

How Did US Consumers Use Their Stimulus Payments?

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The Fiscal Response To Covid Timeline

- February 29th: first (real-time) reported death from Covid-19 in US
- March 12th: 1,500 confirmed U.S. cases, school closures in 12 states, MLS, NHL, and NCAA cancel seasons
- March 16th: Trump issues guidance against gatherings of 10 or more
- March 26th: Number of cases in U.S. surpasses that in China (85,000)
- March 27th: The CARES Act is signed by President Trump
- December 27th: Second round of stimulus checks signed

The CARES Act

Over \$2 trillion allocated to:

- \$1200 transfer to all adults (+\$500/child) subject to income caps
- \$600/week extra UI payments + extended duration for certain cases
- PPP: Forgivable loans to small businesses for payroll, rent, etc ...
- Employee retention credit: any firm facing closures or hardship
- \$150 billion to help states cover covid-related health costs

The CARES Act

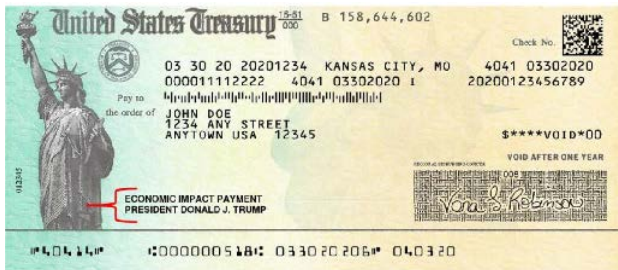
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How successful were payments in increasing household spending?

What We Do

- Large-scale survey of U.S. households (12,000 people)
- Study how they used their stimulus payments
- First wave about Covid in field on April 2nd
- Ask about timing, magnitude, and method of disbursement



What We Do

- Large-scale survey of U.S. households (12,000 people)
- Study how they used their stimulus payments
- First wave about Covid in field on April 2nd
- Ask about timing, magnitude, and method of disbursement
- Ask whether stimulus payments affected their *labor supply* decisions
- Additional questions: detailed demographics, expectations, etc.

What We Find

- Only 15% of respondents say that they “mostly spent” payments
- Majority reports paying off debt
 - Lower than 20% found for 2001 and 2008 rebate checks
Shapiro and Shapiro (2003) and Sahm et al. (2010)

What We Find

- Only 15% of respondents say that they “mostly spent” payments
- Majority reports paying off debt
- Spent 40% on average, little on durables
 - Lower than the 2/3 share for 2001 rebates
Johnson, Parker, Souleles (2006)
 - Lower than 50-90% share for 2008 rebates
Parker et al (2013)
 - Also different spending composition
Parker et al (2013)

What We Find

- Only 15% of respondents say that they “mostly spent” payments
- Majority reports paying off debt
- Spent 40% on average, little on durables
- Higher MPCs for
 - Liquidity constrained
 - Unemployed
 - Larger households
 - Less educated
 - Smaller amounts
- Similar to previous episodes for constrained or less-educated
- Diminishing returns to payment size

What We Find

- Majority reports paying off debt
- Spent 40% on average, little on durables
- Higher MPCs for less educated and receiving smaller amounts
- Little effect on labor supply for most
- 20% of unemployed workers search harder due to the payment

Other Evidence on EIP Effects

- Cox et al: Higher spending around unobserved payments in Chase
- Baker et al: 30% spent within 10 days for app users

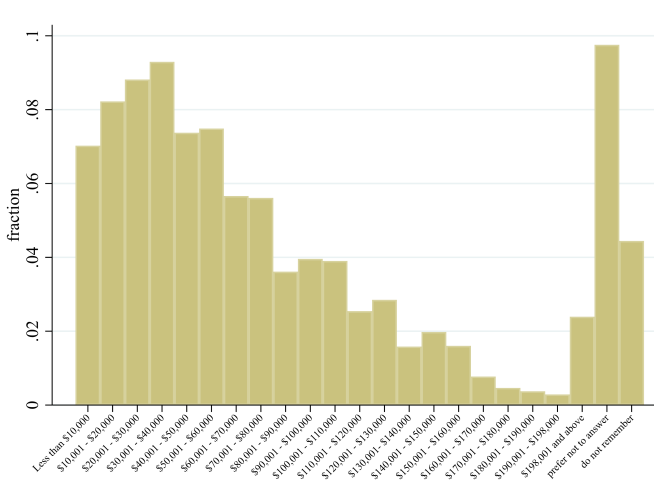
We contribute to literature:

- Information on who, when, and how received payment
- Representative sample (higher income & users w/o bank account)
- longer time period post receipt of payment
- labor supply effects
- macroeconomic expectations
- hypothetical questions to those who haven't / won't receive checks

The Survey

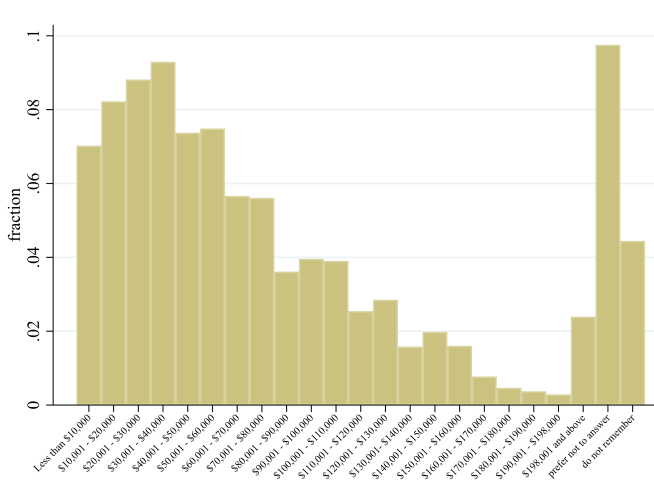
- Individuals participating in the Nielsen Homescan panel
- Representative panel of 80-90K households who track spending weekly
- Survey run quarterly
- July 2020 wave:
 - 25% response rate yielding about 12K responses
 - Questions on expectations, labor market status, spending patterns, etc.
(Coibion, Gorodnichenko & Weber, R&R JPE); D'Acunto, Malmendier, Ospina, & Weber, JPE '21
 - New questions on stimulus & effects on spending & labor supply

Taxable Income in 2018/19



- Survey: 71% report income <\$80K
- IRS: 73% report income <\$75K in 2017

Taxable Income in 2018/19

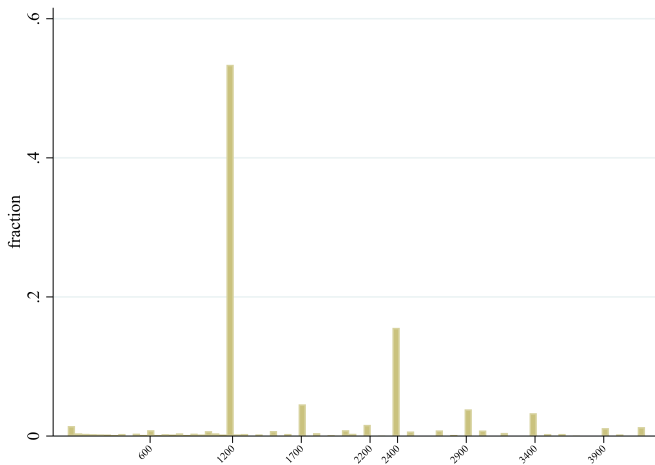


- Survey: 2.5% report income $>$ \$200K
- IRS: 5% report income $>$ \$200K in 2017

Stimulus Payment

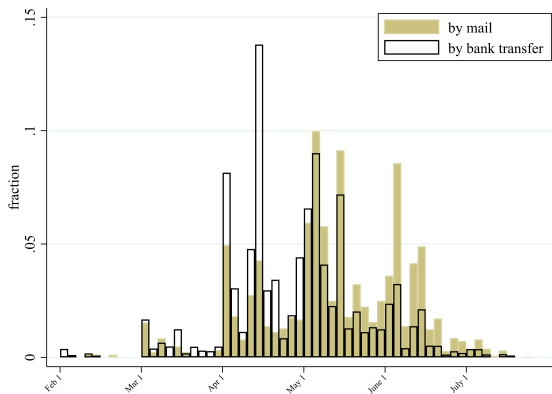
If and How Check was Received	Percent
Yes, I received it as a check by mail	16.52
Yes, I received it as a direct deposit	64.68
No, but I expect to receive it (payment scheduled, payment delayed, etc.)	3.14
No (not qualified, not right paperwork, etc.)	10.55
Not sure, don't know	5.11
Nobs	11,793

Size of Payments



■ \$1,200 & \$2,400 most frequent responses

Timing of Payments



IRS:

- 90 million payments distributed as of April 17th
- 130 million payments as of May 11th
- out of over 150 million to be paid out

How Payments were Used

- How did you use the payment from the Federal government?
 - Mostly to increase spending
 - Mostly to increase savings
 - Mostly to pay off debt
- Follows Shapiro and Slemrod (2003) & Sahm et al (2010)

How Payments were Used

	Received check Actual Spending	Expect check Planned Spending	Expect no check Hypothetical Spending
Mostly increase spending	15.04	12.97	14.17
Mostly increase savings	32.80	38.38	45.76
Mostly pay off debt	52.17	48.65	40.07
Nobs	9,966	336	1,491

- Only 15% respond that check mostly used to increase spending
- Similar for those expecting checks and who did not qualify

How Payments were Used

- Did you spend your payment on any of following?
 - Saving
 - Debt payments (mortgages, auto loans, student loans, etc.)
 - Durable goods (houses/apartments, cars, large appliances, electronics)
 - Food, health/beauty aids, and household products
 - Medical care (health insurance, out-of-pocket bills, prescription drugs)
 - Other consumer spending

How Payments were Used

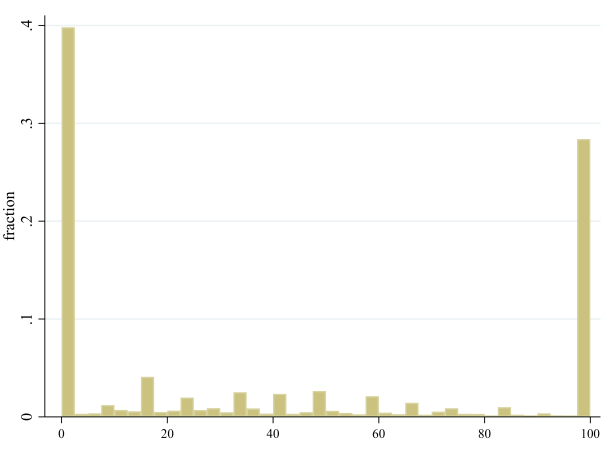
- TS5. Out of [XXX] dollars, how much did you spend on the items you just chose? Please report dollar amounts for each of the individual components listed below. The total should be approximately equal to [XXX] dollars.
 - Saving
 - Debt payments (mortgages, auto loans, student loans, etc.)
 - Durable goods (houses/apartments, cars, large appliances, electronics)
 - Food, health/beauty aids, and household products
 - Medical care (health insurance, out-of-pocket bills, prescription drugs)
 - Other consumer spending Total [automatically calculated]

How Payments were Used

Spending item	Qualitative Response			
	Any	Mostly Spend	Mostly Save	Mostly Pay debts
Saving	0.27	0.07	0.73	0.04
Debt payments	0.31	0.10	0.06	0.53
Total spending	0.42	0.84	0.21	0.42
Durable goods	0.07	0.17	0.03	0.07
Food, health, beauty	0.16	0.31	0.08	0.17
Medical care	0.06	0.05	0.03	0.08
Other consumer spending	0.13	0.31	0.07	0.11

- Qualitative answers are broadly consistent with quantitative answers
- Spending went mostly to food/health/other consumer products
- Composition of spending varies across qualitative categories

Distribution by Share of Spending



30% spent whole check drive spending results

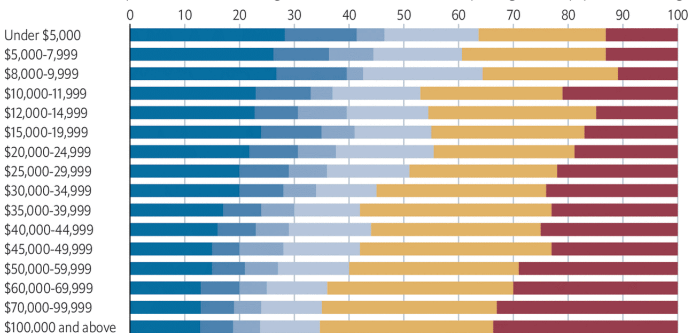
Distribution of Spending Share by Income

Hey big saver

United States, stimulus payment use by household income, %

July 2020

■ Food, health, beauty & household ■ Durable goods* ■ Medical care ■ Other spending ■ Debt payments ■ Savings



Source: "How Did U.S. Consumers Use Their Stimulus Payments?" by Olivier Coibion, Yuriy Gorodnichenko and Michael Weber, NBER working paper 2020

*Cars, appliances and other big-ticket items that last longer than a few years

The Economist

Income determines savings and consumption response

Who are People with high MPC's?

Selected results from regression of MPC on observables:

$$s_i^{cat} = \alpha + \beta X_i + error,$$

s_i^{cat} : share of individual i 's stimulus went to a specific categories:

- saving
- paying off debt
- spending
 - food/beauty/personal products
 - durables
 - spending on medical services
 - spending on other consumer products and services

Who are People with high MPC's?

	Saving	Debt payments	Total spending
Male	0.903 (1.167)	0.421 (1.144)	-1.324 (1.226)
Hispanic	-3.466 ** (1.632)	4.070 ** (1.899)	-0.604 (1.894)
Race: Black	-4.470*** (1.523)	3.036* (1.669)	1.433 (1.698)
Household size	-1.679*** (0.590)	-0.358 (0.613)	2.037*** (0.641)
Age	0.024 (0.045)	-0.112 ** (0.046)	0.087* (0.049)

- Tend to live in larger households
- Are older

Who are People with high MPC's?

	Saving	Debt payments	Total spending
Education: Some college	1.510 (1.287)	2.500* (1.330)	-4.010*** (1.451)
Education: College+	3.127 * * (1.408)	1.617 (1.408)	-4.744*** (1.536)
Housing: own, have mortgage	-5.803*** (1.373)	15.130*** (1.291)	-9.327*** (1.408)
Housing: rent	-3.582 * * (1.404)	5.206*** (1.378)	-1.624 (1.538)
R-squared	0.126	0.082	0.079

- Tend to be less educated
- Owners or renters compared to mortgage holders

Who are People with high MPC's?

	Saving	Debt payments	Total spending
Log(Household income)	4.125*** (0.769)	1.180 (0.795)	-5.305*** (0.874)
Employed	-1.769 (1.243)	5.513*** (1.222)	-3.744*** (1.308)
Unemployed	-7.376*** (1.670)	8.565*** (2.131)	-1.189 (2.151)
Liquidity constrained	-21.77*** (1.095)	11.948*** (1.242)	9.822*** (1.277)
R-squared	0.126	0.082	0.079

- Tend to be lower income
- Tend to be out of the labor force
- Liquidity constrained (can't cover unexpected payment one month of income)

Who are People with high MPC's?

	Saving	Debt payments	Total spending
Covid-lost financial wealth	-1.712 (1.656)	-1.030 (1.600)	2.742 (1.705)
Covid-lost earnings	-4.423*** (1.322)	4.952*** (1.405)	-0.530 (1.411)
No lockdown as of April 7, 2020	-2.555 (2.411)	-0.955 (2.366)	3.511 (2.772)
Time to normal conditions (months)	0.007 (0.052)	-0.013 (0.055)	0.005 (0.058)

- No big role for Covid-specific factors

Who are People with high MPC's?

	Saving	Debt payments	Total spending
Log(stimulus payment)	1.692*** (0.591)	1.538*** (0.556)	-3.230*** (0.694)
Current unemployment rate	-0.058 ** (0.025)	0.037 (0.029)	0.021 (0.030)
Expected 12-month inflation	-0.270*** (0.091)	0.275*** (0.097)	-0.005 (0.099)
Expected mortgage rate	-0.047 (0.043)	-0.139*** (0.049)	0.186*** (0.054)

- Those who receive smaller payments
- Macro expectations don't matter much for MPC

Did Stimulus Affect Labor Supply?

To employed: 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

Did Stimulus Affect Labor Supply?

To unemployed: 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

Did Stimulus Affect Labor Supply?

	Received Check	Expect Check	No Check
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
Would not influence my work effort	0.89	0.77	0.90
Nobs	5,724	179	827

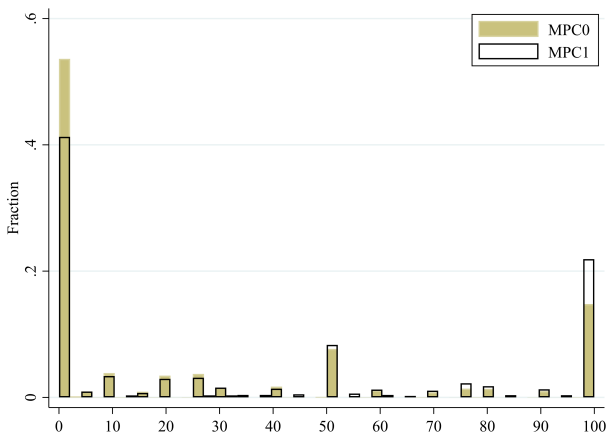
- Stimulus payment little discernible effect on labor supply
- Same qualitative result for those out of labor force

Did Stimulus Affect Labor Supply?

	Received Check	Expect Check	No Check
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
Would be looking but put less effort	0.04	0.07	0.05
Would be looking and put more effort	0.21	0.23	0.24
Would not influence my decision	0.65	0.58	0.61
Nobs	773	58	196

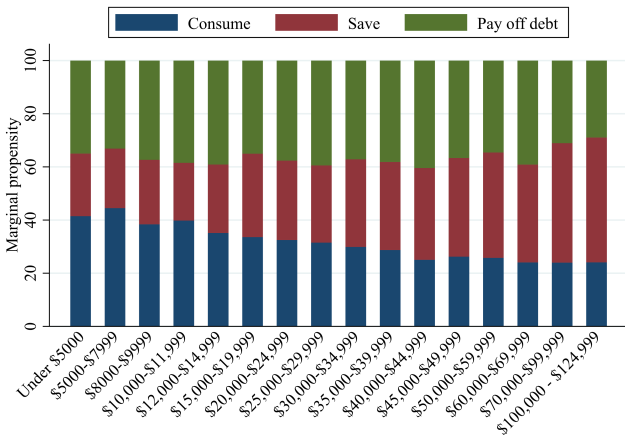
- Little effect on labor supply for majority of unemployed
- But 20-25% report searching harder b/c of check

Distribution by Share of Spending Wave 2



- MPC0: MPC at time of survey
- MPC1: $\text{MPC0} + (\text{share saved}) \times (\text{fraction of saving spent by April})$
- Lower impact MPC in wave 2 and low increase over time

Distribution of Spending Share by Income Wave 2



Income determines savings and consumption response

Hypothetical MPC by Size of Check

Transfer Size	Spending Horizon		
	1 Month	2 Months	3 Months
\$100	32.1	32.3	27.0
\$200	29.9	26.4	27.9
\$500	23.7	19.6	23.7
\$1,000	22.5	21.8	23.2
\$1,500	23.7	25.7	19.8
\$2,000	19.3	22.4	21.7
\$3,000	19.9	20.0	20.9
\$4,000	15.5	16.4	22.5
\$5,000	19.0	19.1	19.2
\$10,000	15.8	19.2	20.2

Hypothetical MPC decreases in payment size

Next Steps

- Third wave in field in April
 - Channels for labor supply effects
 - Hypothetical questions on size of check
 - Spending question by horizon
- Link to Nielsen homescan panel once data available
- Analyze hypothetical questions from September 2019 wave

Conclusion

Stimulus payments from the CARES Act

- Mild effects on spending: only 40% spent, lower than previously
- Minimal effects on labor supply, increased search of unemployed
 - Limited spending opportunities (no travel, reduced need for cars ...)
 - Larger size of the stimulus payments
- Low pass-through into consumption → should not be sole stimulus
- Follow-up stimulus payments more targeted
- Direct government spending or transfers to states likely more effective