
Behaviours: managing and preparing for life events								
1. Building resilience	0.67	0.000	***	0.65	0.000	***	0.60	0.69
2. Works towards goals	-0.06	0.000	***	-0.06	0.000	***	-0.09	-0.04
Enablers and inhibitors								
1. Saving mindset				0.05	0.002	**	0.02	0.08
2. Financial numeracy				0.10	0.000	***	0.09	0.12
3. Internet engagement				0.00	0.721		-0.03	0.02
4. Financial confidence				0.19	0.000	***	0.16	0.22
5. Self-controlled spending				0.07	0.000	***	0.04	0.09
6. Financial engagement				0.07	0.000	***	0.04	0.09
Constant	0.54	0.007		-0.95	0.000		-1.37	-2.53
Adjusted R-Squared	0.43			0.51				

3,461 respondents (full sample), weighted to be representative of the UK population

When the enablers and inhibitors are taken into account, we again see the explained variation in scores for 'longer-term financial security' increase as we did for 'current financial wellbeing', albeit only moderately this time from 43 per cent to 51 per cent (Table 5, model 2). In other words, in a context in which behaviours are already taken into account, enablers and inhibitors explain only an additional eight per cent of explained variation in longer-term financial security scores. On their own, however, the enablers and inhibitors explain 24 per cent of the variation in longer-term financial security scores and this is shown visually in Figure 5. This indicates that enablers and inhibitors play some role in both financial wellbeing outcomes, regardless of individuals' and households' prevailing behaviours. Research in psychology has long recognised the

gap (and inconsistencies) that often occurs between attitudes and behaviours. Indeed, behaviours may be constrained somewhat by circumstances. This is important for suggesting that financial capability interventions should not focus exclusively on behavioural factors alone and instead also aim to change minds, skills and outlooks.

Figure 5: Additive and individual effects of component types on longer-term financial security
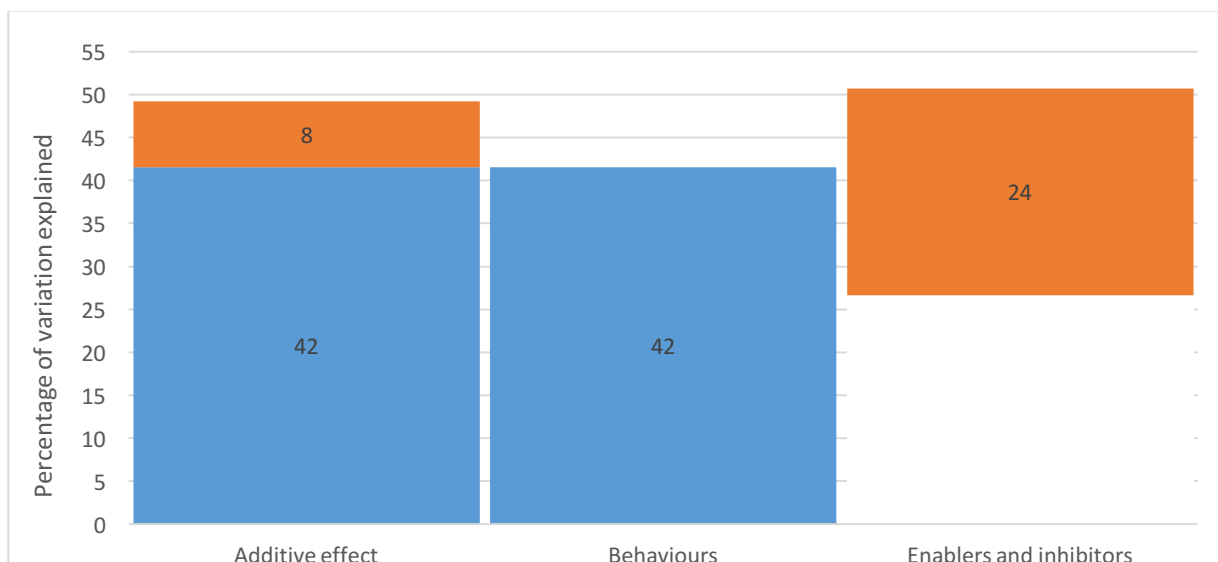
3,461 respondents (full sample), weighted to be representative of the UK population. The percentage of variation explained is given by the adjusted R-squared for each respective regression model.

With the added influence of the enablers and inhibitors on longer-term financial security, we find that the negative effect of being an 'active saver' becomes slightly stronger, albeit still weak (with a one point increase in 'active saver' scores predicting a small, 0.09 point, *decrease* in longer-term financial security). This implies that, for longer-term security, prioritising saving which builds longer-term resilience is more beneficial than saving which reflects more day to day money management behaviours (i.e. 'active saver') and that building resilience is in turn likely to be driven by a greater capacity to put money away for the longer-term (perhaps driven by wealth and higher disposable incomes). Instead, it appears that people's intentions to save, as represented by 'saving mindset' and 'self-controlled spending' are more important.

Additionally, 'keeps track' has become non-significant as a predictor of longer-term financial security when enables and inhibitors are controlled for. 'Building resilience' remains highly significant, with a one point increase in 'building resilience' still independently associated with a large (0.65 point) increase in longer-term financial security.

With the exception of 'Internet engagement', all of the enablers and inhibitors are also positively predictive of longer-term financial security. Nonetheless, the effect sizes are comparatively small, although the 0.19 point effect of 'financial confidence' marks this enabler out in particular.

Influence of enablers and inhibitors on behaviours

Now our focus turns to exploring the influence of the enablers and inhibitors on the behavioural components. We start with the first of the five behaviours, 'manages credit use'.

Manages credit use

Table 7 shows that 'manages credit use' is moderately well predicted by the set of enabler and inhibitors, explaining 18 per cent of the variance in adults' scores on this behaviour. All are independently related to managing credit use, although 'financial engagement', which we recall reflects the extent to which someone feels in control and prioritises the future, is only weakly significant (indicated by one asterisk only).

Although all the remaining enablers and inhibitors exert only a small influence, the larger of these are 'self-controlled spending' (exerting a 0.15 increase in 'manages credit use'), 'self-controlled spending' (0.12 points) and 'Internet engagement'. 'Internet engagement' is associated with a 0.10 point *decrease* for every one point increase in this. This may reflect that Internet engagement is likely to be mediated by a number of factors, including age, with age also being a likely factor in credit use (as the analysis will explore further below). 'Financial numeracy' is also negatively associated with managing credit use (albeit associated with only a very small effect of -0.03 points), which may again reflect hidden complexity around who is using credit, why and in what circumstances.

Table 7: Regression to predict scores on managing well day to day behaviour 1: Manages credit use, by enabler and inhibitor components

Predictor: Enablers and inhibitors	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
1. Saving mindset	0.05	0.000	***	0.02	0.08
2. Financial numeracy	-0.03	0.000	***	-0.04	-0.01
3. Internet engagement	-0.10	0.000	***	-0.11	-0.08
4. Financial confidence	0.12	0.000	***	0.09	0.14
5. Self-controlled spending	0.15	0.000	***	0.130	0.17
6. Financial engagement	0.07	0.049	*	0.05	0.09
Constant	5.49	0.000		5.21	5.77
Adjusted R-Squared	0.18				

3,461 respondents (full sample), weighted to be representative of the UK population

Active saver

All seven enablers and inhibitors are statistically significant predictors of the day to day behaviour component 'active saver' (Table 8), explaining a similar, moderate proportion of the variance in scores (20 per cent) as we saw for 'manages credit use'. In this case, 'self-controlled spending' appears to be an inhibitor of active saving, negatively predicting scores on this component, although its effect is small (0.07 points). However, this is not to imply that one necessarily causes the other (or the direction of any such relationship). That said, this inverse relationship of 'self-controlled spending' with 'active saver' is unexpected. It might be derived from the indirect influence of high disposable incomes, which can simultaneously make restraining spending less necessary and active saving more possible. Alternatively, it maybe that those who feel under pressure to spend (and who indeed might struggle to curb their spending) find it more important to put in place mechanisms to save day to day.

Table 8: Regression to predict scores on managing well day to day behaviour 2: Active saver, by enabler and inhibitor components

Predictor: Enablers and inhibitors	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
1. Saving mindset	0.18	0.000	***	0.14	0.23
2. Financial numeracy	0.06	0.000	***	0.03	0.08
3. Internet engagement	0.16	0.000	***	0.14	0.19
4. Financial confidence	0.16	0.000	***	0.12	0.20
5. Self-controlled spending	-0.07	0.000	***	-0.10	-0.04
6. Financial engagement	0.23	0.000	***	0.19	0.26
Constant	-1.58	0.000		-2.02	-1.15
Adjusted R-Squared	0.20				

3,461 respondents (full sample), weighted to be representative of the UK population

As we should expect (if people are to act in a way consistent with their attitudes) a reasonably large, positive, effect derives from the 'saving mindset' enabler (with a one point increase in 'saving mindset' predicting a 0.18 point increase in active saving, all other enablers and inhibitors being equal). Repeating the point above, whilst it is a significant and positive effect it also shows an apparent 'drop-off' from intention to execution. 'Internet engagement' and 'financial confidence' also exert

a moderate positive influence (of 0.16 points). The larger effect overall, however, comes from 'financial engagement', is independently associated with a 0.23 point increase in active saving per one point increase.

Keeps track

The enablers and inhibitors together explain 22 per cent of 'keeps track' (Table 9). While all are statistically significant predictors of keeping track, 'self-controlled spending' is again an inhibitor. Even so, their effects are relatively small, the bigger enabler being 'saving mindset', which is associated with a keeping track improvement of 0.16 points for each one point increase. Here, 'financial engagement' exerts a positive influence (of 0.10 point per point) on keeping track, which appears intuitive, and 'financial numeracy' and 'Internet engagement' are also moderately important enablers.

Table 9: Regression to predict scores on managing well day to day behaviour 3: Keeps track, by enabler and inhibitor components

Predictor: Enablers and inhibitors	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
1. Saving mindset	0.16	0.000	***	0.13	0.19
2. Financial numeracy	0.11	0.000	***	0.09	0.12
3. Internet engagement	0.11	0.000	***	0.09	0.13
4. Financial confidence	0.05	0.001	**	0.02	0.07
5. Self-controlled spending	-0.05	0.000	***	-0.07	-0.03
6. Financial engagement	0.10	0.000	***	0.08	0.13
Constant	3.66	0.000		3.35	3.97
Adjusted R-Squared	0.22				

3,461 respondents (full sample), weighted to be representative of the UK population

Building resilience

The enabler and inhibitor components also explain a moderate 18 per cent of the variation in scores on the life events behaviour, 'building resilience' (Table 10). As we saw for 'active saver', all are highly significant predictors of building resilience. And all except 'self-controlled spending' are apparent enablers, with a comparatively large influence of 'Internet engagement' (0.16 points), although this might be mediated by other factors (especially life stage and income).

Table 10: Regression to predict scores on managing and preparing for life events behaviour 1: Building resilience, by enabler and inhibitor components

Predictor: Enablers and inhibitors	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
1. Saving mindset	0.12	0.000	***	0.08	0.16
2. Financial numeracy	0.11	0.000	***	0.09	0.13
3. Internet engagement	0.16	0.000	***	0.13	0.18
4. Financial confidence	0.11	0.000	***	0.07	0.15
5. Self-controlled spending	-0.07	0.000	***	-0.10	-0.04
6. Financial engagement	0.13	0.000	***	0.10	0.17
Constant	-1.63	0.000		-2.05	-1.22
Adjusted R-Squared	0.18				

3,461 respondents (full sample), weighted to be representative of the UK population

Works towards goals

Some 23 per cent of the variation in scores on the 'works towards goals' component (Table 11) is explained by the enablers and inhibitors. Again we see 'self-controlled spending' acting as an inhibitor to working towards goals, with others appearing to enable it. Notably, the effect of 'self-controlled spending' is comparatively large, with every one point increase in this inhibitor associated with a 0.24 point decrease in the behaviour. Again, it is reasonable to hypothesise that this is mediated by low disposable income and the need to exert restraint to avoid falling into arrears with bills or to repay arrears that have accrued.

Notably, 'financial confidence' is not a statistically significant predictor in this case and 'financial numeracy' is only weakly significant contributing only a small independent effect of 0.03 points per one point increase. The larger, positive, effects on working towards goals are associated with 'Internet engagement' (0.27 points) and 'financial engagement' (0.23 points).

Table 11: Regression to predict scores on managing and preparing for life events behaviour 2: Works towards goals, by enabler and inhibitor components

Predictor: Enablers and inhibitors	Coeff	p-value	Sig	95% CI Lower	95% CI Higher
1. Saving mindset	0.15	0.000	***	0.10	0.20
2. Financial numeracy	0.03	0.047	*	0.00	0.05
3. Internet engagement	0.27	0.000	***	0.24	0.30
4. Financial confidence	0.01	0.628		-0.03	0.05
5. Self-controlled spending	-0.24	0.000	***	-0.27	-0.21
6. Financial engagement	0.23	0.000	***	0.19	0.27
Constant	0.74	0.003	**	0.26	1.21
Adjusted R-Squared	0.23				

3,461 respondents (full sample), weighted to be representative of the UK population

Chapter summary

The analysis has found that behavioural and enabler and inhibitor components together account for a moderately high share of the variation in scores on the two financial wellbeing outcome components. In relation to the current financial wellbeing, the more important components are the behaviour, 'manages credit use' and especially the enabler, 'financial confidence'. For longer-term financial security, 'building resilience' was far more important with 'financial confidence' also exerting a moderate influence.

The explanatory power of the enablers and inhibitors on behaviours was generally much lower than the combined effect of the enablers and behaviours on the outcomes. Nonetheless, 'keeps track' and 'works towards goals' were comparatively important for predicting behaviours.

'Saving mindset' was a fairly important enabler of several of the behavioural components, as were 'financial engagement' and 'Internet engagement'. 'Self-controlled spending' was negatively associated with several behavioural components but, with the exception of 'works towards goals', only comparatively weakly so. 'Financial numeracy' and 'Internet engagement' also appeared to act as inhibitors of the 'manages credit use' behaviour, which though initially counter-intuitive may be spurious in (or at least indirect) nature and instead reflect the role of other factors such as age and income or hidden complexities around the context in which people use credit.

The next chapter explores which explanatory, mediator and other control variables play a role in predicting people's scores on the enabler and inhibitor components. It also explores the additive effect of these characteristics over and above the influence of the component scores on the behavioural and outcome components at the higher levels of the conceptual framework that are reported in this chapter.

4. Explaining variations in levels of financial capability

Chapter 3 has already considered the role played by components of financial capability from lower levels of the conceptual framework on scores on the components at higher levels. In this chapter, we again use regression analysis, but this time additionally introduce a wide range of personal and household socio-demographic and other characteristics ('mediators') to examine their potential to explain variation in the financial capability scores. These characteristics are:

Key socio-economic characteristics ('key mediators')

- Work status
- Household composition[11]
- Household income
- Housing tenure

All 'other mediators'

Other socio-demographic/economic characteristics of the household

- Mortgage/rent last month
- Social class of the Chief Income Earner (CIE)
- Geography
- Negative life events
- Income each week or month

Other socio-demographic/economic characteristics of the individual

- Gender
- Age group
- Ethnicity
- Highest level of education achieved
- Long-standing illness or disability
- Number of hours spent on Internet last week
- Number of types of Internet-enabled devices accessed by household

Financial management characteristics of the individual

- Chief Income Earner in household
- Responsibility for managing the household finances
- Unbanked: no current account in own name or jointly
- Think of money in pots
- Types of people discuss household finances openly with
- Info sources used in last year
- Regularly reads the financial pages

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[11] A control variable, which reflects post-hoc re-categorisation of household composition, was also included in each regression, but is not shown in the results tables because it is not of substantive interest. Household composition is included in the key socio-economic characteristics because of its impact on disposable income.

Before we undertake further regression analysis, however, we consider how financial capability scores, across all 13 components, vary by some of the characteristics which are likely to best reflect households' means and pressures. These are the 'key mediators' referred to above. This will give us an indication of for which types of households and which types of people financial capability is high and low, and in relation to which components. This provides an initial overview of which groups might be particularly important targets for and beneficiaries of financial capability interventions.

Then, our main focus will be on identifying which factors – whether these are behavioural or enabler and inhibitor components or these wider characteristics – are most important for predicting people's scores on the outcome measures 'current financial wellbeing' and 'longer-term financial security'. However, we will start by exploring their effect on the enablers and inhibitors and then the behaviours before finally considering the outcome components, in order to build up our picture, sequentially.

Variations in financial capability scores by key socio-economic characteristics

This preliminary analysis considers how financial capability is distributed across the population of the UK by a number of characteristics of the respondent and their household. In particular, we have examined how the mean average scores for each of the components vary by the individual's life stage (specifically in relation to whether they were of working or retirement age), whether or not they live alone (and then, by extension, the composition of their household), and their household's total income and housing tenure (Figures 6-9). Note that these preliminary findings are based on bivariate analysis and therefore do not control for the effects of other potential mediators (which the later sections do control for).

In relation to life stage, a visual inspection of Figure 6 indicates that the greatest variation in component scores is for the preparing for and managing life event's behaviour component 2 'works towards goals'. Adults of working age (mean 4.2) scored more than twice as highly as those of retirement age (mean 1.9) on 'works towards goals'. Although the breakdown is not shown, this gap widened even further when people's actual working status was taken into account, with the average score among the de facto retired scored falling to 1.7.

The gap between the scores of those of working and retirement age is also distinct for the two financial wellbeing outcome measures, especially 'current financial wellbeing', and enabler and inhibitor component 5 'self-controlled spending', albeit with those of retirement age scoring better on both of these (Figure 6). Adults of retirement age scored 1.4 points higher at a mean of 8.6 than those below state pension age (mean 7.2) in relation to 'current financial wellbeing and 1.5 points higher at 7.6 points than those of retirement age (mean 6.0; Figure 6). Where other statistically significant differences by life stage are evidenced the differences are again not all in the same direction.[12] Those of working age scored better on, 'active saver' and 'keeps track' while those of retirement age were more capable on average on 'manages credit use' and 'Internet engagement', 'financial confidence' and 'self-controlled spending' (enablers and inhibitors 3, 4 and 5).[13]

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[12] Statistical significance testing referred to in this section was undertaken using a one-way analysis of variance (ANOVA).
[13] The apparent variations by life stage for life events behaviour 1 and enablers and inhibitors 1, 2 and 6 are not statistically significant.

Figure 6: Mean average financial capability scores, by individuals' life-stage
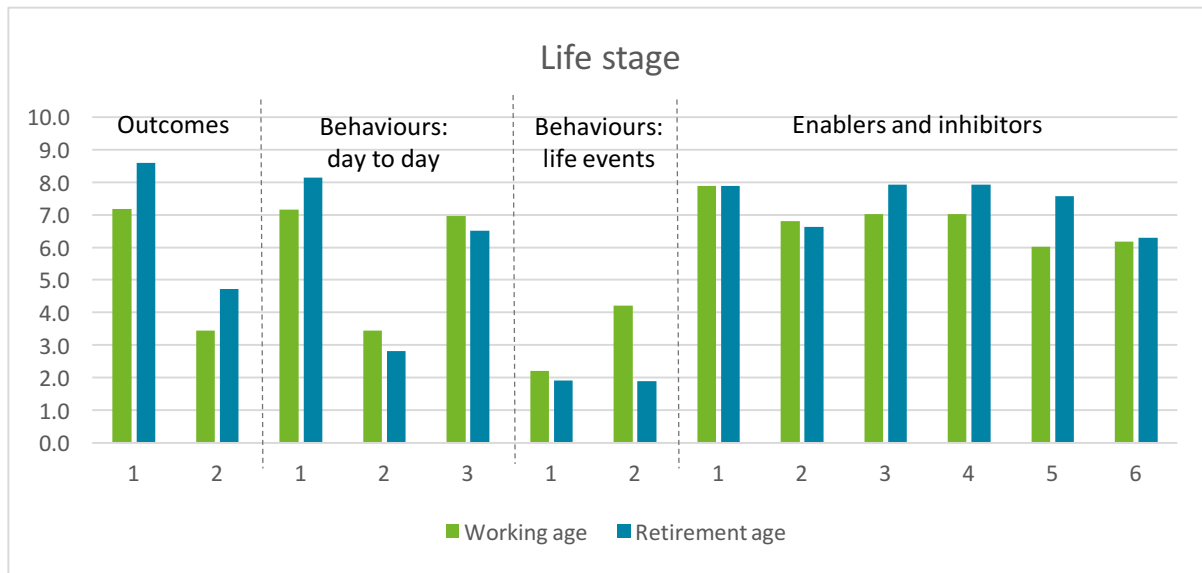
3,461 respondents (full sample), weighted to be representative of the UK population.

Key:
Outcomes 1. Current financial wellbeing, 2. Longer-term financial security; Day
Behaviours: Managing well day to day 1. Manages credit use, 2. Active saver, 3. Keeps track; Life
Behaviours: Managing and preparing for life events 1. Building resilience, 2. Works towards goals;
Enablers and inhibitors 1. Saving mindset, 2. Financial numeracy, 3. Internet engagement, 4. Financial confidence, 5. Self-controlled spending, 6. Financial engagement

We have also examined the variation in financial capability scores by household composition (Figure 7). The first bar in each of these charts shows single adult household (that is, someone who live alone). The differences in component scores depending on whether or not someone lived alone were mostly modest or non-significant.[14] However, there is notable variation for the managing and preparing for life events behaviour 'works towards goals'; this was substantially higher among those with other household members (4.0) than those living alone (2.5). This is intuitive and likely to be linked to life stage.

Among the remaining groups, we find different degrees of variation across the components, though in each case the variation across all the groups is statistically significant. As such, there is no one household group which stands out as being particularly capable or incapable across the measures. Instead for example, we can see that couples with children under age 18 scored comparatively well at the life events behaviours 'building resilience' and 'works towards goals' (which appears to be an intuitive finding), and at the enabler and inhibitor components 'financial numeracy' and 'Internet engagement'. They scored comparatively poorly at the enabler and inhibitor 'self-controlled spending', alongside lone parents, who also scored relatively poorly on both outcome components but relatively well on 'saving mindset'. Multi-adult households tended to score in the middle of the range on the majority of the components.

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[14] Only the apparent variations by living alone for 'longer-term financial security' and 'saving mindset' are not statistically significant.

Figure 7: Mean average financial capability scores, by household composition

3,461 respondents (full sample), weighted to be representative of the UK population.

Key:
Outcomes 1. Current financial wellbeing, 2. Longer-term financial security; Day
Behaviours: Managing well day to day 1. Manages credit use, 2. Active saver, 3. Keeps track; Life
Behaviours: Managing and preparing for life events 1. Building resilience, 2. Works towards goals;
Enablers and inhibitors 1. Saving mindset, 2. Financial numeracy, 3. Internet engagement, 4. Financial confidence, 5. Self-controlled spending, 6. Financial engagement

Finally, we have considered the effect on financial capability scores of both household income and tenure (Figures 8 and 9 respectively). In terms of income, we again see some of the most marked variation in scores in relation to the outcome 'longer-term financial security' and the two life event behavioural components 'works towards goals'. Substantial variation is observed for the managing well day to day behaviour 'active saver' and the enabler and inhibitor 'financial numeracy'. In each case improved scores are found for people living in households with the higher incomes. Commensurate, if less marked, variations by income are also observed for the enablers and inhibitors 'saving mindset', 'financial confidence' and 'financial engagement'. For the remaining components, the variation by income level is rather less clear and inconsistent in the direction of the effect.[15]

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[15] Only the apparent variation by income for enabler and inhibitor component 'self-controlled spending' is not statistically significant.

Figure 8: Mean average financial capability scores, by total household income

3,461 respondents (full sample), weighted to be representative of the UK population.

Key:
Outcomes 1. Current financial wellbeing, 2. Longer-term financial security; Day
Behaviours: Managing well day to day 1. Manages credit use, 2. Active saver, 3. Keeps track; Life
Behaviours: Managing and preparing for life events 1. Building resilience, 2. Works towards goals;
Enablers and inhibitors 1. Saving mindset, 2. Financial numeracy, 3. Internet engagement, 4. Financial confidence, 5. Self-controlled spending, 6. Financial engagement

Figure 9: Mean average financial capability scores, by housing tenure
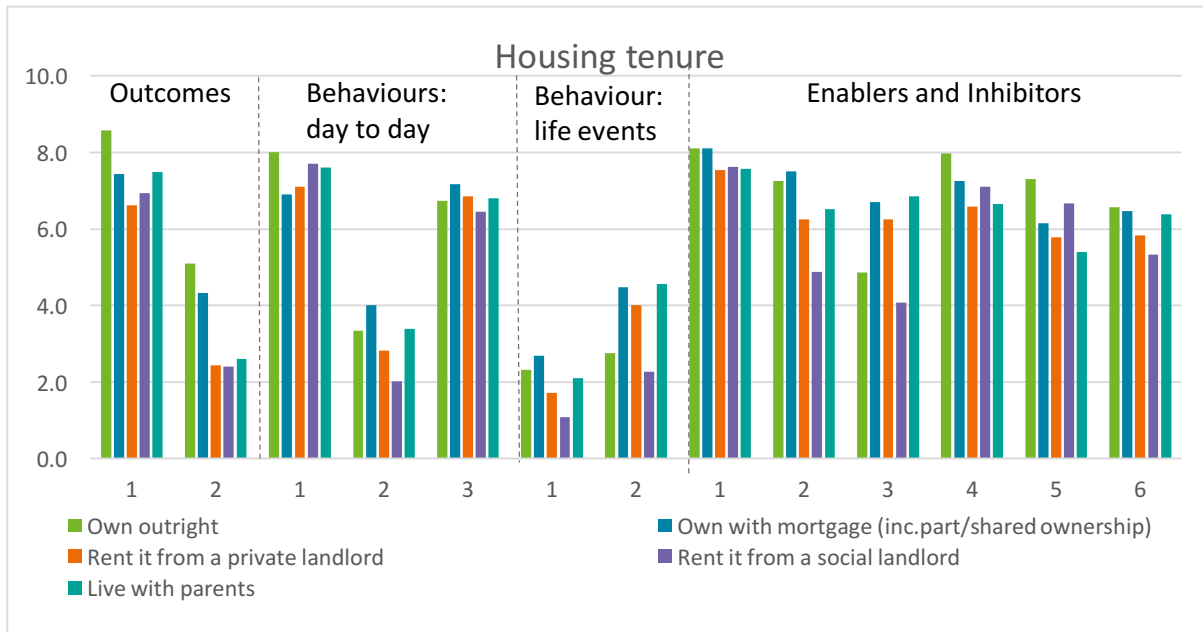
3,461 respondents (full sample), weighted to be representative of the UK population.

Key:
Outcomes 1. Current financial wellbeing, 2. Longer-term financial security; Day
Behaviours: Managing well day to day 1. Manages credit use, 2. Active saver, 3. Keeps track; Life
Behaviours: Managing and preparing for life events 1. Building resilience, 2. Works towards goals;
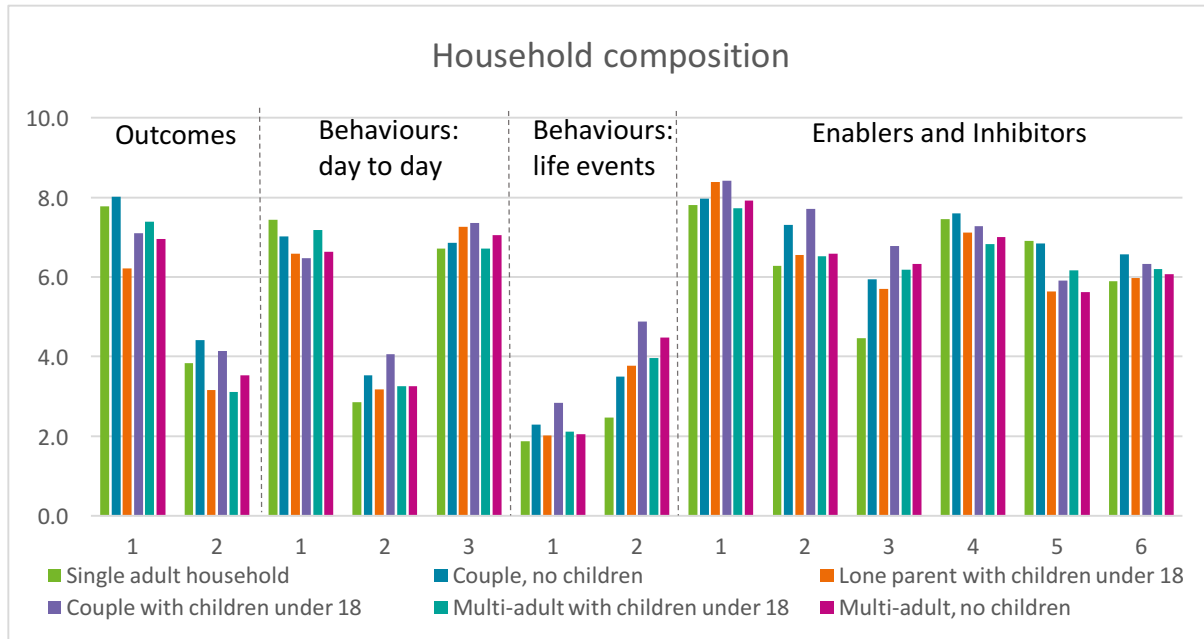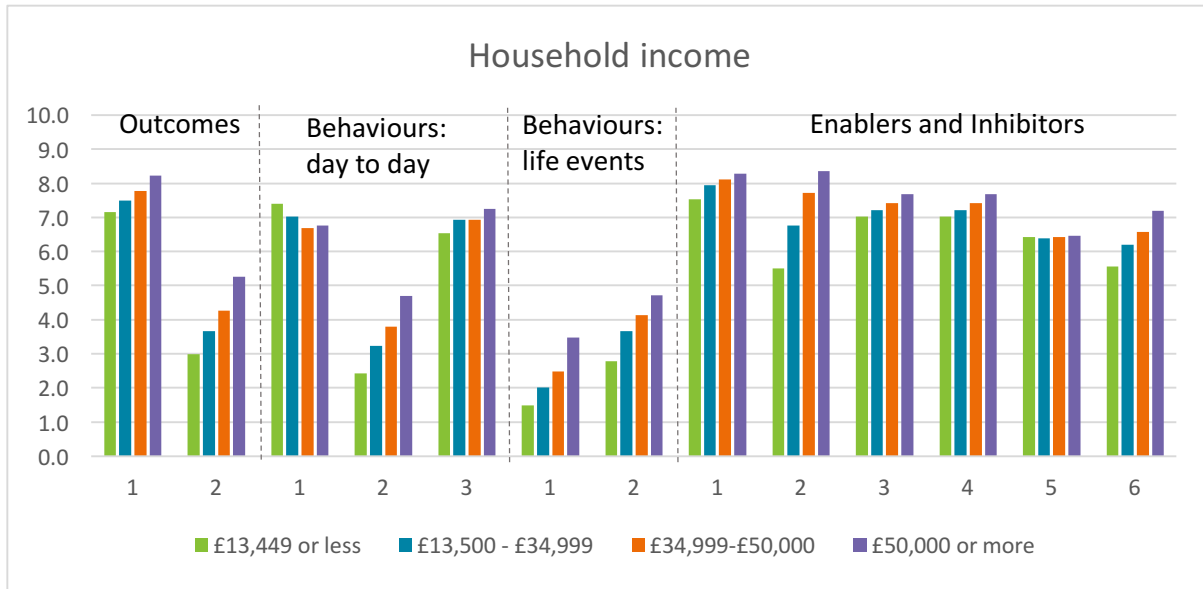**Enablers and inhibitors** 1. Saving mindset, 2. Financial numeracy, 3. Internet engagement, 4. Financial confidence, 5. Self-controlled spending, 6. Financial engagement

We also see statistically significant variations in scores by housing tenure for each of the components (Figure 9, above). In particular, people renting their homes from a social landlord scored particularly poorly on average on both outcome components, the 'active saver', 'building resilience' and 'works towards goals' behavioural components and the enablers and inhibitors 'financial numeracy', 'Internet engagement' and, to a lesser extent, 'financial engagement'. This is likely to reflect other characteristics of this group, particularly their typically much lower incomes than others. People renting from a social landlord nonetheless scored comparatively well on 'manages credit use', possibly reflecting their exclusion from mainstream credit, and 'self-controlled spending', possibly out of necessity. Those owning their homes outright tended to be at or towards the top of the range on each of the components, the exception being the enabler 'Internet engagement', where both variables are correlated with age.

As we have seen in this section, average scores varied somewhat by key measures of the key means and pressures of the household, and particularly strongly by the socio-economic circumstances of the individual and their household. As might be expected, those groups appearing to be better-off financially consistently scored better on components at each level of the conceptual framework. However, this analysis has not controlled for the effects of other potential mediators, and this is why we use regression analysis in later sections of the report.

The next section examines the determinants of financial capability on each of the components, drawing on the socio-demographic measures considered above as well as a wide range of other explanatory and mediator variables and taking into account, where appropriate, other financial capability components.

We start by exploring their effect on the enablers and inhibitors and then the behaviours before finally considering the outcome components. Examining the effects on the components in reverse order will help us to understand how these personal and household characteristics might also moderate the effects of the lower-level components on the higher-level components which we saw in the previous chapter. Note that most of the socio-demographic and economic characteristics are categorical (nominal) in nature. Therefore, in contrast to the regression analysis we saw earlier where we considered the effects of component scores on other components, the interpretation of categorical measures is slightly different. Here, we set a reference category against which the change in the score in the enabler or mediator is shown for each category compared with the reference category (see the Appendix 1 for more information). Also, although we consider the influence of key socio-demographic characteristics, the chapter continues to focus on analysis of the UK population as a whole rather than limiting the analysis to particular subgroups to control for these influences.

The influence of mediators on enablers and inhibitors

Table 12 shows an extract of the results of regression models for all six of the enablers and inhibitors for the subset of key socio-economic characteristics of the individual and their household. Appendix Table A3 shows the full results with all of the characteristics. In each case, the values shown are the coefficients but, for presentational purposes, we have removed the p-values and significance levels and instead indicated the significance levels by shading the corresponding coefficient (with the darkest shading corresponding to the highest level of statistical significance). The coefficients for the measures which are categorical in nature (i.e. groups) indicate a level of change in the enabler that is independently associated with a switch from the reference category to the category shown. So, for example, being in full or part-time education or training is associated with a decrease in 'saving mindset' by over a quarter of a point (-0.29 points; Table 12; column 1) compared with being in full-time employment. It is important to point out that although the analysis identifies characteristics as predictors or determinants of the components they are nonetheless only independent 'correlates' of the components, and the direction of the effect is not proven statistically by the regression analysis.

Despite the significant independent relationship of the characteristics with the enablers and inhibitors, the R-squared for each model shows that the characteristics, in combination, tend to explain the enablers and inhibitors only moderately well. 36 per cent of the variation in scores on 'financial numeracy' is explained by them (Table 12; column 2). But this is the exception, and only 13 per cent and 14 per cent of the 'saving mindset' and 'financial engagement' are accounted for (columns 1 and 6).

The relative importance of the key socio-economic characterises is evident from Table 12. Statistically significant effects of the different categories of these measures, indicated by the shading and the dark shading in particular, are common within household income and, to a lesser extent, work status.

Almost without exception, living in a household with an annual income of less than £50,000 scored significantly less well on the enabler and inhibitor components, all other things being equal. This is certainly the case for the lower-income groups, with the effect on scores tending to range in size across the income categories, with the lowest incomes scoring the least well. Most notably, those living in household with incomes of less than £13,500 predict a decrease in 'financial numeracy' of 0.81 points (Table 12, column 2) and a decrease in 'financial engagement' of some 1.15 points all others things being equal, compared with those with the highest incomes (column 6).

The picture is rather more mixed for the other key socio-economic characteristics. Most notably, being self-employed part-time predicted an increase in 'financial numeracy' of some 1.13 points compared with being a full-time employee (Table 12, column 2) and renting from a social landlord decreased scores on this enabler by 0.77 points compared with outright ownership (Table 12, column 2). Being unemployed decreased 'financial confidence' scores by 0.87 points as did renting from a social landlord by 0.80 points (column 4). And being a lone parent predicted a decrease in 'self-controlled spending' scores by 0.79 points compared with couples without children (column 5).

Table 12: Regression to predict scores on enabler and inhibitor components, by key socio-economic characteristics

	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement
Work status (ref is employed full time)						
Full or part-time education/training	-0.29	0.36	0.13	-0.12	-0.32	0.00
Employed part time	0.11	0.37	0.18	-0.12	0.15	0.06
Self-employed full time	-0.09	0.65	0.17	-0.29	-0.06	0.11
Self-employed part time	0.15	1.13	0.57	-0.27	0.47	-0.50
Retired from paid work	0.13	0.41	-0.03	0.19	0.30	0.56
Unemployed	-0.15	0.62	-0.04	-0.87	0.43	0.02
Not working for any other reason	0.08	0.62	0.04	-0.07	0.58	0.39
Household composition (ref is couple, no children)						
Single adult household	0.09	0.07	-0.09	0.00	-0.29	-0.05
Lone parent with child(ren) under 18	0.46	-0.05	-0.12	-0.05	-0.79	-0.14
Couple with child(ren) under 18	0.26	-0.01	-0.01	-0.24	-0.48	-0.46
Multi-adult with child(ren) under 18	0.11	-0.03	-0.19	-0.30	0.09	-0.07
Multi-adult, no children	-0.01	-0.19	-0.00	-0.19	-0.50	-0.40
Household income (ref is £50,000 or more)						
Less than £13,500	-0.27	-0.81	-0.47	-0.48	-0.54	-1.15
£15,000 but less than £35,000	-0.10	-0.47	-0.31	-0.44	-0.36	-0.76
£35,000 but less than £50,000	-0.05	0.10	-0.31	-0.24	-0.26	-0.45
Housing tenure (ref is own outright)						
Own with a mortgage	-0.37	-0.24	-0.07	-0.52	-0.18	-0.25
Rent from private landlord	-0.53	-0.26	-0.07	-0.80	-0.26	-0.37
Rent from Local authority or housing association	-0.26	-0.77	0.01	-0.32	-0.04	-0.51
Live with parents/other family	-0.06	0.25	-0.14	-0.34	-0.24	0.26
Some other arrangements	-0.12	0.70	-0.08	-0.51	-0.30	-0.17
All other characteristics (see Appendix Table A3)						
Constant	7.64	7.10	1.54	8.00	8.26	6.00
Adjusted R-Squared	0.13	0.36	0.49	0.18	0.19	0.14

3,461 respondents (full sample), weighted to be representative of the UK population. The shading indicates statistical significance, where light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$.

Other socio-demographic and economic characteristics of the household were comparatively unimportant in predicting scores on the enabler and inhibitor components (Appendix Table A3), at least compared with the remaining sets of measures. Among them, the most important socio-demographic and economic characteristics across the components when viewed as a whole were age, broad ethnic grouping, reporting having a long-standing illness or disability and the number of types of Internet-enabled devices available to the individual. Notably, capability tended to increase with increasing age and was higher for those without illness or disability, although the pattern was less clear by ethnicity and Internet devices (with capability mostly, but not always, higher the more types of devices households used). Where education level was statistically significant, capability scores also tended to be higher among those with higher educational qualifications (Appendix Table A3).

Table 13: Regression to predict scores on enabler and inhibitor components, by financial management characteristics of the individual

	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement
Chief Income Earner in household (ref is myself)						
Me jointly	-0.27	-0.01	0.00	-0.05	-0.20	-0.10
Someone else	0.05	0.20	-0.03	-0.01	0.01	0.18
Responsibility for managing the household finances (ref is partner/spouse mostly)						
Me mostly (including n/a, no partner)	0.19	0.81	0.17	1.10	0.21	0.43
Me jointly	0.06	0.59	0.11	0.89	0.02	0.31
No current account in own name or jointly (ref is banked)	-0.42	-0.95	-0.36	-0.50	-0.07	-0.16
Think of money in pots (high=strong agreement)	0.07	-0.08	-0.02	0.08	-0.04	0.04
Types of people discuss household finances openly with (ref is none)						
One	0.28	0.26	0.08	0.09	-0.04	0.41
Two	0.38	0.62	0.14	0.08	0.08	0.42
Info sources used in last year (ref is none)						
Adviser/advice agency	0.10	0.92	0.30	-0.14	-0.07	0.40
Active use of websites, comparisons	0.09	0.93	0.34	-0.31	-0.26	0.11
Passive use of financial pages, TV, radio and social media	0.08	0.77	-0.41	-0.14	-1.08	0.24
Friends/family	-0.13	0.34	0.06	-0.35	-0.77	0.14
Regularly reads the financial pages (high = strongly disagree)	-0.11	0.07	-0.08	-0.24	0.05	-0.03
All other characteristics (see Appendix Table A3)						
Constant	7.64	7.10	1.54	8.00	8.26	6.00
Adjusted R-Squared	0.13	0.36	0.49	0.18	0.19	0.14

3,461 respondents (full sample), weighted to be representative of the UK population. The shading indicates statistical significance, where light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$. Each coefficient shows the change in score on the component for this group compared with its reference (ref) category.

With the exception of 'financial numeracy', for which capability increased with the increasing number of hours spent on the Internet in the last week, time spent using the Internet tended not to play a clear role.[16] Notably, however, little or no Internet hours spent was associated with higher 'self-controlled spending' scores, which may be a reflection of those with the fewest resources to be more inclined watch their spending (Appendix Table A3; column 5).

Finally, individual financial management characteristics associated with the respondent were also mostly significantly predictive of capability on the enabler and inhibitor components, and often strongly so (Appendix Table A3). Nonetheless, these effects were not always consistent.

Use of professional financial or money advisers and the active use of financial websites and comparison sites both independently increased financial numeracy scores by nearly one point compared with using no information sources (Table 13). Conversely, the passive use of available information and consulting with friends and family predicted decreases in 'self-controlled spending' scores compared with using no information sources. Having joint or primary responsibility for managing the household finances predicted increases in 'financial confidence' by 0.89 and 1.10 points respectively, compared with a partner or spouse being mostly responsible.

Collectively, demographic, socio-economic and other characteristics explained only a moderate amount of variation in enabler and inhibitor scores in 2015 (Table 12; Appendix Table A3). Only 13 per cent of the variation in 'saving mindset', was explained, rising to 36 per cent of the variation in 'financial numeracy'. The exception, however, is 'Internet engagement', 49 per cent of which is explained; this is explained largely by the inclusion of the number of types of Internet-enabled devices households had access to, which would be expected to correlate highly with hours spent using the Internet in the last week, which is one of the two survey measures defining this component).

The full results are shown in Appendix Table A3, and the dashboard below (Table 14) summarises the regression results by component, highlighting some of the most important characteristics independently associated with each one.[17] Taking each of the enabler and inhibitor components in turn:

1. **'Saving mindset'** was only moderately well explained by the available characteristics (13 per cent. Although several characteristics were associated with statistically significant changes in scores, none appeared to be of large practical importance to the component. This suggests that underlying, factors (such as personality type) not captured by the survey measures are important for determining someone's saving mindset. Or it may be that 'saving mindset' is important in its own right when predicting financial capability behaviours and outcomes.
2. **'Financial numeracy'** was fairly well explained by the available characteristics (36 per cent) and particularly strongly explained by socio-demographic and economic characteristics of the individual. This includes their work status, age, ethnicity and measures of Internet activity and access. Factors associated with their financial management also appear important with current account ownership and active use of information sources and advisers predicting higher financial numeracy scores.
3. **'Internet engagement'** was well-explained by the measures available (49 per cent), albeit partly due to the inclusion of the number of types of Internet-enabled devises available in the household (which, as noted above should be expected to correlate highly with one of the two measures comprising this component). Younger adults and those working self-employed part-time those scored well on this component, while those with the lowest household incomes, vocational qualifications and those with chief income earners drawn from the lowest social class scored poorly all other things being equal. Ethnicity and responsibility for financial management also played a role.
4. **'Financial confidence'** was moderately well explained by the available measures (18 per cent), although a few characteristics nonetheless appear to be of quite high practical significance to components. This includes several of the financial management measures, especially responsibility for managing finances within the household, and the key demographic and socio-economic characteristics and high levels of rent and mortgage payments especially being associated with significantly lower scores on this component, independently of other factors.

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[16] The number of hours spent on the Internet in the last week was not included in the regression analysis of 'Internet engagement', because a different version of the same measure was included in the composition of this component.
[17] This has been interpreted based on the level of statistical significance and the size of the effect (coefficient), in combination.

Table 14: Determinants of enabler and inhibitor component scores: dashboard

1: 'Saving mindset'   Variance explained = 13%

Key determinants of component scores include:
- Being a lone parent (-0.46 points), compared with couple, no children
- Renting the home from a social landlord (-0.53 points), compared with owning outright
- Having access to no Internet-abled device (-0.48 points), compared with three

2. 'Financial numeracy'   Variance explained = 36%

Key determinants of component scores, include:
- Having no qualifications (-1.73 points), compared with a higher degree
- Using the Internet for 30+ hours in the last week (+1.24 points), compared with none
- Being self-employed part-time (-1.13 points), compared with full-time employees
- Being from a Black or minority ethnic group (-1.10 points), compared with being White
- Being aged 18-24 years old (-1.08 points), compared with 75 and over

3. 'Internet engagement'   Variance explained = 49%

Key determinants of component scores, include:
- Having no (-2.99 points) or only one (-1.00 points) Internet-enabled device, compared with three or more
- Being younger, and especially aged 18-24 years old (+2.47 points), compared with 75 and over
- Being self-employed part-time (+1.11 points), compared with full-time employees.
- Being mostly responsible for managing the household finances (+0.82 points), compared with partner or spouse
- Having vocational qualifications (-0.73), compared with a higher degree
- Making active use of websites and comparison sites (+0.71 points), compared with using no information sources
- Being from a Black or minority ethnic group (-0.50 points), compared with being White

4. 'Financial confidence'   Variance explained = 18%

Key determinants of component scores, include:
- Having primary responsibility for managing the household's finances (+1.10 points), compared with the partner or spouse having primary responsibility
- Being unemployed (-0.87 points), compared with full-time employees
- Renting the home from a social landlord (-0.80 points), compared with owning outright
- -0.24 points per one point increase in agreement that you 'regularly read the financial pages'

5. 'Self-controlled spending'   Variance explained = 19%

Key determinants of component scores, include:
- Being aged 18-24 (-2.26 points) or 25-34 (-2.14 points), compared with 75 and over
- Passive use of financial pages etc. (-1.08 points), compared with using none
- Using the Internet for 6-7 hours in the last week (+1.00 points), compared with none

6. 'Financial engagement'   Variance explained = 14%

Key determinants of component scores, include:
- Having a household income of less than £13,500 (+0.47 points), compared with £50,000 or more
- Renting the home from a social landlord (-0.51 points), compared with owning outright
- Reporting having a long-standing illness or disability (-0.47 points), compared with none
- Openly discussing household finances with two people (+0.41 points), compared with none

3,461 respondents (full sample), weighted to be representative of the UK population. The list of key determinants is not exhaustive of all statistically significant determinants, and is instead a selection of those with high practical and/or statistical significance for illustration purposes.

5. **'Self-controlled spending'** was moderately well explained by the available characteristics, drawn from the various types of characteristics (19 per cent). This includes their age and Internet hours and access and use of financial and money information sources, with the use of written and web-based information sources and use of information from family and friends being independently associated with worse scores on this component than those using no sources at all.

6. **'Financial engagement'** was only moderately explained by the socio-demographic and other measures (14 per cent). Even so, certain socio-economic factors are of relatively high importance, particularly household income and – independently of this – housing tenure. Collectively, financial management characteristics were of seemingly relative importance and those with long-standing illnesses or disabilities scored less well all other things equal. Again, this suggests 'financial engagement' may be comparatively important in its own right when understanding the determinants of behavioural and outcome components

The influence of mediators on financial capability behaviours

We have undertaken similar regression analysis to identify the influence of the key socio-demographic and other determinants of scores on the financially capable behaviour components. By retaining the set of enabler and inhibitor components in the regression, we can first explore how the influence of the enablers and inhibitors, last explored in Chapter 3 (tables 7-11) is affected by the inclusion of a much wider set of predictors (Table 15; Appendix Table A4).

Overall, the majority remained statistically significant predictors of financial capability scores across the behavioural components, although most were attenuated (that is, their effects are weakened). In particular, the effect of the 'Internet engagement' was strongly moderated (and no longer significant for three of the behavioural components) in the presence of the mediators, and we understand this to be because one of the measures defining this component is included separately within the regression analysis (Appendix Table A4).

'Financial numeracy' was strongly moderated by the other mediators in relation to the life event behaviour 'building resilience' (the coefficient for this enabler falling from 0.11 to 0.03). Otherwise, we tend to see moderate attenuation of the enablers, where they remain statistically significant. 'Financial numeracy' was no longer a significant predictor of 'manages credit use', 'active saver' and 'works towards goals'; 'financial confidence was no longer a significant predictor of 'keeps track' and 'works towards goals'; and 'self-controlled spending' was no longer predictive of 'active saver' or 'keeps track'. Nonetheless, the finding that enablers and inhibitors remain significant predictors of the behaviours over and above the influence of demographic and other characteristics confirms that these components capture distinct characteristics of the individual which are important for understanding financially capable behaviours. Though small (exerting only a 0.04 point increase for every point), the influence of 'financial engagement' on 'manages credit use' was slightly higher in the presence of other mediators (up from 0.02).

Among the wider range of mediators included in the analysis, work status and household income, the type of area in which someone lived and several of the financial management characteristics of the individual (especially the tendency to think of money in terms of 'pots' and information sources used in the last year) were of strongest independent importance overall across the behavioural components. The number of hours spent on the Internet was also important for predicting scores on the two life events behavioural components, with moderate and higher number of hours improving scores on these components (by up to 0.88 points on 'works towards goals' scores if using the Internet for 8-10 hours in the last week).

The inclusion of the mediator variables in the regression analysis improved the explanatory power of the analysis of the behavioural components statistically significantly compared with the enablers and inhibitors alone. In practical terms, the improvement was moderate such that, for each, capability became reasonably well explained by all the available measures: ranging from 26 per cent of 'manages credit use' (from 18 per cent without the mediators) to 39 per cent of 'works towards goals' (from 23 per cent). Even so, we might conclude that the key demographics are useful, but not as important as enablers and inhibitors, for predicting financially capable behaviours.

Table 15: Regression to predict scores on behavioural components, by enabler and inhibitor components and financial management characteristics of the individual

	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals
Enablers and inhibitors					
1. Saving mindset	0.06	0.13	0.10	0.09	0.12
2. Financial numeracy	-0.03	-0.01	0.08	0.03	0.01
3. Internet engagement	-0.04	0.01	0.09	0.03	-0.01
4. Financial confidence	0.06	0.10	0.02	0.06	0.04
5. Self-controlled spending	0.09	-0.01	-0.01	-0.04	-0.11
6. Financial engagement	0.03	0.16	0.09	0.08	0.16
Financial management characteristics of the individual					
Chief Income Earner in household (ref is myself)					
Me jointly	0.00	-0.05	0.07	0.00	0.19
Someone else	0.09	0.01	0.00	0.03	0.10
Responsibility for managing the household finances (ref is partner/spouse mostly)					
Me mostly (including n/a, no partner)	-0.17	0.46	0.54	0.40	-0.18
Me jointly	-0.19	0.33	0.33	0.34	-0.17
No current account in own name or jointly (ref is banked)	0.09	-0.22	-0.17	-0.07	0.02
Think of money in pots (high = strong agreement)	0.02	0.09	0.11	0.05	0.10
Types of people discuss household finances openly with (ref is none)					
One	0.07	0.05	0.17	0.04	0.09
Two	-0.08	0.29	0.29	0.28	0.67
Info sources used in last year (ref is none)					
Adviser/advice agency	-0.24	0.68	0.35	0.84	0.95
Active use of websites, comparisons	-0.33	0.45	0.21	0.56	0.58
Passive use of financial pages, TV, radio and social media	-0.38	0.42	0.03	0.07	0.79
Friends/family	0.10	0.22	0.03	0.27	0.36
Regularly reads the financial pages (papers/online) (high = strongly disagree)	-0.03	-0.12	-0.04	-0.10	-0.13
All other characteristics (see Appendix Table A4)					
Constant	6.05	0.66	3.36	0.50	1.22
Adjusted R-Squared	0.26	0.31	0.33	0.32	0.39

3,461 respondents (full sample), weighted to be representative of the UK population. Light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$.

The findings for each behaviour component are summarised in turn as follows, and the key statistics and predictors are shown in Table 16.

Behaviours: managing well day to day

1. **'Manages credit use'** was moderately well explained by the full set of measures available, at 26 per cent. The enablers made up the largest share of influence over this behaviour, although none individually contributed a large amount of variation in scores; 'self-controlled spending' and 'financial confidence' contributed a 0.12 point and 0.10 point increase respectively per one point increase in these enablers. Key socio-economic characteristics were comparatively important, particularly work status, as was the use of money and financial information sources in the last year, with the active use of information and advice lowering scores on this component. This last finding appears counter-intuitive, but only indicates that those struggling to manage their credit use was independently associated with seeking help, not that seeking help *caused* poorer management of credit use; i.e. they may have occurred concurrently, and they may be underpinned by a common, underlying causes (e.g. financial difficulty) not adequately captured in the analysis. This underlines the limitations of regression analysis in identifying ordering effects or cause and effect.

2. **'Active saver'** was moderately well explained by the full set of measures available, at 31 per cent. The enablers and inhibitors were important overall, with 'financial engagement' improving active saver scores by 0.16 points for every one point it increased. 'Saving mindset' and 'financial confidence' were also highly significant. Key socio-economic characteristics were also important, particularly work status and household income. The active use of sources of information and advice about money also increased scores on this component, while living in a metropolitan area lowered active saver scores.

3. **'Keeps track'** was moderately well explained by the full set of measures available, at 33 per cent. The enablers and inhibitors were again comparatively important, although none, individually, was associated with a large change in 'keeps track' scores. Demographic and socio-economic factors were comparatively unimportant, with the exception of broad ethnic group and area of residence. Instead, several of the financial management characteristics of the individual were highly significant, especially responsibility in the household for managing finances and the tendency to think about money in terms of 'pots'.

Behaviours: managing and preparing for life events

1. **'Building resilience'** was also moderately well explained by the full set of measures available, at 32 per cent. The enablers and inhibitors played a relatively small role, with none, individually, having a large influence. The most influential mediators were of rather different types with household income, the social grade of the household's chief income earner, area of residence, hours spent on the Internet in the last week and several financial management characteristics of the individual playing a highly significant role. Notably, being a woman was also associated with slightly lower 'building resilience' scores, all other things being equal, while experiencing a negative life event in the last three years (albeit not the last 12 months) was associated with an increase in scores; this was associated with a 0.32 point increase in building resilience, which though apparently small is likely to be of practical importance.[18]

2. **'Works towards goals'** was reasonably well explained by the full set of measures available, at 39 per cent. Although only three of the enablers and inhibitors – 'saving mindset', 'self-controlled spending' and 'financial engagement' – were significant predictors of scores on this behaviour, these each played a moderately strong role with a one point increase in financial engagement alone predicting a 0.16 point increase in works towards goals. A large number and wide range of other mediators were also important determinants of scores. Many of these are intuitive, for example, being younger, living at home with parents, spending more time on the Internet, experiencing recent life events and using professional advice were all independently associated with higher 'works towards goals' scores, while being retired or unemployed lowered them.

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[18] Previous research has highlighted the role life events play in saving (e.g. S MacKay and E Kempson (2003 'Savings and Life Events' *Department of Work and Pensions Research Report 194*. Leeds: Corporate Document Services.

Table 16 Determinants of behaviour component scores: dashboard

Managing well day to day

1: 'Manages credit use'   Variance explained = 26% (up from 18%)

Key determinants of component scores:
- +0.12 points per one point increase in 'self-controlled spending'
- +0.10 points per one point increase in 'financial confidence'
- Being self-employed part-time (+0.56 points), compared with full-time employees
- Living in a home with a mortgage (-0.38 points), compared with owning outright
- Making active use of websites and comparison sites (-0.34 points), compared with using no sources

2. 'Active saver'   Variance explained = 31% (up from 20%)

Key determinants of component scores:
- +0.16 points per one point increase in 'financial engagement'
- Being unemployed (-1.06 points), compared with full-time employees
- Having a household income of less than £13,500 (-0.88 points), compared with £50,000 or more
- Use of professional financial or money advisers (+0.68 points), compared with using no sources
- Living in a metropolitan area (-0.41 points), compared with an urban area

3. 'Keeps track'   Variance explained = 33% (up from 22%)

Key determinants of component scores:
- +0.10 points per one point increase in 'saving mindset'
- Having primary responsibility for managing the household's finances (+0.54 points), compared with the partner or spouse having primary responsibility
- Being from a Black or minority ethnic group (-0.50 points), compared with being White
- Living in a mixed area (-0.42 points), compared with an urban area
- +0.11 points per one point increase in agreement that you 'think of money in terms of pots'

Managing and preparing for life events

1. 'Building resilience'   Variance explained = 32% (up from 18%)

Key determinants of component scores:
- +0.09 points per one point increase in 'saving mindset'
- Use of professional financial or money advisers (+0.84 points), compared with using no sources
- Having a household income of less than £13,500 (-0.84 points), compared with £50,000 or more
- Spending 8-10 hours on the Internet in the last week (+0.68 points), compared with none
- Having a Chief Income Earner in social grade E (-0.55 points), compared with grade A
- Experiencing a negative life event in the last three years (+0.32 points), compared with none
- Living in a metropolitan area (-0.30 points), compared with an urban area
- Being female (-0.21 points), compared with being male

2. 'Works towards goals'   Variance explained = 39% (up from 23%)

Key determinants of component scores:
- +0.16 points per one point increase in 'financial engagement'
- Being retired from paid work (-1.40 points), compared with full-time employees
- Spending 8-10 hours on the Internet in the last week (+0.88 points), compared with none
- Being aged 18-24 (+0.67 points), compared with 75 years and older
- Discussing finances openly with two types of people (+0.67 points), compared with none
- Living in a couple with children (+0.62 points), compared with a couple without children
- Living in a home with parent(s)/family member(s) (+0.44 points), compared with owning outright
- Experiencing a negative life event in the last 12 months (+0.41 points), compared with none
- Use of professional financial or money advisers (+0.95 points), compared with using no sources
- -0.13 points per one point increase in agreement that you 'regularly read the financial pages'

3,461 respondents (full sample), weighted to be representative of the UK population. The list of key determinants is not exhaustive of all statistically significant determinants, and is instead a selection of those with high practical and/or statistical significance for illustration purposes.

The influence of mediators on financial capability outcomes

As we saw above in Chapter 3 (Tables 5 and 6), the financial capability outcome components were both already well explained by the behaviour and enabler and inhibitor components. While 44 per cent of the variation in scores for 'current financial wellbeing' was explained, some 51 per cent of 'longer-term financial security' was explained by these components. With the introduction of other characteristics as potential mediators, these percentages increased significantly, and fairly substantially, to 57 per cent and 64 per cent respectively. This confirms that other factors were important, but that, in their presence, the effect of the behaviour and enabler and inhibitor components was attenuated by them (Appendix Table A5).

Moreover, the 'key mediators', which represent households' main financial means and pressures, alone accounted for 26 per cent of variation in current financial wellbeing scores, and other mediators by themselves also accounted for 26 per cent of the variation (Figure 10). That said, when included with the behavioural components and the enabler and inhibitor components, they only added eight per cent and four per cent respectively (and 13 per cent altogether) to the overall explanatory power of the regression model (figures may not appear to sum correctly due to rounding).

Figure 10: Additive and individual effects of predictor types on current financial wellbeing

3,461 respondents (full sample), weighted to be representative of the UK population. The percentage of variation explained is given by the adjusted R-squared for each respective regression model.

When predicting longer-term financial security, the key mediators on their own explain 30 per cent of the variation in scores, while other mediators account for a substantial 39 per cent (Figure 11). Indeed, the individual contribution of each of these sets of characteristics is greater than for the inhibitors and enablers alone. However, when behaviours and enablers and inhibitors are also accounted for, they contribute only an additional 11 per cent and two per cent respectively to our ability to explain the variation in longer-term financial security (14 per cent altogether, taking into account the rounding). This underlines the primary importance of the financial capability components in their own right.

Figure 11: Additive and individual effects of predictor types on longer-term financial security
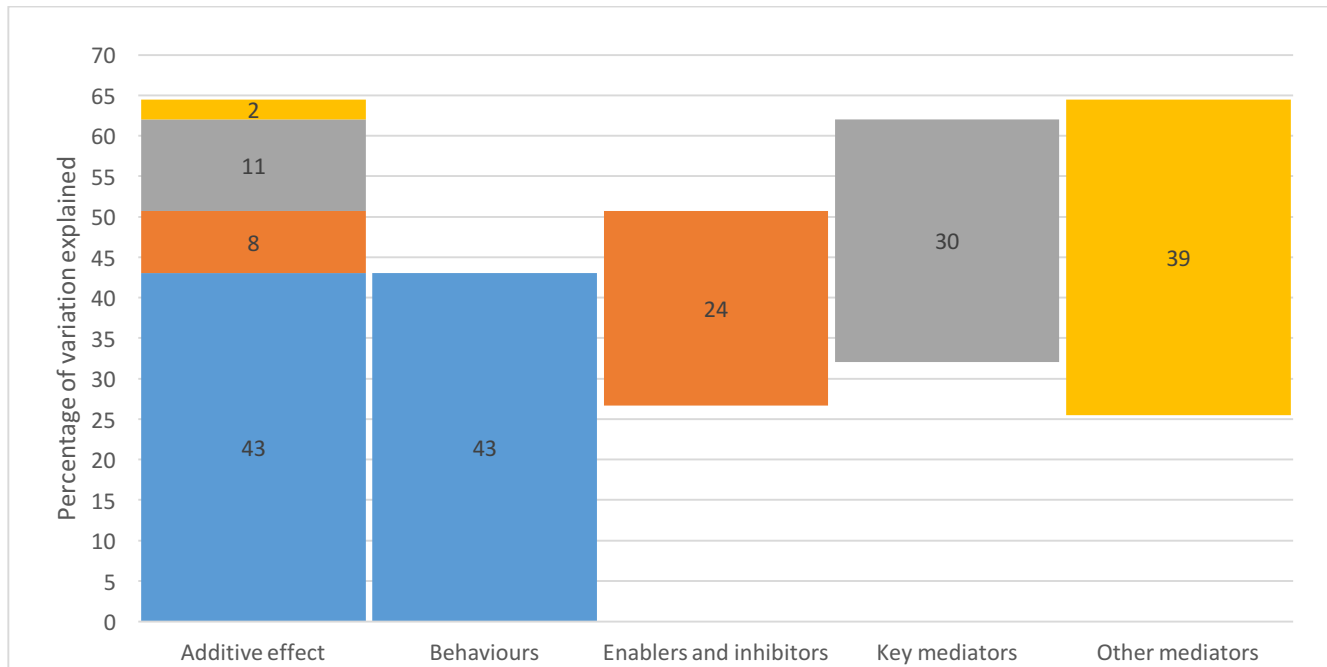
3,461 respondents (full sample), weighted to be representative of the UK population. The percentage of variation explained is given by the adjusted R-squared for each respective regression model.

Table 17: Regression to predict scores on outcome components, by behavioural and enabler and inhibitor components

	1. Current financial wellbeing	2. Longer-term financial security
Behaviours: managing well day to day		
1. Manages credit use	0.26	0.10
2. Active saver	0.14	-0.08
3. Keeps track	-0.09	-0.01
Behaviours: managing and preparing for life events		
1. Building resilience	-0.03	0.56
2. Works towards goals	-0.03	-0.01
Enablers and inhibitors		
1. Saving mindset	-0.05	0.02
2. Financial numeracy	0.00	0.05
3. Internet engagement	0.00	0.02
4. Financial confidence	0.29	0.09
5. Self-controlled spending	0.03	0.01
6. Financial engagement	0.11	0.05
All other characteristics (see Appendix Table A5)		
Constant	5.86	2.81
Adjusted R-Squared	0.55	0.64

3,461 respondents (full sample), weighted to be representative of the UK population. Light shading indicates p<0.05, medium shading indicates p<0.01, and dark shading indicates p<0.001.

As such, the behaviour and enabler and inhibitor components remain the most important set of predictors of both outcome components, and most remain highly statistically significant (Table 17; Appendix Table A5). Of those which were previously statistically significant, only 'financial numeracy' and 'Internet engagement' have become insignificant predictors of 'current financial wellbeing' in the presence of the additional mediators; and 'works towards goals', 'saving mindset' and 'self-controlled spending' have become insignificant in relation to 'longer-term financial security'. This suggests that factors other than these enablers are important for driving financial capability outcomes.

In fact, the analysis shows that a wide range of other factors were important predictors of outcome scores (Appendix Table A5). These are drawn from across the types of characteristics included in the analysis, but largely from the key socio-economic characteristics, as we should expect given the nature of the outcome components, and other socio-demographic and economic characteristics of the individual and their household. Household income, housing tenure and work status were particularly important and strong factors for predicting scores on both outcome components, as were the social grade of the household's chief income earner, age and ethnicity. Compared with what we found in relation to the lower-level components and the behavioural components in particular, financial management characteristics of the individual played a less clear role and are, presumably, accounted therefore by the significant influence of financial capability components themselves.

Table 18: Determinants of outcome component scores: dashboard

1: 'Current financial wellbeing'	Variance explained = 57% (up from 44%)

Key determinants of component scores:

- +0.29 points per one point increase in 'financial confidence'
- +0.26 points per one point increase in 'manages credit use'
- Being unemployed (-0.86 points), compared with full-time employees
- Having a household income of less than £13,500 (-0.74 points), compared with £50,000 or more
- Renting the home from a social landlord (-0.72 points), compared with owning outright
- Experiencing a negative life event in the last 12 months (-0.65 points), compared with none
- Being aged 35-54 (-0.58 points) compared with 75 and over
- Making active use of information sources (-0.29 points), compared with using no sources
- Having a long-standing illness or disability (-0.31 points) compared with none

2. 'Longer-term financial security'	Variance explained = 64% (up from 51%)

Key determinants of component scores:

- +0.56 points per one point increase in 'building resilience'
- +0.10 points per one point increase in 'manages credit use'
- +0.09 points per one point increase in 'financial confidence'
- Renting the home from a private landlord (-1.23 points), compared with owning outright
- Being aged 18-24 (-1.04 points) compared with 75 and over
- Being self-employed part-time (+0.58 points), compared with full-time employees
- Having a household income of less than £13,500 (-0.50 points), compared with £50,000 or more
- Having a Chief Income Earner from social grade E (-0.50 points), compared with grade A
- Being from a Black or minority ethnic group (-0.42 points), compared with being White
- -0.10 points per one point increase in agreement that you 'regularly read the financial pages'
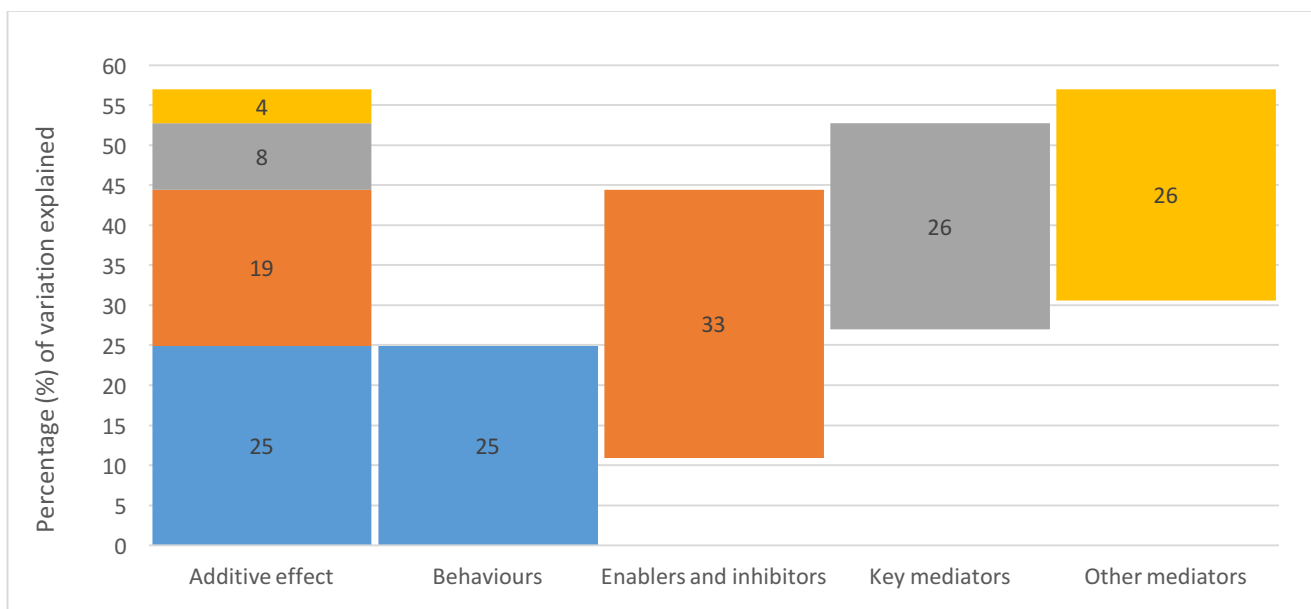
3,461 respondents (full sample), weighted to be representative of the UK population. The list of key determinants is not exhaustive of all statistically significant determinants, and is instead a selection of those with high practical and/or statistical significance for illustration purposes.

Table 18 selects the headline findings for each outcome component. Taking each component in turn we can summarise the findings as follows:

1. **'Current financial wellbeing'** was well explained by a combination of financial capability components and wider mediating factors. High 'financial confidence' and 'manages credit use' scores both contribute significant improvements to current financial wellbeing, all other things being equal. Struggling with current wellbeing was driven strongly by poor scores on most of the capability components, as well as unemployment and, to a lesser extent, full-time self-employment and a low income (compounded by non-home ownership and lower social grades of the chief income earner). Current financial wellbeing scores are lower during people's middle, family-rearing years (25-54), among people from a White background and those without a long-term illness or disability, all other things being equal. Having access to fewer types of Internet-enabled device was independently (albeit only weakly) associated with reduced current wellbeing scores when other factors (including scores on the 'Internet engagement' component) were taken into account. The same was true for the use of professional money or financial advisers and active use of information sources, which, again, perhaps reflects that those in financial difficulty are more likely to need, and therefore seek, help with money, rather than information sources 'causing' poorer wellbeing outcomes.

2. **'Longer-term financial security'** was particularly well explained by the available measures. This was driven largely by someone's 'building resilience' capability score, as well as their age (that is, being younger or older, but not the middle years), housing tenure and income. Those living in homes rented from a private landlord scored particularly badly, all things being equal, closely followed by those living in home rented from a local authority or housing association landlord. Being retired from paid work or working part-time (self-employed or as an employee) reduced scores significantly for this outcome and being drawn from a Black or minority ethnic group was also independently associated with a reduced longer-term security score. Not being the chief income earner for the household and agreement that you 'regularly read the financial pages' also predicted lower longer-term security scores, while, conversely, the use of professional advisers predicted a small increase in score.

Chapter summary

Financial capability wellbeing outcomes are well-explained by financially capable behaviours and enablers and inhibitors. This holds true even in the presence of other potentially mediating factors, other characteristics associated with the individual and their household, although these factors add to our ability to explain variations in outcome scores. Socio-economic characteristics are particularly important as mediating factors in wellbeing outcomes and other household demographic and socio-economic characteristics are also important for explaining current financial wellbeing. This is the case even though those same characteristics often help to predict scores on components at the lower levels of conceptual model, the effects of which are also important for predicting financial capability outcomes in their own right. Conversely, financial management characteristics of the individual are particularly strong determinants of the enabler and inhibitor components, but they do not come through so strongly as predictors at higher levels of the conceptual model, presumably because the enabler and inhibitor components account well for them.

5. Summary and conclusions

Thirteen components of financial capability produced through a mixture of statistical analysis and manual reconstruction have been shown to be robust components falling under the collaboratively-defined framework of financial capability outcomes, behaviours and enablers and inhibitors. The components also apply universally across the population (regardless of, for example, retirement status and debt problems, which might be subject to separate exploration and additional outcomes).

Crucially, the components derived here are amenable to reconstruction in future editions of the Money Advice Service's Financial Capability Survey, assuming that the questions on which the measures and components are based are asked in the same way and in the same order, with the same question filtering and routing. The process of sifting and deriving measures for use in the financial capability components has indirectly identified survey questions for potential removal from future waves of the survey (notwithstanding those questions additionally identified for use as explanatory or mediator variables), thereby enabling shortening of the survey for data collection.

Average scores on these components varied in 2015 in ways which can reasonably be expected, based on previous research and experiential evidence working with people with low financial capability and debt problems. For example, current financial wellbeing scores are higher than those for longer-term financial security (7.6 compared with 3.3) and the average score for someone's intention to save (or their orientation towards saving) is greater on aggregate than their propensity to save actively (8.1 compared with 3.3). They also vary by a range of personal and household demographic and socio-economic characteristics, again usually in ways which might be expected. In particular, all components are relevant to a greater or lesser extent to all individuals by life stage, household composition, income level and housing tenure (all characteristics which might have influenced the routing and therefore applicability of survey questions), making them amenable to robust analysis across the whole population of the UK.

Correlations between pairs of financial capability components tend to be low overall, and particularly between components within the same level of the conceptual model. Where correlations are higher they are mostly between the behaviour components and the longer-term financial security outcome.

Financial capability wellbeing outcomes are well explained by financially capable behaviours and enablers and inhibitors. In turn, behaviours are moderately well explained by enablers and inhibitors. This is true even in the presence of other potentially mediating factors, other characteristics associated with the individual and their household. This tends to support the design of a conceptual framework which distinguishes different financial capability levels and sees a wider range of influences which impact at each level.

However, these mediating factors do add to our ability to explain variations in outcome scores. Socio-economic characteristics are particularly important in determining wellbeing outcomes and other household demographic and socio-economic characteristics are also important for explaining current financial wellbeing in particular. This is the case even though those same characteristics often help to predict scores on components at the lower levels of conceptual model, the effects of which are also important for predicting financial capability outcomes in their own right. Conversely, financial management characteristics of the individual are particularly strong determinants of the enabler and inhibitor components, but they do not come through so strongly as predictors at higher levels of the conceptual model, presumably because the enabler and inhibitor components account well for them.

Although caution must be taken when interpreting the direction of any relationships of behaviours, enablers and inhibitors (and other mediators) with financial wellbeing outcomes, even where these are found to be independent of other factors, the findings at least suggest that schemes which improve financially capable behaviours within the population of the UK is likely to be an effective means of improving financial wellbeing outcomes. In turn, interventions which help to shape individuals' attitudes and outlook towards money and finances and build their financial knowledge (including numeracy) *and* confidence, reflected in the enablers and inhibitors, will help to produce more financially capable behaviours.

Even so, there are several socio-economic and other mediating factors which will serve to constrain financial wellbeing outcomes, even in the presence of financially capable attitude, orientations, skills and behaviours. Most notably these reflect the financial resources available to an individual (their (disposable) incomes, reflecting their housing tenures and costs) as well as their life stage. There are also some groups, notably Black and minority ethnic groups and those with long-standing illnesses or disabilities, whose current and future wellbeing appears compromised even accounting for any differences in their financial behaviours and dispositions.

Appendices

Appendix 1: Explanation of the main statistical techniques employed

Principal components analysis

A principle components analysis (PCA) is a multivariate technique for exploring the common underlying components of a set of variables. It is a type of exploratory factor analysis and it identifies the hidden (latent) variables ('components') underlying a set of data but which are not themselves amenable to direct measurement. It reflects the idea that a set of measures – such as survey questions – is greater than the sum of its individual parts and that a range of latent common factors in turn helps to explain the variations in the observed measures. To this end, it is also a technique for the reduction of data, where there may be an unmanageable number of seemingly disparate variables, to a smaller set of more meaningful constructs without losing the richness of the data.

The number of components returned by a PCA is equivalent to the number of measures entered into it. Selecting the number of factors to take forward to adequately represent your data is a complex process which ultimately needs to be done by judgement. Several diagnostic approaches are available to aid this decision, and the most important diagnostic statistic to inform our selection was the eigenvalue (which is an individual component's substantive share of the total variation represented by the original measures; if it is greater than 1 then it represents the equivalent of at least one original measure), compared against a Monte Carlo parallel run (which estimates the number of factors and their associated eigenvalues based on random sampling), and a scree plot which shows the fall away in the size of the eigenvalue with each successive factor.

The resulting components must then be interpreted, and this is undertaken with reference to the observed variables which relate to each component most closely (measured using a type of regression coefficient, see below, and rotated around an axis to emphases the apparent differences between the components, in this instance using orthogonal rotation). No single variable can adequately capture a resulting component (otherwise, it will be identical to the original variable), but it is instead best measured by a combination of relevant variables. This is why the components of financial capability which are reported in this report are all composites (with the exclusion of 'financial numeracy' which is the simple sum of correct answers to a set of questions).

In the current study, a PCA was undertaken for each distinct level of a conceptual framework (see Chapter 1). PCA was undertaken on unweighted data.

Regression analysis

Regression analysis is a statistical technique for exploring the relationships between measures. In simple regression an assumption is made that a single independent (predictor) variable has linear (straight line) relationship with a dependent (outcome) variable; for example, age with Internet engagement. The regression model estimates the strength and direction (i.e. up or down) of change in the outcome variable that is associated with one-unit change (up or down) in the value of the predictor variable and the minimum possible value (known as the 'constant') of the outcome when the value of the predictor is equivalent to zero. This is given by the coefficient. A regression coefficient differs slightly from the coefficient returned in a correlation analysis, which is simply a measure of the strength and direction of relationship between two measures (a correlation does not quantify the effect of change in one measure on the other).

Multiple regression is an extension of this which simultaneously considers the relationship of several predictor variables with the outcome variable. This has the advantage of enabling the *independent* relationship of each predictor variable with the outcome to be estimated while simultaneously controlling for the effects of all of the other predictors included in the analysis. This results in an estimate of the *unique* influence of one component (or any other characteristics) on another, in terms of the size of that relationship and whether or not it is statistically significant and whether an improvement in one is also associated with an improvement – or a deterioration – in the other. This enables stronger conclusions about the influence of each characteristic to be drawn; however, and cause-and-effect relationship remains unknown except in relation to any theoretical assumptions or interpretations which can be drawn from the findings. The size and direction of the relationship is given by the 'coefficient', with a negative sign (-) indicating that as the score on a predictor measure increases the score on the outcome decreases. The statistical significance of the coefficient is given by the p-value (probability), which has been indicated with asterisks ('*') or cell shading within tables for ease of interpretation (see statistical significance, below).

A single asterisk ('*') indicates that a correlation is sufficiently strong or a regression coefficient is sufficiently large to be statistically significant at the five per cent level of significance ($p<0.5$). Two asterisks ('**') indicate significance at the one per cent level ($p<0.01$). Three asterisks ('***') indicate significance at the highest level of significance reported here, the 0.1 per cent level ($p<0.001$). In some tables, asterisks have been replaced by successively darker shades of cell colour to

represent the same significance thresholds. While a particular estimate may be statistically significant, this does not necessarily mean that it is of practical significance (or importance).

The interpretation of the regression coefficient differs slightly depending on whether the predictor is a scale variable (as in the case of our components) or a categorical variable (as in the case of someone's work status, for example). For statistically significant scale variables, a one-point increase in the value of the predictor is associated with change in the outcome score by the value given by the coefficient. For statistically significant categorical variables, it is necessary to select a 'reference category' (e.g. full-time work) and switching from this reference category to another group of interest is associated with a change in the outcome score by the amount given by the coefficient.

In multiple regression, the overall explanatory power of a set of predictor variables in predicting an outcome is estimated. This is given by the adjusted r-square, which is the amount of variance (or variation) in the outcome measure which is explained by the predictors as a whole. The r-square is given as a proportion and can be easily converted to describe the percentage of variation explained by the available characteristics. As such, it provides an estimate of the total effect size. The r-square value can vary widely in social science, and in survey-based social research an r-square of as little as 0.10 (explaining 10 per cent of the variation in a phenomenon) can still have important implications for practice and policy.

Regression analysis was undertaken weighted.

Appendix Table A1: Financial capability component scores by key characteristics of the individual

Mean score	Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors						n (un-weighted)
	1. Current financial wellbeing	2. Longer-term financial security	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement	
Gender														
Male	7.7	3.9	7.4	3.4	6.8	2.3	3.6	7.8	7.1	5.9	7.4	6.5	6.2	1,712
Female	7.4	3.6	7.4	3.2	6.9	2.0	3.6	8.0	6.5	5.6	7.1	6.3	6.2	1,747
Age group														
18 - 24	7.1	2.4	7.3	3.4	6.9	2.1	4.9	7.4	6.1	7.0	6.6	5.0	6.0	744
25 - 34	7.0	3.0	7.0	3.5	6.9	2.1	4.7	7.7	6.1	6.7	7.0	5.2	6.1	525
35 - 54	7.2	3.9	7.1	3.6	7.0	2.4	4.0	8.1	7.3	6.4	7.1	6.4	6.3	1,147
55 - 74	8.1	4.6	7.8	3.1	6.9	2.1	2.8	8.1	7.2	5.0	7.8	7.2	6.4	882
75 +	8.8	4.2	8.4	2.3	5.9	1.4	1.0	7.5	5.3	1.7	7.7	8.2	5.7	159
Ethnicity														
White	7.6	3.9	7.4	3.3	7.0	2.2	3.6	7.9	7.0	7.3	7.3	6.5	6.2	3,030
Black or minority ethnic group	6.9	2.6	7.3	3.1	6.2	1.8	4.0	7.9	5.1	6.7	6.7	6.0	6.0	384
Long-standing illness or disability														
Yes	7.1	3.6	7.5	2.7	6.8	1.8	2.8	7.7	6.1	5.1	7.0	6.6	5.7	734
No	7.7	3.9	7.4	3.5	6.9	2.2	3.8	8.0	7.0	5.9	7.3	6.3	6.4	2,603
Don't know	7.4	2.6	7.3	2.6	5.8	1.2	3.4	6.7	4.3	6.0	6.9	6.8	5.7	124
Lifestage: working age														
Retirement age	8.6	4.7	8.1	2.8	6.5	1.9	1.9	7.9	6.6	7.9	7.9	7.6	6.3	684
Working age	7.2	3.5	7.2	3.4	7.0	2.2	4.2	7.9	6.8	7.0	7.0	6.0	6.2	2,777

Table continues…

continued…

Mean score	Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors						n (un-weighted)
	1. Current financial wellbeing	2. Longer-term financial security	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement	
Highest level of education achieved														
University higher degree level	7.6	4.3	7.1	4.1	7.2	2.9	4.7	8.1	7.8	7.2	7.3	5.8	6.6	530
First degree level	7.5	4.4	7.3	4.2	7.2	3.0	4.4	8.3	8.1	7.0	7.2	6.3	6.8	602
Diplomas in higher education or equivalent	7.5	3.8	7.3	3.5	7.0	2.2	4.2	8.1	7.1	6.4	7.4	6.2	6.5	357
A-Level or equivalent	7.3	3.8	7.3	3.5	7.0	2.5	4.3	7.9	7.3	6.6	7.1	5.9	6.3	603
Vocational qualifications	7.5	3.6	7.4	3.1	6.9	1.9	3.2	7.8	7.4	5.3	7.3	6.8	6.2	281
GCSE/O-Level/CSE	7.4	3.5	7.4	3.0	6.9	1.8	3.3	7.9	6.8	5.6	7.2	6.5	5.8	405
Other, including still studying	7.7	2.8	7.6	2.3	6.0	1.1	3.1	7.0	3.9	5.3	7.0	6.9	5.4	*98
None	8.0	3.3	7.7	2.0	6.0	1.0	1.5	7.4	4.4	2.5	7.4	7.2	5.4	343
Work status: retired from paid work														
No	7.2	3.5	7.2	3.4	7.0	2.2	4.2	7.9	6.8	7.1	7.1	6.1	6.2	2,849
Yes, retired	8.6	4.7	8.1	2.8	6.5	1.9	1.7	7.9	6.4	7.9	7.9	7.6	6.3	612

Table continues…

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Mean score	Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors						n (un-weighted)
	1. Current financial wellbeing	2. Longer-term financial security	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement	
Work status														
Full or part-time education or training	7.1	2.5	7.1	3.0	6.7	2.0	4.8	7.2	6.1	6.9	6.7	5.0	6.1	376
Full-time employed	7.5	3.8	7.0	4.0	7.1	2.5	4.6	8.0	7.2	6.6	7.3	6.0	6.4	1,379
Part-time employed	7.1	3.8	7.4	3.3	7.2	2.2	4.0	8.1	6.8	6.6	6.9	6.2	6.1	372
Full-time self-employed	7.0	3.6	7.3	3.3	6.8	2.2	3.6	7.7	7.2	6.6	7.0	6.2	6.3	117
Part-time self-employed	7.1	4.6	7.7	3.0	7.0	2.4	4.0	8.1	8.1	6.6	7.0	6.8	5.8	*69
Retired from paid work	8.6	4.7	8.1	2.8	6.5	1.9	1.7	7.9	6.4	6.6	7.9	7.6	6.3	606
Unemployed	5.8	1.9	7.7	1.5	6.7	0.8	2.5	7.1	5.4	5.1	5.9	6.5	5.4	156
Not working for some other reason	6.8	2.9	7.6	2.3	6.7	1.4	3.0	7.8	5.9	5.3	6.8	6.7	5.8	380
Lives alone														
No	7.5	3.8	7.3	3.4	6.9	2.2	4.0	7.9	6.9	7.2	7.2	6.3	6.3	2,700
Yes, lives alone	7.8	3.8	7.8	2.9	6.7	1.9	2.5	7.8	6.3	7.5	7.5	6.9	5.9	761
Chief Income Earner in household														
Myself	7.6	4.0	7.4	3.3	6.8	2.2	3.4	7.9	6.7	5.5	7.4	6.6	6.1	2,077
Me jointly	7.5	3.6	7.2	3.4	7.0	2.2	4.1	7.7	6.8	6.1	7.2	6.2	6.2	480
Someone else	7.5	3.4	7.5	3.2	6.8	2.0	4.0	7.9	6.8	6.2	6.9	6.2	6.4	904

Table continues…

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Mean score	Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors						
	1. Current financial wellbeing	2. Longer-term financial security	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement	n (un-weighted)
Responsibility for managing the household finances														
I mostly manage the day-to-day finances	7.5	3.7	7.4	3.3	6.9	2.2	3.6	7.9	6.7	5.8	7.3	6.4	6.2	2821
My partner/ spouse and I jointly	7.8	4.3	7.4	3.5	6.9	2.4	3.8	8.0	7.4	6.1	7.4	6.5	6.5	476
My partner/ spouse mostly	7.6	3.6	7.4	2.5	6.1	1.5	3.2	7.8	6.4	4.8	6.4	6.9	6.0	140
Income each week or month														
Exactly the same	7.6	3.7	7.7	3.1	6.8	2.0	3.2	8.1	6.6	5.3	7.4	6.7	6.1	1,175
Roughly the same	7.6	4.1	7.2	3.6	7.0	2.5	3.9	7.9	7.4	6.0	7.3	6.3	6.4	1,502
Varies	7.2	3.5	7.2	3.2	7.1	2.0	4.0	7.8	6.2	6.0	7.1	6.1	6.0	410
Not routed	7.5	3.0	7.3	2.6	6.2	1.6	3.4	7.3	5.6	5.9	6.9	6.4	6.3	334
Banked: whether has current account in own name or jointly (proxy for financial inclusion)														
Unbanked	6.9	2.2	7.4	2.1	5.9	1.0	3.1	7.0	3.7	4.4	6.4	6.1	5.4	198
Banked	7.6	3.9	7.4	3.3	6.9	2.2	3.6	7.9	6.9	5.8	7.3	6.4	6.3	3,263
All	7.5	3.8	7.3	3.3	6.9	2.1	3.6	7.9	6.8	5.8	7.3	6.4	6.2	3,461

Based on 3,461 respondents (full sample), weighted. Missing categories (e.g. don't know; 'other') with fewer than 50 cases are not shown

* Treat with caution due to low base (<100)

Appendix Table A2: Financial capability component scores by key characteristics of the household

Mean score	Outcomes		Behaviours: managing well day to day			Behaviours: managing and preparing for life events		Enablers and inhibitors						
	1. Current financial wellbeing	2. Longer-term financial security	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement	n (un-weighted)
Household composition														
Single adult household	7.8	3.8	7.8	2.9	6.7	1.9	2.5	7.8	6.3	4.5	7.5	6.9	5.9	*761*
Couple, no children	8.0	4.4	7.6	3.5	6.9	2.3	3.5	8.0	7.3	5.9	7.6	6.8	6.6	*922*
Lone parent with children under 18	6.2	3.2	6.8	3.2	7.3	2.0	3.8	8.4	6.6	5.7	7.1	5.6	6.0	**74*
Couple with children under 18	7.1	4.1	6.7	4.1	7.4	2.8	4.9	8.4	7.7	6.8	7.3	5.9	6.3	*199*
Multi-adult with children under 18	7.4	3.1	7.5	3.3	6.7	2.1	4.0	7.7	6.5	6.2	6.8	6.2	6.2	*923*
Multi-adult, no children	7.0	3.5	6.8	3.3	7.0	2.1	4.5	7.9	6.6	6.3	7.0	5.6	6.1	*582*
Housing tenure														
Own outright	8.6	5.1	8.0	3.3	6.7	2.3	2.8	8.1	7.3	4.9	8.0	7.3	6.6	*829*
Own with mortgage (inc. part/shared ownership)	7.4	4.3	6.9	4.0	7.2	2.7	4.5	8.1	7.5	6.7	7.3	6.2	6.5	*947*
Rent it from a private landlord	6.6	2.4	7.1	2.8	6.9	1.7	4.0	7.5	6.3	6.3	6.6	5.8	5.8	*657*
Rent it from a social landlord	6.9	2.4	7.7	2.0	6.5	1.1	2.3	7.6	4.9	4.1	7.1	6.7	5.3	*641*
Live with parents	7.5	2.6	7.6	3.4	6.8	2.1	4.6	7.6	6.5	6.8	6.6	5.4	6.4	*347*
Household income														
£13,449 or less	7.2	3.0	7.7	2.4	6.5	1.5	2.8	7.5	5.5	7.0	7.0	6.4	5.6	*1,083*
£13,500 - £34,999	7.5	3.7	7.4	3.2	6.9	2.0	3.7	8.0	6.8	7.2	7.2	6.4	6.2	*1,419*
£34,999-£50,000	7.8	4.3	7.1	3.8	6.9	2.5	4.1	8.1	7.7	7.4	7.4	6.4	6.6	*518*
£50,000 or more	8.2	5.3	7.3	4.7	7.3	3.5	4.7	8.3	8.4	7.7	7.7	6.5	7.2	*441*
Social class of CIE														
A	8.3	5.0	7.4	4.1	7.1	3.1	4.2	8.2	7.9	6.5	7.6	6.2	6.8	*221*
B	7.8	4.6	7.2	4.1	7.1	2.9	4.5	8.1	8.0	7.1	7.5	6.3	6.8	*717*
C1	7.4	4.0	7.2	3.7	7.1	2.5	4.2	8.0	7.5	6.6	7.3	6.0	6.4	*976*
C2	7.5	3.4	7.4	3.2	6.9	1.9	3.5	7.9	6.3	5.5	7.3	6.5	6.0	*525*
D	7.0	2.9	7.4	2.7	6.6	1.6	3.4	7.6	5.6	5.1	6.8	6.3	5.6	*407*
E	7.6	3.1	7.9	2.1	6.3	1.1	2.0	7.5	5.3	3.6	7.1	7.1	5.7	*570*

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Geography														
Metropolitan area	7.5	3.3	7.1	3.0	6.5	1.9	3.5	7.8	5.9	5.6	7.2	6.2	6.0	*1,140*
Urban	7.5	4.0	7.0	3.6	7.1	2.4	3.8	7.9	7.2	5.9	7.4	6.4	6.3	*1,510*
Mixed	8.1	4.3	7.2	3.4	6.7	2.3	3.4	8.1	7.1	5.3	7.2	6.8	6.4	*235*
Rural	7.8	4.5	6.9	3.5	7.1	2.4	3.1	8.0	7.5	5.8	7.4	6.9	6.6	*246*
Missing	7.2	3.6	6.9	2.9	6.9	1.7	3.9	8.0	7.0	6.1	6.9	6.3	6.2	*330*
MAS Segments														
Struggling	7.1	2.7	7.5	2.5	6.6	1.5	2.8	7.8	5.4	4.8	7.0	6.5	5.7	*854*
- Over-Burdened	6.6	2.4	7.1	2.6	6.7	1.5	3.7	7.6	5.6	5.9	6.6	5.5	5.9	*350*
- Younger Adults	6.8	2.0	7.2	2.6	6.8	1.6	4.0	7.6	4.8	6.5	6.6	5.1	5.3	**70*
- Working Families	6.8	2.8	7.2	3.1	7.0	1.9	3.5	8.3	5.7	6.3	7.0	6.3	6.1	*110*
- Pre-Retired	7.1	2.8	7.7	2.2	6.7	1.3	2.2	7.9	6.4	4.3	7.2	7.3	5.6	*213*
- Retired	8.3	3.2	8.3	2.3	5.8	1.3	0.9	7.5	3.8	1.8	7.6	7.6	5.6	*111*
Squeezed	7.1	3.3	7.0	3.5	7.0	2.2	4.4	7.9	6.9	6.6	7.0	5.7	6.1	*865*
- Younger Adults	7.0	2.6	7.2	3.3	6.6	2.0	4.9	7.4	5.6	6.9	7.0	5.1	5.6	*323*
- Younger Families and Couples	7.0	3.2	6.9	3.7	7.2	2.1	4.9	8.0	7.0	6.9	6.8	5.4	6.4	*152*
- Older	7.3	3.8	6.9	3.6	7.1	2.3	4.0	8.1	7.6	6.4	7.1	6.2	6.2	*390*
Cushioned	8.0	4.6	7.6	3.5	6.9	2.4	3.5	8.0	7.3	5.7	7.6	6.8	6.5	*1,547*
- Young Adults in Affluent Homes	7.3	2.7	7.2	4.1	6.8	2.9	5.6	7.3	6.7	7.3	6.5	4.9	6.4	**70*
- Comfortable Younger Adults	7.3	3.0	7.2	3.7	6.9	2.2	4.8	7.6	6.4	6.9	6.8	5.3	6.3	*361*
- Affluent Couples and Families	7.5	4.7	7.3	4.5	7.3	3.3	4.7	8.2	8.3	7.3	7.3	6.2	6.8	*232*
- Affluent Pre-Retired	8.0	5.1	7.6	3.6	7.0	2.7	3.7	8.2	7.9	6.2	7.7	7.2	6.7	*445*
- Comfortable Pre-Retired	7.7	4.5	7.4	3.5	7.4	2.4	4.6	8.2	7.5	6.0	7.7	7.0	6.7	**82*
- Comfortable Retired	8.6	4.5	8.2	2.5	6.4	1.5	1.4	7.9	6.0	2.5	7.6	7.7	5.7	*136*
- Affluent Retired	8.8	5.4	8.1	3.3	6.8	2.4	2.4	7.8	7.6	4.7	8.2	7.4	6.8	*221*
All	**7.5**	**3.8**	**7.3**	**3.3**	**6.9**	**2.1**	**3.6**	**7.9**	**6.8**	**5.8**	**7.3**	**6.4**	**3.2**	***3,461***

Based on 3,461 respondents (full sample), weighted. Missing categories (e.g. don't know; 'other') with fewer than 50 cases are not shown. Those who could not be allocated to a MAS segment are also excluded from the table.

* Treat with caution due to low base (<100)

Appendix Table A3: Regression to predict scores on enabler and inhibitor components, by all personal and household characteristics

	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement
Key socio-economic characteristics						
Work status (ref is employed full time)						
Full or part-time education/training	-0.29	0.36	0.26	-0.12	-0.32	0.00
Employed part time	0.11	0.37	0.30	-0.12	0.15	0.06
Self-employed full time	-0.09	0.65	0.69	-0.29	-0.06	0.11
Self-employed part time	0.15	1.13	1.11	-0.27	0.47	-0.50
Retired from paid work	0.13	0.41	-0.09	0.19	0.30	0.56
Unemployed	-0.15	0.62	0.34	-0.87	0.43	0.02
Not working for any other reason	0.08	0.62	0.38	-0.07	0.58	0.39
Household composition (ref is couple, no children)						
Single adult household	0.09	0.07	-0.41	0.00	-0.29	-0.05
Lone parent with child(ren) under 18	0.46	-0.05	-0.90	-0.05	-0.79	-0.14
Couple with child(ren) under 18	0.26	-0.01	-0.26	-0.24	-0.48	-0.46
Multi-adult with child(ren) under 18	0.11	-0.03	-0.33	-0.30	0.09	-0.07
Multi-adult, no children	-0.01	-0.19	-0.39	-0.19	-0.50	-0.40
Household income (ref is £50,000 or more)						
Less than £13,500	-0.27	-0.81	-0.62	-0.48	-0.54	-1.15
£15,000 but less than £35,000	-0.10	-0.47	-0.38	-0.44	-0.36	-0.76
£35,000 but less than £50,000	-0.05	0.10	-0.42	-0.24	-0.26	-0.45
Housing tenure (ref is own outright)						
Own with a mortgage	-0.37	-0.24	-0.15	-0.52	-0.18	-0.25
Rent from private landlord	-0.53	-0.26	-0.14	-0.80	-0.26	-0.37
Rent from Local authority or housing association	-0.26	-0.77	-0.25	-0.32	-0.04	-0.51
Live with parents/other family	-0.06	0.25	0.20	-0.34	-0.24	0.26
Some other arrangements	-0.12	0.70	0.12	-0.51	-0.30	-0.17
Other socio-demographic/economic characteristics of the household						
Mortgage/rent last month (ref is £100 or less)						
GBP101 - GBP1,000	0.27	0.31	0.56	0.02	-0.21	0.04
GBP1,001 - GBP9,999	-0.04	-0.16	0.41	0.00	-0.35	-0.34
GBP10,000 - GBP19,999	-1.06	-2.13	-0.41	0.36	-1.58	-1.11
GBP20,000 or more	-0.47	-2.01	-0.80	-1.42	-0.63	-0.14
Social class of CIE (ref is A)						
B	-0.04	0.00	0.40	0.14	0.27	0.16
C1	0.04	0.05	0.33	0.10	0.08	0.13
C2	0.00	-0.45	-0.23	0.07	0.22	-0.09
D	-0.06	-0.53	-0.35	-0.20	0.24	-0.16
E	-0.17	-0.43	-0.51	-0.22	0.11	-0.07
Geography (ref is urban)						
Metropolitan area	0.05	-0.73	-0.09	-0.04	-0.28	-0.17
Mixed	0.20	-0.17	-0.06	-0.34	0.15	-0.02
Rural	0.02	-0.11	-0.04	-0.03	0.32	0.06

Table continues …

	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement
Negative life events (ref is none in last 3 years)						
In last three years	-0.02	-0.42	-0.10	-0.31	0.00	-0.25
In last twelve months	-0.11	-0.54	0.22	-0.24	-0.32	-0.17
Income each week or month (ref is varies)						
Exactly the same	0.23	0.41	0.07	0.05	0.19	0.12
Roughly the same	-0.05	0.61	-0.01	-0.03	-0.02	0.15
Other socio-demographic/economic characteristics of the individual						
Gender (ref is Male)						
Female	0.23	-0.61	-0.10	-0.11	-0.18	0.01
Age group (ref is 75+)						
18 - 24	-0.20	-1.08	2.47	-0.11	-2.26	0.16
25 - 34	-0.03	-1.02	2.26	-0.09	-2.14	0.24
35 - 54	0.35	-0.14	1.95	-0.11	-1.07	0.42
55 - 74	0.31	0.27	1.38	0.21	-0.82	0.36
Ethnicity (ref is White)						
Black or minority ethnic group	0.15	-1.10	-0.50	-0.38	0.14	-0.08
Highest level of education achieved (ref is higher degree)						
First degree level	0.23	0.32	-0.03	0.00	0.43	0.23
Diplomas in higher education or equivalent	0.03	-0.26	-0.21	0.33	0.23	0.07
A-Level or equivalent	-0.01	-0.17	-0.26	0.14	0.12	-0.06
Vocational qualifications	-0.07	0.12	-0.73	0.29	0.44	-0.03
GCSE/O-Level/CSE	-0.13	-0.26	-0.46	0.15	0.27	-0.49
Other, including still studying	-0.33	-1.09	-0.71	0.42	0.29	-0.20
None	-0.16	-1.18	0.02	0.27	0.50	-0.50
Long-standing illness or disability (ref is no)						
Yes	-0.13	-0.41	0.34	-0.45	-0.24	-0.47
Number of hours spent on Internet last week (ref is none)						
Less than 1 hour	-0.19	0.04	n/a	-0.24	-0.07	-0.02
1 - 2 hours	0.00	-0.09		-0.22	-0.53	-0.10
3 - 5 hours	-0.12	0.23		-0.17	-0.46	0.10
6 - 7 hours	-0.05	0.56		-0.35	-1.00	0.00
8 - 10 hours	-0.17	0.87		-0.31	-0.54	0.06
11 - 19 hours	-0.07	1.02		-0.20	-0.52	0.08
20 - 29 hours	-0.26	1.15		-0.24	-0.76	-0.01
30 hours or more	-0.06	1.24		-0.22	-0.76	0.20
Types of Internet-enabled devices accessed by household (ref is three or more)						
None	-0.48	-0.90	-2.99	-0.14	0.08	-0.06
One	0.02	-0.29	-1.00	0.05	0.56	-0.02
Two	-0.03	0.02	-0.28	0.11	0.34	-0.06

Table continues…

Financial management characteristics of the individual	1. Saving mindset	2. Financial numeracy	3. Internet engagement	4. Financial confidence	5. Self-controlled spending	6. Financial engagement
Chief Income Earner in household (ref is myself)						
Me jointly	-0.27	-0.01	0.01	-0.05	-0.20	-0.10
Someone else	0.05	0.20	-0.04	-0.01	0.01	0.18
Responsibility for managing the household finances (ref is partner/spouse mostly)						
Me mostly (including n/a, no partner)	0.19	0.81	0.82	1.10	0.21	0.43
Me jointly	0.06	0.59	0.61	0.89	0.02	0.31
No current account in own name or jointly (ref is banked)	-0.42	-0.95	-0.64	-0.50	-0.07	-0.16
Think of money in pots (high=strong agreement)	0.07	-0.08	0.00	0.08	-0.04	0.04
Types of people discuss household finances openly with (ref is none)						
One	0.28	0.26	-0.06	0.09	-0.04	0.41
Two	0.38	0.62	-0.05	0.08	0.08	0.42
Info sources used in last year (ref is none)						
Adviser/advice agency	0.10	0.92	0.52	-0.14	-0.07	0.40
Active use of websites, comparisons	0.09	0.93	0.71	-0.31	-0.26	0.11
Passive use of financial pages, TV, radio and social media	0.08	0.77	-0.72	-0.14	-1.08	0.24
Friends/family	-0.13	0.34	0.20	-0.35	-0.77	0.14
Regularly reads the financial pages (high = strongly disagree)	-0.11	0.07	-0.14	-0.24	0.05	-0.03
Constant	7.64	7.10	1.54	8.00	8.26	6.00
Adjusted R-Squared	0.13	0.36	0.49	0.18	0.19	0.14

3,461 respondents (full sample), weighted to be representative of the UK population. The shading indicates statistical significance, where light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$. The results for don't know and other missing categories are not shown. A control variable, which reflects post-hoc re-categorisation of household composition is also not shown.

Appendix Table A4: Regression to predict scores on behaviour components, by enablers and inhibitors and all personal and household characteristics

	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals
Enablers and inhibitors					
1. Saving mindset	0.06	0.13	0.10	0.09	0.12
2. Financial numeracy	-0.01	-0.01	0.08	0.03	0.01
3. Internet engagement	-0.04	0.01	0.09	0.03	-0.01
4. Financial confidence	0.10	0.10	0.02	0.06	0.04
5. Self-controlled spending	0.12	-0.01	-0.01	-0.04	-0.11
6. Financial engagement	0.08	0.16	0.09	0.08	0.16
Key socio-economic characteristics					
Work status (ref is employed full-time)					
Full or part-time education or training	-0.09	-0.48	0.05	-0.20	-0.02
Employed part time	0.32	-0.14	0.21	0.16	-0.35
Self-employed full time	0.14	-0.19	-0.07	0.00	-0.54
Self-employed part time	0.56	-0.56	-0.01	0.03	-0.16
Retired from paid work	0.29	-0.32	-0.01	0.20	-1.40
Unemployed	0.40	-1.06	0.30	-0.31	-1.07
Not working for any other reason	0.34	-0.56	0.11	0.01	-0.72
Household composition (ref is couple, no children)					
Single adult household	0.19	0.10	0.09	0.31	-0.03
Lone parent with child(ren) under 18	-0.43	-0.30	0.14	-0.19	-0.03
Couple with child(ren) under 18	-0.36	-0.15	0.04	0.02	0.62
Multi-adult with child(ren) under 18	0.02	0.03	-0.13	0.24	0.08
Multi-adult, no children under 18	-0.24	-0.38	0.07	-0.16	0.41
Household income (ref is £50,000 or more)					
Less than £13,500	-0.21	-0.88	0.09	-0.84	-0.14
£15,000 but less than £35,000	-0.18	-0.64	0.09	-0.76	-0.05
£35,000 but less than £50,000	-0.27	-0.36	-0.04	-0.43	0.04
Housing tenure (ref is own outright)					
Own with a mortgage	-0.38	0.45	0.16	0.35	0.42
Rent from private landlord	-0.22	-0.03	0.30	0.01	0.43
Rent from Local authority or housing association	0.00	-0.12	0.18	-0.03	0.05
Live with parents/other family	0.09	0.41	0.34	0.26	0.44
Some other arrangements	-0.12	0.49	0.00	0.73	0.21
Other socio-demographic/economic characteristics of the household					
Mortgage/rent last month (ref is £100 or less)					
GBP101 - GBP1,000	-0.27	-0.24	-0.01	-0.17	-0.02
GBP1,001 - GBP9,999	-0.50	-0.06	-0.10	-0.08	0.12
GBP10,000 - GBP19,999	-0.62	-0.47	-0.19	0.42	0.26
GBP20,000 or more	-0.96	-1.20	-0.43	-0.39	-0.21

Table continues…

	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals
Social class of CIE (ref is A)					
B	-0.09	0.01	-0.09	-0.23	0.15
C1	-0.10	-0.02	-0.03	-0.15	0.06
C2	-0.03	0.03	0.04	-0.25	-0.08
D	0.01	-0.06	-0.06	-0.25	0.10
E	-0.10	-0.08	-0.02	-0.55	0.12
Don't know	0.05	-0.63	-0.75	-1.03	0.02
Geography (ref is urban)					
Metropolitan area	-0.05	-0.41	-0.31	-0.30	-0.17
Mixed	-0.05	-0.08	-0.42	-0.12	-0.01
Rural	-0.22	-0.16	-0.06	-0.17	-0.56
Negative life events (ref is none in last 3 years)					
In last three years	0.04	0.24	0.24	0.32	0.18
In last twelve months	-0.25	-0.02	0.18	-0.01	0.41
Income each week or month (ref is varies)					
Exactly the same	0.19	0.23	-0.20	0.09	-0.04
Roughly the same	-0.04	0.23	-0.25	0.18	0.01
Other socio-demographic/economic characteristics of the individual					
Gender (ref is Male)					
Female	-0.04	-0.01	0.08	-0.21	0.16
Age group (ref is 75+)					
18 - 24	0.15	0.37	0.11	0.19	0.67
25 - 34	-0.01	0.22	0.08	0.02	0.30
35 - 54	-0.01	0.02	0.04	0.03	-0.25
55 - 74	-0.10	-0.11	0.14	0.06	0.08
Ethnicity (ref is White)					
Black or minority ethnic group	0.02	0.10	-0.50	-0.07	0.10
Highest level of education achieved (ref is higher degree)					
First degree level	0.06	0.22	0.00	0.30	-0.04
Diplomas in higher education or equivalent	0.03	-0.09	-0.05	-0.18	0.03
A-Level or equivalent	0.09	-0.11	0.00	0.03	-0.05
Vocational qualifications	0.03	-0.05	0.02	-0.14	-0.24
GCSE/O-Level/CSE	-0.03	0.00	0.06	-0.10	-0.15
Other, including still studying	0.07	-0.15	0.04	-0.16	0.02
None	0.13	0.09	0.09	0.09	0.28
Long-standing illness or disability (ref is no)					
Yes	-0.06	-0.14	0.07	-0.04	-0.07

	1. Manages credit use	2. Active saver	3. Keeps track	1. Building resilience	2. Works towards goals
Number of hours spent on Internet last week (ref is none)					
Less than 1 hour	0.00	-0.42	-0.27	-0.16	0.17
1 - 2 hours	0.10	-0.28	-0.12	-0.11	0.04
3 - 5 hours	0.12	-0.15	0.01	-0.12	0.28
6 - 7 hours	0.14	0.20	-0.10	0.28	0.18
8 - 10 hours	-0.05	0.42	-0.14	0.68	0.88
11 - 19 hours	-0.07	0.37	-0.11	0.67	0.81
20 - 29 hours	-0.03	0.35	-0.16	0.62	0.74
30 hours or more	0.01	0.38	-0.23	0.54	0.74
Types of Internet-enabled devices accessed by household (ref is three or more)					
None	-0.01	-0.28	-0.20	-0.03	-0.55
One	0.03	-0.04	-0.03	-0.02	-0.15
Two	0.01	-0.17	-0.03	-0.13	0.09
Financial management characteristics of the individual					
Chief Income Earner in household (ref is myself)					
Me jointly	-0.05	-0.05	0.07	0.00	0.19
Someone else	0.05	0.01	0.00	0.03	0.10
Responsibility for managing the household finances (ref is partner/spouse mostly)					
Me mostly (including n/a, no partner)	-0.09	0.46	0.54	0.40	-0.18
Me jointly	-0.06	0.33	0.33	0.34	-0.17
No current account in own name or jointly (ref is banked)	0.03	-0.22	-0.17	-0.07	0.02
Think of money in pots (high = strong agreement)	0.00	0.09	0.11	0.05	0.10
Types of people discuss household finances openly with (ref is none)					
One	0.08	0.05	0.17	0.04	0.09
Two	0.02	0.29	0.29	0.28	0.67
Info sources used in last year (ref is none)					
Adviser/advice agency	-0.18	0.68	0.35	0.84	0.95
Active use of websites, comparisons	-0.34	0.45	0.21	0.56	0.58
Passive use of financial pages, TV, radio and social media	-0.29	0.42	0.03	0.07	0.79
Friends/family	0.06	0.22	0.03	0.27	0.36
Regularly reads the financial pages (papers/online) (high = strongly disagree)	-0.02	-0.12	-0.04	-0.10	-0.13
Constant	6.05	0.66	3.36	0.50	1.22
Adjusted R-Squared	0.26	0.31	0.33	0.32	0.39

3,461 respondents (full sample), weighted to be representative of the UK population. The shading indicates statistical significance, where light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$.
The results for don't know and other missing categories are not shown. A control variable, which reflects post-hoc re-categorisation of household composition is also not shown.

Appendix Table A5: Regression to predict scores on outcome components, by behaviours, enablers and inhibitors and all personal and household characteristics

	1. Current financial wellbeing	2. Longer-term financial security
Behaviours		
1. Manages credit use	0.26	0.10
2. Active saver	0.14	-0.08
3. Keeps track	-0.09	-0.01
1. Building resilience	-0.03	0.56
2. Works towards goals	-0.03	-0.01
Enablers and inhibitors		
1. Saving mindset	-0.05	0.02
2. Financial numeracy	0.00	0.05
3. Internet engagement	0.00	0.02
4. Financial confidence	0.29	0.09
5. Self-controlled spending	0.03	0.01
6. Financial engagement	0.11	0.05
Key socio-economic characteristics		
Work status (ref is employed full-time)		
Full or part-time education or training	0.01	0.10
Employed part time	-0.13	0.29
Self-employed full time	-0.44	0.04
Self-employed part time	-0.32	0.58
Retired from paid work	0.22	0.57
Unemployed	-0.86	-0.05
Not working for any other reason	-0.20	0.13
Household composition (ref is couple, no children)		
Single adult household	0.27	0.01
Lone parent with child(ren) under 18	-0.35	-0.13
Couple with child(ren) under 18	-0.26	-0.19
Multi-adult with child(ren) under 18	0.08	-0.10
Multi-adult, no children	-0.07	0.15
Household income (ref is £50,000 or more)		
Less than £13,500	-0.74	-0.50
£15,000 but less than £35,000	-0.41	-0.34
£35,000 but less than £50,000	-0.29	-0.21
Housing tenure (ref is own outright)		
Own with a mortgage	-0.30	-0.38
Rent from private landlord	-0.62	-1.23
Rent from Local authority or housing association	-0.72	-1.14
Live with parents/other family	-0.01	-0.92
Some other arrangements	-0.02	-0.77

Table continues…

	1. Current financial wellbeing	2. Longer-term financial security
Other socio-demographic/economic characteristics of the household		
Mortgage/rent last month (ref is £100 or less)		
GBP101 - GBP1,000	0.11	-0.08
GBP1,001 - GBP9,999	-0.20	0.11
GBP10,000 - GBP19,999	-0.70	0.52
GBP20,000 or more	-0.14	0.74
Social class of CIE (ref is A)		
B	-0.19	-0.08
C1	-0.36	-0.10
C2	-0.30	-0.28
D	-0.39	-0.27
E	-0.39	-0.50
Geography (ref is urban)		
Metropolitan area	0.02	-0.17
Mixed	0.31	0.12
Rural	0.05	0.12
Negative life events (ref is none in last 3 years)		
In last three years	-0.32	0.06
In last twelve months	-0.65	-0.15
Income each week or month (ref is varies)		
Exactly the same	0.07	-0.06
Roughly the same	0.07	0.01
Other socio-demographic/economic characteristics of the individual		
Gender (ref is Male)		
Female	-0.11	0.07
Age group (ref is 75+)		
18 - 24	-0.39	-1.04
25 - 34	-0.48	-0.81
35 - 54	-0.58	-0.53
55 - 74	-0.26	-0.17
Ethnicity (ref is White)		
Black or minority ethnic group	-0.31	-0.42
Highest level of education achieved (ref is higher degree)		
First degree level	-0.18	0.04
Diplomas in higher education or equivalent	-0.07	0.01
A-Level or equivalent	-0.20	0.09
Vocational qualifications	-0.22	-0.08
GCSE/O-Level/CSE	-0.06	0.00
Other, including still studying	-0.15	0.05
None	0.12	0.19

	1. Current financial wellbeing	2. Longer-term financial security
Long-standing illness or disability (ref is no)		
Yes	-0.31	-0.05
Hours spent on the Internet last week (ref is none)		
Less than one hour	-0.02	-0.15
1 - 2 hours	-0.05	-0.10
3 - 5 hours	0.06	-0.01
6 - 7 hours	-0.05	-0.02
8 - 10 hours	-0.30	-0.08
11 - 19 hours	-0.23	0.03
20 - 29 hours	-0.26	0.04
30 hours or more	-0.41	0.03
Types of Internet-enabled devices accessed by household (ref is three or more)		
None	-0.12	-0.20
One	-0.19	-0.15
Two	-0.16	0.14
Financial management characteristics of the individual		
Chief Income Earner in household (ref is myself)		
Me jointly	0.12	-0.21
Someone else	0.09	-0.22
Responsibility for managing the household finances (ref is partner/spouse mostly)		
Me mostly (including n/a, no partner)	-0.18	0.09
Me jointly	-0.13	0.03
No current account in own name or jointly (ref is banked)	-0.16	-0.19
Think of money in pots (high = strong agreement)	-0.01	-0.01
Types of people discuss household finances openly with (ref is none)		
One	0.09	0.05
Two	0.06	-0.02
Info sources used in last year (ref is none)		
Adviser/advice agency	-0.26	0.21
Active use of websites, comparisons	-0.29	0.10
Passive use of financial pages, TV, radio and social media	-0.09	0.42
Friends/family	-0.22	-0.03
Regularly reads the financial pages (high = strongly disagree)	0.02	-0.10
Constant	5.86	2.81
Adjusted R-Squared	0.57	0.64

3,461 respondents (full sample), weighted to be representative of the UK population. The shading indicates statistical significance, where light shading indicates $p<0.05$, medium shading indicates $p<0.01$, and dark shading indicates $p<0.001$. The results for don't know and other missing categories are not shown. A control variable, which reflects post-hoc re-categorisation of household composition is also not shown.