# MPCs through COVID:
# Spending, Saving and Private Transfers

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**Nontechnical Summary**

- In severe economic downturns, one tool governments may use to stimulate the economy is direct, one-time income payments to individuals. These are designed to stimulate consumer spending. The efficacy of such payments depends on the *marginal propensity to consume* or "MPC" of recipients; this measures the fraction of such payments that would be spent in the short run. It is generally believed that individuals in tight financial circumstances will have high MPCs, so that such income payments may be an effective stimulus measure in severe downturns. Such direct income payments were used by in the U.S. during the financial crisis (in the form of tax rebates) and again in 2020. This particular tool was not used by the U.K. government in the financial crisis or, as yet, during the COVID-19 pandemic. In considering further options for stimulating the economy, a key issue is the level and distribution of MPCs.

- The Understanding Society COVID-19 Study directly elicited MPCs from UK adults in July 2020. This is a large, nationally representative survey. Individuals were asked how their spending would change in response to an unexpected one-time payment of £500. This was after the first wave of the pandemic and in a period when many social-distancing restrictions had been lifted and retail, hospitality and some tourism reopened.

- Only one in five people report they would spend some of the £500 payment over the next three months.

- The fraction is higher for families with children, those who were not previously saving, those who do not own their homes outright (and so pay rent or mortgage), and those that expect financial difficulties or job loss in the next three months.

- The average MPC, calculated as the amount of extra spending respondents report they would do, divided by 500, is 11%, which is quite low. Again, this is higher for families with children, those who were not previously saving, those who do not own their homes outright (and so pay rent or mortgage), and those that expect financial difficulties or job loss in the next three months.

- Individuals with the highest MPC are those who are currently finding it difficult to manage their finances, and who expect things to be worse in the next month.

- Our results suggest that higher values of the MPC and a desire to spend more now are driven by high current needs.

- A novel feature of these data is that respondents were asked whether the payment would affect private transfers. Our previous research shows that financial assistance between friends and family has been an important mechanism by which people in the UK have coped with financial hardship associated with the pandemic.

- 12% of people report that their financial transfers would be affected by the £500 payment, either giving more financial support to family and friends, or receiving less. Single parents and those in the lowest income quintiles are most likely to receive less transfers. In other words the additional income payment would crowd out private support they have been receiving. Those over age 66 or owning their own home are most likely to report that they would use the payment to give more financial support to friends or family.

- The fact that one-time income payments affect transfer behaviour has not previously been documented and has important implications for policy. In particular, it means that the aggregate MPC (the total amount of a stimulus that is spent) need not be equal to the average MPC across individuals, even if all individuals receive the same payment. If low MPC individuals (such as older people) pass on some or all of the payment to higher MPC individuals, this can raise the aggregate MPC above the average. On the other hand, the crowding out of private transfers will have the opposite effect, so that high MPC households receive less (net of private transfers) than the additional income payment, and low MPC individuals households receive more. This would reduce the aggregate MPC.

- One-time income payments for stimulating the economy are sometimes targeted to those thought to have higher MPCs. For example, the one-time tax rebate payments in the U.S. after the financial crisis were targeted to those in low and middle income families. A further issue that the crowding-out of private transfers raises is that targeting of stimulus payments at particular groups may be partially undone by recipients.

- Our data do not allow us to fully characterise how these effects on transfer payments will translate into the aggregate MPC, but this is an important question for future research.

- Nevertheless, given the modest fraction whose transfers change, and the relatively low MPCs across all groups in our data, the aggregate MPC is likely to be quite low. This may be a consequence of the prevailing economic uncertainty.

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## Abstract

MPCs were directly elicited from a representative sample of UK adults in July 2020. Reported MPCs are low, around 11% on average. They are higher, but still modest, for individuals in households with high current needs. These low MPCs may be a consequence of the prevailing economic uncertainty. Some respondents report that they would respond to a one-time income payment by transferring more to friends and family, others report they would see a decline in the payments received. Targeting payments to high-MPC individuals could be partly undone. Further, the aggregate MPC out of a stimulus payment need not equal the population-average MPC, even if all individuals receive the same payment.

Keywords: COVID-19, spending, MPC, crowding out

JEL codes: D12,D14, E21

# 1 Introduction

The spread of COVID-19, and measures introduced to control it, have led to huge reductions in economic output in many countries. Governments around the world have responded to the ensuing economic crisis with various measures to stimulate consumption spending and employment. These have included targeted reductions in VAT, expansions in the coverage and generosity of welfare benefits, and direct stimulus payments to individuals or households. Further interventions of this kind are likely in the coming months as governments try to encourage economic recovery.

The propensity of individuals and households to increase consumption spending out of any increase in income (the marginal propensity to consume or MPC) is a key policy variable determining the effectiveness of of many of these measures, and of direct stimulus payments in particular. In this paper we draw on a unique, large-scale and representative panel survey of individuals conducted during the pandemic in the United Kingdom to characterise the level and distribution of MPCs across UK adults. The fourth wave of this survey in July 2020 included questions directly eliciting the MPC: individuals were asked how they would respond to a hypothetical unexpected and one-time payment of £500 ($640). This was asked alongside questions on individuals' current and expected future financial circumstances, and is combined with the panel data on how those individuals had fared through the pandemic and in the 10 years prior. The questions were asked in July, a time when the prevalence of the virus in the UK was (temporarily) low and many restrictions on shopping, bars, eating out and domestic and international travel had been partially or wholly relaxed.

Individuals report an extremely low tendency to increasing spending. 81% of individuals report they would not increase spending in the three months following receipt of the additional £500. This translates to an average MPC of 11p for each £1. MPCs are noticeably higher for those with children and for those in insecure housing, where current needs are high. Of the 93% who reported they would not spend the full amount, 66% of individuals reported they would use the payment to increase savings and 22% would use the payment to reduce debts. Poorer individuals are more likely to report using the extra funds to pay down debts and less likely to report increasing their savings than richer individuals.

An important and novel feature of the survey is that it explores how private transfers between households are affected by the receipt of the extra income. Individuals were asked if they would reduce or increase transfers to other households following receipt of the payment. 9% of individuals report that they would give more and 3% report they would receive less. The crowding out of private support is higher among those in the lowest income quintile, and this highlights the potential

interaction of windfall income gains with transfer behaviour.

Our work contributes to a literature estimating the MPC of consumers, and its heterogeneity across individuals. These include studies using natural experiments such as differences in the timing of receipt of tax rebates and stimulus cheques (Johnson, Parker, and Souleles (2006); Parker et al. (2013); Baker et al. (2020)); lottery wins (Fagereng, Holm, and Natvik (2018)); statistical decompositions of income shocks and covariance restrictions on the joint distributions of income and consumption growth (Blundell, Pistaferri, and Preston (2008)); and the direct elicitation of the MPC using either hypothetical scenarios (Bunn et al. (2018); Sahm, Shapiro, and Slemrod (2012); Jappelli and Pistaferri (2014); Fuster, Kaplan, and Zafar (2018); Christelis et al. (2019)) or questions about responses to past or future windfalls (such as tax rebates, Shapiro and Slemrod (1995, 2003)). Estimates of the MPC vary greatly across studies and appear highly context dependent. Even very similarly worded questions asked in the same country can elicit very different responses at different times (compare for example results from Shapiro and Slemrod (1995) and Shapiro and Slemrod (2003)). Estimated MPCs also do not appear to vary clearly or consistently across observable characteristics such as income, cash on hand or age. This is another indication that the MPCs of different groups may vary substantially across macroeconomic circumstances.

Relative to these studies, our estimates of the average MPC of 0.11 is low. On the other hand, it is not much lower than the US-based study by Baker et al. (2020) of the impact of stimulus payments made in April when much of the country was in a state of lockdown. They find that each $1 received resulted in increases in spending of 0.25 cents when their sample is weighted using the Current Population Survey. Coibion et al. (2020) find that only 15% respondents "mostly spent" their stimulus cheques. A crucial difference between our paper and these studies is that our data (Wave 4 of the *Understanding Society* COVID-19 study) was conducted during a period when the UK had come out of lock down and many social-distancing restrictions had been lifted. Despite this, estimated MPCs remain low. This suggests it is demand that is driving the low spending, rather than lockdown measures restricting supply. This reduced demand may reflect ongoing concerns about going out or reflect the prevailing uncertainty. Whatever the underlying cause of the low spending, our results then suggest that general measures to encourage consumer spending are unlikely to be effective while uncertainty is still prevalent.

The remainder of this paper is structured as follows. Section 2 discusses the *Understanding Society* COVID-19 Study and the MPC questions in the fourth wave of that Study. Section 3 discusses our results, focusing first on the extensive margin decision of whether to change spending, then on MPCs, and finally on uses of the payments other than spending. Section 4 concludes with

a discusses of policy implications, and directions for further research.

## 2    Data and Methods

### 2.1    Understanding Society COVID-19 Web Survey

This paper is based on data collected in the fourth wave of the *Understanding Society* COVID-19 Study (Institute for Social and Economic Research (2020a); henceforth COVID-19 Study), fielded in late July of 2020. The UK went into "lockdown" on 23rd March. By July, the first peak of the pandemic had past in the UK. The retail and hospitality industries had reopened as had domestic and some international travel. The UK economy contracted substantially in March and April, but began to grow again in May. GDP grew 6.4% in July but was still 11% down on February[1]. In terms of economic support policies, the UK government introduced the Job Retention Scheme on March 20th, soon followed by the Self-Employment Support Scheme. Both policies were still in place in July. July saw the announcement of the "eat out to help out" scheme (a subsidy to restaurant meals) though this did not come into effect until the start of August. July also saw the introduction of a temporary cut in VAT specific to the hospitality and domestic tourism industries which took effect from the 15th of the month.[2]

The COVID-19 study is new component of *Understanding Society*: the UK Household Longitudinal Study (henceforth Main Study). *Understanding Society* (University of Essex Institute for Social and Economic Research, NatCen Social Research, and Kantar Public, 2019) is the UK's main longitudinal Household Survey, and a sister study to the PSID in the U.S. and the GSOEP in Germany, among others. The Main Study began in 2009 and attempts to interview all adults in sample households annually using a mixed mode design.[3] The COVID-19 Study began in April 2020 and uses more frequent web surveys to capture the experiences and behaviour of Main Study participants during the COVID-19 pandemic.

The fact that the COVID-19 Study is based on the *Understanding Society* Main Study has several key advantages for our analysis. First the COVID-19 Study inherits the properties of the Main Study that ensure reliable population inferences. Second, data collected in the COVID-19 Study can be linked to data on the same participants, and their households, collected in past waves of the Main Study. Data from earlier waves of the Main Study is valuable to both provide context

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[1]https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/august2020

[2]The temporary cut as from 20% to 5% and was announced to last until early January 2021.

[3]*Understanding Society* carried on from and incorporates the sample of the earlier *British Household Panel* survey which ran from 1991 to 2008.

for the data collected in the COVID-19 Study, and for modelling responses to the COVID-19 Study.

All members of the Main Study who, in April 2020, belonged to active households and were aged sixteen or over were eligible for the COVID-19 Study. Wave 4 was issued to all of these individuals except those who attrited from the Main Study after wave 9 but prior to April 2020, and those that had adamantly refused to participate in the COVID-19 Study (either after the initial invitation, or at an earlier wave). A total of 36,268 individuals were invited to participate in wave 4, and invitations were sent by email and/or SMS text message, or by post. Respondents were offered a small incentive to participate. The seven-day fieldwork period opened on July 24th, and reminders were sent on days 2, 3 and 6. The web questionnaire was designed to take approximately 20 minutes to complete. Further details about the COVID-19 Study fieldwork can be found in Institute for Social and Economic Research (2020b).

The response rate to the fourth wave of the July survey was about 33% of all invited. Our analysis focuses on those who had previously responded to Wave 9 of the Main Study. For this group, the response rate was 39%. Inverse-probability weights are provided with the data. These weights exploit the rich prior information available from the Main Study to correct for nonresponse to the Covid-19 Study. Crossley, Fisher, and Low (2020) show that these weights do a good job of correcting for nonresponse and are superior to the simple calibration weights often available with web surveys.

## 2.2   Sample and Covariates

We start with a sample of 12,773 individuals who both responded to Wave 9 of the Main Study and gave a full interview at Wave 4 of the Covid-19 Study. Of these, 2,531 individuals who did not have a positive Wave 9 sample weight are excluded from our analysis as the Covid-19 Study weighting strategy does not assign a positive sample weight to these respondents. We further exclude from our analysis 248 individuals who did not provide an answer to the MPC questions. This gives a final analysis sample of 10,975 individuals.

To explore heterogeneity in spending responses we focus primarily on characteristics measured in the Main Study, prior to the onset of the pandemic. In addition to basic demographics (age, gender, education, family type and occupation), we look at several measures of financial position and behaviour. We created an income measure which assigns respondents to quintiles of household income based on their annual income prior to COVID, averaged over three years. Income includes earned and unearned income, net of tax and inclusive of any benefits received and is equivalised by household composition. We also look at whether the individual lives in housing which is owned

outright (so that there are neither mortgage or payments).

In addition to these pre-COVID variables, we use three covariates from Wave 4 of the COVID study, which are therefore potentially co-determined with the spending response. The first is whether the individual expects financial difficulties over the next three months. Respondents were asked *On a scale of 0-100% how likely do you think it is that you will have difficulty paying your usual bills and expenses in the next three months?*. The second is whether the individual expects a job loss in the next three months. Respondents were asked *On a scale of 0-100% how likely do you think it is that you will lose your job / shut your business in the next three months?* For both questions, we group responses into two categories (0, 1-100). The three month period that these expectations are defined over coincides with the timing of the spending questions discussed below. The final covariates are two questions which ask about how the respondent is "managing financially these days?" and whether they believe that in *one* month they will be better off, worse of, or about the the same.

The first two columns of Table 1 show the distribution of these covariates in our sample, both unweighted and weighted. This highlights the importance of using the appropriate weights, as discussed in detail in Crossley, Fisher, and Low (2020). A comparison of the weighted and unweighted estimates reveals that women, those over the state pension age, and those with a degree are over-represented in the unweighted data. About a third of respondents own their homes outright. In July of 2020 just over a third report some probability of financial difficulties over the next three months.

## 2.3   Measuring the Marginal Propensity to Consume

Wave 4 of the COVID-19 Study includes new questions designed to directly elicit respondents' MPC. The exact wording of the questions is given in the Appendix. Respondents are asked to consider a hypothetical situation in which they receive an unexpected and one-time payment of £500 on the day they are completing the survey.[4] They were first asked if this would lead them to spend more, less or the same over the next three months. If they responded either more or less, a second question asked quantitatively how much more or less.[5] Much of the previously literature *only* asks for qualitative responses ("mostly spend", "mostly save" etc. as in Shapiro and Slemrod (1995, 2003, 2009)). An obvious advantage of our approach is that it allows us to directly calculate the value of the MPC for different individuals rather than having to infer it. In terms

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[4]About $640 at the time of the survey.

[5]As noted above, some of the previous literature asks about a a real-world windfall (such as a tax rebate as in Shapiro and Slemrod (1995)) rather than a hypothetical payment.

Table 1: Summary Statistics

| | Sample means | | How will spending change? | | |
|---|---|---|---|---|---|
| | Unweighted | Weighted | Increase | Same | Decrease |
| All | - | - | 0.19 | 0.75 | 0.07 |
| **Gender:** | | | | | |
| Men | 0.419 | 0.480 | 0.20 | 0.73 | 0.06 |
| Women | 0.581 | 0.520 | 0.17 | 0.76 | 0.08 |
| **Age:** | | | | | |
| 19-65 | 0.715 | 0.775 | 0.21 | 0.72 | 0.08 |
| 66+ | 0.285 | 0.225 | 0.12 | 0.84 | 0.04 |
| **Education:** | | | | | |
| GCSE or lower | 0.295 | 0.365 | 0.17 | 0.74 | 0.09 |
| A-level | 0.202 | 0.233 | 0.18 | 0.74 | 0.08 |
| Degree | 0.503 | 0.402 | 0.21 | 0.75 | 0.04 |
| **Family type:** | | | | | |
| Couple, child | 0.236 | 0.234 | 0.23 | 0.68 | 0.09 |
| Couple, no child | 0.486 | 0.379 | 0.15 | 0.81 | 0.04 |
| Single, child | 0.027 | 0.038 | 0.27 | 0.60 | 0.13 |
| Single, no child | 0.251 | 0.349 | 0.19 | 0.73 | 0.08 |
| **Housing:** | | | | | |
| Insecure | 0.563 | 0.672 | 0.22 | 0.70 | 0.08 |
| Secure housing | 0.437 | 0.328 | 0.13 | 0.84 | 0.04 |
| **Income quintile:** | | | | | |
| 1 | 0.143 | 0.177 | 0.22 | 0.67 | 0.11 |
| 2 | 0.163 | 0.195 | 0.19 | 0.71 | 0.10 |
| 3 | 0.196 | 0.199 | 0.19 | 0.75 | 0.06 |
| 4 | 0.227 | 0.212 | 0.19 | 0.77 | 0.04 |
| 5 | 0.271 | 0.217 | 0.16 | 0.80 | 0.04 |
| **Expects financial difficulties:** | | | | | |
| 0 % chance | 0.705 | 0.632 | 0.16 | 0.80 | 0.03 |
| > 0 & ≤ 100 % chance | 0.295 | 0.368 | 0.23 | 0.65 | 0.12 |
| **Expects job loss:** | | | | | |
| 0 % chance | 0.595 | 0.583 | 0.19 | 0.75 | 0.06 |
| > 0 & ≤ 100 % chance | 0.405 | 0.417 | 0.23 | 0.70 | 0.07 |
| MPC | 0.101 | 0.108 | - | - | - |

*Notes:* Sample size ('All') is 10,975. Covariates are measured at baseline (2017-18) with the exception of 'expects financial difficulties' which is collected in the July COVID survey and refers to expecting a 'difficulty paying your usual bills and expenses in the next three months.' Incomes are equivalised using the OECD modified scale. MPCs are calculated on the basis of questions asking if spending would change upon receipt of £500 and by how much. Those reporting spending would increase, but who go on to report a zero change, are given an MPC of zero. MPCs are trimmed to be at least zero and at most one.

of the hypothetical payment, as well as the routing and structure, the questions in the COVID-19

are most similar to questions asked in the New York Fed's Survey of Consumer Expectations and

analysed by Fuster, Kaplan, and Zafar (2018).[6]

Two further aspects of the COVID-19 MPC questions bear noting. First, the questions ask about total spending, rather than just about nondurable consumption spending. While some studies, such as Christelis et al. (2019), separate durable and nondurable spending, this is rare in the literature. Moreover, from the point of view of fiscal stimulus, total spending (including on durables) is the measure of primary interest to policy makers. The questions are also explicit about the time-horizon over which additional spending will occur (the next three months). This is likely the time-frame of most interest to policymakers. Questions that are not explicit about the time-frame may capture longer-run spending responses that are less relevant for short term stimulus policies.

A perennial issue with questions about hypothetical windfalls is that consumers stated responses may differ from their true spending responses, as measured in studies such as Parker et al. (2013) and Baker et al. (2020). However, Parker and Souleles (2019) compare self-reported spending responses with revealed-preference estimates and find the former is highly predictive of the latter. They also find that the two measures imply similar average MPCs.

If the categorical and quantitative questions about spending indicated that the respondent would not spend the full £500, a final question asked what they would do with the unspent amount. Options included paying off debt, saving, giving more financial help to friends and family; and additionally, whether they would receive less financial help from friend or family. These latter options capturing private transfers in response to transfer payments are a novel addition to the literature that directly elicits MPCs. Further, private transfers seem to be an important way in which individuals have dealt with economic shocks associated with the pandemic in the UK. For example Crossley, Fisher, and Low (2020) show that 12.5 % of working age adults reported receiving a private transfer over the first two waves of the Covid-19 Study (covering April and May, 2020), more than reported new borrowing or new benefit claims. Moreover, the incidence of such transfers was much higher for some groups. For example, 40% of single parents reported receiving a private transfer in this period. Thus the potential interaction of a windfall income gains with transfer behaviour is of considerable interest.

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[6]Jappelli and Pistaferri (2014) ask for a quantitative amount spent, but do so directly, without a preliminary categorical question, or allowance for negative amounts.

# 3 Results

## 3.1 The Decision to Spend More

We start, in the right hand panel of Table 1, by reporting the fraction of individuals receiving an additional £500 that would increase spending, keep spending the same or decrease spending. While this 'extensive margin' response does not estimate the MPC, it provides a clear indication of individuals' intentions, and the extent of heterogeneity across groups. Further, this extensive margin is likely to be less subject to measurement error.

Overall, only 19% of individuals report that they would spend more. 75% report that they would not change their spending. 7% reported that they would spend less.[7] Individuals with children, and those who do not own their homes outright (and so either pay rent or make mortgage payments) are more likely to report that they would spend more in response to the payment. Further, those expecting financial difficulties over the next three months or who expect a higher probability of job loss are also more likely to report spending more. These results suggest that although relatively few choose to spend more, for those that do, the decision is driven by current needs.[8]

## 3.2 MPCs by Characteristics

We turn now to considering explicitly the MPCs of different individuals. The MPC captures both the intensive and extensive margins of response. An individuals MPC is calculated as the elicited consumption change divided by £500. MPCs are capped to be between zero and one. This means, for example, that we have re-coded as having MPCs of zero those individuals who reported that they would spend less as a result of the £500.

The first column of Table 2 shows the average MPC across the whole population and for different subgroups. The remaining columns report the distribution of values of the MPC, showing the fractions of each group in different bins. On average each £1 increase in income results in an increase in spending of 11p. As discussed in the introduction, this is low relative to other results reported in the literature that measured the MPC outside of the period of the pandemic. Underlying this average value is substantial heterogeneity, but with most individuals falling into either extreme: 85% have an MPC of 0; 7% have an MPC of 1 and would spend the full amount of the windfall.

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[7]It is surprising to see a fraction spending less, but this is similar to the proportion who reported they would spend less in response to a cash windfall in Fuster, Kaplan, and Zafar (2018), where 6% reported they would spend less.

[8]We have explored these descriptive results further using regression analysis. Controlling for demographic characteristics largely eliminates the differences across income groups for working age households. This highlights that many of the characteristics that define greater need are highly correlated

Table 2: MPCs by characteristics

| | | | Shares | | | |
|---|---|---|---|---|---|---|
| | | | 0 < | 1/3 < | 2/3 < | |
| | Mean | =0 | & <1/3 | & <2/3 | & <1 | =1 |
| **All** | 0.11 | 0.85 | 0.02 | 0.05 | 0.01 | 0.07 |
| **Age:** | | | | | | |
| 19-65 | 0.12 | 0.83 | 0.02 | 0.05 | 0.01 | 0.08 |
| 66+ | 0.06 | 0.91 | 0.02 | 0.03 | 0.01 | 0.03 |
| **Gender:** | | | | | | |
| Men | 0.12 | 0.83 | 0.02 | 0.05 | 0.01 | 0.08 |
| Women | 0.10 | 0.86 | 0.02 | 0.05 | 0.01 | 0.07 |
| **Education:** | | | | | | |
| GCSE or lower | 0.09 | 0.86 | 0.03 | 0.04 | 0.01 | 0.06 |
| A-level | 0.10 | 0.86 | 0.02 | 0.05 | 0.01 | 0.06 |
| Degree | 0.13 | 0.82 | 0.02 | 0.05 | 0.01 | 0.09 |
| **Family type:** | | | | | | |
| Couple, child | 0.15 | 0.81 | 0.02 | 0.06 | 0.01 | 0.11 |
| Couple, no child | 0.08 | 0.88 | 0.02 | 0.04 | 0.01 | 0.05 |
| Single, child | 0.16 | 0.78 | 0.02 | 0.07 | 0.01 | 0.11 |
| Single, no child | 0.11 | 0.84 | 0.03 | 0.05 | 0.01 | 0.07 |
| **Housing (2018-19):** | | | | | | |
| Insecure | 0.13 | 0.82 | 0.02 | 0.06 | 0.01 | 0.09 |
| Secure | 0.07 | 0.90 | 0.02 | 0.03 | 0.01 | 0.04 |
| **Income quintile (2018-19):** | | | | | | |
| 1 | 0.10 | 0.83 | 0.03 | 0.06 | 0.01 | 0.06 |
| 2 | 0.11 | 0.84 | 0.03 | 0.05 | 0.01 | 0.07 |
| 3 | 0.11 | 0.84 | 0.02 | 0.05 | 0.01 | 0.08 |
| 4 | 0.12 | 0.84 | 0.02 | 0.05 | 0.01 | 0.08 |
| 5 | 0.10 | 0.86 | 0.01 | 0.04 | 0.01 | 0.08 |
| **Expects financial difficulties:** | | | | | | |
| 0 % chance | 0.10 | 0.86 | 0.02 | 0.04 | 0.01 | 0.07 |
| > 0 & ≤ 100 % chance | 0.13 | 0.81 | 0.03 | 0.06 | 0.01 | 0.08 |
| **Expects job loss:** | | | | | | |
| 0 % chance | 0.12 | 0.84 | 0.02 | 0.04 | 0.01 | 0.09 |
| > 0 & ≤ 100 % chance | 0.14 | 0.80 | 0.02 | 0.07 | 0.01 | 0.09 |

*Notes:* Sample size ('All') is 10,759. See table 1 notes.

The variation in the MPC among subgroups of the population mirrors the variation in the extensive margin response: those of working age have higher MPCs (with an average MPC of 0.12) than the retired (who have an average MPC of 0.06); those with children have higher MPCs on average than those without (0.15 for couples with children, 0.08 for couples without); and those who do not own their homes outright have higher MPCs (0.13 vs 0.07 for outright owners). Finally, individuals who report anticipating financial difficulties or job loss over the next three months report higher MPCs. In all cases, MPCs are higher for groups who are more likely to have pressing spending needs. However, even for these groups with higher MPCs than average, the level of MPCs remain very low. This reluctance to spend the payment was at a time period when the economy had

largely reopened and so the supply restrictions of the early months of COVID had eased. However, there remained substantial economic uncertainty, as well as ongoing health concerns, which would serve to depress demand. The relationship between MPC and financial difficulties is highlighted in Figure 1. Individuals are divided into groups according to their current financial situation, and then subdivided according to how they expect their financial situation to change over the next month. The highest MPCs are for those who are currently finding it difficult and who expect things to deteriorate further in the next month: for these individuals, having the extra £500 to spend over the next three months would be particularly valuable. Among those who are currently just about getting by or who are living comfortably, MPCs are higher when households anticipate their situation is going to improve.

Figure 1: MPC by expected future finances
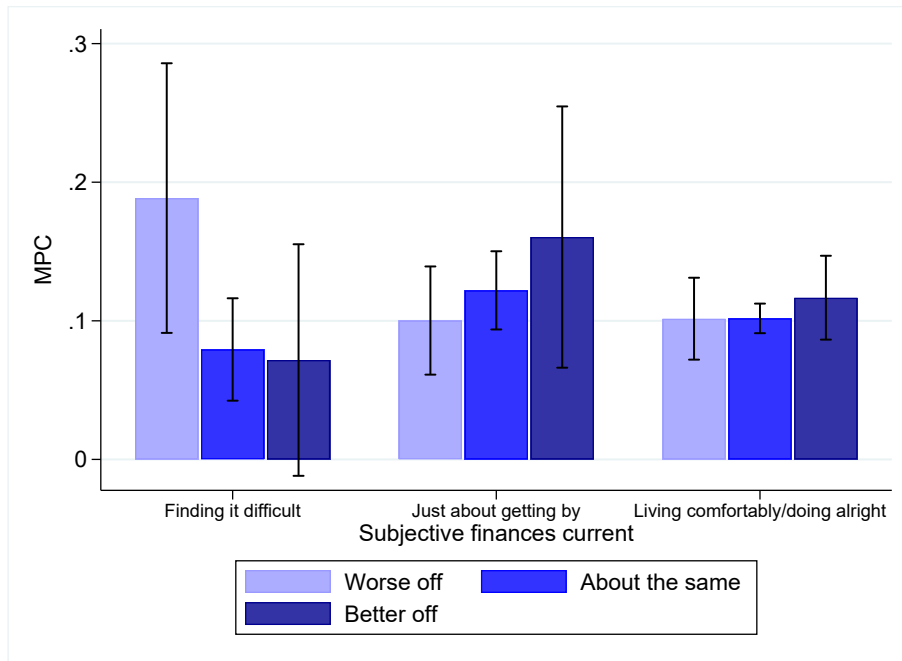


Notes: Sample size is 10,752. All variables are collected in the July COVID survey. The x-axis categories are derived from a question asking individuals how they are managing financially. The first category of the x-axis refers to individuals 'finding it difficult' or 'very difficult'; the second to those 'just about getting by'; and the third to those 'living comfortably' or 'doing alright'. Expected future finances are measured according to a question about expected personal finances 'one month from now'.

In Table 3, we take the sample of those who have an MPC of less than 1, and analyse the uses of the money that is not spent. We report the fraction who plan to reduce debt, the fraction who plan to save and the fraction who plan to give more to others or reduce their reliance on others.

There are substantial differences in the uses of unspent money by different groups, partly reflecting their different initial positions. Lower income individuals are more likely to report reducing

Table 3: Use of amount not spent, if any not spent

| | Reduce Debt | Save | Give More | Receive Less |
|---|---|---|---|---|
| **All spending <£500** | 0.22 | 0.66 | 0.09 | 0.03 |
| **Age:** | | | | |
| 19-65 | 0.26 | 0.64 | 0.07 | 0.03 |
| 66+ | 0.08 | 0.71 | 0.16 | 0.01 |
| **Gender:** | | | | |
| Men | 0.21 | 0.68 | 0.07 | 0.02 |
| Women | 0.23 | 0.64 | 0.11 | 0.03 |
| **Education:** | | | | |
| GCSE or lower | 0.22 | 0.62 | 0.09 | 0.03 |
| A-level | 0.23 | 0.68 | 0.08 | 0.03 |
| Degree | 0.21 | 0.68 | 0.10 | 0.02 |
| **Family type:** | | | | |
| Couple, child | 0.35 | 0.57 | 0.05 | 0.03 |
| Couple, no child | 0.14 | 0.70 | 0.11 | 0.02 |
| Single, child | 0.44 | 0.41 | 0.07 | 0.07 |
| Single, no child | 0.20 | 0.68 | 0.09 | 0.03 |
| **Housing (2018-19):** | | | | |
| Insecure | 0.29 | 0.61 | 0.06 | 0.04 |
| Secure | 0.08 | 0.74 | 0.14 | 0.01 |
| **Income quintile (2018-19):** | | | | |
| 1 | 0.27 | 0.53 | 0.10 | 0.07 |
| 2 | 0.24 | 0.63 | 0.10 | 0.03 |
| 3 | 0.24 | 0.66 | 0.09 | 0.02 |
| 4 | 0.19 | 0.70 | 0.07 | 0.02 |
| 5 | 0.18 | 0.72 | 0.09 | 0.01 |
| **Expects financial difficulties:** | | | | |
| 0 % chance | 0.14 | 0.72 | 0.10 | 0.01 |
| > 0 & ≤ 100 % chance | 0.36 | 0.54 | 0.07 | 0.06 |
| **Expects job loss:** | | | | |
| 0 % chance | 0.27 | 0.65 | 0.07 | 0.02 |
| > 0 & ≤ 100 % chance | 0.28 | 0.66 | 0.06 | 0.03 |

*Notes:* Sample size ('All') is 9,844. Respondents can report multiple uses, so the columns do not sum to one. See table 1 notes.

debts: 27% of those in the lowest income quintile report they would pay down debt compared to 18% in the richest quintile. By contrast, lower income individuals are less likely to report saving any of the additional funds (53% of those in the bottom quintile compared to 72% in the top quintile). Those with children are also much more likely to report paying down debt than those without, as are those who do not own their homes outright or who rent, and those of working age individuals relative to those of retirement age.

A novel feature of the MPC questions in the COVID-19 Study is the inclusion of questions about inter-household transfers and how these transfers are affected by the receipt of the £500 payment. Crossley, Fisher, and Low (2020) shows that financial assistance between friends and

family has been an important mechanism by which people in the UK have coped with financial hardship associated with the pandemic: 15% of households received transfers from friends in the three months after March, and 12% made such transfers. In columns 3 and 4 of Table 3 we report the hypothetical effect on these transfers of an unexpected one-time income receipt.

We find that 12% of people report that their financial transfers would be affected by the £500 payment, either giving more financial support to family or receiving less. Single parents and those in the lowest income quintiles are most likely to receive reduced private transfers, in other words the additional income payment crowds out private support. Those over 66 or owning their own home are most likely to report that they would use the payment to give more financial support to friends or family.

This result that a one-time payment affects transfer behaviour has potentially important consequences for the interpretation of other MPC findings and for policy. In particular, it means that the aggregate MPC (the amount of a stimulus that is spent) need not be equal to the average MPC, even if the cash stimulus is distributed equally. If low MPC individuals (such as older people) pass on some or all of the stimulus to higher MPC individuals, this can raise the aggregate MPC above the average. On the other hand, the crowding out of private transfers will have the opposite effect so that high MPC households receive less (net of private transfers) than the additional income payment, and low MPC individuals households receive more. This would reduce the aggregate MPC. However, we are not able to quantify the precise magnitude of or net effect of such transfers with these data.

## 4    Conclusion and Policy Conclusions

One policy option to boost spending during COVID is a lump-sum income transfer, or alternatively a tax credit, that is paid to households. This was carried out in the US with payments received in April - May 2020 (Coibion et al. (2020)). In this paper, we provide evidence on the implications for private spending in the UK of making such a payment in the middle of the pandemic by directly eliciting marginal propensities to consume from individuals in the UK in July 2020. Individuals were asked how their spending would change in response to an unexpected one-time payment of £500 payment.

Our key conclusion is that the fraction of households that would spend any of such a payment is low: only 19% say they would increase spending at all as a result. Further, the percentage of payments that would be spent, as measured by marginal propensities to consume, is very small

at 11% on average. There is heterogeneity in these effects, with households with immediate needs such as those with children, very low incomes or living in insecure housing, more willing to spend some of the payment. Even for these individuals, however, the levels of MPC remain low. Our estimates of spending responses and MPCs suggest that income transfers are not an effective way to stimulate spending. Even those who expect financial difficulties in the immediate future, or anticipate job loss, do not expect to spend the additional payments over this period, and rather choose to pay off debts.

A limitation of the data is that only hypothetical income gains are considered. The MPC out of gains is of course the relevant parameter for policy makers considering direct income payments to consumers as a fiscal stimulus measure. However, some past research has found that larger MPCs are elicited when considering income losses (Bunn et al. (2018), Fuster, Kaplan, and Zafar (2018)). It would be interesting to explore this asymmetry in the pandemic period as well.

In addition to paying off debts or saving, the £500 payments induce changes in private transfers. We find that 12% of people report that their financial transfers would be affected by the £500 payment, either giving more financial support to family or receiving less. Single parents and those in the lowest income quintiles are most likely to receive less transfers, in other words the additional income payment crowds out private support. Those over 66 or owning their own home are most likely to report that they would use the payment to give more financial support to friends or family.

The fact that one-time payments affect transfer behaviour has important implications for policy. In particular, it means that the aggregate MPC (the amount of a stimulus that is spent) need not be equal to the average MPC, even if the cash stimulus is distributed equally. If low MPC individuals (such as older people) pass on some or all of the stimulus to higher MPC individuals, this can raise the aggregate MPC above the average. On the other hand, the crowding out of private transfers will have the opposite effect so that high MPC households receive less (net of private transfers) than the additional income payment, and low MPC individuals households receive more. This would reduce the aggregate MPC. The further issue that the crowding out of private transfers raises is that targetting of stimulus payments at particular groups with high individual MPCs might be less effective at increasing spending than predicted.

Our data do not allow us to fully characterise how these effects on transfer payments will translate into the aggregate MPC, but this is an important question for future research. Nevertheless, given the modest fraction whose transfers change, and the very low MPCs across all groups in our data, the aggregate MPC is likely to remain very low.

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# Online Appendix A: MPC Questions in Wave 4 of the Covid-19 Study

| mpc1 [Marginal propensity to consume] |
|---|

**Universe:** Ask all

**Source:** Adapted from survey by Federal Reserve Bank of New York

[https://www.minneapolisfed.org/institute/working-papers/wp18-15.pdf]

**Text:** Now consider a hypothetical situation where you unexpectedly receive a one-time payment of £500 today. We would like to know whether this extra income would cause you to change your spending, borrowing and saving behaviour in any way over the next 3 months.

If you received the one-time £500 payment:

1. Over the next 3 months, I would spend **more** than if I hadn't received the £500

2. Over the next 3 months, I would spend the **same** as if I hadn't received the £500

3. Over the next 3 months, I would spend **less** than if I hadn't received the £500

| mpc2 [Marginal propensity to consume amount] |
|---|

**Universe:** IF mpc1 = 1, 3 // Ask if would spend more or less than before

**Source:** Adapted from survey by Federal Reserve Bank of New York

[https://www.minneapolisfed.org/institute/working-papers/wp18-15.pdf]

**Scripting notes:** Range [0 - 10000]

**Text:** You indicated that you would IF mpc = 1: increase / IF mpc = 3: reduce your spending/donations over the next 3 months following the receipt of the £500 payment. How much IF mpc = 1: more / IF mpc = 3: less would you spend than if you hadn't received the £500?

[Numeric textbox] Pounds

| mpc3 [Marginal propensity to borrow and save] |
|---|

**Universe:** IF mpc1 = 2, 3 OR (mpc1 = 1 AND mpc2 <500) // Ask if would spend the same or less, or would spend more but less than £500

**Text:** You have indicated that you would not spend all of the £500 payment. What would you do with the amount that you do not spend:

Please select all that apply.

1. Over the next 3 months, I would **pay off more debt** (or borrow less) than if I hadn't received the £500

2. Over the next 3 months, I would **save more** than if I hadn't received the £500

3. Over the next 3 months, I would **receive less financial help** from friends or family than if I hadn't received the £500.

4. Over the next 3 months, I would **give more financial help** to friends or family than if I hadn't received the £500.

5. Other

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**mpc3oth [Marginal propensity to borrow and save, other]**

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**Universe:** IF (mpc1 = 2, 3 OR (mpc1 = 1 AND mpc2 <500)) AND mpc3 = 5 // Ask if would spend the same or less or would spend more but less than £500, and would do something other with the amount not spent.

**Text:** What else would you do with the amount that you do not spend?

[Textbox]