nest insight

Exploring retirement planning and saving nudges tailored to self-employed people

Learnings from a proof-of-concept trial with the Moneyhub platform

Department for Work & Pensions

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About this report

This report is part of our larger research programme on supporting self-employed people to save for retirement. Visit **nestinsight.org.uk/research-projects/self-employed-pension-saving**

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Research collaboration

moneyhub

Moneyhub is a data and payments company that develops ISO 27001 certified software for open banking, open finance, and open data applications. Its Financial Conduct Authority (FCA) regulated open data platform enables companies to quickly and easily transform data into personalised digital experiences and initiate payments. Hundreds of organisations, spanning finance to media and retail, rely on Moneyhub's award-winning technology. For more information, visit: **moneyhub.com**

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Contents

Introduction

This proof-of-concept trial in collaboration with open data and payments platform Moneyhub is part of a programme of research generating evidence from the field on ways to help increase saving among self-employed people.

This trial built on previous Nest Insight research which suggested that self-employed people may respond well to timely prompts and message personalisation.[1] In the trial we explored the roles that timely prompts to think about retirement saving and personalised nudges to save could play in promoting saving. The trial's design allowed us to collect evidence towards understanding how employed and self-employed people differ in their response to such nudges and reminders.

The Moneyhub app allows users to take a holistic view of their financial situation by using open banking capabilities to link and view information from a range of accounts all in one place. This can include their current accounts, saving accounts, mortgages, loans and investment accounts. Accounts which support open banking data sharing access are automatically updated within the app. Those which don't, can be updated manually by the user. Although many pensions and investment accounts do not currently support open banking, Moneyhub enables auto updating of information about these accounts through screen scraping.

We know from our research that many self-employed people don't fully separate their personal and business finances. In a 2020 survey of self-employed people, 52% said they manage the finances related to their personal lives and self-employed work together.[2] The two can be heavily interlinked and may be considered and managed at the same time. A platform that allows users to bring together all the different aspects of their finances therefore has the potential to allow self-employed people to more seamlessly move money into personal saving.

Moneyhub is a pioneering platform within personal finance apps and represents a promising direction of innovation in account integration. Its type of account linkage, which presents an overview of multiple accounts simultaneously, is being used by some mainstream banks in their apps. The findings of this trial therefore have the potential to be adopted much more widely as the market evolves.

Using timely prompts and personalised nudges could also work well if integrated into other platforms and services, such as accountancy software and payment platforms, that are commonly used by self-employed people to manage their work and money. For example, open banking tools could have a wide reach if they're part of Making Tax Digital projects among accountancy software providers.

We are grateful to Moneyhub for their collaboration in this research.

1 All of Nest Insight's previous self-employed retirement saving research can be found in our research library at **nestinsight.org.uk/research-library-self-employed**

2 Nest Insight, 'The impact of Covid-19 on self-employed people's saving outlook' (December 2020), **nestinsight.org.uk/wp-content/uploads/2020/12/The-impact-of-Covid-19-on-self-employed-peoples-saving-outlook.pdf**

Key phrases

Open banking

Technology framework for connecting banks, financial technology companies and other providers to connect customer accounts and enable digital transactions between them. See **openbanking.org.uk**

In the UK, the Open Banking Implementation Entity (OBIE) establishes standards and guidelines and the Competition and Markets Authority (CMA) and the Financial Conduct Authority (FCA) oversee development and regulation of the sector.

Application programming interface (API)

Rules and tools that allow data systems and software apps to communicate and share data with each other

White label app

A customer-facing app that can be tailored to a business brand

Data mining

Analysis of large amounts of data to reveal patterns in behaviours and preferences

Screen scraping

Data shown on a digital display – either as text or as part of an image – collected with the user's permission through an API for analysis and use by another platform

Machine learning engine

Predictions of future behaviours and preferences based on data mining and other analyses

Making Tax Digital

HM Revenue and Customs (HMRC) initiative to move UK business records and tax returns to be fully digital. See **gov.uk/government/publications/making-tax-digital**

Self-employed people with income above £10,000 will be brought under the rules on 6 April 2024.

Section 1

Objectives

How do people respond to timely nudges about retirement saving? What types of platforms might have the most impact?

The aims of this research were:

- to understand how self-employed people respond to saving nudges received in an open banking app
- to understand if self-employed people, who often have irregular incomes, respond differently to personalised nudges in comparison to those with regular salaries

In our research we gathered further evidence towards finding viable 'touchpoints' for engaging self-employed people with savings. We were interested in seeing if self-employed people would engage with information on savings and retirement on the Moneyhub platform or a platform similar to it.

Because this was a proof-of-concept trial with a limited sample size, we did not attempt to measure the effect of the saving prompts on saving behaviour. However, we did gain insight into the potential interest and take-up levels of such prompts and nudges.

Although these nudges were designed to be suitable for the type of income profile that many self-employed people have, this trial also enabled us to explore whether others on variable incomes and even those on regular incomes might also find benefit from these interventions.

Section 2

The Moneyhub environment

Moneyhub is an open data and payments platform which allows users to see accounts all in one place. It generates financial insights and nudges to help users manage their money.

The Moneyhub platform provides the technological capability behind multiple white label apps. It also has a direct-to-consumer app. The sample for this trial was drawn from Moneyhub's direct user base.

Moneyhub utilises emerging technology at the forefront of open banking. Users can connect a variety of accounts, including current accounts, cash savings, loans, mortgages, investment accounts and pensions. Parts of the platform are experimental. Moneyhub frequently releases new features and tests users' responses.

The platform offers a technologically advanced environment in which to conduct a savings research trial. However, due to the market-leading and novel nature of the app, there is not universal coverage of all accounts; legacy systems mean that some providers do not yet support open banking.

For this reason, the Moneyhub trial was conducted to explore proof of concept. It was intended to look at the leading edge of technology in this field and potentially provide inspiration for what might be feasible in the future.

Moneyhub user interface

Dashboard

The front page of the app allows users to see income and outgoing money graphed over time, their current net worth, and information about their accounts (**Figure 1**). It also alerts users of any notifications in their nudge inbox.

Nudge inbox

This displays notifications, or nudge cards, about transactions to be viewed or recategorised, information about budgets the user has defined and other nudges (**Figure 2**). The nudge inbox is where the majority of this trial took place.

Figure 1. Moneyhub dashboard

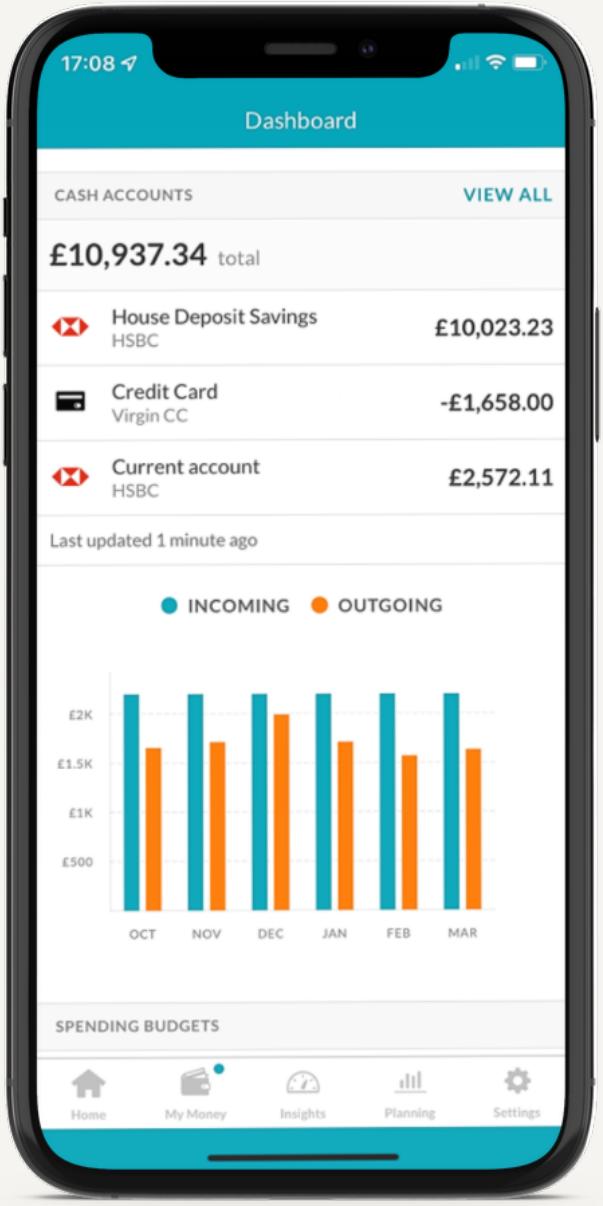
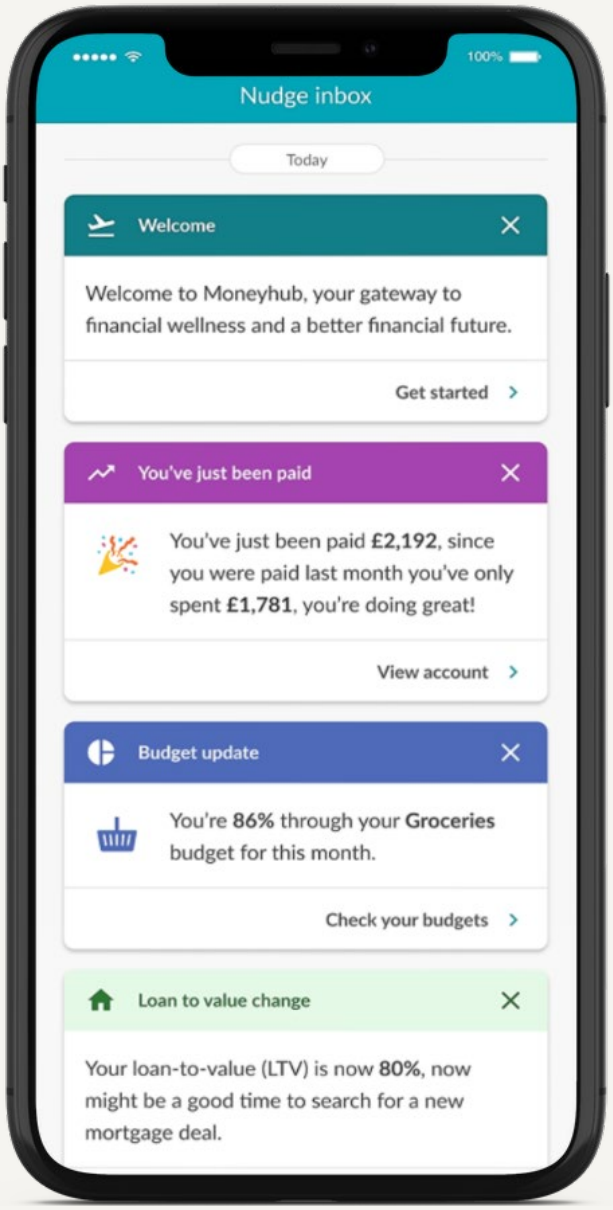


Figure 2. Nudge inbox



Note: All screenshots courtesy of Moneyhub. © 2022 Moneyhub Financial Technology Ltd

Transaction inbox

Here users can see all transactions to and from their accounts (**Figure 3**). Moneyhub's auto-categorisation machine learning engine organises spending into categories such as healthcare, groceries and car running costs. This auto-categorisation feature is currently unique to Moneyhub. Users can re-categorise transactions and these changes are immediately fed into the machine learning engine to improve future auto-categorisation predictions.

Payments hub

Here users can transfer funds between accounts linked to the app as well to any account with a sort code and account number (**Figure 4**).

Figure 3. Transaction inbox

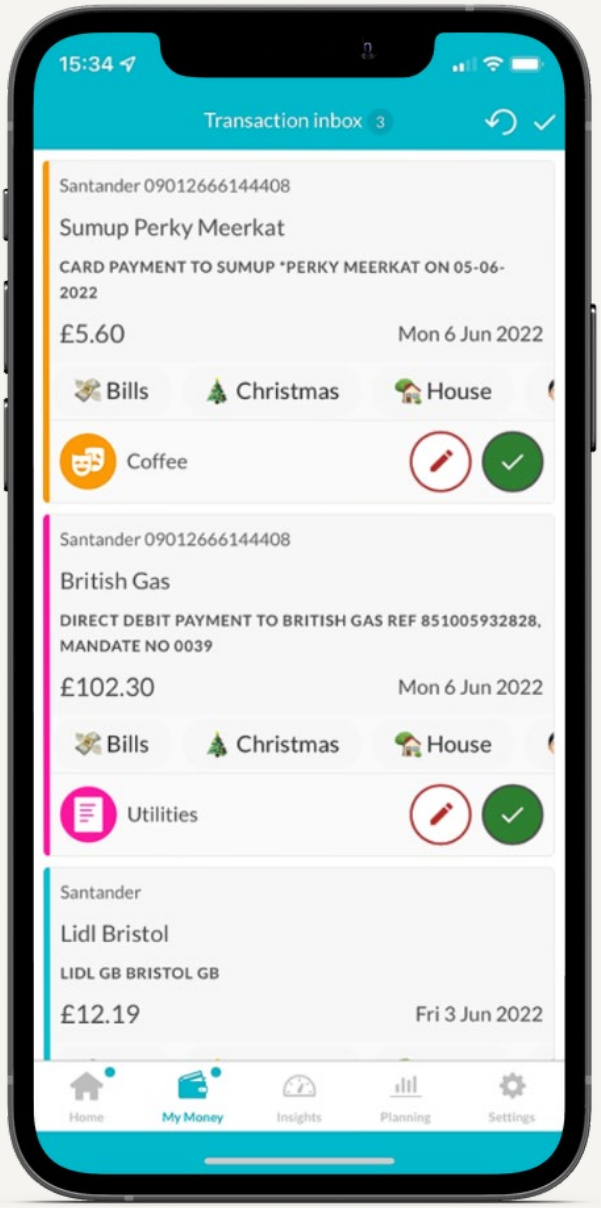
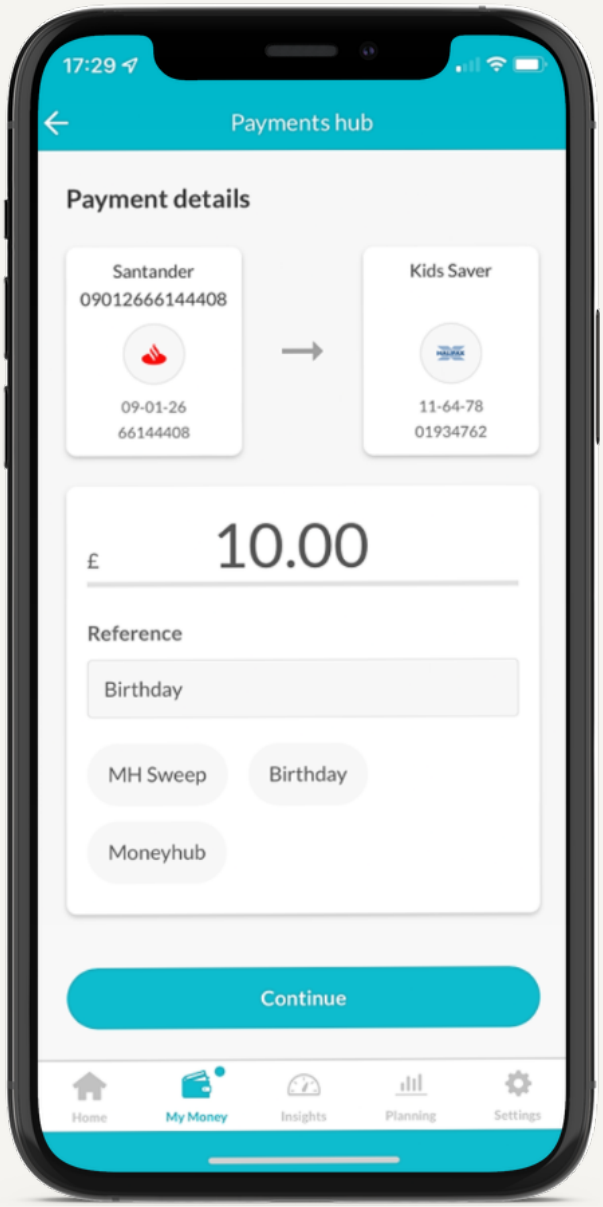


Figure 4. Payments hub



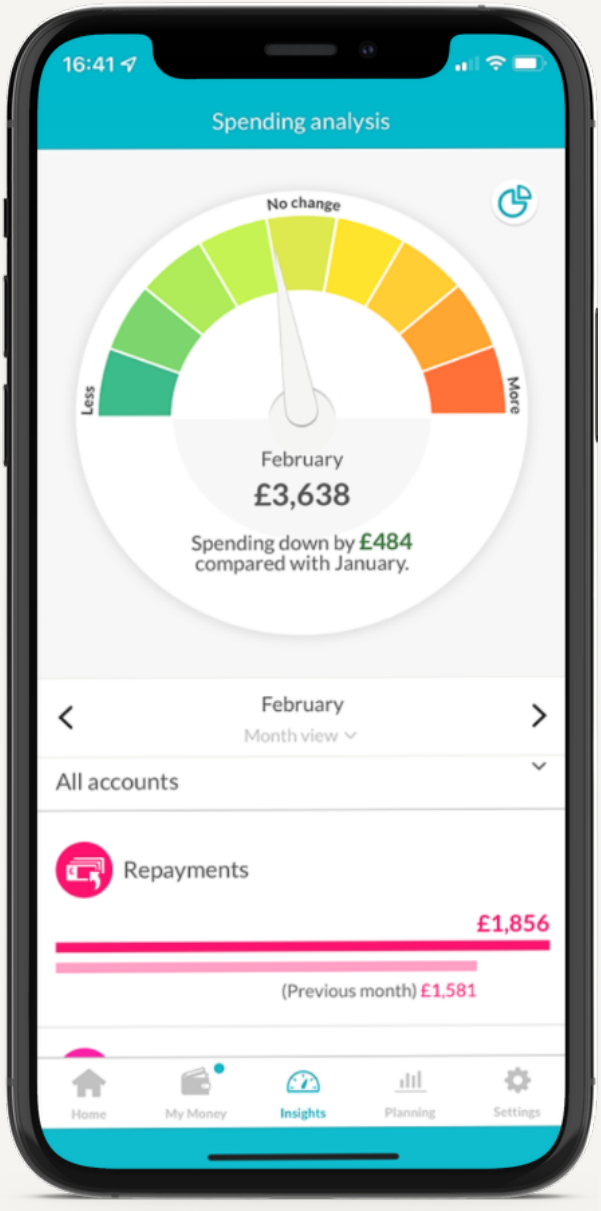
Accounts and assets

This page lists all accounts, including those added manually. Users authorise Moneyhub to view their accounts. During the trial period they were required to re-authorise these account connections every three months, as required by the financial regulations in place at the time. This could have meant that some users lost connection to their accounts during the trial and this would have created additional friction in their user journey. However, since the end of this trial the '90-day rule' for open banking access has been relaxed. (For more information see the box **Evolution in variable recurring payments regulation**.)

Insights

This area of the app can be used to make budgets, review spending and income and find investment analysis (**Figure 5**). Further features have been developed for enterprise clients, such as pension and investment providers, to be offered on white label platforms using Moneyhub. There were also some experimental features such as the retirement modeller which used account data to pre-populate fields into a pension calculator.

Figure 5. Spending analysis – part of Moneyhub Insights



Evolution in variable recurring payments regulation

Moneyhub supports users to make payments between their accounts through a variable recurring payments (VRP) system. VRP is an open banking feature that enables a bank account holder to connect an authorised payments provider to their account so the provider can make payments on the account holder's behalf. Previously customers were required to re-authenticate the sharing of their account data with outside vendors every 90 days. Starting on 26 March 2022, this requirement was lifted by the Financial Conduct Authority (FCA).[3] This change is likely to remove some of the friction from the user journey piloted in this trial (see **Section 3**) and might lead more people to authorise the personalised payment amount that was tested.

The Competition and Markets Authority (CMA) is also requiring more UK banks to enable VRPs which allow customers to more easily move money between their accounts.

[3] For further explanation of the changes to the 90-day rule see, for example, TrueLayer, 'Explaining changes to the 90 day rule for open banking access' (14 February 2022), **truelayer.com/blog/explaining-changes-to-the-90-day-rule-for-open-banking-access**

Section 3

Intervention design

This research project took the form of a pilot field trial of new saving nudges tailored to the contexts of self-employed people. We sought to understand the levels of interest, uptake and feasibility of these nudges among self-employed users of the Moneyhub app compared with employed users.

Insights from previous work in this programme of research, including the wider literature on behavioural interventions, were drawn upon to design nudges with high potential to influence behaviour.

Two types of nudges were piloted by Moneyhub during the trial:

1. income nudges
2. retirement planning nudges

Income nudges

Moneyhub designed a series of nudge cards which displayed to the user the difference between the user's monthly income and their expenditures, as calculated across all of their linked accounts. If there was a positive difference between their income and expenditure indicating surplus income, and if at least that amount of money was in their current account, the nudge suggested that the user could move some or all of the surplus into another account designated for savings.

The income nudge cards varied slightly depending on whether the user had been identified as receiving a regular salary or not:

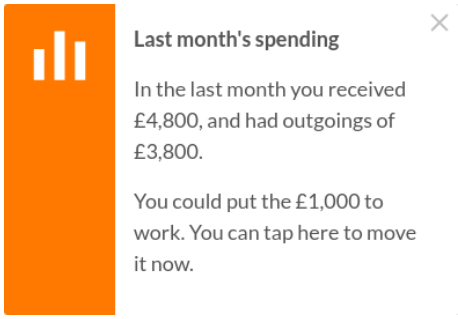
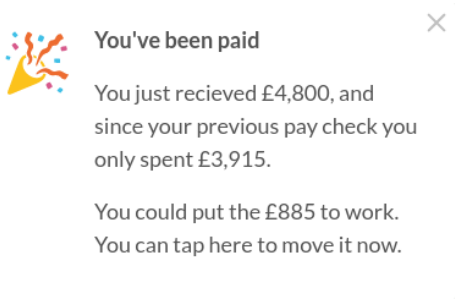
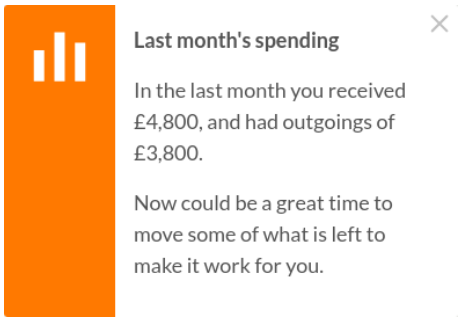
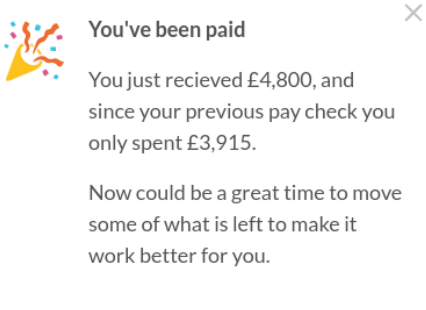
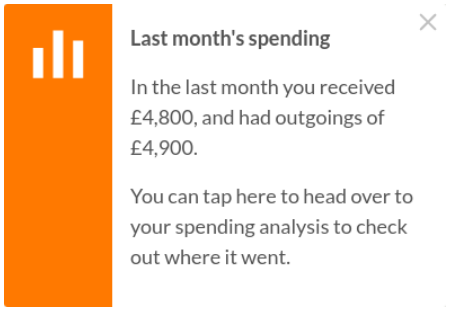
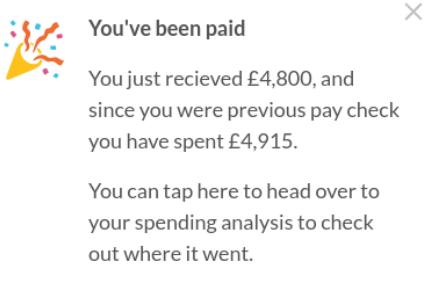
- **Salary version** – For salaried users, displayed the amount they'd been paid and the amount they'd spent since their previous pay cheque
- **Income-expenditure version** – For users who did not receive a regular salary, displayed the total value of payments into their accounts in the previous month and their total outgoings over the same period

These two nudges also varied depending on whether the difference between income and expenditure was positive, and which accounts the user had linked in Moneyhub:

- **Sweep nudge** – Displayed when a user's income was higher than their spending and if they had a 'sweepable' account connected. Sweeping enables the user to transfer money between two accounts belonging to the same person. These transactions are also referred to as 'me-to-me' payments. A sweepable account is an account connected to Moneyhub which allows the use of Moneyhub's payments feature to move money in and out of the account. The user must have had at least one of these linked for the sweep nudge to be deployed. The onward journey went to Moneyhub's payments hub (illustrated in **Figure 4**), where the suggested savings amount – that is, the difference between income and expenditure – was pre-filled in the payment form. This amount to be saved could be changed by the user. It was possible to authorise the payment directly from the payments hub page.
- **Save nudge** – Displayed when a user's income was higher than their spending but they did not have a sweepable account connected. In this case it wasn't possible for a user to make a savings payment directly. The onward journey went to Moneyhub's spending analysis page (illustrated in **Figure 5**).
- **Spending nudge** – Displayed when a user's income was lower than their spending and therefore it didn't look as though there were sufficient funds available for saving. The onward journey also went to the spending analysis page.

These income nudge journeys are shown in **Table 1**.

Table 1. Trialled income nudges

Nudge card	Income-expenditure version	Salary version	Onward journey
 **Sweep nudge** Income higher than spending and a sweepable account			Payments hub with auto filled amount
 **Save nudge** Income higher than spending and no sweepable account			Spending analysis page
 **Spending nudge** Income lower than spending			Spending analysis page

Source: Screenshots courtesy of Moneyhub. © 2022 Moneyhub Financial Technology Ltd

Moneyhub's salary nudge cards had been in use since early 2018. Initially they did not feature a payments link, however. Moneyhub introduced payments functionality to their direct-to-consumer app in August 2021, six months before the launch of this proof-of-concept trial.

The income nudge cards gave personalised insights based on an individual's transactions across all their linked accounts, meaning that the information was tailored to their specific financial situation. In addition, messages were tailored to the amount predicted to be available to save, as well as to whether the individual had appropriate accounts connected to enable them to save through the app.

This approach was taken in response to a series of evidence gathered from multiple sources, including:

- **The body of research suggesting that personalised messages are more effective than generic ones**.[4] By giving personalised suggestions of the amount to save based on actual account activity, these nudges could be more effective than a generic amount based on age, for example.
- **Nest Insight's 2019 messaging trial with self-employed Nest members and members of the Association of Independent Professionals and the Self-Employed (IPSE)**. This trial found that flexible contribution messages emphasising that you pay 'what you can, when you can' performed better with self-employed people, in terms of view and click rates, than other, general campaign emails.[5] The save nudge cards in the Moneyhub trial were designed to emphasise flexibility in savings amount and destination to the user.

The income nudge cards were sent to users in the trial on either the day regular salary was paid; a custom, user-set date for notifications; or, in the absence of these, the first day of the month.

Retirement planning nudges

Three retirement planning nudge cards were tested during the trial period, as shown in **Table 2**. These were designed to raise awareness of planning tools and information:

- **Payments nudge** – Informed users that Moneyhub could help them save for their future and encouraged them to find out about setting up regular savings payments through the app. The onward journey took users to a blog post about how to set up payments by linking accounts to Moneyhub.
- **Pension article nudge** – Prompted users to think about building their pension pot for retirement and encouraged them to seek more information. The onward journey took users to a blog post about retirement saving which included general information about pensions as well as a link to MoneyHelper's information guide 'Pensions for self-employed people'.[6]
- **Retirement modeller nudge** – Prompted users to see what money they can expect in retirement. The onward journey took users to Moneyhub's retirement modeller tool.

These nudges were based on previous research learnings, which found that:

- **Salient touchpoints** are needed to engage self-employed people in retirement planning and pension saving. Unlike in the auto enrolment system, where an employer chooses and sets up with a pension scheme and automatically enrols workers into making regular contributions, many self-employed individuals don't have an easy route to saving.
- **Timing** is instrumental to the success of any behavioural intervention. Sending a reminder to consider retirement planning to users of a banking and finance app could help to ensure they're more receptive to this messaging than at other times because they're already thinking about their finances when they interact with the app. In this trial the nudges were timed so that they arrived at a time of the month when users might be most able to save.

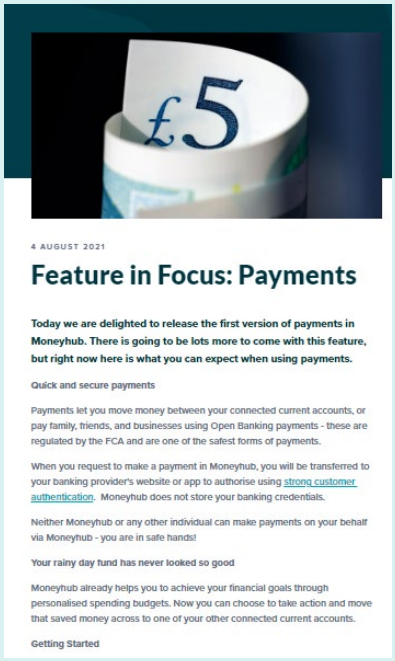
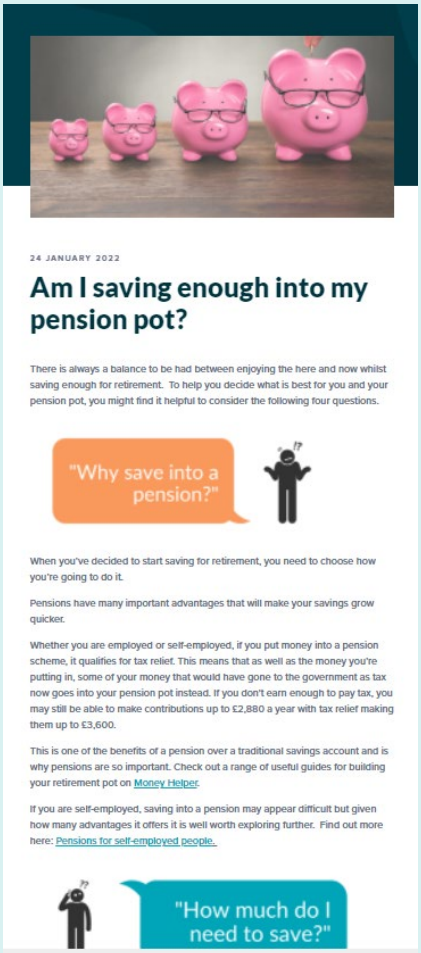
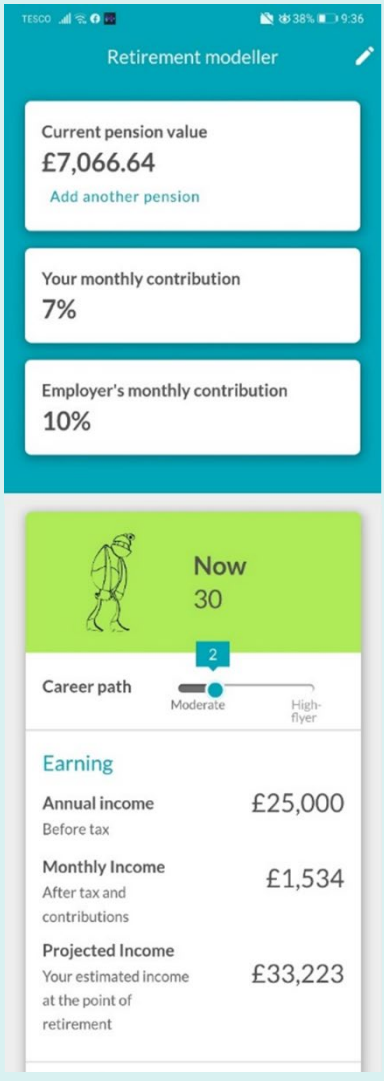
Retirement nudges were sent immediately after income nudges to users whose earnings were greater than their expenditures.

[4] O. J. Postma and M. Brokke, 'Personalisation in practice: The proven effects of personalisation' (January 2002), **link.springer.com/article/10.1057/palgrave.jdm.3240069**

[5] Nest Insight, 'Talking with self-employed people about retirement saving' (September 2020), **nestinsight.org.uk/wp-content/uploads/2020/09/Talking-with-self-employed-people-about-retirement-saving.pdf**

[6] **moneyhelper.org.uk/pensions-for-self-employed-people** MoneyHelper is a free, independent financial information and guidance service provided by the Money and Pensions Service, which is an arm's-length body sponsored by the UK Department for Work and Pensions. For more information visit **moneyhelper.org.uk**

Table 2. Trialled retirement planning nudges

Payments nudge	Pension article nudge	Retirement modeller nudge
Dates implemented		
December 2021 and March 2022	January and April 2022	February and May 2022
Nudge copy		
Moneyhub can help you save for your future. You can tap here to find out about setting up payments	Looking to build your pension pot for retirement? Tap here to read a range of useful guides from Money Helper.	Saving the right amount now is key to an easy retirement. Tap here to see what your future might look like.
Clicking the nudge sent users to		
Payments blog post	Pension saving blog post	Retirement modeller
 Available at **moneyhub.com/blog/feature-in-focus-payments**	 Available at **moneyhub.com/blog/2022/1/24/am-i-saving-enough-into-my-pension-pot**	

Note: Screenshots courtesy of Moneyhub. © 2022 Moneyhub Financial Technology Ltd

Section 4

Research approach

To understand the impact of tailored messages delivered in an environment where people are thinking about their finances, we needed to follow users' journeys from nudge to downstream behaviour, including, most importantly, any actual savings payments.

Analysis strategy

To gauge engagement with the income and retirement planning nudges, we measured three user outcome variables:

- viewed the Moneyhub nudge inbox (illustrated in **Figure 2**) while the nudge card was being displayed (view rate)
- clicked a link in the nudge to take the next step in the journey (click rate)
- made a savings payment (transaction data)

We compared the proportions of nudge outcomes across types of users, looking at differences by employment status, age and gender.

View rates are given as a proportion of those who were sent the nudge. Click rates are given as a proportion of those who viewed the nudge.

Follow-up survey

A survey invitation was emailed to all Moneyhub users included in the proof-of-concept trial. The survey was anonymous. This meant that account data could not be linked to individual survey responses.

The survey was open from 25 March to 31 May 2022. Topics in the survey included demographics, employment status, nudge recollection and saving behaviour.

Questions about saving behaviour allowed us to measure self-reported saving outside of the Moneyhub platform that may have been a result of the income nudges. These questions also put the results of the trial into the context of the broader saving habits of Moneyhub users and gained additional insight into potential barriers to saving among self-employed and employed people.

Statistical analysis

We ran chi-squared tests to check the independence of distributions.

For the view and click outcomes, we checked these results using a regression model. We used generalised estimating equations (GEE) with a probit link function, a technique for testing the effect of predictors to a dependent variable of repeated measures across time where the number of measures for each group or cluster is small.

We used an exchangeable co-variance structure, which assumes that the correlation between observations at two points in time is equal for any two time points of a subject.

The income and expenditure figures were standardised with a Gaussian distribution with zero mean and unit variance.

Section 5

Sample

About 11% of Moneyhub users are self-employed. Though they varied by age, income and income sources, these users could be identified through their linked transaction data for the trial.

Sample identification

Moneyhub does not collect data on employment status as part of the app sign-up journey, so we worked with Moneyhub to develop an identification strategy based on the user data it does collect. Across the sample in the trial population – both users who received the salary nudge and those who received the income-expenditure nudge – we looked for markers of self-employment in the users' accounts and transaction histories. Four markers or combinations of markers were identified as allowing successful identification of self-employment status.

A user was identified as self-employed if one or more of these markers was present:

1. **Self-employment income categorisation** – If a user received £500 or more in monthly self-employment income on average between December 2021 and the end of the trial. Users can self-select a 'self-employment income' category for a transaction. If a user performs this action once, then similar transactions will continue to be categorised as self-employment income by Moneyhub's auto-categorisation machine learning engine. This data marker was present for 187 users in the trial sample.
2. **Non-investment dividend** – If a user received at least one non-investment dividend of £500 or more between February 2021 and the end of the trial. This data marker was present for 307 users in the trial sample.
3. **No salary and Self Assessment tax return activity** – If a user did not have a salary and paid, or received a refund from, HMRC related to a Self Assessment tax return at least once between February 2021 and the end of the trial. This data marker was present for 482 users in the trial sample.
4. **No salary and Self Employment Income Support Scheme (SEISS) grant** – If a user did not have a salary and received at least one SEISS grant from the government. The SEISS was introduced in March 2020 to support self-employed people in the UK during the global coronavirus pandemic. Five rounds of grants were available to self-employed people who met the eligibility criteria.[7] This data marker was present for 170 users in the trial sample.

[7] House of Commons Library, 'Coronavirus: Self-Employment Income Support Scheme', research briefing 8879 (May 2022), researchbriefings.files.parliament.uk/documents/CBP-8879/CBP-8879.pdf

Table 3. Users with self-employment markers

Marker	Count	Percentage
Self-employment income categorisation	187	21%
Non-investment dividend	307	35%
No salary and Self Assessment tax return activity	482	54%
No salary and SEISS grant	170	19%
Total with one or more markers	**887**	**100%**

Note: Percentages do not add to 100% because some individual users had more than one marker present.

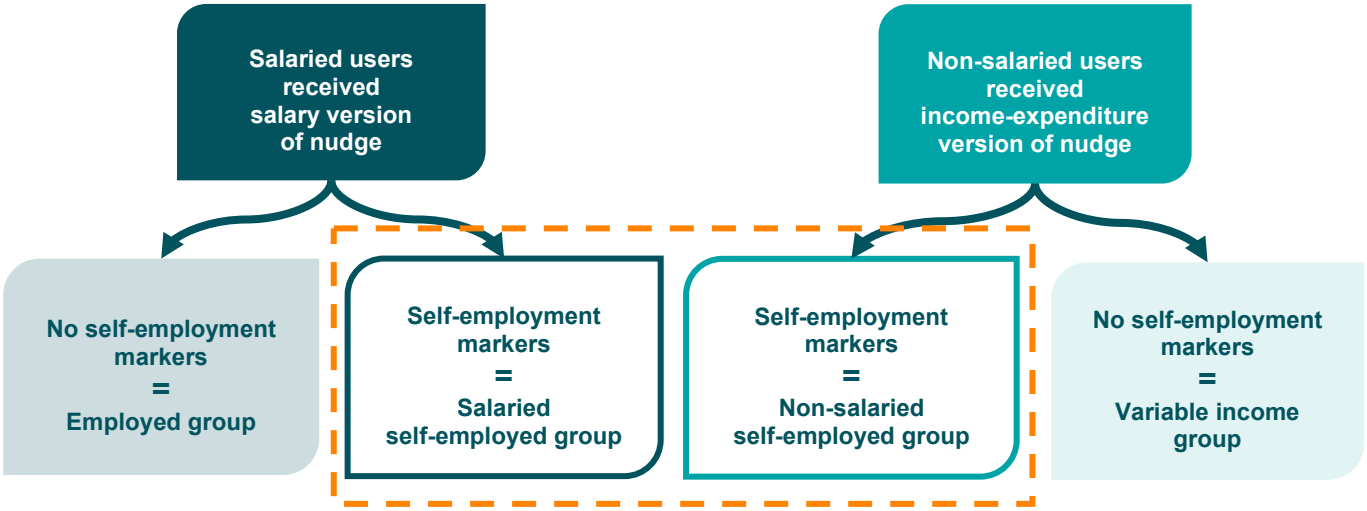
Based on analysis of these markers, we found that there were self-employed people among both the group of Moneyhub users that received a regular salary and those who didn't:

- **Salaried individuals** – Of those who had a payment identified as a salary, 7% also had markers of self-employment. Based on analysis of data held by Moneyhub, we believe many of these people are likely to be limited company directors who are both employed and self-employed. We included these users in the self-employed population for analysis as they're likely to behave differently to those who only have a regular salary.
- **Non-salaried individuals** – As expected, there were also some in the non-salaried group who had self-employment markers. About 11% of the non-salaried group in the trial population were identified as being self-employed.

These two sub-groups were combined into a group of self-employed people for our analysis (**Figure 6**).

Those who received the income-expenditure nudge but who had no self-employment markers were not included in our self-employed group analysis. These individuals could be employed but not paid monthly, unemployed, retired or receiving income in other ways.

Figure 6. Income nudge types and employment identification



As described in the intervention design section, slightly different nudges were sent based on the employment status of the individual. The calculation of the amount left over differed slightly between these groups:

- **For those receiving the salary nudge** – The amount remaining was the difference between the user's identified salary payment and their total outgoings.
- **For those receiving the income-expenditure nudge** – The calculation included all income received by the user over the period rather than just their salary payment to reflect the multiple sources of income that self-employed people typically receive.

Sample size

Moneyhub sent over 32,000 nudges to around 8,000 direct-to-consumer app users over a period of six months. We used data from December 2021 to May 2022 in our analysis.

Based on our markers for self-employment we identified 887 (11%) of the sample as being self-employed, as shown in **Table 3**. They were distributed between the salary and income-expenditure groups (**Table 4**). The reported level of self-employment in the annual Moneyhub user survey conducted after the trial was 11%, so we believe our identification strategy was successful.

Table 4. Self-employed sample group

Users with self-employment markers	Count	Percentage
Received salary nudge	568	64%
Received income-expenditure nudge	319	36%
Total	**887**	**100%**

Sample composition

Moneyhub users aren't required to provide demographic information when joining or using the app, so not everyone in our sample had chosen to supply this data. However, we used aggregated customer data and follow-up survey responses to profile the group of self-employed Moneyhub users included in the trial.

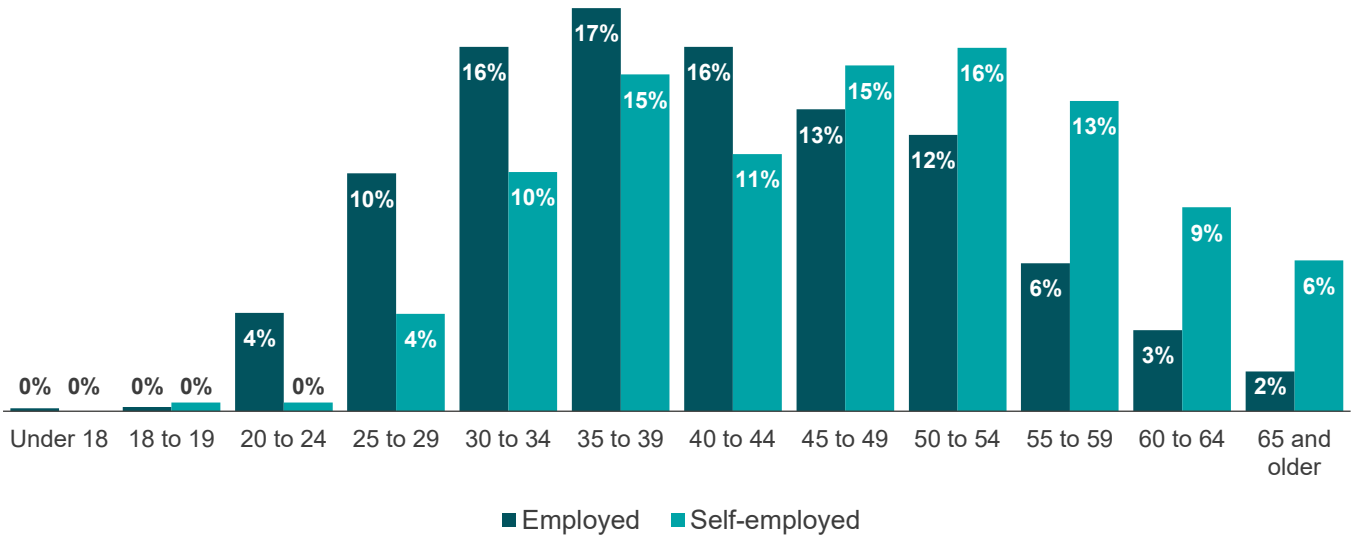
Age

Moneyhub collects age data using five-year age brackets. For the purposes of analysis, we used the middle of the range. This distribution is shown in **Figure 7**.

The mean (average) age fell within the 45-to-50 age bracket. Employed users were a few years younger (mean 42 years) compared with self-employed users (mean 48 years), a difference that was found to be statistically significant using a chi-squared test. About 7% of the self-employed group were aged 65 older. Survey results indicate that 11% of Moneyhub's users were retired at the time of the trial.

Those self-employed users with a salary, who are likely to be limited company directors, were on average slightly younger than self-employed users without a salary, but the difference was not statistically significant.

Figure 7. Moneyhub users by age and employment identification



Note: Age data is collected in five-year brackets. Age data is not available for every user as users aren't obliged to provide their age.

Gender

The sample was heavily skewed towards male users, with around 84% of users being men. There was no significant difference in gender distribution between our marker-identified employed and self-employed groups.

Type of self-employment

Around one third of the self-employed group was made up of individuals we identified as limited company directors. These individuals were those who had a regular salary as well one of our self-employment markers (see **Sample identification**).

Income

The self-employed group had statistically significant higher incomes than the employed group. Those identified as limited company directors had a significantly higher distribution of income than self-employed people who did not have a salary identified on Moneyhub.

Account linkage

Self-employed users were more likely to connect a savings or investment or a pension account than employed people. This difference was statistically significant. There was no difference in account linkage behaviour between the self-employed users with a salary and those without a salary.

Most users had a savings account linked in Moneyhub, but a statistically significant higher proportion of self-employed users had a savings account linked. About 68% of employed users had a savings account connected compared with 76% of self-employed users.

At the time of the trial most users did not have a pension account linked. About 34% of employed users had a connected pension compared with 45% of self-employed users. This difference could be due to limitations in legacy systems for workplace pension schemes which might disproportionately affect those in employment. For example, pension pots with the Nest pension scheme – with which around 1 in 3 workers in the UK have a pension – cannot be connected to the app. However, even when schemes allow third-party API connections, not all users will have registered with a pension set up for them through the UK's auto enrolment system.[8] As a result they would lack the credentials to connect their pension with their Moneyhub account. The proportion of unregistered pensions is likely to be higher than for other financial products, as pensions have relatively lower engagement levels.

Around half of self-employed users had an investment account connected. The proportion was lower for employed users, and statistically significant. This is likely a feature of the difference in approach to financial management across the two populations. It also suggests that self-employed people are using the app more actively to manage their savings and investments than other Moneyhub users.

Savings

Among those who had connected accounts, self-employed users save significantly more into savings, investments, and pensions each month than employed users (**Figure 8**).

[8] To learn more about eligibility for auto enrolment into a UK workplace pension, see **Essentials of the UK retirement system**

Figure 8. Median monthly savings by account type

Section 6

Findings

We used multiple measures to understand people's interest in and utilisation of the two nudge types. Here we first present our findings and consider explanations for the differences we see between groups.

Due to differences in the types of self-employed people we identified in the trial, we first look at the aggregate results for all self-employed people, then highlight any differences between those self-employed with a salary versus those without. We also compare self-employed people's behaviour to the employed group in our sample.

Income nudges

We primarily saw engagement at the view and click rate levels. The view and click rates were broadly in line with response rates to other Moneyhub nudges.

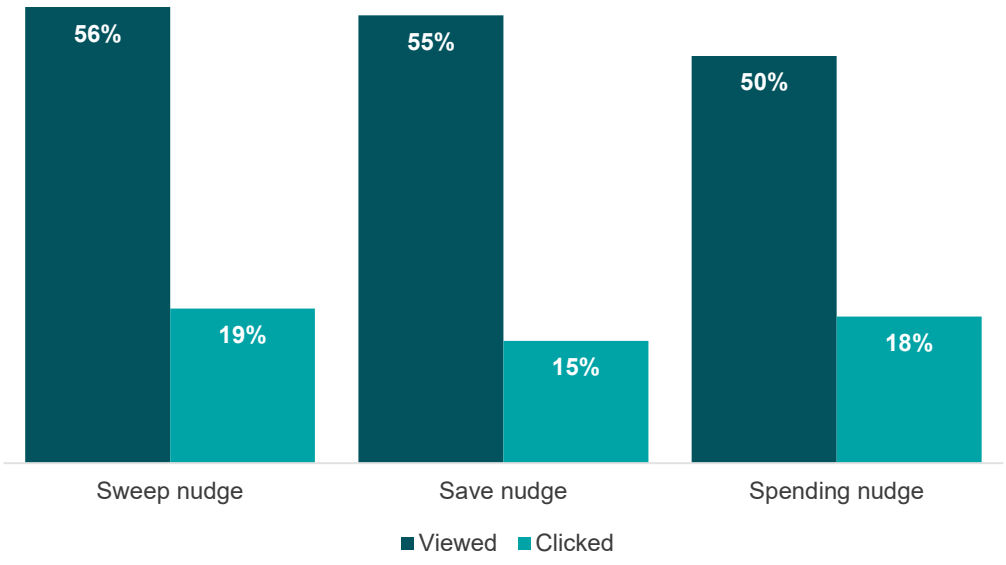
For the sweep nudge card, which allows an onward payment journey, we saw very few people complete the transaction despite many clicking on the card. This could be due to several factors, including because people were interested in the card and its novelty without having an intention to make a savings payment, were more used to making payments elsewhere or already had a savings payment scheduled, or because of frictions in the user journey.

Income nudge view and click rates

User view rates for each deployed monthly income nudge between December 2021 and May 2022 ranged from 50% to 60%. This rate decreased during April and May 2022, but lower view rates were observed broadly across all Moneyhub platform activity so were not specific to the pilot.

The most popular nudge was the sweep nudge, with both the highest view and the highest click rate (**Figure 9**).

Figure 9. View and click rates by type of income nudge

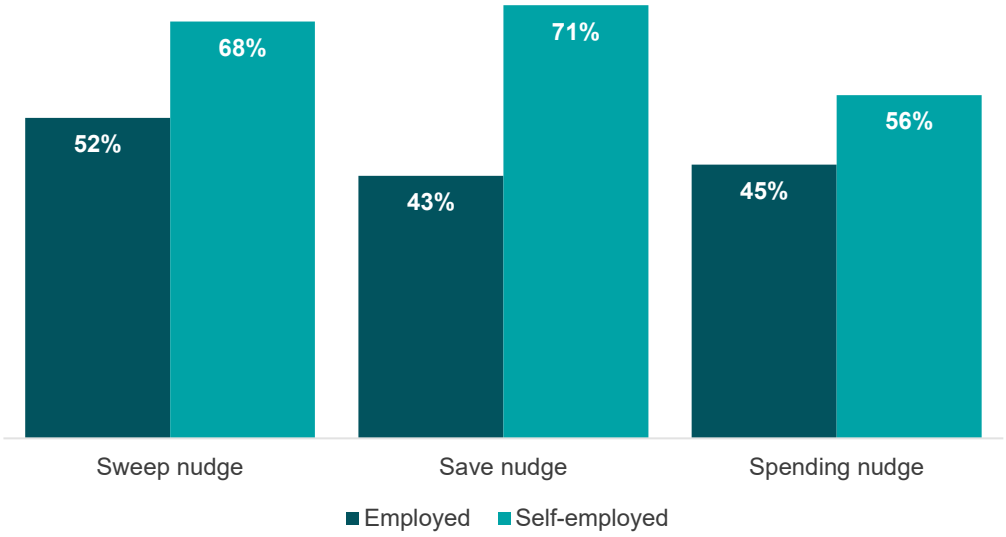


Note: Click rates are a proportion of views.

Employment identification

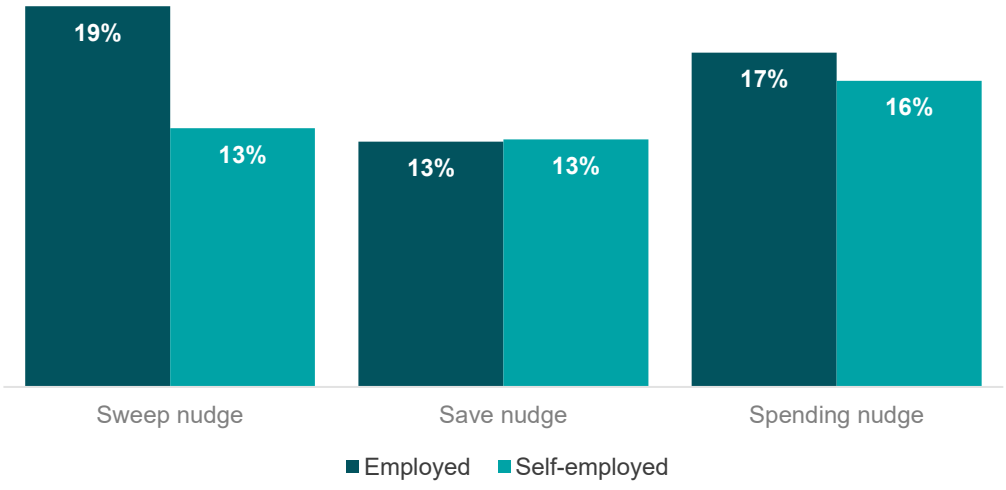
There was a statistically significant difference in view rates between the employed and self-employed groups, with self-employed users being more likely to view the income nudges (**Figure 10**). The overall self-employed group view rate was 60%, compared with 47% for the employed group.

Figure 10. Income nudge view rates by employment identification



However, there was a lower click rate among self-employed people, and this was statistically significant. Overall about 18% of the employed group clicked the card compared with 15% of the self-employed group (**Figure 11**).

Figure 11. Income nudge click rates by employment identification



Note: Click rates are a proportion of views.

Age

Given the limited sample size, to look at differences by age we decided to use three age brackets: under age 40, 40 to 55 and 55 or older.

The group aged 40 to 55 viewed the income nudges more than those 55 or older.

Gender

There was a statistically significant difference in click rates by gender, with women more likely to act on the income nudges. About 21% of women clicked on an income nudge card to take the next step in the saving journey, compared with 16% of men.

Account linkage

Self-employed people were more likely to have pension and savings accounts connected to the app. To account for this, we ran a regression to estimate the effects of employment status and account connectivity simultaneously.

We saw a highly significant effect from pension and savings linkage on the probability that the user would view an income nudge card but not on the probability that they would click on it to take the next step.

Type of self-employment

View rates were higher among those in the self-employed group with no salary (70%) compared with those in the self-employed group who had a salary (47%).

The click rate for those who viewed a nudge card was also significantly higher among those who did not receive a salary.

These findings mirror the differences in response between employed and self-employed users in general. We also compared new joiners in both groups to eliminate the possibility that a novelty effect was in play and saw the same pattern in the response rates. This suggests a small proportion of highly engaged self-employed people in the sample were not in the salary group.

Did the relative novelty of the income-expenditure version have an impact?

We saw a significant difference in view rates between those who received the income-expenditure version of the nudge versus those who received the salary version as well as between employed and self-employed users. However, as these two sets of groups overlap significantly, we wanted to check whether this result was due to the type of user or the familiarity of the salary version, which Moneyhub had deployed to users before. It was possible that the novelty of the income-expenditure version of the nudge led to its higher view rate.

To account for this possibility, we separately analysed the users who had not received the salary version previously. This group included users who had joined Moneyhub just before or during our trial period. We compared them to self-employed users in the trial who had joined Moneyhub during the same period. We found that responses from employed and self-employed people still differed, with a view rate of 40% for the new-joiner employed group compared with 65% for the new-joiner self-employed group.

The difference in click rates also held true. New-joiner employed people were more likely (25%) than new-joiner self-employed people (19%) to click on a nudge card. These action rates were higher than for users who had joined before the trial started, but the direction of the result was the same.

Income nudge saving behaviours

Despite the promising view and click rates, we observed a very low incidence of the downstream behaviours we were hoping to see – actual savings payments.

Users who received a sweep nudge were already set up to make a savings payment at the next step in the user journey because they had a sweepable account connected to Moneyhub. Despite this, the completion of the user journey was very low, with only 1.5% of those who viewed an income nudge card completing the journey by making a savings payment through the Moneyhub payments hub.

To understand this low in-app completion of payments in response to the nudges, Moneyhub designed and deployed a follow-up survey. Of those who said they'd received the income nudge and were prompted to save but did not make a savings payment through Moneyhub, 46% said they had their savings handled elsewhere already. This indicates that a nudge in this environment would not necessarily induce this group to save more.

Importantly, however, 34% of those who were prompted to save said they chose to make a savings payment directly in their banking app instead of using Moneyhub payments. This survey evidence suggests that out-of-app savings payments in response to the nudges were much higher than what could be seen and measured in-app.

At the time of the trial, the payments hub was new to the app and not heavily used. It's possible that users were simply more used to making payments through their banking app than through an open banking platform. Although they've signed up for Moneyhub some might still have trepidation about using newer features. In addition, if the user's preferred savings vehicle is not already connected to Moneyhub, setting up a new payee using sort code and account number may be viewed as extra effort, particularly where accounts are already set up in in the user's day-to-day banking app. In any case it appears that a large proportion of users in the trial did respond to the sweep nudge by making a payment but this wasn't directly observable in the app.

When savings were made due to the nudge but outside of the payments hub, the ability to detect the payment was constrained by a variety of factors. These included the user saving an amount different to the nudge's prompt, a time lag between receiving the nudge and making a savings payment and the difficulty of separating out such a payment from the user's usual saving behaviour.

In general, Moneyhub users in the sample who were identified as being self-employed already saved more into savings, investments and pensions than employed users.

There was no statistically significant difference in the amount saved between those who clicked an income nudge card and those who didn't.

Retirement planning nudges

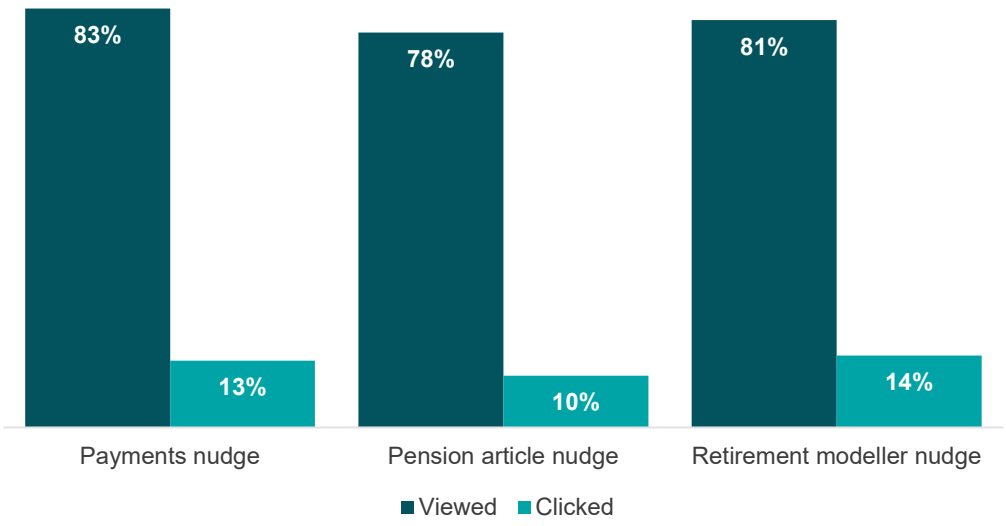
Retirement planning nudge view and click rates

View rates for the retirement planning nudges were 79% on average (**Figure 12**). This was higher than the income nudge view rates.

Click rates were around 12%.

These view and click rates are broadly in line with the rates for other Moneyhub nudges.

Figure 12. View and click rates by type of retirement planning nudge

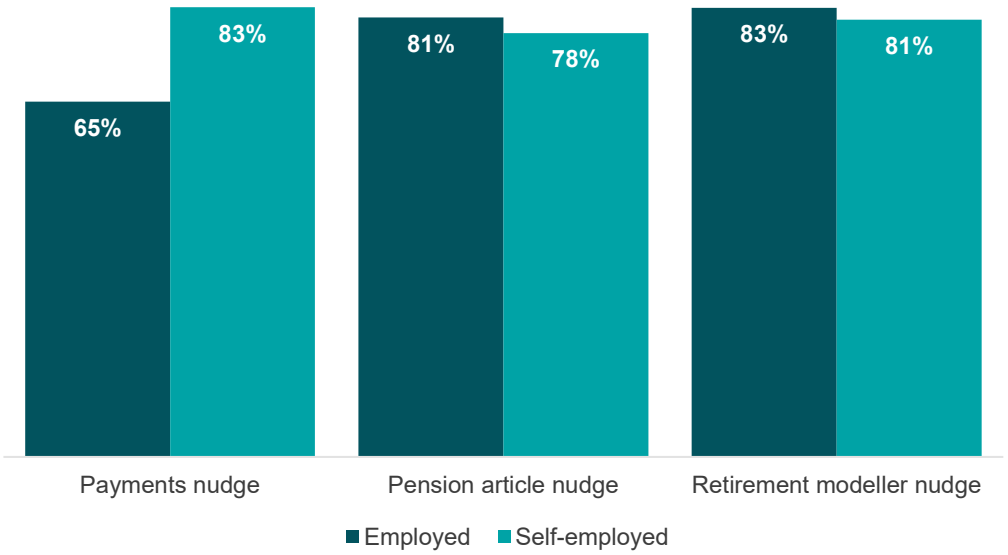


Note: Click rates are a proportion of views.

Employment identification

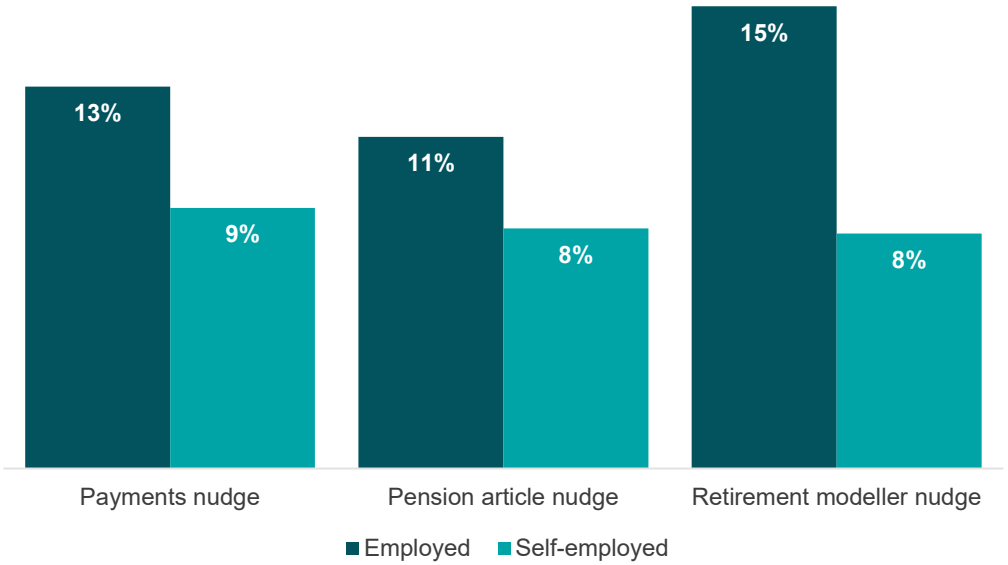
There was no statistically significant difference in view rates by employment identification (**Figure 13**).

Figure 13. Retirement planning nudge view rates by employment identification



There was a statistically significant difference in click rates between employed users (12%) and self-employed users (8%) (**Figure 14**). This lower rate among self-employed people is supported by regression analysis.

Figure 14. Retirement planning nudge click rates by employment identification



Note: Click rates are a proportion of views.

Among self-employed users the payments nudge had the highest view and click rates. However, the difference between the payments nudge and the other retirement planning nudges was not significant. Employed users engaged most with the retirement modeller nudge.

Age

People aged under 40 were more likely (22%) than those aged 40 to 55 (14%) to click on a retirement nudge card. This was the only difference in engagement with the retirement planning nudges by age.

Gender

There were no statistically significant differences in view or click rates between employed men and employed women or between self-employed men and self-employed women.

Account linkage

To test if responses differed by whether users had connected accounts to Moneyhub, we ran regression models. We found no statistically significant effect of having a linked pension or savings account on the view rate for retirement planning nudges.

However, having a linked pension had a positive effect on click rates.

Contextual factors

There are multiple contextual factors which are important to bear in mind when interpreting the findings from this research. These include:

- **Account connectivity** – The users in the sample's self-employed group were more likely to have connected accounts to Moneyhub. This could mean they're more receptive to this type of account aggregation and money management approach than those in the employed group. However, many legacy systems are not compatible with Moneyhub's open banking platform, even where such account data can be seen in Moneyhub through screen scraping tools. This limitation in account connectivity may have impacted the overall usefulness of the nudges, particularly the sweep nudge. As open banking adoption grows, nudges of this kind could have greater impact on saving behaviours than seen in this trial.
- **Payments uptake** – Currently, there is generally low use of payments tools within the Moneyhub app. This could have made the nudges with a link to the payments hub appear more novel to users and mean users were less likely to use it. Respondents to the follow-up survey reported they were much more likely to make a savings payment outside the app from their bank account in response to receiving the save nudge. If this kind of nudge were delivered within a personal or business bank account environment it might be more effective.
- **December launch** – Launching the trial at a time of the year when many people have higher expenditure than usual could have artificially lowered interest in the nudges. It may also have lowered the number of users who were eligible to receive the sweep and save nudges.
- **Economic context** – The cost of living began to rise significantly in 2022 while the trial was still under way. This probably lowered the number of users with disposable income available to be saved. The costs of living increased due to multiple factors, including inflation significantly above the government's 2% target, interest rates rising from 0.1% in December 2021 to 1% in June 2022 (which would impact those with debt and mortgages), an increase in National Insurance contributions and an increase in gas and electricity prices due to the war in Ukraine with an associated increase in the energy price cap. With many people feeling they have less money available to themselves in the present, the trial period was an unexpectedly difficult one in which to test ways to support people to save for the future. However, because those using Moneyhub have above-average income, we believe the effect of the economic context was less strong among the trial population compared with the general population of self-employed people in the UK.

Section 7

Conclusions

The Moneyhub platform was an ideal environment in which to set up and run a proof-of-concept trial due to the advanced and innovative nature of the platform technology. However, much more needs to be tested to translate interest in nudges into saving among self-employed people who aren't already engaged in saving.

We saw engagement with both the income and retirement planning nudges in the trial.

Despite self-employed people being typically hard to reach, on the whole response rates to the nudges were similar between the self-employed group and the employed group in our sample. This supports previous research learnings that self-employed people are not less motivated than employed people to save for retirement. The main issues driving the different retirement saving behaviours seen between these groups are structural rather than attitudinal – that is, self-employed people are not covered by an auto enrolment mechanism to initiate and support ongoing pension saving.

In particular, the majority of users were interested in seeing the retirement planning nudges, which had high view rates. However, those who clicked to seek further information were more likely to be employed than self-employed. Again, this may be because users in the employed group already have pension saving in place.

Relatively high levels of interest in the trial's income nudges coupled with low savings payment completion rates suggest that frictions in the user journey prevented people's saving intentions from translating into action.

However, the follow-up survey responses suggest that users were somewhat likely to choose to make savings payments elsewhere, for example through their banking apps, than within the Moneyhub app. This indicates that the overall impact on saving behaviour may have been meaningfully greater than could be measured in our trial data. In addition, the failure to convert user interest into actual savings within the app might be partly due to the novelty of using open banking platforms to initiate payments.

The sample in this trial were older and more likely to be men than the overall population of self-employed people in the UK, and so were not fully representative of our target audience. In addition, the trial group were more likely to be mid- to high-income earners. Self-employed people earning lower incomes and those who don't already have a saving plan in place might benefit more from saving and information nudges like the ones in this trial. However, we did see higher click rates for the trial's income nudges among women and younger people – groups which were underrepresented in the trial sample and typically have lower retirement saving rates.

By necessity the trial also involved a group of technology-literate people who have chosen to download and use a money management app. This naturally leads to self-selection by those more engaged with their finances, who are perhaps less likely to require the nudges in this trial.

If learnings from this proof-of-concept trial could be applied in the broader context of personal and business banking apps or accountancy software, reaching a broader segment of the self-employed population, this could potentially help more self-employed people to integrate saving for retirement into their existing money management.

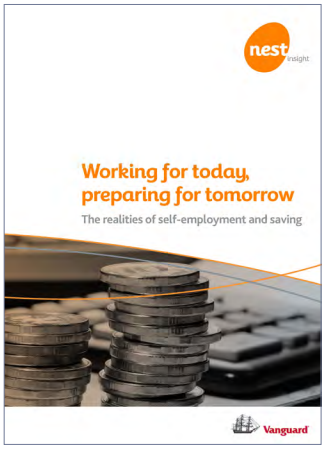
Our research in this area

This report is part of our larger programme of research and innovation around supporting self-employed people to save for retirement.

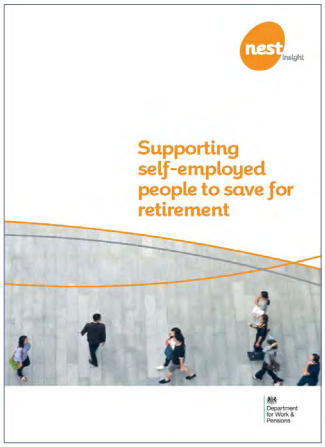
More information and other reports are available at **nestinsight.org.uk/research-projects/self-employed-pension-saving**

Retirement saving and the self-employed: A research summary (May 2018)

Working for today, preparing for tomorrow: The realities of self-employment and saving (December 2018)

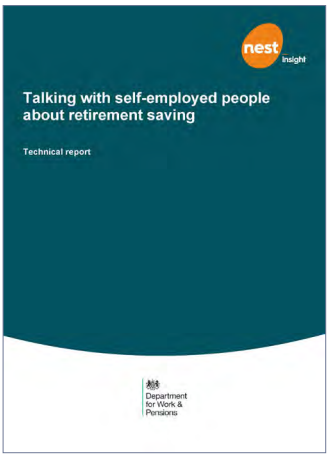


Supporting self-employed people to save for retirement (October 2019)

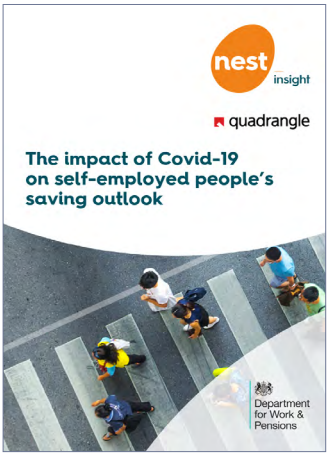


Talking with self-employed people about retirement saving (September 2020)

Talking with self-employed people about retirement saving: Technical report (September 2020)

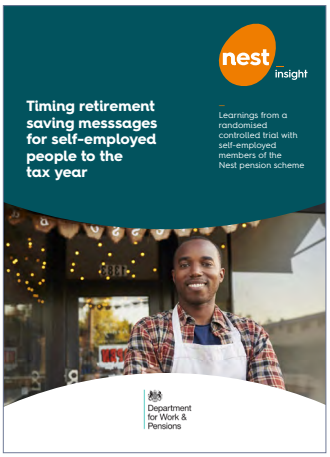


The impact of Covid-19 on self-employed people's saving outlook: Summary of learnings from UK survey research conducted in September 2020 (December 2020)



Exploring practical ways to support self-employed people to save for retirement: Summary of findings from a multi-year research programme (November 2022)

Timing retirement saving messages for self-employed people to the tax year: Learnings from a randomised controlled trial with self-employed members of the Nest pension scheme (November 2022)



Exploring retirement planning and saving nudges tailored to self-employed people: Learnings from a proof-of-concept trial with the Moneyhub platform (November 2022)

Exploring flexible saving mechanisms designed for self-employed people: Learnings from a randomised controlled trial with the Penfold pension scheme (November 2022)

Our full programme of research reports, including our research on opt-out workplace savings solutions, sidecar savings which combine accessible saving with pension saving, retirement saving engagement, workplace pensions auto enrolment in action and more, visit the **Nest Insight research library online.**

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