DISCUSSION PAPER SERIES

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ABSTRACT

How Did U.S. Consumers Use Their Stimulus Payments?*

Using a large-scale survey of U.S. consumers, we study how the large one-time transfers to individuals from the CARES Act affected their consumption, saving and labor supply decisions. Most respondents report that they primarily saved or paid down debts with their transfers, with only about 15 percent reporting that they mostly spent it. When providing a detailed breakdown of how they used their checks, individuals report having spent or planning to spend only around 40 percent of the total transfer on average. This relatively low rate of spending out of a one-time transfer is higher for those facing liquidity constraints, who are out of the labor force, who live in larger households, who are less educated and those who received smaller amounts. We find no meaningful effect on labor supply decisions from these transfer payments, except for twenty percent of the unemployed who report that the stimulus payment made them search harder for a job.

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# I	Introduction

Amidst the rising spread of COVID-19 and the pervasive imposition of lockdowns in March 2020, the U.S. Federal government passed the CARES Act on March 27th, 2020. This stimulus package was exceptional both in size (over $2 trillion in allocated funds) and in the speed at which it was legislated and implemented. A major component was a one-time transfer to all qualifying adults of up to $1200, with $500 per additional child. How effective were these transfers in stimulating the consumption of recipients? While the 2001 and 2008 fiscal stimulus payments provide some guidance, the unprecedented nature of the COVID-19 shock, the associated uncertainty about the length and severity of the pandemic, and the widespread prevalence of lockdowns which restrict in-person shopping make it ex-ante unclear how individuals used their payments.

Using a large-scale survey of U.S. households, we document that only 15 percent of recipients of this transfer say that they spent (or planned to spend) most of their transfer payment, with the large majority of respondents saying instead that they either mostly saved it (33 percent) or used it to pay down debt (52 percent). When asked to provide a quantitative breakdown of how they used their checks, U.S. households report having spent approximately 40 percent of their checks on average, with about 30 percent of the average check being saved and the remaining 30 percent being used to pay down debt. Little of the spending went to hard-hit industries selling large durable goods (cars, appliances, etc.). Instead, most of the spending went to food, beauty, and other non-durable consumer products that had already seen large spikes in spending even before the stimulus package was passed because of hoarding.

These average responses mask significant differences across households. For example, lower-income households were significantly more likely to spend their stimulus checks, as were households facing liquidity constraints. Individuals out of the labor force were also more likely to spend their checks than either employed or unemployed individuals, consistent with motives of consumption smoothing and hand-to-mouth behavior. Other groups that were more likely to report spending most of their checks were those living in larger households, men, Hispanics and those with lower education. In contrast, African-Americans were much more likely to report using their checks primarily to pay off debt, as were older individuals, those with mortgages, unemployed workers and those reporting to have lost earnings due to COVID. For those who did not wish to spend their stimulus payment and had to decide whether to pay off debt or save their checks, higher-income individuals were more likely to save than pay off debts, those with mortgages or

renters were much more likely to pay off debts instead as were financially constrained individuals. These heterogeneous responses are broadly in line with recent models with assets of different levels of liquidity in which wealthy-hand-to-mouth behavior arises (see, e.g., Kaplan and Violante, 2014). To the contrary, those that lost financial wealth show no differential willingness to spend compared to other households, consistent with a low marginal propensity to consume out of stock market wealth (Lettau and Ludvigson, 2004; Di Maggio, Kermani, and Majlesi (forthcoming)).

Our survey also asked respondents whether transfer payments were likely to affect their labor supply decisions. Ninety percent of employed workers who had received a stimulus check reported that the transfer had no effect on their work effort (as opposed to e.g. searching harder for new work) while eighty percent of those employed workers who did not qualify for a check reported that receiving such a check would not affect their work effort. People out of the labor force similarly report that the extra income had not affected their search effort either qualitatively (e.g. by starting or stopping job search) or quantitatively (in terms of their search intensity). Only for unemployed workers do we find some evidence that one-time fiscal transfers affect labor supply: approximately 20 percent of those who received a payment claim that this made them search harder for a job, while two-thirds report that it had no effect. To the best of our knowledge, we are the first to report how one-time stimulus payments affect labor supply decisions, an important margin in many macroeconomic models used to characterize the effects of fiscal policy. These results possibly also inform the debate on how additional unemployment benefits affect labor supply decisions during recessions.

We add to the literature studying how one-time fiscal stimulus payments affect saving, consumption, and debt payments of individuals and hence estimate the partial equilibrium effect on these outcome variables from the anticipated, one-time provision of liquidity (Parker, 2011). Consistent with an earlier literature for the 2001 tax rebates such as Shapiro and Slemrod (2003), we find that little more than 20% of survey respondents would use the rebates mainly to increase spending. Johnson, Parker, and Souleles (2006) documents that in the first quarter post-payment, households spent between 20%-40% of the rebate which increased to about two thirds over the course of the six months. They also find that low-income households and individuals with low levels of liquid wealth showed a larger consumption response. Agarwal et al. (2003) use credit card data and find many households initially used the rebates to pay down debt but spent about 40% of the average rebate over the following nine months.

Studying the 2008 fiscal stimulus payments, Parker et al. (2013) find that the average household spent between 12% and 30% in the quarter after receiving payments on non-durables. Durable purchases and especially car purchases also increased substantially in the quarter after receiving the payments increasing the total consumption response to 50% to 90% of the stimulus payment which are substantially larger than the estimates for the 2001 stimulus payments and our own estimates for 2020. Broda and Parker (2014) use the Nielsen Homescan Panel data and find that individuals increase their grocery spending by about 10% in the week after receiving payments with larger effects for low income and wealth households but do not change their spending upon announcement of the program. Parker (2017) also uses Nielsen data and documents that persistent household characteristics such as impatience and lack of financial planning determine the spending response to the payment of the rebates. Parker and Souleles (2019) compare the estimates of the willingness to spend due to the arrival of liquidity elicited from surveys (reported effects) and from spending data (revealed preference) and find that both methods result in similar average propensities. Sahm, Shapiro, and Slemrod (2010) use data from Michigan Survey of Consumers and also find that only 20% of respondents used the stimulus checks to mainly increase spending, while more than half of the respondents mainly wanted to pay off debts. They find an average MPC of about one third over the following twelve months. Sahm, Shapiro, and Slemrod (2012) compare the marginal propensities to consume of one-time payments to a flow of payments from reduced tax withholdings and find that the one-off stimulus check results in a marginal propensity to consume of twice the size compared to the reduced withholdings. Baker et al. (2020) study the response of the 2020 stimulus checks using data from a FinTech app. They find spending increased by 29% of the stimulus amount in the 10 days after receiving payment, mainly driven by food and non-durables. Their sample is tilted towards low-income and liquidity-constrained households with the average income in the sample being $25,000 and the average account balance being $141, possibly partially explaining the large immediate spending response.

II   The Survey

Our survey was run on individuals participating in the Nielsen Homescan panel. This is a representative panel of 80,000-90,000 individuals who track their purchases on a daily basis. We have been running repeated quarterly surveys of these households, as described for example in Coibion, Gorodnichenko and Weber (2018) and Coibion, Georgarakos, Gorodnichenko and Weber

(2019). The results presented in this paper focus on the July 2020 wave of the survey, in which approximately 46,000 individuals were invited and 12,000 responded to the survey. This corresponds to a response rate of 26%, given that many individuals participating in the Nielsen Homescan opt out of surveys over time, reducing the population that can potentially be reached. The response rate compares favorably to other private surveys. For example, Qualtrics estimates that their average response rate is between 5% to 10%. The number of respondents is significantly larger than the Survey of Consumer Expectations (~1,500 respondents per wave) or the Michigan Survey of Consumers (~500 respondents per wave). Sampling weights are provided to correct for possible imbalances in the panel so that our estimates are representative for the U.S. population.

The survey includes a wide range of questions covering the macroeconomic expectations of respondents, questions on their spending and investment patterns, and questions on their labor market status (see Coibion, Gorodnichenko and Weber, 2020 a,b,c for details). In this specific wave, we introduced additional questions designed to assess how the stimulus payments in the CARES Act affected consumer behavior.[1] For example, survey participants are asked to report income from their latest tax return to determine the eligibility and timing of the payments. The survey also includes a very brief description of this portion of the CARES Act:

> "In response to the COVID-19 crisis, the Congress approved a $2 trillion package to stimulate the economy, including one-time $1,200 check per person (plus another $500 per child) to persons with annual income less than $75,000. Couples who filed jointly and made less than $150,000 will get a one-time $2,400 check (plus another $500 per child). The Federal government calls it an Economic Impact Payment."

They were then asked a number of follow-up questions. First, we asked whether they had received any such payment or expected to do so. If they had received it, they were asked about whether it was in the form of a direct deposit or check. They were then asked how much they had received and when. Next was a qualitative question about how they had used the income (or planned to use the income for those who expected to receive but had not yet received their check). Specifically, they were asked: "How did you use the payment from the Federal Government?" and had three options to select between: "Mostly to increase spending," "Mostly to increase saving," and "Mostly to pay off debt." Those who said they had not and would not be receiving a check were asked the same question as a hypothetical, assuming they were to receive a $1,000 payment. This

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[1] This block of questions is reported in Appendix A.

qualitative question closely follows that used by Shapiro and Slemrod (2003) and Sahm, Shapiro and Slemrod (2010).

Following this qualitative description, respondents were asked to assign dollar amounts to each of the following categories for how they used the transfer:

[] Saving,
[] Debt payments (mortgages, auto loans, student loans, etc.),
[] Durable goods such as houses/apartments, cars, large appliances and electronics,
[] Food, health/beauty aids, and household products,
[] Medical care (including health insurance, out-of-pocket medical bills and prescription drugs),
[] Other consumer spending.

For those individuals who expected to receive a check but had not yet received it, they were asked equivalent questions about how they expected to spend their payments once they arrived, while those who would not receive a payment were asking the equivalent question in hypothetical form.

After these questions on spending and saving decisions, respondents were asked several questions about how the stimulus payments would affect their labor supply. For those who initially reported being employed, they were asked "How did the payment from the Federal Government influence your work effort? Because of the payment…" after which they could select among the following options:

[] I started to work fewer hours,
[] I started to work more hours,
[] I started to work an additional job,
[] I quit some of my jobs,
[] I quit working,
[] The payment did not influence my work effort.

Those respondents who initially reported not working but looking for work (the unemployed) were instead asked the following: "How did the payment from the Federal government influence your decision to look for a job or not? Please choose options that apply to you. Because of the payment, [please choose all relevant options]" The options for them to choose amongst were:

[] I stopped looking for a job,
[] I started looking for a job,
[] I delayed looking for a job,
[] I am looking for a job but put less effort into it,
[] I am looking for a job and put more effort into it,
[] The payment did not influence my decision."

Again, those individuals who reported that they had not yet received a payment from the Treasury but expected to do so were asked equivalent questions in expectation. Those who did not expect to receive any payment were also asked an equivalent question as a hypothetical. To the best of our knowledge, these are the first survey questions that attempt to measure the labor supply response of households to stimulus payments.

This structure of the survey and the broad coverage of respondents improves upon existing studies in several dimensions. First, we collect not only the reported qualitative use of stimulus payments (i.e., most spend, mostly save, etc.) but also *quantitative* measures of actual spending. Second, while credit card data provides incredible details for consumer spending, our survey provides much richer demographic information, collects macroeconomic and microeconomic expectations, covers parts of the population who are less financially savvy and may have no bank account or who use other means of payments (cash, check, gift cards, etc.) and includes individuals who receive their stimulus payments via checks rather than direct deposits only. Third, when scanner data for consumer spending is released by Nielsen, we can combine our survey with higher-frequency measures of consumer spending, which is hard to do using typical surveys.

III   Reported Treasury Payments in the Survey

We first consider household responses about whether and when they received payments. Eligibility for receiving stimulus payments was based in part of Adjustable Gross Income (AGI) from 2019 (or 2018 if a tax return for 2019 was not filed yet; the deadline for tax filing was extended to July 15, 2020). For example, single filers earning more than $99,000 or joint filers with no children earning more than $198,000 were ineligible for any check. Single filers earning less than $75,000, heads of households earning less than $112,500, and joint filers earning less than $150,000 all qualified for payments of $1,200 per adult and $500 per dependent minor. For those earning between these thresholds, stimulus payments decline with income by $5 for every $100 in additional AGI. As a result, we begin by describing the reported taxable income of households in our survey.

The distribution of respondents' income is plotted in Figure 1. Less than 15 percent of respondents say that they do not remember their taxable income from 2018 or 2019 or prefer not to answer the question. The vast majority (71 percent) of those who did answer the question report an income of less than $80,000. For comparison, in 2017, the most recent year for which comparable information is available, the Internal Revenue Service (IRS) reports that 73 percent of

tax returns had an AGI of $75,000 or less. The IRS also reports that approximately 5 percent of all tax returns had an AGI of $200,000 or more. In our survey, approximately 2.5 percent of respondents report such high-income levels, a slightly lower number which could reflect that higher-income respondents are more likely to refuse to answer this question. But since these high-income respondents are ineligible for the stimulus payment, an under-representation of these individuals in the survey is not an issue. In short, we interpret respondents' answers about their incomes as broadly in line with what the IRS reports.

Respondents' answers about how much they received (if anything) in stimulus payments are also consistent with the guidelines governing the amount of payment to be received. For example, most individuals below the thresholds described above should receive either $1,200 (for single tax filers) or $2,400 (for joint filers) augmented with $500 for each minor dependent. As documented in Figure 2, respondents to our survey report answers that are largely consistent with these amounts. More than fifty percent report having received $1,200, and ≈15 percent report having received $2,400. There are also clear spikes at increments of $500, such as $1,700, $2,200, etc… For respondents living in one-member households and earning less than $75,000, the median payment received was $1,200 (the average was $1,150), very close to the $1,200 they all should have received. For one-member households earning more than $99,000 (the upper threshold for receiving payments), the median payment is zero (the average is $300) and less than a quarter report having received a stimulus payment. These facts suggest that respondents are providing answers regarding their stimulus payments that are consistent with the guidelines governing who should receive how much.

The survey also asked about when participants received their transfers. About half report having received their checks by mid-April, and most had received them by mid-May, as shown in Figure 3. This timing is consistent with reports from the IRS. For example, the IRS claimed to have distributed nearly 90 million payments as of April 17th and nearly 130 million payments as of May 11th, out of over 150 million to be paid out.[2] There are only a small number of respondents (6 percent) who claim to have received payments prior to April, which is impossible given that the

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[2] See https://www.irs.gov/newsroom/why-the-economic-impact-payment-amount-could-be-different-than-anticipated and https://www.irs.gov/newsroom/treasury-irs-deliver-89-point-5-million-economic-impact-payments-in-first-three-weeks-release-state-by-state-economic-impact-payment-figures

CARES Act did not pass until March 27th. But overall, the reported distribution of timing of payments is consistent with what the IRS reports about when payments were sent.

In addition, the survey asked respondents to report whether they had received their payment in a direct deposit (bank transfer) or as a check. As reported in Table 1, the majority of respondents who received a payment did so via direct deposit (80 percent). While stimulus payments for these respondents can be easily observed in credit/debit card data and similar data from financial aggregators, check payments (20 percent) pose a potential problem for these data. Fortunately, we observe check payments and thus can provide a more complete picture of how stimulus payments affected households' consumption and saving. The direct-deposit vs. check distinction is also potentially important for saliency of stimulus payments (Sahm, Shapiro, and Slemrod, 2012).

The IRS processed payments initially via direct deposit to all those who were eligible and had filed income taxes and received direct deposits for their refunds in 2018 or 2019, whereas checks were mailed out only after this initial process had taken place. Consistent with this, we observe in Figure 3 that most recipients of payments via direct deposit received them in early to mid-April, whereas recipients of checks were staggered over a later period. We interpret this as more validation of the quality of the data on stimulus payments received by households in our survey.

IV   Effects of Stimulus Payments on Behavior

We now turn to how stimulus payments actually affected the behavior of U.S. households. We first focus on qualitative effects on spending, saving and labor supply. We then turn to quantitative magnitudes. Finally, we consider heterogeneity across households.

4.1   *Qualitative Overview of Individual Responses to Stimulus Payments*

We report in Table 2 the response of households to the qualitative question of how they used their stimulus payment: mostly spent, mostly saved, or mostly to pay off debt. Column 1 focuses on the 90 percent of households in the survey who have already received their payment. Only 15 percent report that they mostly spent their transfer, even lower than the corresponding values found by Shapiro and Slemrod (2003a, 2003b) and Sahm, Shapiro and Slemrod (2010) after the 2001 and 2008 transfers respectively. One third report that they primarily saved the stimulus money, leaving over half of respondents answering that they primarily used the Treasury transfers to pay off debt. Column 2 presents equivalent shares for survey participants who anticipate receiving a check but

have not received one yet. They report very similar plans as those who have already received their payments: only twelve percent plan to mostly spend it while more than half plan to use it primarily to pay off debt. Even those who do not qualify for a stimulus payment report similar answers when asked hypothetically what they would do if they received $1,000 from the Federal government: 14 percent report that they would primarily spend the money. However, a larger share of these individuals report that they would save the money rather than pay off debts, likely reflecting the fact that most of those who are ineligible for stimulus payments are higher-income and are less likely to be constrained by debt levels. Jointly, these qualitative responses suggest that the stimulus payments had only limited effects on spending.

4.2   The Marginal Propensity to Consume out of Stimulus Payments

In addition to qualitative questions, the survey asked participants to assign specific dollar values to different ways they used (or would use) their stimulus payments, including saving, paying off debt and different categories of spending. We report the resulting allocation of stimulus funds (as a fraction of total checks received) by individuals in columns (1) and (2) of Table 3. On average, households report having spent approximately 40 percent of their stimulus checks, with the remaining sixty percent split almost evenly between saving (27 percent of stimulus) and paying off debts (31 percent of stimulus). Relatively little of the spending went to large durable goods or medical care (7 and 6 percent respectively). Instead, most of the spending was on food and personal care products (16 percent) or other consumer products (13 percent).[3]

The large cross-sectional standard deviations in Table 3 illustrate that there was significant variation across individuals in terms of how they allocated their stimulus funds. One way to see this is in Figure 4, which plots the distribution of marginal propensities to consume, i.e. the fraction of stimulus payments that was spent. Approximately 30 percent of respondents had an MPC of one: they spent the entire stimulus check. Almost 40 percent had an MPC of zero: they did not spend any of their stimulus payment. The remaining 30 percent of respondents had a mix of spending and saving.

Figure 5 shows that this heterogeneity in marginal propensities extends to most categories of using stimulus funds. For example, a little over twenty percent of respondents saved all of their stimulus checks while over sixty percent saved none. Similarly, ≈15 percent of individuals reported

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[3] We report the distribution of use shares by state in Appendix Table 2.

that they had used all of their payment on paying down debt, while nearly sixty percent used none at all for this purpose. Spending categories are similarly dispersed: almost 90 percent report that they spent none of their stimulus payment on large durable goods, and twenty percent claim that they did not spend any extra money on medical care or other consumer goods.

Another way to see this heterogeneity is to examine the ways in which stimulus payments were allocated by households, conditional on their qualitative description of what they did (i.e. mostly spent, mostly saved, or mostly paid off debt). We report this in columns (3)-(8) in Table 3. The results vindicate the consistency between respondents' qualitative and quantitative answers while also providing some nuance. For example, individuals who claimed to mostly spend their stimulus payment subsequently report having spent 84 percent of their transfer on average, with most of that spending going to food/beauty/personal products and other consumer goods. Similarly, consumers who claimed to have mostly saved their Treasury payment subsequently reported that they used 73 percent of that payment on savings, with almost all of the remainder going to spending on food/beauty/personal and other consumer products. Of those who claimed to mostly pay off debt, we find that they subsequently report having used 53 percent of their transfers to pay off debt, with most of the remaining spending going to food/beauty/personal and other consumer products.

In short, we find that the marginal propensity to consume out of stimulus payments was relatively low on average, a little over 40 percent. But this relatively low number masks large variation across households: about twenty percent saved essentially all of their check, about twenty percent used essentially all of their check to pay down debt, and around forty percent spent all of their payment, leaving only about twenty percent who did a mix. Understanding the underlying heterogeneity in these patterns (i.e., who spent their payment?) is therefore important for the design of future stimulus measures.

4.3   Heterogeneity in MPCs

Which individuals tend to spend their stimulus payment? The question of identifying consumers whose MPCs are higher matters not just for the effectiveness of stimulus packages but more generally for understanding economic dynamics, as emphasized in Kaplan and Violante (2014) and Kaplan, Moll and Violante (2018). To characterize the heterogeneity in propensities to spend,

save or pay back debt, we begin by regressing indicator variables for each on a wide range of observable characteristics of respondents, i.e.

$$D_i^{qual} = \alpha + \boldsymbol{\beta X_i} + error \tag{1}$$

where D_i^{qual} is an indicator variable equal to one when an individual responds in the qualitative question that they mostly spent their stimulus payment and zero otherwise. We report results in column (1) of Table 4, with columns (2) and (3) showing results where indicator variables are set equal to one when individuals respond that they mostly saved their payment and mostly used them to pay off debt respectively. Coefficients in the table are multiplied by a hundred and can be interpreted as the percentage increase in the probability of mostly spending the payment (in column 1) associated with that characteristic.[4]

There are a number of observable factors that make it more likely that a respondent mostly spent their stimulus payment. For example, men are a little more likely to spend their checks than women, although the difference is small in economic terms. African Americans are much more likely than whites to primarily pay off their debts, whereas Hispanics are less likely to pay off debts and more likely to spend the payment. Larger households are also more likely to spend their checks and less likely to save them, while older respondents are a little more likely to pay off debts and a little less likely to save their payment than younger households. We also find that more educated individuals are more likely to save their payment. Additional factors that make individuals more likely to spend their checks include being out of the labor force and neither owning a home nor renting (e.g. living with parents). Finally, those who received larger payments (even after conditioning on household size) are less likely to spend their payments and more likely to save them. Given how large the COVID-related stimulus payments were relative to those in 2001 or 2008, it is consistent with consumer theory that a larger fraction would be saved compared to previous experiences.

Some characteristics have little effect on the likelihood that an individual says they will mostly spend their payment but instead matters more for whether they will save their stimulus check or use it to pay down debt. Most strikingly, liquidity constrained individuals[5] are no more likely to say they will mostly spend their transfer than non-liquidity constrained individuals.

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[4] Descriptive statistics for regressors are reported in Appendix Table 3.
[5] Respondents are identified as liquidity constrained if they answer "no" to the following question: "Suppose that you had to make an unexpected payment equal to one month of your after-tax income, would you have sufficient financial resources (access to credit, savings, loans from relatives or friends, etc.) to pay for the entire amount?"

Instead, being liquidity constrained makes respondents much more likely to choose to pay off debts than save the check. This result is particularly striking because liquidity constraints are typically viewed as one of the major determinants to generating high MPCs in macroeconomic models. Contrary to this, we find that being financially constrained primarily determines whether the extra income is saved or used to pay off debt.

We can also perform a similar analysis using the quantitative answers about how the payments were spent. In this case, we run:

$$s_i^{cat} = \alpha + \boldsymbol{\beta X_i} + error \tag{2}$$

where s_i^{cat} is the share (scaled to be between 0 and 100) of individual i's stimulus payment that went to a specific category, where the possible categories include saving, paying off debt, spending on food/beauty/personal products, spending on durables, spending on medical services, or spending on other consumer products and services. We also report results for aggregate spending share (the sum of the four consumer spending shares). We report the results of these regressions in columns (1)-(7) in Table 5.[6]

Because these results break spending into different categories and have quantitative measures of amounts actually saved and used to pay off debt, they provide a more nuanced view of how different characteristics of individuals related to their use of the stimulus payment. For example, they confirm that black households save less of their transfer on average (5% less) and pay off more debt (3% more) than white households. They also reallocate some spending toward food/beauty/personal products and away from other consumer products. Similarly, we see that the increased saving of richer households relative to lower-income households reflects the fact that they spend relatively less on food and durables.

Some of the largest differences are associated with housing, i.e. whether individuals own a house with or without a mortgage or are renters. For example, owners with a mortgage spend 15% more of their stimulus on paying off debt than owners without a mortgage. The latter instead save more and purchase more food/personal products as well as other consumer products.

Another source of economically large differences is liquidity constrains. The results in columns (1) and (2) confirm that liquidity constrained individuals use less of their stimulus checks for saving and more toward paying off debt relative to unconstrained individuals and the differences

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[6] We estimate specification (2) using OLS. The results are similar when we use Tobit, see Appendix Table 1.

are large: 22% less for saving and 12% more for paying off debt. The net difference implies 10% more spending for liquidity constrained individuals, which is allocated mostly to additional spending on food/beauty/personal products and medical care. These results therefore indicate that liquidity constrained households do ultimately have higher MPCs than non-liquidity constrained households. We also see that those who lost earnings due to the COVID pandemic use about 5% more of the stimulus to pay off debt and 4% less to increase savings, and also spend relatively more on medical care but less on other consumer products, suggesting that their lost earnings were preventing them from getting all the medical services that they needed. In contrast, there is no discernible effect for those reporting lost financial wealth due to the COVID epidemic, which is consistent with small wealth effects on consumption. Being in lockdown in April is associated with lower spending out of stimulus payments. Receiving stimulus payments in the form of a check rather than a bank transfer is associated with a somewhat higher propensity to consume (consistent with a greater saliency of a payment) but the economic magnitude is relatively small. Finally, we see that those who received larger payments ultimately spent a somewhat smaller share of that income (on food/personal and other consumer products) and relatively more on buying back debt and saving. This suggests that stimulus payments to households may run into diminishing returns: households save increasingly larger fractions of additional dollars provided by the government.

We find little role for individuals' macroeconomic expectations (which are highly correlated with perceptions of current macroeconomic conditions) in determining how they use their stimulus payments. Coefficients on their perception of the current unemployment rate are small and generally not significantly different from zero. For inflation expectations, we find no effect of higher inflation expectations on the marginal propensity to consume, although individuals who anticipate higher inflation are more likely to choose to pay off debts than save their extra income. But these effects are relatively small in economic terms. In a similar spirit, expected mortgage rate and time before conditions return to normal have relatively small economic effects on consumer decisions. For example, a one-standard deviation increase in expected mortgage rate is associated with a two-percentage-point higher share of stimulus payment spent consumer goods.

4.4 Work and job-search effort

Respondents were also asked about how stimulus affected (or would affect) their labor supply decisions. To the employed, we asked whether having received the payment made them work more

or fewer hours (intensive margin) or led them to start or stop actively looking for new work (extensive margin). As shown in Panel A of Table 6, the vast majority (90 percent) of those who have already received a stimulus payment report that it had no effect on their labor supply decision, either along the intensive or extensive margin. The same qualitative outcome obtains for those who were still waiting for their checks or those who did not anticipate getting a check. Panel C of Table 6 also documents a similar finding for those who are out of the labor force: over 90 percent report that stimulus payments did not induce them to start or stop looking for work nor did it change the intensity of any job search they might have done.

We asked a similar question to the unemployed to assess whether stimulus payments affected their job search behavior, again looking at both the intensive margin of job search (e.g. I would look harder for a job) or the extensive margin of job search (e.g. I would stop looking for a job). Of those who had already received their stimulus payment, about two-thirds reported that it had no effect on their job search decision, while over 20 percent report that the stimulus check led them to search *harder* for a job. Similar qualitative patterns hold for those still waiting for their stimulus payments or for those who did not expect to receive any stimulus. In short, we find evidence that some unemployed workers increase their job search effort in response to stimulus payments but otherwise find no meaningful evidence of labor supply effects from the CARES Act one-time transfers.

These results have important implications for policy. A vast literature in labor economics shows that extensions in unemployment benefits and increases in payments reduce the search efforts of individuals (Hagedorn, Manovskii and Mitman, 2019) during normal times. Yet, little is known about how these payments affect labor supply decisions and search efforts during a deep recession. To the best of our knowledge, no research exits studying the effects of stimulus payments on labor supply. Even though the replacement rates of unemployment benefits have been well above 100% for the median household (Ganong, Noel, and Vavra 2020), our findings suggest that additional one-time payments to households mainly stabilize aggregate demand by spurring consumption and reducing household debt. The latter should increase the resilience of the financial system and help reduce the risk of future financial crises. Consistent with our results, US consumer credit card debt plunged in recent months.[7]

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[7] https://www.nytimes.com/2020/08/06/business/credit-card-debt-plunges-driving-a-decline-in-overall-household-debt.html https://www.newyorkfed.org/microeconomics/hhdc.html

V   Conclusion

Sending money directly to households has been one of the main components of U.S. stimulus packages in the last three recessions. How effective is the most recent program in terms of stimulating consumption? We provide some of the first estimates for transfers to U.S. households put in place under the CARES Act. We find evidence that is broadly consistent with the 2001 and 2008 experiences, albeit with somewhat lower marginal propensities to consume: U.S. households only spent around 40 percent of their stimulus payments but there is significant heterogeneity in terms of how different individuals respond. Many spent their entire stimulus payment, and just as many saved their entire check or used it to pay off debt.

Why were the stimulus payments not more successful in spurring consumer spending? One possibility may be that it reflects the presence of the pandemic that caused the need for spending in the first place. Few restaurants are operating at full capacity, many bars and shopping outlets are closed, recreational activities are curtailed, and travel options are limited, so there is less scope for spending on the part of consumers. Furthermore, the closing of offices and widespread lockdowns reduce the need for transportation, which may help explain why so little spending went to larger durable goods like cars. To the extent that the pandemic will ultimately end, it suggests that future stimulus payments to households may be more effective in future crises.

Another, less optimistic, interpretation is that the stimulus payments were less effective because they were larger than previous ones. As the size of one-time transfers to households rises, diminishing returns induces individuals to consume smaller fractions of their temporarily higher income. This suggests that there is a bound on how much stimulus can be generated through direct transfers to households. In the face of large crises, government may want to consider a broad range of policies targeting aggregate demand, with direct transfers being only a part of the fiscal policy response. For example, direct government purchases of goods and services can provide an effective stimulus, since they translate into purchases in a one-for-one manner. Another strategy can be to increase transfers to cash-strapped local and state governments to help prevent them from cutting the services that they provide in the midst of crisis, much as was done in the American Recovery and Reinvestment Act of 2009.

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Notes: the figure plots the distribution of income reported in the most recent tax return (2019 or 2018).

Figure 2. Distribution of stimulus payments from the U.S. Treasury.
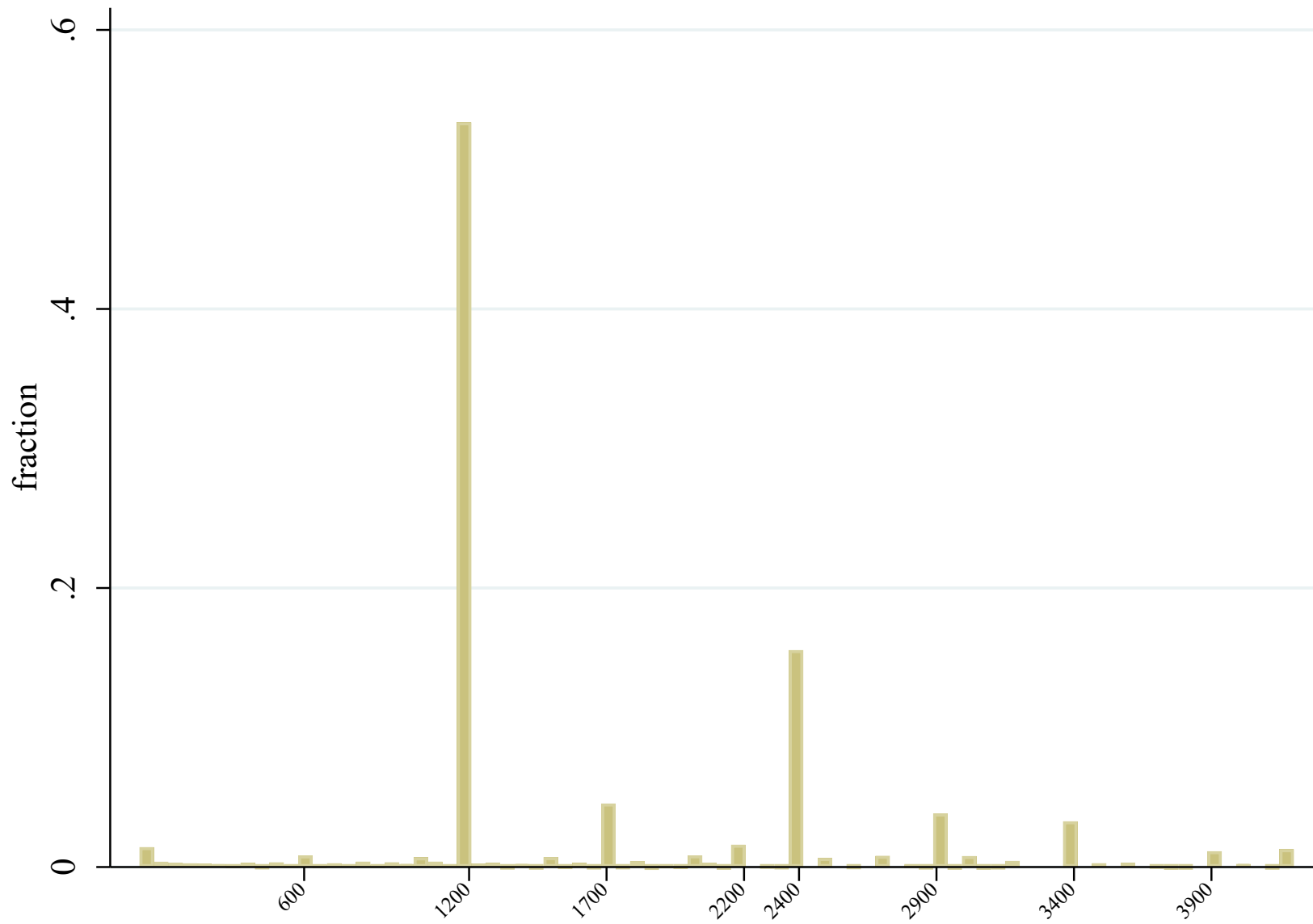
Notes: The figure plots the distribution of stimulus payments received by survey respondents. The maximum amount is censored at $4,200.
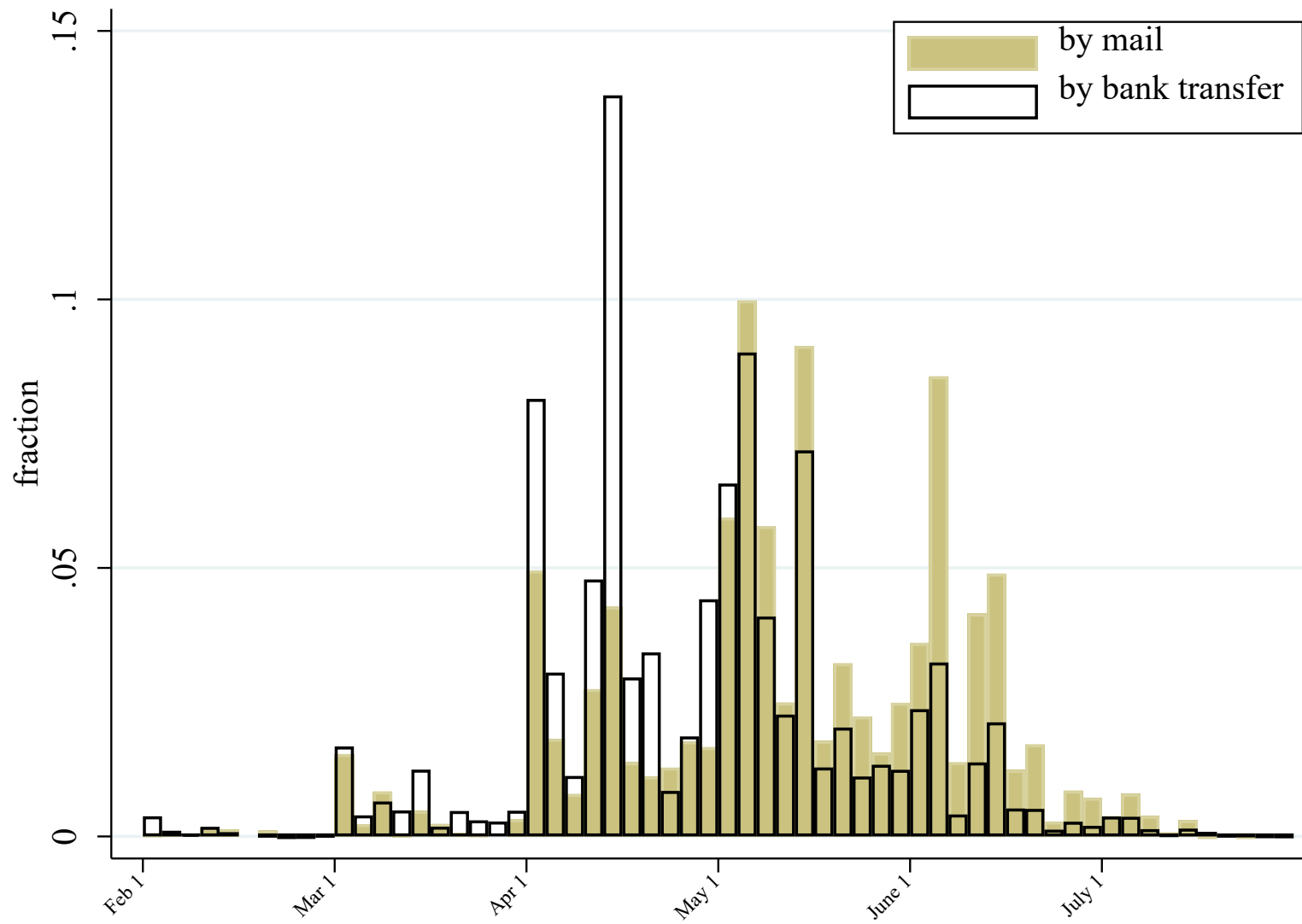
Notes: The figure plots the distribution of dates when a payment is received by type of payment (check or direct deposit). Stimulus payments by check account for approximately 20 percent of all payments.
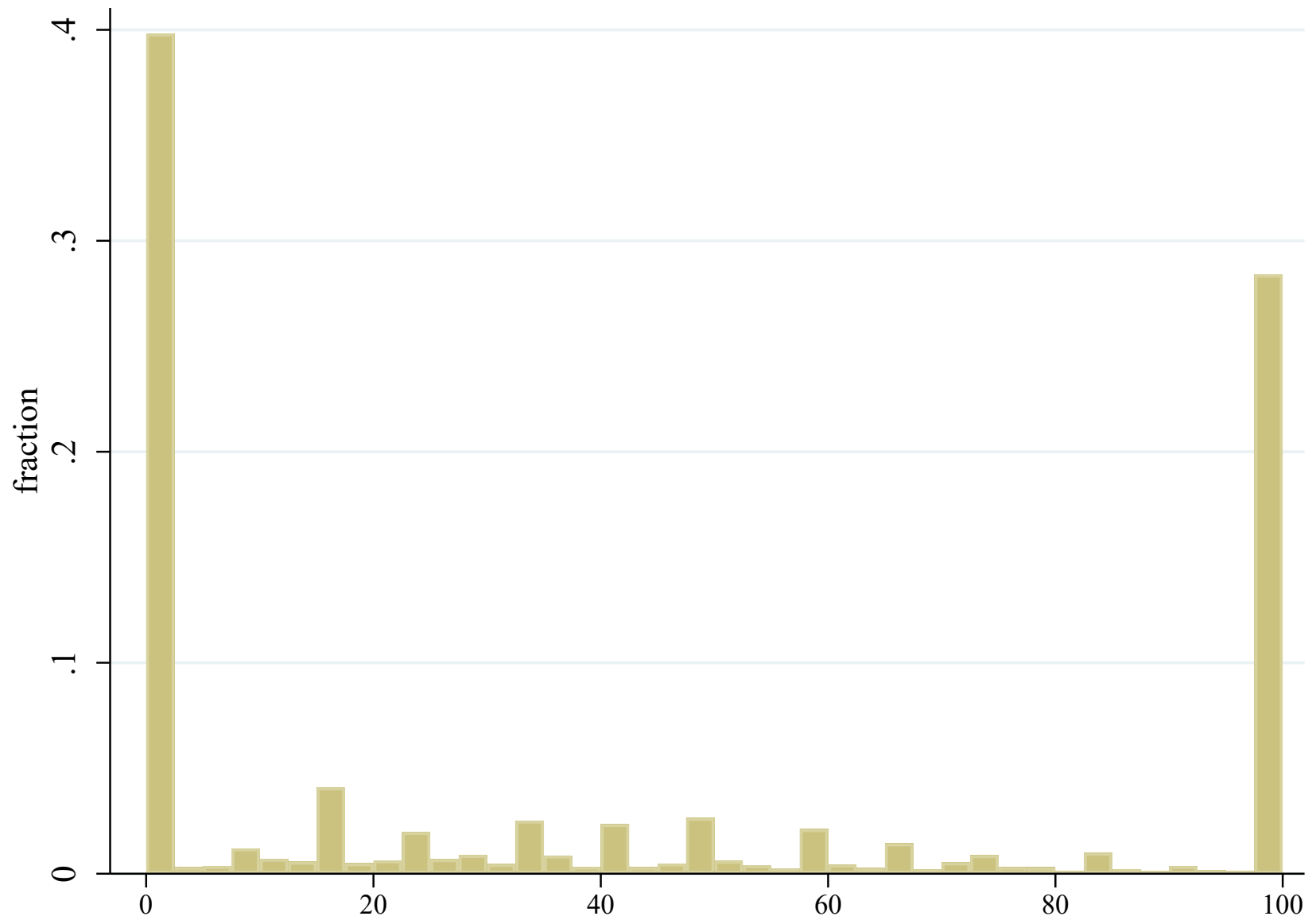
Notes: the figure reports the distribution for the share of stimulus payment spent on durables, food, medical supplies, and other consumer products.

Figure 5. Expenditure share for stimulus payments (effectively marginal propensities).
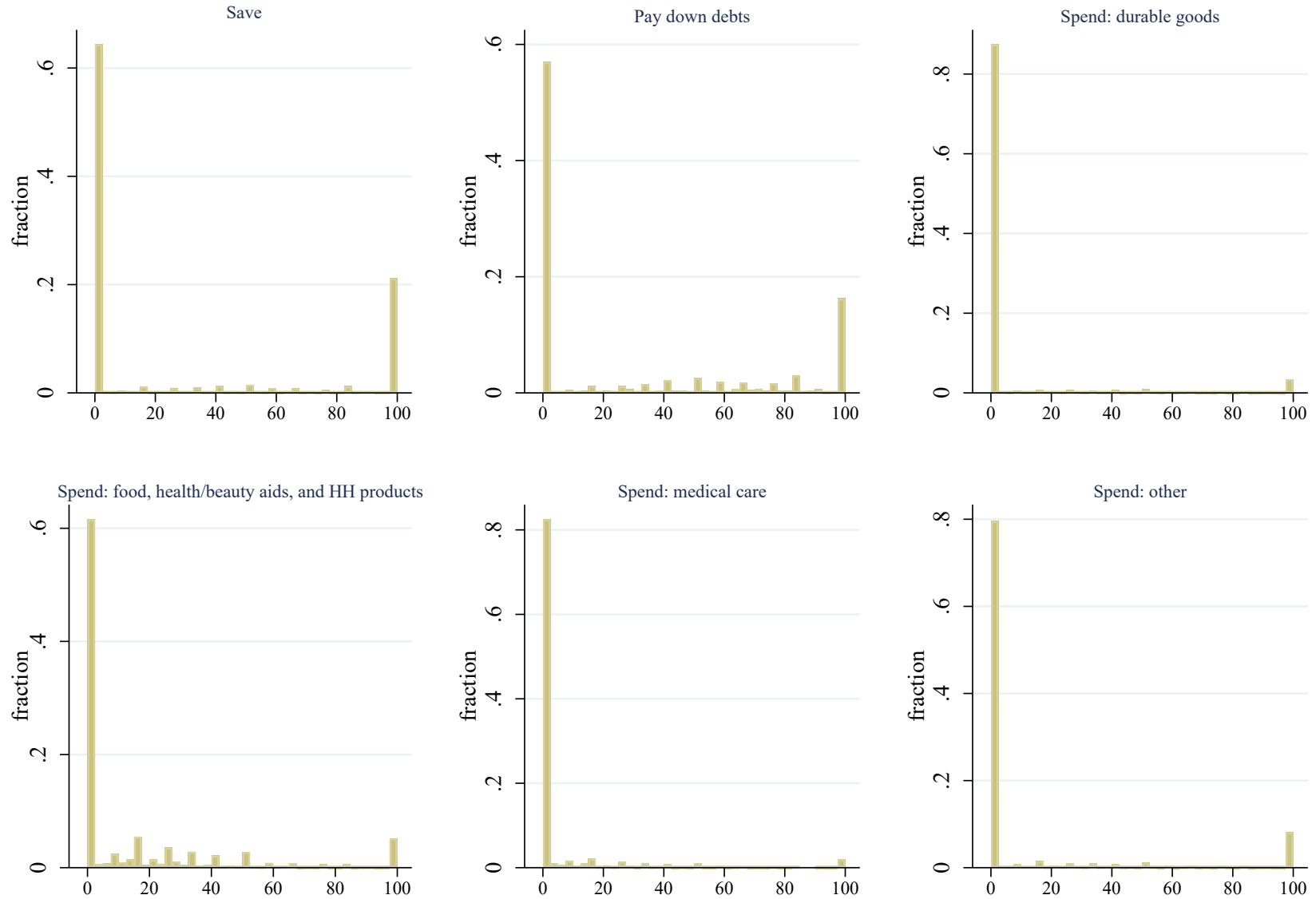
Notes: each panel in the figure reports the distribution for the share of stimulus payment used for saving, paying off debts, and consumer spending.

Table 1. The distribution for how/if a respondent received a stimulus payment.

How/if a check was received	Percent
Yes, I received it as a check by mail	16.52
Yes, I received it as a direct deposit into my bank account	64.68
No, but I expect to receive it (my payment is scheduled, my payment is delayed, etc.)	3.14
No (my household is not qualified, I don't have the right paperwork, etc.)	10.55
Not sure, don't know	5.11
N obs	11,793

Notes: the table reports the distribution for how/if a respondent received a stimulus payment.

Table 2. Distribution for the use of stimulus payment, qualitative.

	Those who received a check (actual spending)	Those who expect to receive a check (planned spending)	Those who did not receive and do not expect to receive a check (hypothetical spending)
	(1)	(2)	(3)
Mostly to increase spending	15.04	12.97	14.17
Mostly to increase savings	32.80	38.38	45.76
Mostly to pay off debt	52.17	48.65	40.07
N obs	9,966	336	1,491

Notes: the table reports the distribution of qualitative responses for the use of stimulus payment.

Table 3. Reported shares for the uses of received stimulus payments, qualitative response.

Spending item	Qualitative response							
	Any		Mostly spend		Mostly save		Mostly pay debts	
	mean	st.dev.	mean	st.dev.	mean	st.dev.	mean	st.dev.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Saving	0.27	0.42	0.07	0.20	0.73	0.39	0.04	0.16
Debt payments (mortgages, auto loans, student loans, etc.)	0.31	0.40	0.10	0.23	0.06	0.19	0.53	0.41
Durable goods such as houses/apartments, cars, large appliances and electronics	0.07	0.22	0.17	0.33	0.03	0.15	0.07	0.21
Food, health/beauty aids, and household products	0.16	0.28	0.31	0.37	0.08	0.21	0.17	0.26
Medical care (including health insurance, out-of-pocket medical bills and prescription drugs)	0.06	0.18	0.05	0.16	0.03	0.14	0.08	0.20
Other consumer spending	0.13	0.30	0.31	0.41	0.07	0.24	0.11	0.27
Memorandum:								
Total spending	0.42	0.43	0.84	0.29	0.21	0.36	0.42	0.41

Notes: the table reports the distribution for uses of stimulus check. Columns (1) and (2) report statistics for the full sample. Columns (3)-(8) report statistics for subsamples of respondents reporting that a particular use was dominant.

Table 4. Propensity to spend (save) the stimulus payment, qualitative responses.

	Mostly spent (1)	Mostly saved (2)	Mostly paid down debt (3)
Male (gender of the respondent)	2.348**	-0.190	-2.158
	(1.096)	(1.271)	(1.352)
Hispanic	-4.398***	-2.266	6.664***
	(1.524)	(1.905)	(2.153)
Race: Black	-3.668**	-4.285**	7.953***
	(1.424)	(1.801)	(2.029)
Race: Asian	-0.984	5.224*	-4.239
	(2.409)	(3.149)	(3.206)
Race: Other non-white	-1.535	-2.365	3.901
	(1.929)	(2.503)	(2.765)
A child under 6 years old	-2.973*	0.377	2.596
	(1.763)	(2.108)	(2.382)
A child between 7 and 12 years old	-1.402	2.021	-0.619
	(1.643)	(1.908)	(2.159)
A child between 13 and 17 years old	-1.084	-3.483*	4.567**
	(1.606)	(1.893)	(2.183)
Household size	1.700***	-2.562***	0.862
	(0.581)	(0.675)	(0.747)
Age (of the respondent)	-0.055	-0.045	0.100*
	(0.043)	(0.052)	(0.056)
Household head's education: Some college	-3.718***	1.370	2.349
	(1.254)	(1.469)	(1.613)
Household head's education: College+	-1.619	2.941*	-1.322
	(1.344)	(1.596)	(1.709)
Log(Household income)	-0.161	4.212***	-4.051***
	(0.770)	(0.888)	(0.977)
Housing: own, have mortgage	-4.101***	-8.346***	12.446***
	(1.187)	(1.517)	(1.539)
Housing: rent	-1.102	-6.751***	7.852***
	(1.346)	(1.613)	(1.707)
Housing: other arrangement	6.046**	-3.551	-2.495
	(2.934)	(3.046)	(3.418)
Employed (of the respondent)	-4.108***	-0.685	4.794***
	(1.099)	(1.391)	(1.460)
Unemployed (of the respondent)	-5.076***	-4.638**	9.714***
	(1.826)	(2.036)	(2.442)
Liquidity constrained	0.734	-26.895***	26.162***
	(1.099)	(1.290)	(1.469)
Liquidity constrained (prefer not to answer)	-2.637*	-18.457***	21.094***
	(1.590)	(2.092)	(2.336)
Financial wealth lost due to COVID, flag	1.760	0.220	-1.980
	(1.522)	(1.858)	(1.902)
Earnings lost due to COVID, flag	-3.089**	-5.875***	8.964***
	(1.223)	(1.495)	(1.669)
Current unemployment rate	-0.035	-0.057*	0.092***
	(0.025)	(0.031)	(0.034)
Expected inflation over the next 12 months	-0.047	-0.206**	0.253**
	(0.085)	(0.103)	(0.115)
No stay-at-home order as of April 7, 2020	2.191	-1.140	-1.051
	(2.436)	(2.852)	(3.004)
Stimulus payment received as a check	1.137	0.145	-1.281
	(1.146)	(1.398)	(1.456)
Log(stimulus payment)	-2.217**	3.551***	-1.334
	(1.022)	(1.216)	(1.296)
Time to normal conditions (months)	0.007	0.022	-0.028
	(0.048)	(0.059)	(0.064)
Expected mortgage rate	-0.031	-0.006	0.037
	(0.047)	(0.058)	(0.065)
R-squared	0.018	0.138	0.140

Notes: The table reports OLS estimates of specification (1) where the dependent variable is the part of stimulus payment used for the purposes indicated in the column title. All coefficients are multiplied by 100. The sample includes those who received a check. Robust standard errors are in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent. The number of observations is 9,868.

Table 5. Expenditure shares for the stimulus payment by spending/saving use, quantitative responses.

	Saving	Debt payments	Durable goods	Food, health/beauty aids, and HH products	Medical care	Other consumer spending	Total spending
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Male (gender of the respondent)	0.903	0.421	1.256*	-1.837**	-1.226**	0.483	-1.324
	(1.167)	(1.144)	(0.686)	(0.773)	(0.495)	(0.896)	(1.226)
Hispanic	-3.466**	4.070**	-1.475	-1.890	1.046	1.716	-0.604
	(1.632)	(1.899)	(1.003)	(1.274)	(0.797)	(1.404)	(1.894)
Race: Black	-4.470***	3.036*	-0.340	4.372***	-0.040	-2.559**	1.433
	(1.523)	(1.669)	(0.915)	(1.322)	(0.705)	(1.082)	(1.698)
Race: Asian	-2.141	-3.550	0.531	6.274***	1.484	-2.597	5.691**
	(2.719)	(2.600)	(1.582)	(2.037)	(1.091)	(1.836)	(2.808)
Race: Other non-white	-0.819	3.471	-0.846	-1.123	-0.480	-0.202	-2.652
	(2.170)	(2.369)	(1.234)	(1.535)	(0.985)	(1.830)	(2.436)
A child under 6 years old	2.077	-0.534	-0.148	-1.529	-0.291	0.425	-1.542
	(1.809)	(1.960)	(1.099)	(1.433)	(0.722)	(1.317)	(1.981)
A child between 7 and 12 years old	1.305	-0.288	-0.463	0.230	0.395	-1.179	-1.017
	(1.608)	(1.808)	(0.968)	(1.299)	(0.717)	(1.200)	(1.825)
A child between 13 and 17 years old	-3.668**	0.884	1.171	0.287	-0.231	1.557	2.784
	(1.582)	(1.817)	(0.940)	(1.258)	(0.732)	(1.304)	(1.826)
Household size	-1.679***	-0.358	0.582*	1.752***	-0.289	-0.008	2.037***
	(0.590)	(0.613)	(0.340)	(0.463)	(0.251)	(0.461)	(0.641)
Age (of the respondent)	0.024	-0.112**	-0.050*	-0.017	0.089***	0.065*	0.087*
	(0.045)	(0.046)	(0.026)	(0.032)	(0.020)	(0.035)	(0.049)
Household head's education: Some college	1.510	2.500*	0.082	-1.832*	-0.070	-2.190**	-4.010***
	(1.287)	(1.330)	(0.774)	(0.973)	(0.598)	(1.065)	(1.451)
Household head's education: College+	3.127**	1.617	-0.515	-2.436**	0.339	-2.132*	-4.744***
	(1.408)	(1.408)	(0.800)	(1.011)	(0.619)	(1.137)	(1.536)
Log(Household income)	4.125***	1.180	-1.233**	-2.513***	0.012	-1.571**	-5.305***
	(0.769)	(0.795)	(0.526)	(0.619)	(0.360)	(0.617)	(0.874)
Housing: own, have mortgage	-5.803***	15.130***	-0.375	-4.236***	-0.653	-4.064***	-9.327***
	(1.373)	(1.291)	(0.711)	(0.885)	(0.601)	(1.036)	(1.408)
Housing: rent	-3.582**	5.206***	1.813**	1.286	-1.563**	-3.160***	-1.624
	(1.404)	(1.378)	(0.837)	(1.034)	(0.679)	(1.129)	(1.538)
Housing: other arrangement	-3.875	-0.515	0.044	4.775**	-2.067**	1.639	4.390
	(2.631)	(2.612)	(1.520)	(2.392)	(1.040)	(2.288)	(3.106)
Employed (of the respondent)	-1.769	5.513***	-0.036	-1.561*	-0.531	-1.616	-3.744***
	(1.243)	(1.222)	(0.680)	(0.815)	(0.547)	(0.984)	(1.308)
Unemployed (of the respondent)	-7.376***	8.565***	0.300	3.360**	-0.705	-4.144***	-1.189
	(1.670)	(2.131)	(1.151)	(1.581)	(0.852)	(1.435)	(2.151)
Liquidity constrained	-21.770***	11.948***	0.689	6.517***	2.850***	-0.234	9.822***
	(1.095)	(1.242)	(0.696)	(0.885)	(0.563)	(0.871)	(1.277)
Liquidity constrained (prefer not to answer)	-16.657***	9.716***	1.178	2.680*	2.309**	0.774	6.941***
	(1.722)	(1.986)	(1.179)	(1.403)	(0.971)	(1.452)	(2.054)
Financial wealth lost due to COVID, flag	-1.712	-1.030	0.807	2.264**	-0.332	0.003	2.742
	(1.656)	(1.600)	(0.861)	(1.122)	(0.632)	(1.170)	(1.705)
Earnings lost due to COVID, flag	-4.423***	4.952***	0.020	0.132	1.847***	-2.528***	-0.530
	(1.322)	(1.405)	(0.767)	(0.920)	(0.598)	(0.939)	(1.411)
Current unemployment rate	-0.058**	0.037	-0.018	0.033	0.013	-0.007	0.021
	(0.025)	(0.029)	(0.016)	(0.021)	(0.014)	(0.021)	(0.030)
Expected inflation over the next 12 months	-0.270***	0.275***	0.022	-0.092	0.023	0.043	-0.005
	(0.091)	(0.097)	(0.057)	(0.066)	(0.043)	(0.069)	(0.099)
No stay-at-home order as of April 7, 2020	-2.555	-0.955	1.281	-2.518*	-0.048	4.796**	3.511
	(2.411)	(2.366)	(1.511)	(1.517)	(0.934)	(2.323)	(2.772)
Stimulus payment received as a check	0.922	-2.520**	-0.338	0.350	-0.221	1.807*	1.598
	(1.280)	(1.198)	(0.663)	(0.874)	(0.528)	(1.012)	(1.347)
Log(stimulus payment)	1.692***	1.538***	-0.649	-0.741	-0.260	-1.581**	-3.230***
	(0.591)	(0.556)	(0.506)	(0.482)	(0.282)	(0.649)	(0.694)
Time to normal conditions (months)	0.007	-0.013	-0.007	-0.010	0.023	-0.001	0.005
	(0.052)	(0.055)	(0.033)	(0.038)	(0.025)	(0.043)	(0.058)
Expected mortgage rate	-0.047	-0.139***	0.103***	0.116***	0.035	-0.068*	0.186***
	(0.043)	(0.049)	(0.035)	(0.042)	(0.023)	(0.039)	(0.054)
R-squared	0.126	0.082	0.017	0.078	0.016	0.025	0.079

Notes: The table reports OLS estimates of specification (2) where the dependent variable is the share of stimulus payment used for the purposes indicated in the column title. The sample includes those who received a check. Robust standard errors are in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent. The number of observations is 9,868 in each column.

Table 6. Work/job-search effort as a function of stimulus payment.

	Received a check	Expect to receive a check	Did not receive a check
	(1)	(2)	(3)
Panel A. Employed			
I would start to work fewer hours	0.05	0.03	0.01
I would start to work more hours	0.04	0.11	0.04
I would start to an additional job	0.02	0.07	0.05
I would quit some of my jobs	0.00	0.05	0.01
I would quit working	0.00	0.00	0.00
The payment would not influence my work effort	0.89	0.77	0.90
N obs	5,724	179	827
Panel B. Unemployed			
I would stop looking for a job	0.01	0.00	0.01
I would start looking for a job	0.07	0.08	0.09
I would delay looking for a job	0.03	0.13	0.04
I would be looking for a job but put less effort into it	0.04	0.07	0.05
I would be looking for a job and put more effort into it	0.21	0.23	0.24
The payment would not influence my decision	0.65	0.58	0.61
N obs	773	58	196
Panel C. Out of labor force			
I would stop looking for a job	0.01	0.01	0.01
I would start looking for a job	0.01	0.04	0.03
I would delay looking for a job	0.01	0.00	0.01
I would be looking for a job but put less effort into it	0.01	0.02	0.02
I would be looking for a job and put more effort into it	0.01	0.08	0.06
The payment would not influence my decision	0.97	0.85	0.88
N obs	4,440	129	615

Notes: the table reports the distribution of responses for how stimulus payment affected work effort and intensity of job search. Panel A included the employed. Panel B includes the those who do not have a paid job but are looking for a job. Panel C includes those who do not have a paid job and do not look for a job.

Appendix A. Survey questions about stimulus payments

TS0. Please choose an amount that includes income that you reported on your latest tax return (2018 or 2019). If you do not remember, please estimate and choose an appropriate amount. (Select one)

() Less than $10,000
() $10,001 - $20,000
() $20,001 - $30,000
() $30,001 - $40,000
() $40,001 - $50,000
() $50,001 - $60,000
() $60,001 - $70,000
() $70,001 - $80,000
() $80,001 - $90,000
() $90,001 - $100,000
() $100,001 - $110,000
() $110,001 - $120,000
() $120,001 - $130,000
() $130,001- $140,000
() $140,001 - $150,000
() $150,001 - $160,000
() $160,001 - $170,000
() $170,001 - $180,000
() $180,001 - $190,000
() $190,001 - $198,000
() $198,001 and above
() prefer not to answer
() do not remember

TS1. In Response to the COVID-19 crisis, the Congress approved a $2 trillion package to stimulate the economy, including one-time $1,200 check per person (plus another $500 per child) to persons with annual income less than $75,000. Couples who filed jointly and made less than $150,000 will get a one-time $2,400 check (plus another $500 per child). The Federal government calls it an Economic Impact Payment.

Did you receive a payment from the Federal government?

() Yes, I received it as a check by mail
() Yes, I received it as a direct deposit into my bank account
() No, but I expect to receive it (my payment is scheduled, my payment is delayed, went to a wrong account/address, etc.)
() No (my household is not qualified, I don't have the right paperwork, etc.)
() Not sure, don't know

;ASK IF TS1= "YES"; SHOW TS2A AND TS2B ON THE SAME PAGE
TS2A. How much did you receive? Please give an approximate amount if you do not remember the exact amount.

_____ dollars

TS2B. When did you receive it? Please give an approximate date if you do not remember the exact date.

_____ day
_____ month

;ASK If: TS1= "Yes"
;RANDOMIZE

TS4. How did you use the payment from the Federal government? (Select one)

() Mostly to increase spending
() Mostly to increase savings
() Mostly to pay off debt

TS5A. Did you spend your payment from the Federal government on any of following?

[] Saving
[] Debt payments (mortgages, auto loans, student loans, etc.)
[] Durable goods such as houses/apartments, cars, large appliances and electronics
[] Food, health/beauty aids, and household products
[] Medical care (including health insurance, out-of-pocket medical bills and prescription drugs)
[] Other consumer spending >ANCHOR

TS5. Out of XXX dollars (REPORTED IN TS3A), how much did you spend on the items you just chose? Please report dollar amounts for each of the individual components listed below. The total should be approximately equal to XXX dollars.

[] Saving
[] Debt payments (mortgages, auto loans, student loans, etc.)
[] Durable goods such as houses/apartments, cars, large appliances and electronics
[] Food, health/beauty aids, and household products
[] Medical care (including health insurance, out-of-pocket medical bills and prescription drugs)
[] Other consumer spending
Total _____ [automatically calculated]

TS10. How did the payment from the Federal government influence your decision to look for a job or not? Please choose options that apply to you. Because of the payment, [please choose all relevant options]

[] I stopped looking for a job
[] I started looking for a job
[] I delayed looking for a job
[] I am looking for a job but put less effort into it
[] I am looking for a job and put more effort into it
[] The payment did not influence my decision >EXCLUSIVE

TS11. How did the payment from the Federal government influence your work effort? Please choose options that apply to you. **Because of the payment,**

[] I started to work fewer hours
[] I started to work more hours
[] I started to work an additional job
[] I quit some of my jobs
[] I quit working
[] The payment did not influence my work effort >EXCLUSIVE

TS3A. How much do you expect to receive?

____ dollars

TS3B. When do you expect to receive it? Please give an approximate date if you do not remember the exact date.

____ day
____ month

TS7. How do you plan to use the payment from the Federal government? (Select one)

() Mostly to increase spending
() Mostly to increase savings
() Mostly to pay off debt

TS12. How would the payment from the Federal government influence your decision to look for a job or not? Please choose options that apply to you. **Because of the payment,**

[] I would stop looking for a job
[] I would start looking for a job
[] I would be looking for a job
[] I would be looking for a job but put less effort into it
[] I would be looking for a job and put more effort into it
[] The payment would not influence my decision >EXCLUSIVE

TS13. How would the payment from the Federal government influence your work effort? Please choose options that apply to you. **Because of the payment,**

[] I would start to work few hours
[] I would start to work more hours
[] I would start to an additional job
[] I would quit some of my jobs
[] I would quit working
[] The payment would not influence my work effort >EXCLUSIVE

TS8. If you were to receive a one-time $1,000 payment from the government, how would you use it? (Select one)

() Mostly to increase spending
() Mostly to increase savings
() Mostly to pay off debt

TS14. If you were to receive a payment from the Federal government, how would it influence your decision to look for a job or not? Please choose options that apply to you. **Because of the payment,**

[] I would stop looking for a job
[] I would start looking for a job
[] I would delay looking for a job
[] I would be looking for a job but put less effort into it
[] I would be looking for a job and put more effort into it
[] The payment would not influence my decision >EXCLUSIVE

TS15. If you were to receive a payment from the Federal government influence, how would it influence your work effort? Please choose options that apply to you. **Because of the payment,**

[] I would start to work few hours
[] I would start to work more hours
[] I would start to an additional job
[] I would quit some of my jobs
[] I would quit working
[] The payment would not influence my work effort >EXCLUSIVE

Appendix B. Additional Figures and Tables

Appendix Table 1. Expenditure shares for the stimulus payment by spending/saving use, quantitative responses, Tobit, marg. effects.

	Saving	Debt payments	Durable goods	Food, health/beauty aids, and HH products	Medical care	Other consumer spending	Total spending
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Male (gender of the respondent)	3.757***	3.392***	5.174***	1.345*	1.167**	4.192***	-0.482
	(1.002)	(0.998)	(0.731)	(0.738)	(0.519)	(0.859)	(1.073)
Hispanic	-0.323	4.047***	0.706	0.194	2.625***	4.724***	0.121
	(1.520)	(1.453)	(0.945)	(1.046)	(0.821)	(1.334)	(1.520)
Race: Black	0.170	5.429***	3.698***	7.200***	3.181***	1.956*	2.512*
	(1.410)	(1.336)	(0.935)	(1.140)	(0.761)	(1.122)	(1.370)
Race: Asian	0.760	-2.122	2.553	7.871***	3.041**	-0.788	5.530**
	(2.193)	(2.125)	(1.631)	(1.993)	(1.318)	(2.036)	(2.407)
Race: Other non-white	0.482	3.881**	0.978	1.566	0.470	1.800	-0.972
	(2.040)	(1.815)	(1.212)	(1.271)	(0.917)	(1.593)	(1.962)
A child under 6 years old	3.489**	0.396	0.596	-0.182	1.042	2.376*	-1.009
	(1.750)	(1.432)	(0.907)	(1.095)	(0.821)	(1.401)	(1.589)
A child between 7 and 12 years old	1.867	0.545	0.772	0.688	1.417*	0.747	-0.563
	(1.584)	(1.344)	(0.874)	(1.016)	(0.761)	(1.237)	(1.466)
A child between 13 and 17 years old	-2.334	1.622	2.100**	2.116**	1.221	3.464***	3.027**
	(1.488)	(1.336)	(0.915)	(1.030)	(0.767)	(1.326)	(1.462)
Household size	-1.718***	-0.161	1.006***	2.084***	0.068	0.084	2.184***
	(0.562)	(0.493)	(0.302)	(0.375)	(0.238)	(0.434)	(0.547)
Age (of the respondent)	-0.046	-0.173***	-0.126***	-0.045	0.077***	0.052	0.068
	(0.040)	(0.039)	(0.024)	(0.028)	(0.019)	(0.032)	(0.042)
Household head's education: Some college	-2.900**	-0.161	-2.663***	-2.541***	-1.791***	-4.812***	-3.006**
	(1.185)	(1.110)	(0.606)	(0.745)	(0.486)	(0.799)	(1.192)
Household head's education: College+	-4.617***	-4.013***	-7.686***	-7.685***	-4.910***	-10.052***	-5.974***
	(1.231)	(1.185)	(0.654)	(0.825)	(0.537)	(0.884)	(1.306)
Log(Household income)	7.010***	3.212***	1.188***	-0.661	1.614***	1.146**	-4.451***
	(0.792)	(0.683)	(0.448)	(0.488)	(0.368)	(0.558)	(0.737)
Housing: own, have mortgage	-5.182***	16.386***	-0.558	-3.147***	-0.380	-3.633***	-8.449***
	(1.096)	(1.219)	(0.784)	(0.847)	(0.554)	(0.910)	(1.255)
Housing: rent	-2.327*	7.277***	1.936**	2.333**	-0.687	-2.048**	-1.546
	(1.227)	(1.311)	(0.825)	(0.909)	(0.591)	(0.949)	(1.324)
Housing: other arrangement	-2.817	3.318	0.809	4.610**	-1.192	3.764*	2.534
	(2.508)	(2.415)	(1.461)	(1.919)	(0.966)	(1.922)	(2.597)
Employed (of the respondent)	-1.549	5.716***	-0.692	-2.044***	-1.117**	-2.743***	-4.655***
	(1.085)	(1.039)	(0.666)	(0.732)	(0.500)	(0.880)	(1.138)
Unemployed (of the respondent)	-8.338***	7.399***	0.502	2.687**	-0.832	-3.535***	-1.864
	(1.807)	(1.754)	(0.995)	(1.233)	(0.744)	(1.258)	(1.758)
Liquidity constrained	-21.666***	12.135***	0.930	7.960***	4.335***	0.068	9.958***
	(0.935)	(1.039)	(0.641)	(0.778)	(0.556)	(0.833)	(1.079)
Liquidity constrained (prefer not to answer)	-13.113***	9.711***	0.766	3.610***	2.196**	0.195	6.848***
	(1.288)	(1.757)	(1.041)	(1.282)	(0.990)	(1.327)	(1.773)
Financial wealth lost due to COVID, flag	-0.174	-0.090	1.734*	1.881*	0.737	0.394	1.989
	(1.366)	(1.341)	(1.001)	(1.110)	(0.665)	(1.246)	(1.505)
Earnings lost due to COVID, flag	-4.939***	3.982***	-0.571	1.730**	2.788***	-2.196**	0.857
	(1.203)	(1.114)	(0.704)	(0.820)	(0.625)	(0.960)	(1.198)
Current unemployment rate	-0.069**	0.028	-0.006	0.037**	0.017	-0.014	0.032
	(0.027)	(0.023)	(0.015)	(0.016)	(0.011)	(0.019)	(0.026)
Expected inflation over the next 12 months	-0.250***	0.246***	0.006	-0.035	0.034	0.084	0.002
	(0.085)	(0.079)	(0.051)	(0.056)	(0.039)	(0.066)	(0.085)
No stay-at-home order as of April 7, 2020	-2.715	-2.253	1.824	-1.885	-0.109	3.898*	4.203*
	(2.149)	(2.038)	(1.548)	(1.470)	(0.981)	(2.110)	(2.506)
Stimulus payment received as a check	0.225	-3.157***	-0.445	-0.235	-0.445	1.399	1.207
	(1.125)	(1.084)	(0.675)	(0.804)	(0.504)	(0.924)	(1.209)
Log(stimulus payment)	2.788***	0.727	-1.415**	-2.240***	-0.325	-0.895	-3.989***
	(0.985)	(0.896)	(0.566)	(0.771)	(0.470)	(0.820)	(1.042)
Time to normal conditions (months)	0.024	-0.004	0.008	-0.004	0.030	0.008	-0.014
	(0.049)	(0.046)	(0.031)	(0.033)	(0.022)	(0.038)	(0.050)
Expected mortgage rate	-0.060	-0.076*	0.089***	0.082***	0.041**	-0.043	0.136***
	(0.053)	(0.040)	(0.022)	(0.028)	(0.019)	(0.036)	(0.044)
Observations	9,868	9,868	9,868	9,868	9,868	9,868	9,868

Notes: The table reports marginal effects for Tobit estimates of specification (2) where the dependent variable is the share of stimulus payment used for the purposes indicated in the column title. The sample includes those who received a check. Robust standard errors are in parentheses. ***, **, * denote statistical significance at 1, 5 and 10 percent.

Appendix Table 2. Reported shares for uses of stimulus payments, qualitative response.

State	Saving	Debt payments	Durable goods	Food, health/beauty aids, and HH products	Medical care	Other consumer spending	Total spending
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Alabama	0.26	0.24	0.07	0.24	0.06	0.13	0.50
Arizona	0.23	0.32	0.10	0.16	0.06	0.13	0.45
Arkansas	0.26	0.32	0.10	0.14	0.04	0.15	0.43
California	0.27	0.31	0.06	0.17	0.05	0.14	0.42
Colorado	0.27	0.29	0.07	0.12	0.06	0.19	0.44
Connecticut	0.31	0.37	0.05	0.12	0.05	0.09	0.32
Delaware	0.30	0.31	0.06	0.20	0.03	0.11	0.39
District of Columbia	0.40	0.41	0.05	0.04	0.00	0.08	0.18
Florida	0.28	0.33	0.06	0.16	0.06	0.10	0.39
Georgia	0.29	0.32	0.06	0.16	0.04	0.13	0.39
Idaho	0.29	0.20	0.08	0.14	0.11	0.19	0.51
Illinois	0.29	0.33	0.07	0.15	0.06	0.09	0.38
Indiana	0.24	0.32	0.08	0.16	0.06	0.14	0.44
Iowa	0.24	0.33	0.09	0.09	0.04	0.21	0.43
Kansas	0.33	0.25	0.11	0.13	0.08	0.10	0.42
Kentucky	0.24	0.24	0.10	0.22	0.04	0.15	0.52
Louisiana	0.17	0.33	0.09	0.26	0.03	0.12	0.50
Maine	0.30	0.34	0.02	0.15	0.04	0.15	0.36
Maryland	0.36	0.23	0.08	0.16	0.05	0.12	0.41
Massachusetts	0.31	0.28	0.06	0.20	0.04	0.10	0.41
Michigan	0.32	0.27	0.08	0.14	0.07	0.13	0.41
Minnesota	0.27	0.27	0.07	0.13	0.07	0.20	0.46
Mississippi	0.13	0.35	0.07	0.23	0.07	0.15	0.52
Missouri	0.28	0.29	0.07	0.18	0.06	0.12	0.42
Montana	0.33	0.21	0.07	0.18	0.11	0.10	0.46
Nebraska	0.24	0.33	0.07	0.19	0.07	0.10	0.43
Nevada	0.24	0.33	0.12	0.17	0.08	0.07	0.43
New Hampshire	0.20	0.38	0.07	0.18	0.04	0.13	0.42
New Jersey	0.29	0.36	0.05	0.15	0.04	0.10	0.34
New Mexico	0.30	0.27	0.07	0.15	0.06	0.15	0.44
New York	0.29	0.31	0.07	0.19	0.04	0.10	0.40
North Carolina	0.24	0.30	0.07	0.20	0.07	0.12	0.46
North Dakota	0.43	0.08	0.08	0.14	0.03	0.25	0.49
Ohio	0.27	0.28	0.10	0.14	0.05	0.16	0.45
Oklahoma	0.23	0.30	0.08	0.12	0.10	0.17	0.47
Oregon	0.30	0.32	0.06	0.11	0.08	0.13	0.38
Pennsylvania	0.28	0.30	0.07	0.15	0.05	0.16	0.42
Rhode Island	0.15	0.42	0.07	0.16	0.06	0.13	0.43
South Carolina	0.30	0.30	0.04	0.15	0.10	0.11	0.40
South Dakota	0.20	0.34	0.04	0.19	0.11	0.11	0.45
Tennessee	0.28	0.34	0.07	0.15	0.06	0.10	0.38
Texas	0.27	0.34	0.06	0.16	0.06	0.10	0.39
Utah	0.35	0.32	0.13	0.11	0.03	0.06	0.34
Vermont	0.23	0.32	0.05	0.24	0.07	0.09	0.45
Virginia	0.22	0.37	0.07	0.15	0.06	0.13	0.41
Washington	0.23	0.30	0.09	0.18	0.05	0.14	0.47
West Virginia	0.21	0.33	0.07	0.21	0.08	0.09	0.46
Wisconsin	0.33	0.33	0.05	0.13	0.05	0.11	0.34
Wyoming	0.30	0.26	0.25	0.13	0.06	0.00	0.44

Notes: the table reports the distribution for uses of stimulus check by state. Each column shows the share spent on the use indicated in the column title.

	Mean	St.Dev.
Male (gender of the respondent)	0.33	0.47
Hispanic	0.14	0.35
Race: Black	0.13	0.33
Race: Asian	0.05	0.22
Race: Other non-white	0.08	0.27
A child under 6 years old	0.11	0.31
A child between 7 and 12 years old	0.14	0.35
A child between 13 and 17 years old	0.14	0.35
Household size	2.49	1.31
Age (of the respondent)	50.79	15.15
Household head's education: Some college	0.31	0.46
Household head's education: College+	0.42	0.49
Log(Household income)	10.86	0.82
Housing: own, have mortgage	0.37	0.48
Housing: rent	0.31	0.46
Housing: other arrangement	0.05	0.21
Employed (of the respondent)	0.54	0.50
Unemployed (of the respondent)	0.08	0.27
Liquidity constrained	0.32	0.47
Liquidity constrained (prefer not to answer)	0.09	0.29
Financial wealth lost due to COVID, flag	0.13	0.34
Earnings lost due to COVID, flag	0.18	0.38
Current unemployment rate	22.45	19.46
Expected inflation over the next 12 months	2.79	5.32
No stay-at-home order as of April 7, 2020	0.04	0.18
Log(stimulus payment)	7.30	0.53
Time to normal conditions (months)	11.08	9.14
Expected mortgage rate	8.27	11.44