New Evidence on Consumption and Income Dynamics from a Consumer Payment Diary

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Introduction

1. **Motivation**: Payments micro data similar to "big" transactions but are: 1) more representative; 2) public; 3) improving; 4) real-time capable.
   - *Was DCPC coverage of 2012 US consumption (Schuh 2018) a fluke?*
2. **Updated validation**: DCPC data in 2016-2020 for improved consumption and new respondent income show 2012 was not a fluke!
   - *Coverage of US is unexpectedly high and better/equal to competitors*
   - *Promising potential to forecast PCE and macroeconomy in real-time*
3. **Modeling C, Y**: Test whether DCPC micro data give reliable estimates of consumption behavior at annual (replication) and daily (new) frequencies.
   - *Data structure, availability limited DF's and requires synthetic cohorts*
   - *Basic PIH rejected (consistent w/literature); liquidity constraints less clear*
   - *MPCs = .26 (annual, HH income) and .36 (daily, respondent income)*
   - *Much room for innovation; mismatched frequencies of C, Y*
4. **Sample selection**: DCPC can identify/quantify SS effects!
   - *Preliminary evidence from payday effects, revolving, PFM*
5. **Policy implication**: DCPC merits consideration for expansion and emulation or collaboration with government data programs (CE, SCF, etc.)

US Payments Data Structure

- Annual *Survey/Diary of Consumer Payment Choice* Memory Aid
  - SCPC (2008-present): Sep, 30-minute online, recall
  - DCPC (2012, 2015-present): Oct 1-31, 3-days paper/online, recorded
  - Samples = 1,500-3,000; Frames = *ALP, UAS* (RAND, USC)

Figure: Survey/Diary Instruments

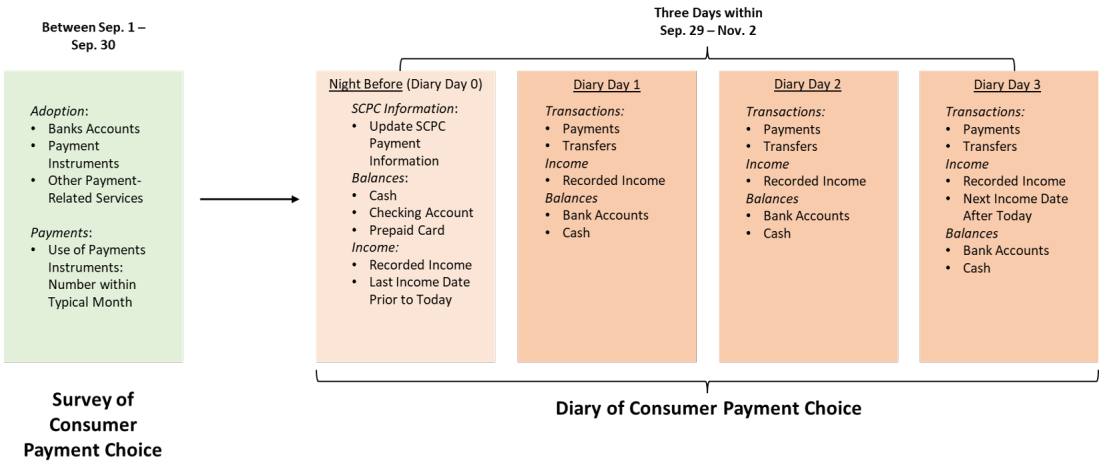
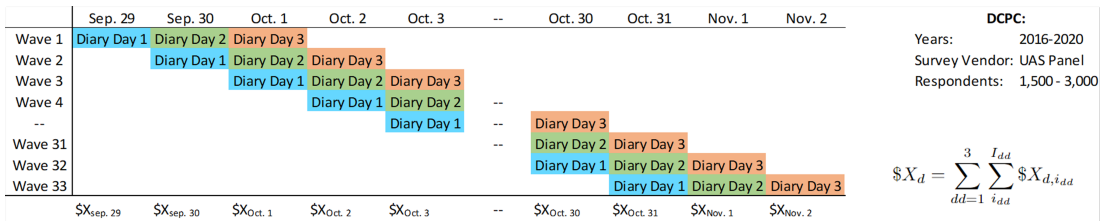


Figure: Diary Wave Implementation



Consumption Data

Payment expenditures (better measurement after 2012)

$$X = C + \tilde{X} = [C^o + C^u] + [I + DR + P2P + A2A]$$

C^o, C^u = official, unofficial consumption; I = HH investment; DR = debt reduction; $P2P$ = person-to-person payments; $A2A$ = account-to-account transfers.

Daily average per capita

$$\overline{C}_{dmt} = \frac{\sum_{i=1}^{I_{dt}} w_{idt}^D \cdot C_{idmt}}{\sum_{i=1}^{I_{dt}} w_{idt}^D}$$

for respondent i, day d, month m, year t; w are sampling weights.

Monthly average per capita

$$\overline{C}_{mt} = \frac{1}{D_m} \sum_{d=1}^{D_m} \overline{C}_{dmt}.$$

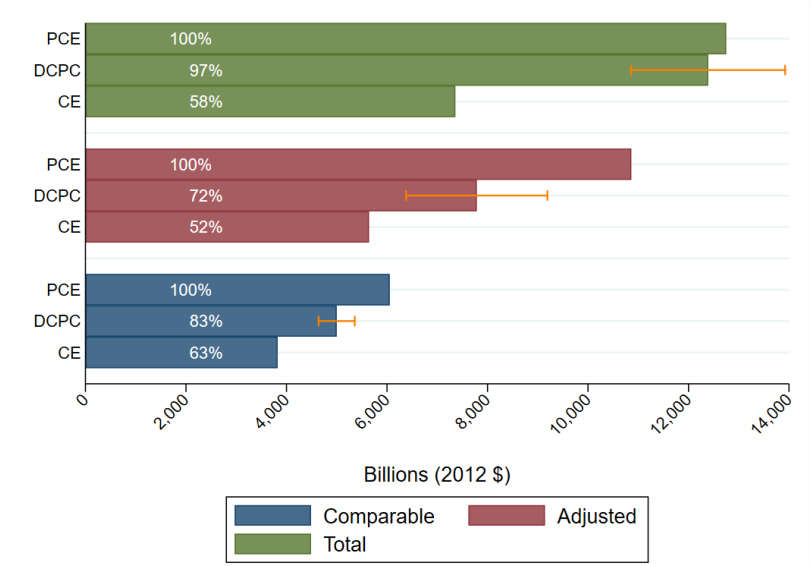
Synthetic Cohorts (Age, Gender: $k = \{1, 2, \ldots, K \leq 14\}$; Deaton (1985))

$$\overline{C}_{kdmt} = \frac{\sum_{i \in k} w_{idt}^D \cdot C_{idmt}}{\sum_{i \in k} w_{idt}^D}$$

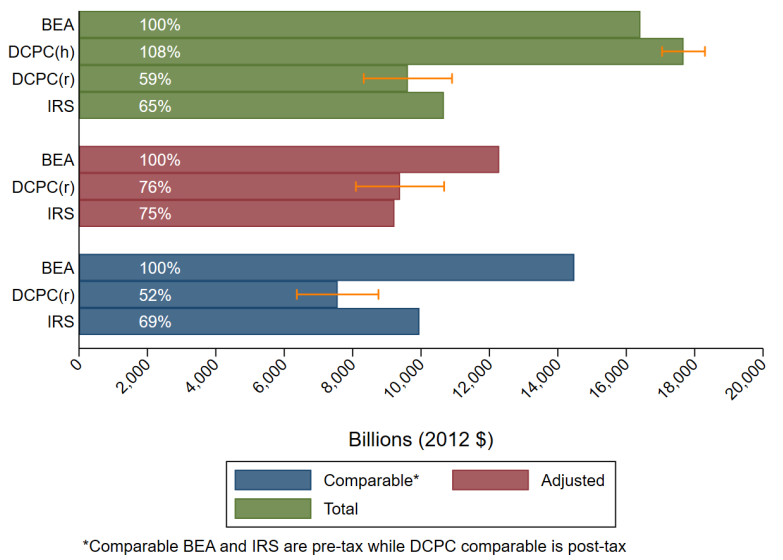
Data Validation: Matching U.S. Data

Figure: 5 Year Aggregate Consumption and Income Comparison

(a) Consumption



(b) Income



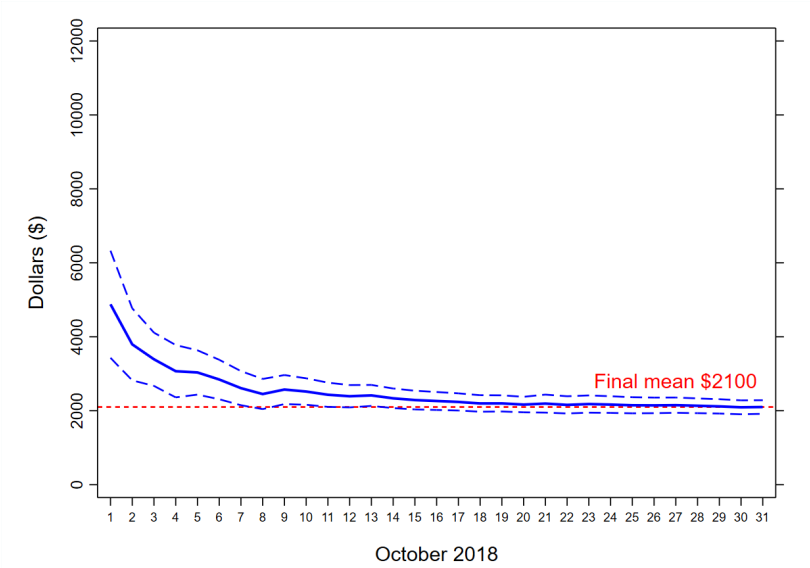
$$C_t = \overline{C}_{10,t} \cdot P_t \cdot (365.25) \text{ (Analogous for Income)}$$

Consumption Table | BEA Income Table | IRS Income Table | Annual Consumption | Annual Income | Income Types/Frequencies

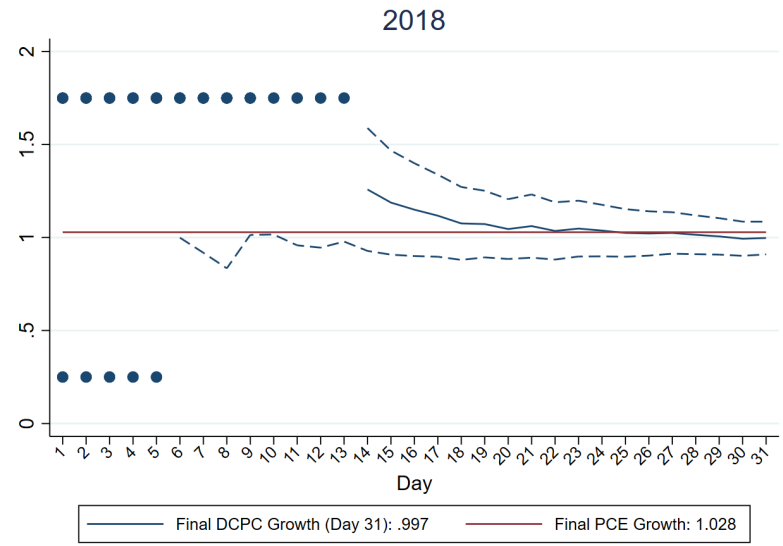
Data Validation: Real-Time Forecasting

Figure: 2018 Real-Time Projections of October Consumption

(a) DCPC Level



(b) PCE Growth Rate (gross)



(a) $\widehat{\widehat{C}}_{d,10,t}$: Daily projections of DCPC *monthly* level

(b) $\widehat{G}_{d,10,t}$: Daily projections of PCE 12-month growth (using DCPC growth)

Equations

Permanent Income Hypothesis: **Annual** Consumption

Annual Changes in Consumption & predicted H.H Income

Cannot reject PIH for M1 and M2. Reject in M3. Implied MPC from Model

Actual H.H Income: By Age Cohort

$$\Delta_m^{12} C_{kmt} = \beta_0 + \beta_1 \widehat{\Delta_m^{12} Y_{k,10,t}^H} + \beta_2 u_{k,10,t} + \varepsilon_{k,10,t}$$

Table: Annual Consumption Estimates

	M1 (Unit Root)			M2 (IV $t-2$)			M3 (AR(1): w/FEs *t,age*)		
	(1) All	(2) Unconstrained	(3) Constrained	(4) All	(5) Unconstrained	(6) Constrained	(7) All	(8) Unconstrained	(9) Constrained
Panel A *(MPC)*: $\Delta C_{k,10,t}$									
$\widehat{\Delta_m^{12} Y}_{k,10,t}^H$	0.038	-0.078	0.242	0.022	-0.128	1.274	0.255*	0.244	0.186
	(0.534)	(0.758)	(0.711)	(0.340)	(0.386)	(0.931)	(0.141)	(0.151)	(0.263)
$\widehat{u}_{k,10,t}$	0.149			0.134			-0.227		
	(0.115)			(0.136)			(0.295)		
Panel B *(Elasticity)*: $\Delta c_{k,10,t}$									
$\widehat{\Delta_m^{12} y}_{k,10,t}^H$	0.121	-0.078	0.421	0.627	0.413	2.907	0.660*	0.718*	0.315
	(1.247)	(1.799)	(1.712)	(0.998)	(1.280)	(2.316)	(0.347)	(0.379)	(0.645)
$\widehat{u}_{k,10,t}$	0.392			0.380			-0.478		
	(0.291)			(0.352)			(0.720)		

[1] High Share denotes cohorts with the highest tercile of liquidity constrained respondents, and Low Share are the remaining terciles. Liquidity constraints proxied by respondents in bottom quartile of liquidity. Lower case letters denote natural log transformations. The results of including the first stage residuals are included at the bottom of each panel, labelled $\hat{u}_{kmt}$. Standard errors are corrected for in second stage and are robust to heteroscedasticity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Annual N: 70 (5 years, 14 cohorts). Average number of respondents per cohort per day: 16. Cohorts: Age (7), gender (2).

Permanent Income Hypothesis: **Daily** Consumption

Daily Changes in Consumption & estimated respondent income

Cannot reject PIH for M1 and M2. Reject in M3. Daily Income

$$\Delta_d^1 C_{kd,10,t} = \beta_0 + \beta_1 \widehat{\Delta_d^1 Y^R_{kd,10,t}} + \beta_2 u_{kd,10,t} + \varepsilon_{kd,10,t}$$

Table: Daily Consumption Estimates

	M1[d] (Unit Root)			M2[d] (IV t-2)			M3[d] (AR(1): w/FEs *t,dow,age*)		
	(1) All	(2) Unconstrained	(3) Constrained	(4) All	(5) Constrained	(6) High Share	(7) All	(8) Constrained	(9) High Share
Panel A *(MPC)*: ΔC_{kdmt}									
$\widehat{\Delta_d^1 Y}^R_{kdmt}$	-3.124	-14.814	1.641	2.562	1.462	10.650	0.358**	0.331*	0.526
	(13.679)	(93.318)	(6.274)	(2.855)	(2.760)	(13.683)	(0.181)	(0.192)	(0.453)
$\widehat{u}_{kdmt}$	0.260*			0.287**			0.073		
			(0.136)			(0.140)	(0.216)		
Panel B *(Elasticity)*: Δc_{kdmt}									
$\widehat{\Delta_d^1 y}^R_{kdmt}$	-0.376	0.710	-0.094	0.008	-0.032	0.087	0.017***	0.022***	0.006
	(1.270)	(5.028)	(0.237)	(0.036)	(0.045)	(0.077)	(0.005)	(0.006)	(0.009)
$\widehat{u}_{kdmt}$	0.020***			0.021***			0.011*		
	(0.003)			(0.003)			(0.006)		

[1] High Share denotes cohorts with the highest tercile of liquidity constrained respondents, and Low Share are the remaining terciles. Liquidity constraints proxied by respondents in bottom quartile of liquidity. Lower case letters denote natural log transformations. The results of including the first stage residuals are included at the bottom of each panel, labelled $\hat{u}_{kdmt}$. Standard errors are corrected for in second stage and are robust to heteroscedasticity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Cohorts: Age (7), gender (2).

Payday Effects

$$\frac{C_{idmt}}{\bar{C}_i} = \sum_{s=-7}^{7} \beta_s I_i(Paid_{d+s,mt}) + \eta_i + \lambda_t + \lambda_{DOW} + \lambda_{WEEK} + \varepsilon_{idmt}$$

Figure: Payday Consumption Responses ($\hat{\beta}_s$)

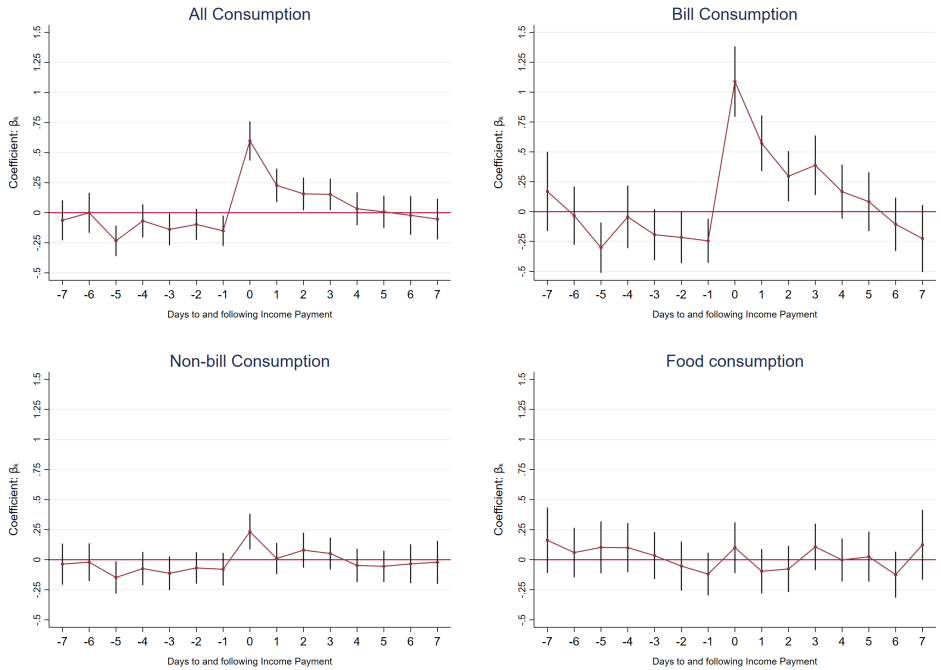


Table: Consumption Response to Income Payments

	(1) All Consumption	(2) Bill Consumption	(3) Non-bill Consumption	(4) Food Consumption
$\hat{\beta}_0$ (Payday)	0.597***	1.088***	0.233***	0.100
	(0.083)	(0.150)	(0.076)	(0.108)
Gelman (2014)	$\approx .70$		$\approx .40$	$< .10$
Olafsson and Pagel (2018)			.56	.33

Quantifying Sample Selection Across Sub-samples

- Testing daily PIH model (M3 income) across sub-samples: 1) Median Net worth; 2) Revolving Credit Card Debt (Fulford and Schuh 2020, 2023) PFM

Table: Consumption and Income Dynamics Across Convenience Samples

	A(3), G(2) (K=6)	A, G, Net Worth (K=12)		A, G Revolving (K=12)	
	(1) Benchmark	(2) $NW^{>M}$	(3) $NW^{\leq M}$	(4) Convenience	(5) Revolving
$\widehat{\Delta_d^1 Y}^R_{kdmt}$	0.424	0.176	0.426	0.405	0.766***
	(0.310)	(0.215)	(0.359)	(0.321)	(0.276)
$\widehat{\Delta_d^1 y}^R_{kdmt}$	0.019***	0.013*	0.003	0.009	0.019***
	(0.005)	(0.007)	(0.009)	(0.006)	(0.007)

[1] Groups above columns denote the cohorts. Column (1) includes 3 age cohorts, A(3), and two gender cohorts, G(2). Columns (2) - (3) utilizes the cohorts A(3), G(2), and a net worth cohort. The net worth cohort is determined by respondents above median net worth ($NW^{>M}$) and below net worth ($NW^{\leq M}$). First and second stage regressions are estimated over the sample $NW^{>M}$ and $NW^{\leq M}$. Columns (4) - (5) utilizes the cohorts A(3), G(2), and a cohort of convenience sample credit card respondents and revolving respondents. Respondents without credit cards are included as convenience users. Standard errors robust to heteroscedasticity.

[2] * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Future Opportunities

Data Construction

1. **Improve measurement instruments**
   - Expand coverage of balance sheet items (short and long term)
   - Upgrade real-time transaction interviews using theory (esp. income)
   - Fully integrated household financial statements (with RT response validation)
2. **Expand data collection**
   - More respondents (especially for geographic coverage)
   - Greater frequency (at least quarterly for macro analysis)
   - Longer diary periods (at least 7 days)
3. **Support services (Atlanta Fed); other provider (BLS, BOG, Census)?**
   - Data management, design, and delivery
   - Economic theory-based data cleaning and imputation

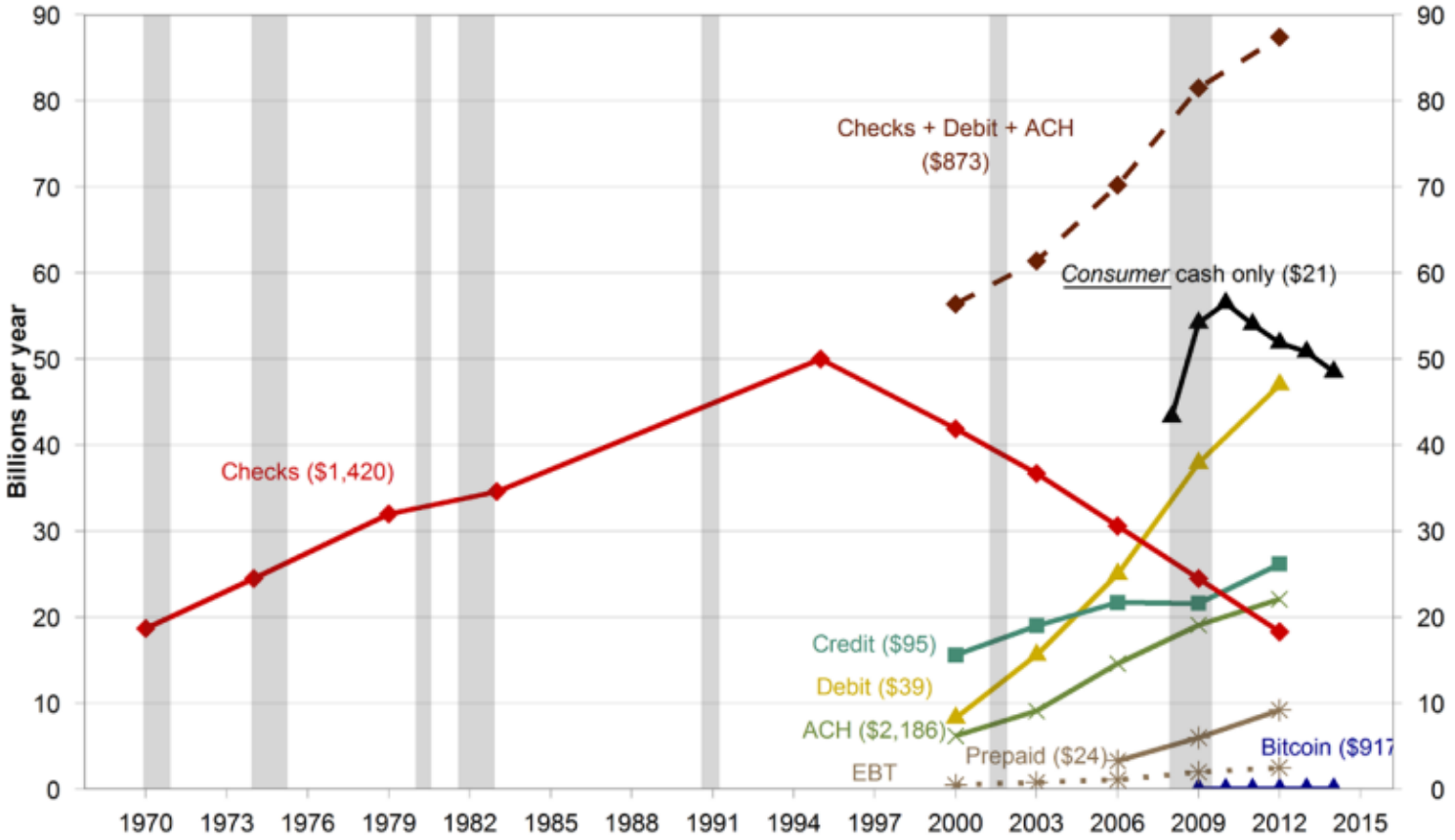
Research

1. **Provide real-time public access (requires more automation)**
2. **Target implementation for special topics with tailored RT interviews**
   - Anticipated randomized tax rebates, predictable natural disasters
3. **Merge with other data**
   - Credit bureau data (Cole, Schuh, and Stavins 2018)

Motivation: Transformation of Payments

Return

Figure: U.S. Number of Payments per Instrument



***Source**: Federal Reserve Payment Study (FRPS), Survey of Consumer Payment Choice (SCPC). Cash numbers are consumer only, and Bitcoin numbers are worldwide based on blockchain.info.

Memory Aid Design

Return

Figure: 2019 Paper Memory Aid (1 of 8 pages)

Day 1: Daily Payments

Please go online to complete the survey, even if you did not make any payments on Day 1.

Payments for (date): ____/____/______

What payment methods did you carry or have available to make payments on Diary Day 1?	P1 Cash P2 Check P3 Credit card P4 Debit card P5 Prepaid/Gift/EBT card P6 Bank account number payment P7 Online banking bill payment P8 Money order P9 Traveler's check P10 Mobile payment apps, such as PayPal, Zelle, or Venmo P11 Account-to-account transfer P12 Other

					Business, organization, or person you paid	
Time	Amount Spent	Payment Method	Did you pay in person?	Device	Type	Name
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	
____ am pm	$_____.__	P	Y/N	D	T	

Reminders

- Record all payments, no matter how small or large
- Record all payments, including bills
- Record all deposits and withdrawals
- Count your cash at the end of every day

Consumption 5-Year Averages Table

Return

Table: 5 Year Averages of Consumption

5 Year Averages (2012 Billions USD)	CE (1)	PCE (2)		DCPC (3)	CE/PCE (4)	DCPC/PCE (5)
Total Expenditures	**7,360**	**12,749**		**12,391**	**.58**	**.97**
	(138)	(151)		(781)		
-Imputed Rent	1,719	1,479				
	(66)	(23)				
-Non-Profit Goods and Services		409				
		(10)				
-Mortgage Payments, Expenses for Owned Dwellings				1,245		
				(103)		
-Taxes, Payments to Persons, Non-Classifiable				463		
				(75)		
-Loan Repayments				2,897		
				(191)		
Adjusted Consumption	**5,641**	**10,861**		**7,786**	**.52**	**.72**
	(96)	(129)		(717)		
Mostly Comparable	**3,825**	**6,089**	**6,054**	**4,999**	**.63**	**.83**
	(70)	(70)	(70)	(30)		
Food and Food Services	981	1,688	1,688	1,172	.58	.69
	(24)	(19)	(19)	(30)		
General Merchandise	447	1,087	1,087	1,228	.41	1.13
	(16)	(9)	(9)	(137)		
Housing and Utilities	1,274	1,520	1,520	1,683	.84	1.11
	(5)	(28)	(28)	(77)		
Transportation	788	915	915	389	.86	.43
	(16)	(12)	(12)	(26)		
Entertainment and Recreation	174	367	367	295	.48	.8
	(4)	(3)	(3)	(54)		
Pharmaceuticals	140	477	477	17	.29	.03
	(39)	(13)	(13)	(2)		
Other*	20	36		215	.57	NA
	(2)	(1)		(23)		
Mostly Noncomparable	**1,816**	**4,772**	**4,807**	**2,788**	**.38**	**.58**
	(117)	(79)	(79)	(689)		
2012 Estimates (Schuh 2018)						
Adjusted Consumption	4,943	9,492		8,729	.52	.92
Mostly Comparable	3,659	5,486	5,093	6,014	.67	1.18
Mostly Noncomparable	1,284	4,006	4,399	2,715	.32	.62

BEA Income 5-Year Averages Table

Return

Table: BEA and DCPC Income Estimates

5 Year Income Averages of DCPC and BEA Income (2012 Billions USD)	**BEA** (1)	**DCPC** (2)	**DCPC/BEA** (3)
Total Income	**16,413**	**9,615**	**.59**
	(313)	(659)	
Comparable	**14,480**	**7,562**	**.52**
	(294)	(609)	
Wages and Salaries	8,233	4,923	.6
	(135)	(478)	
Proprietor's Income	1,472	409	.28
	(51.40)	(107)	
Retirement, Interest, and Dividends	2,585	786	.3
	(43)	(158)	
Rental Income	623	160	.26
	(6)	(41)	
Social Security	912	1,158	1.27
	(18)	(329)	
Government Assistance	655	126	.19
	(96)	(22)	
Noncomparable	**1,932**	**2,054**	**1.06**
	(21)	(177)	
Unidentifiable Income	-	2,028	
		(177)	
Other	1,932	26	
	(21)	(5)	
Less:			
Taxes	1,949	204	
	(19)	(49)	
Employee Contributions to Retirement	298		
	(6)		
Supplements to Wages and Salaries	1,882		
	(22)		
Alimony and Child Support	-	26	
		(5)	
Adjusted Income	**12,284**	**9,386**	**.76**
	(277)	(658)	

IRS Income 5-Year Averages Table

Return

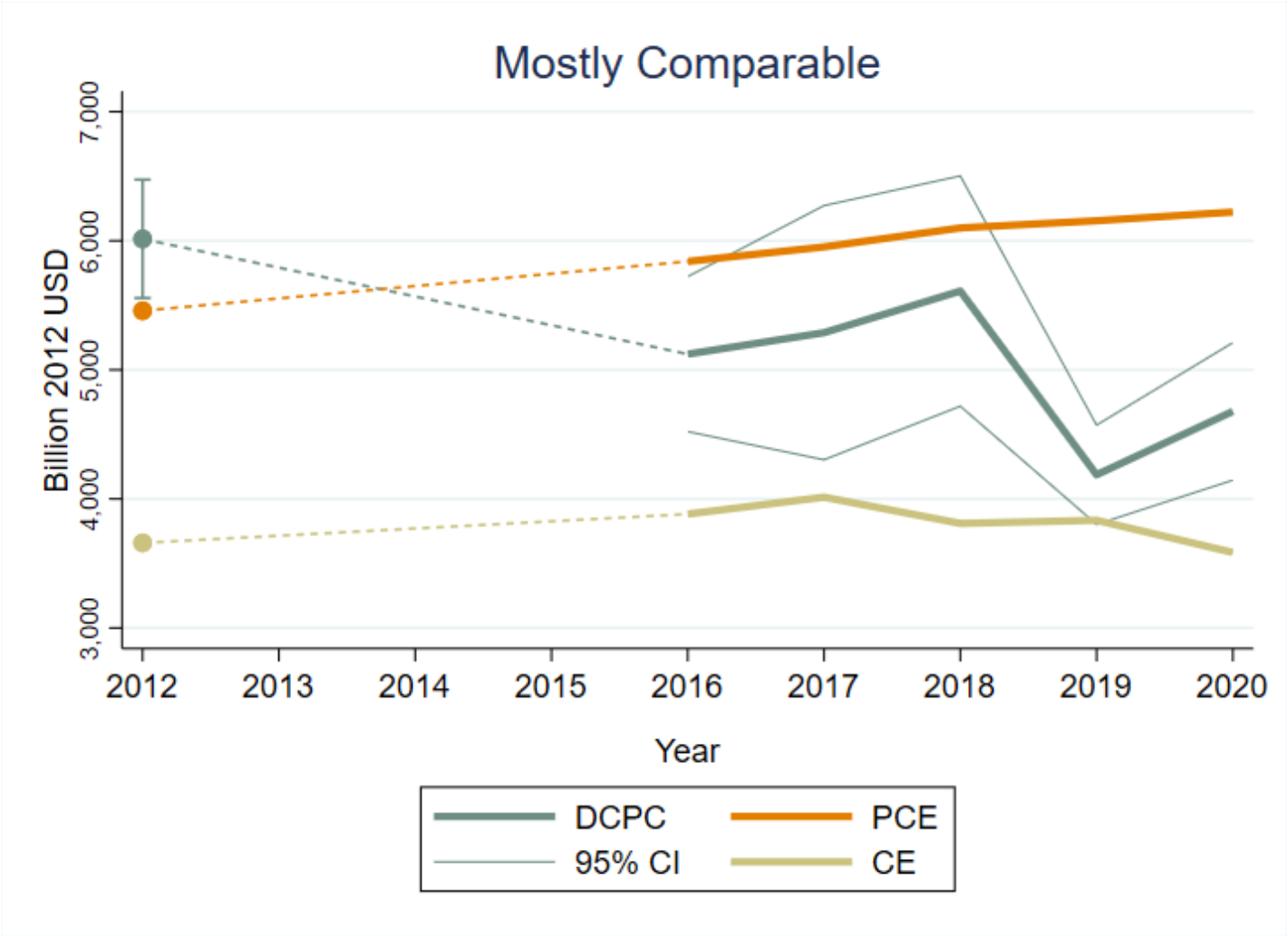
Table: IRS and DCPC Income Estimates

5 Year Income Averages of DCPC and IRS Income (2012 Billions USD)	**IRS** (1)	**DCPC** (2)	**DCPC/IRS** (3)
Total Income	**10,668**	**9,615**	**.9**
	(228)	(659)	
Comparable	**9,951**	**7,564**	**.76**
	(173)	(609)	
Wages and Salaries	7,225	4,923	.68
	(105)	(478)	
Proprietor's' Income	935	409	.44
	(8)	(107)	
Interest and Dividends	390	81	.21
	(18)	(52)	
Retirement Income	967	704	.73
	(17)	(148)	
Rental Income	53	160	3.02
	(2)	(41)	
Social Security	305	1,158	3.79
	(11)	(329)	
Government Assistance	66	126	1.91
	(44)	(22)	
Alimony	10	1	.12
	(0)	(1)	
Noncomparable	**717**	**2,053**	**2.86**
	(64)	(177)	
Unidentifiable Income	-	2,028	
		(177)	
Other	717	24	
	(64)	(5)	
Less:			
Taxes	1,446	204	
	(27)	(49)	
Child Support	-	24	
		(5)	
Adjusted Income	**9,222**	**9,387**	**1.02**
	(214)	(658)	

Annual Comparable Consumption

Return

Figure: Annual Comparable Expenditures



Annual Adjusted Income

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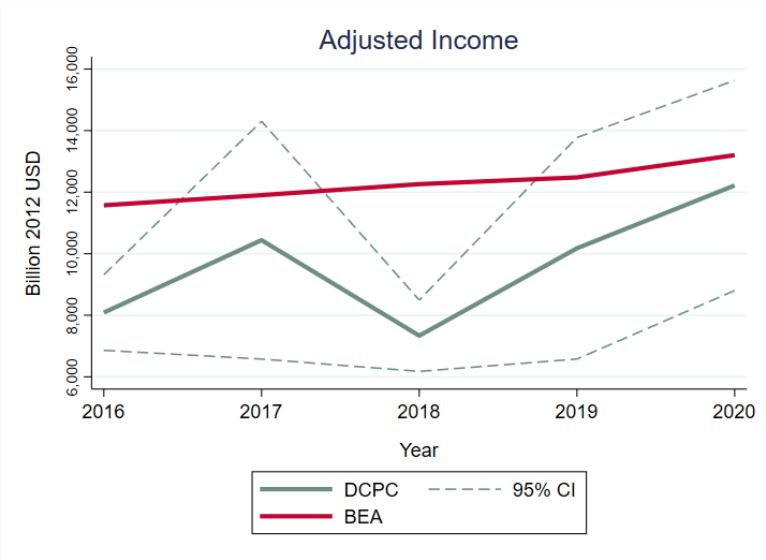
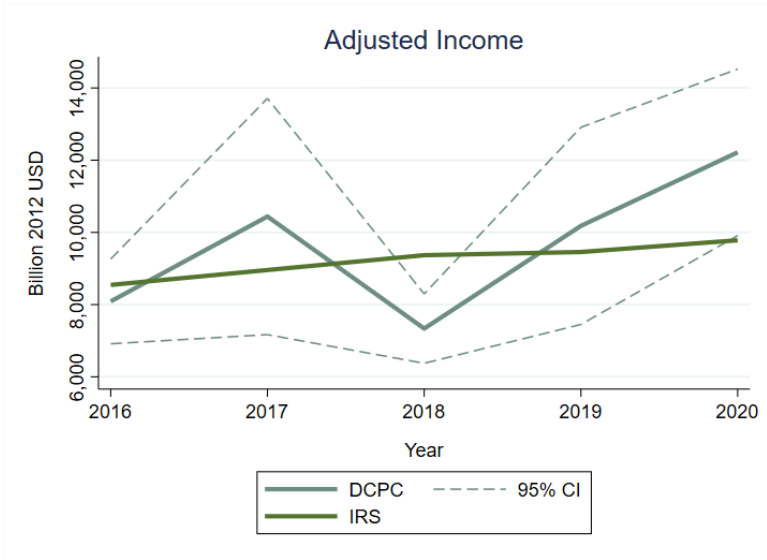
Figure: Annual Adjusted Income

(a) DCPC and BEA Income



(b) DCPC and IRS Income



Income Types and Frequency in Data

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Table: Recorded Income Identifications: 5 Year Average

	%
Respondents with Recorded Income	23.0%
Recorded Income Unidentified	21.1%
Recorded Income Identified	78.9%
Identified Income by Type:	
Employment	54.5%
Employer paid retirement	5.0%
Self-employment income	12.3%
Social Security	11.7%
Interest and dividends	3.3%
Rental income	2.9%
Government assistance	5.3%
Alimony	.2%
Child Support	2.7%
IRA, Roth IRA, 401K or other retirement fund or other retirement fund	1.9%

Real-Time Analysis Equations

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Daily Estimates of Monthly Consumption per capita

$$\bar{C}_{dmt} = \sum_{s=1}^{d} \left(\frac{31}{d} \right) \bar{C}_{sm,t}$$

Daily projection of annual DCPC growth

$$G_{d,10,t} = \left[\frac{\sum_{s=1}^{d} \overline{C}_{s,10,t}}{\overline{C}_{10,t-1}} \right]^{\frac{D_t}{d}}$$

Household Income: Age Cohorts

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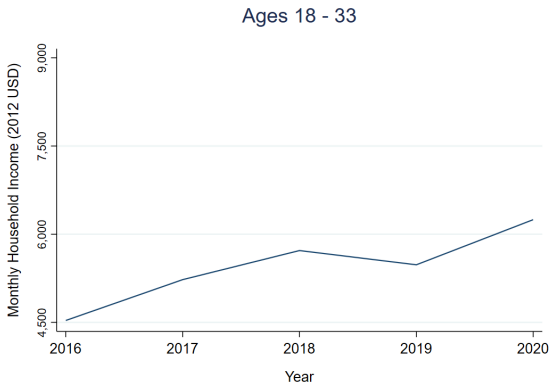
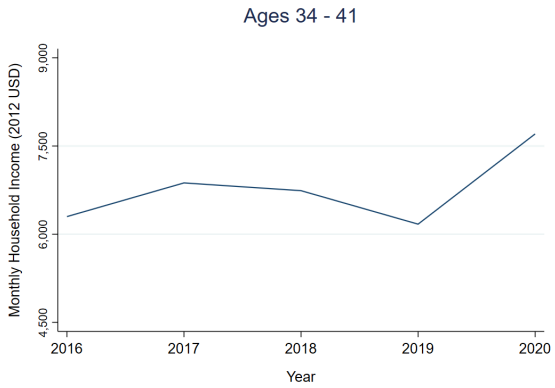
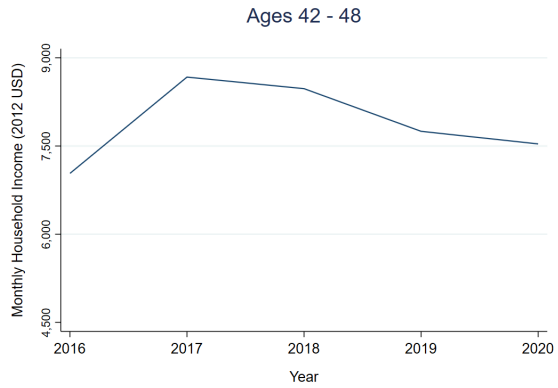
Figure: Income Profiles by Age Cohorts



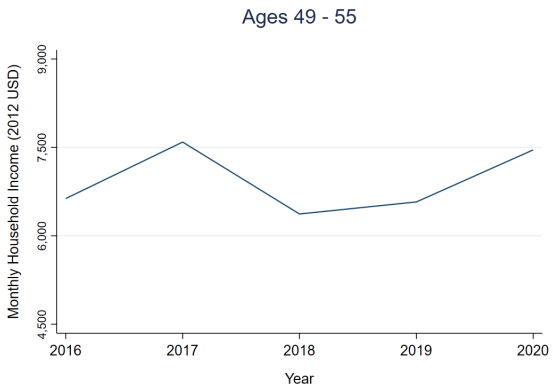
(a)



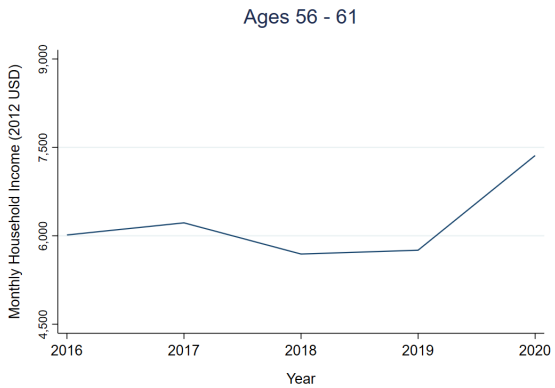
(b)



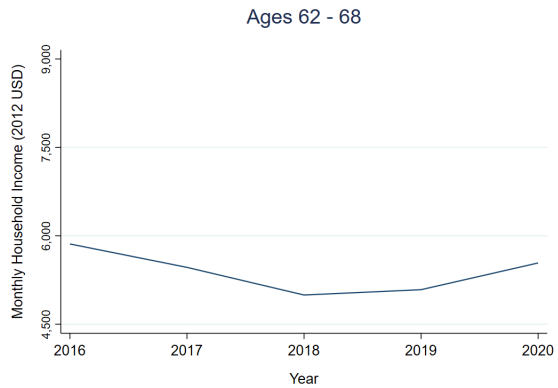
(c)



(d)



(e)

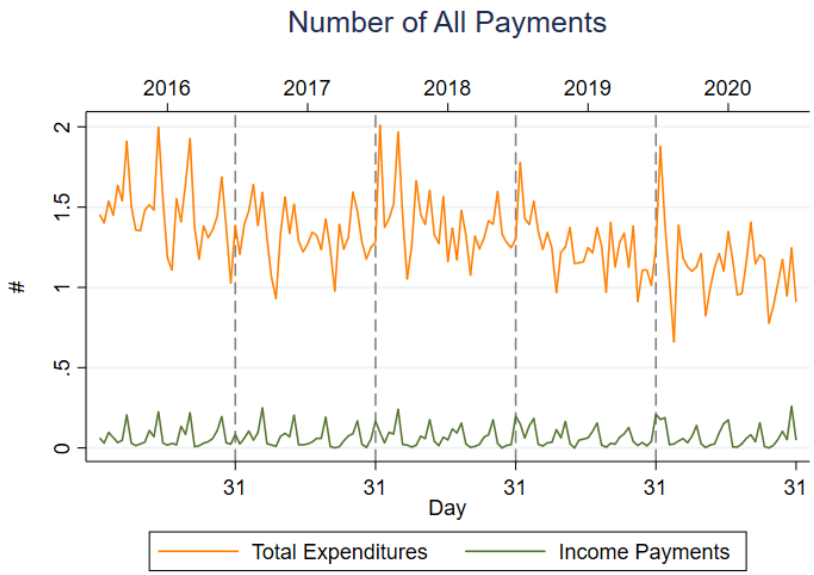


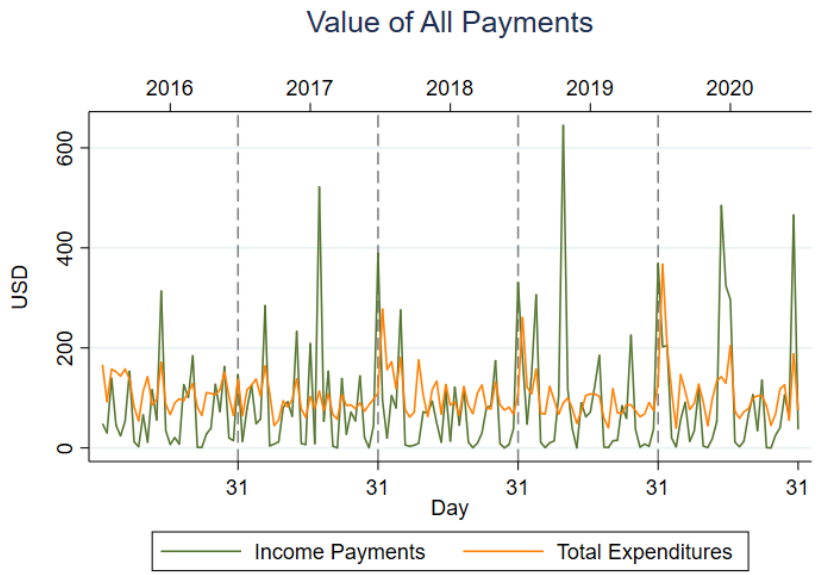
(f)

Daily Data

Return

Respondent Income and Total Expenditures





First Stage

Return

Predicting Income (First Stage):

$$\Delta_m^{12} Y_{k,10,t}^H = \alpha + u_{k,10,t}^{M1} \qquad \text{(M1: Unit Root)}$$

$$\Delta_m^{12} Y_{k,10,t}^H = \alpha + \gamma \Delta_m^{12} Y_{k,10,t-2}^H + u_{k,10,t}^{M2} \qquad \text{(M2: Lagged Income)}$$

$$\Delta_m^{12} Y_{k,10,t}^H = \alpha + (\rho - 1) Y_{k,10,t-1}^H + \lambda_t + \eta_{AGE} + \lambda_t \cdot \eta_{AGE} + u_{k,10,t}^{M3} \qquad \text{(M3: AR(1))}$$

Consumption and Income Dynamics (Second Stage):

$$\Delta_m^{12} C_{kmt} = \beta_0 + \beta_1 \widehat{\Delta_m^{12} Y_{k,10,t}^H} + \beta_2 u_{k,10,t} + \varepsilon_{k,10,t}$$

Permanent Income Hypothesis: $\beta_1 = 0$, $\beta_2 > 0$

Implied MPC and Elasticity for Unanticipated Income

Return

Estimated transitory coefficient with AR(1) process:

$$\Delta_t^1 C_{kt} = \left(\frac{r}{1+r}\right)\left(\frac{1+r}{1+r-\rho}\right) \cdot u_{kt} = \Omega \cdot u_{kt}$$

Table: Implied Consumption Response to Unanticipated Income

	(1) ρ	(2) r=.01	(3) r=.02	(4) r=.05
Panel A: MPC				
$\Omega = \frac{r}{1+r-\rho}$	.754***	0.04**	0.08**	0.17***
	(0.10)	(0.02)	(0.03)	(0.06)
Panel B: Elasticity				
$\Omega = \frac{r}{1+r-\rho}$	.805***	0.05**	0.09**	0.20**
	(0.09)	(0.02)	(0.04)	(0.08)

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Table 9 reports the implied coefficient from equation. r are the different interest rates.

Daily First Stage

Return

Predicting Income (First Stage):

$$\Delta_d^1 Y_{kd,10,t}^R = \alpha + u_{dk,10,t}^{M1^d} \qquad (\text{M1}^\text{d}\text{: Unit Root})$$

$$\Delta_d^1 Y_{dk,10,t}^R = \alpha + \gamma \Delta_d^1 Y_{k,10,t-2}^R + u_{dk,10,t}^{M2^d} \qquad (\text{M2}^\text{d}\text{: Lagged Income})$$

$$\Delta_d^1 Y_{kd,10,t}^R = \alpha + (\rho - 1) Y_{k,d-1,10,t}^R + \lambda_t + \lambda_{DOW} + Share_{kdmt}^{Payday} \qquad (\text{M3}^\text{d}\text{: AR(1)})$$
$$+ \lambda_{EoM} + \lambda_{MoM} + \lambda_{BoM} + \eta_{AGE} + \lambda_t \cdot \eta_{AGE} + u_{k,10,t}^{M3^d}$$

Consumption and Income Dynamics (Second Stage):

$$\Delta_d^1 C_{kd,10,t} = \beta_0 + \beta_1 \widehat{\Delta_d^1 Y_{kd,10,t}^R} + \beta_2 u_{kd,10,t} + \varepsilon_{kd,10,t}$$

Permanent Income Hypothesis: $\beta_1 = 0$, $\beta_2 > 0$

PFM Adoption Logit Model

Return Personal Financial Management (PFM) data, 2015-2016 SCPC

- About 6 percent of U.S. consumers have PFM in 2016! PFM Demographics 2016
- Why adopt PFM? 1) Financial distress; 2) Preferences/skills; 3) both?

Follows Schuh and Stavins (2010) payment adoption methodology

Table: $\text{Prob}(A_{it} = 1) = f(DEMOG_{it}, Z_{it}) + \varepsilon_{it}$

	(1) 2015	(2) 2016		(1) 2015	(2) 2016
Demographics			**Preferences**		
Age	-0.002***	-0.001***	Ever Automatic Bill	0.044***	0.043***
	(0.001)	(0.000)		(0.017)	(0.011)
Non-White	-0.003	0.033**	Checked Records	0.019	0.025**
	(0.020)	(0.015)		(0.020)	(0.012)
Education (Base: Any College)			Most Bill Resp.	0.019	-0.034*
High school or less	-0.058***	-0.045***		(0.027)	(0.019)
	(0.015)	(0.010)	Most Shopping Resp.	0.018	0.014
Higher Education	0.047	0.026		(0.018)	(0.012)
	(0.029)	(0.016)	Most Saving/Invest. Resp.	0.042*	0.004
Married	-0.028	0.021*		(0.025)	(0.014)
	(0.020)	(0.012)	Most Other Financial Resp.	-0.032	0.021
Household Size	0.012*	-0.003		(0.033)	(0.016)
	(0.006)	(0.004)	**Distress**		
H.H Income: $50,000 and up	0.030*	0.024**	Revolver	-0.002	0.011
	(0.016)	(0.012)		(0.017)	(0.010)
Income Rank: Lowest	-0.004	-0.033***	Overdraft	0.012	-0.002
	(0.019)	(0.010)		(0.018)	(0.012)
Net Worth (Base: $ 0 - Median)			FICO score (Base: 750 and up)		
Less than $0	0.032	0.031*	Below 600 - 749	-0.006	-0.015
	(0.025)	(0.017)		(0.021)	(0.011)
Median - 75th Perc.	0.011	-0.009	Unkown to Respondent	-0.050**	0.007
	(0.020)	(0.013)		(0.021)	(0.019)
Above 75th Perc.	0.011	0.006	Payday Loan	0.026	-0.002
	(0.022)	(0.014)		(0.062)	(0.024)
			Experienced Financial Distress	0.002	-0.006
				(0.027)	(0.016)
Obs.	1,216	3,151			

PFM Demographics

Return

Table: Demographic Comparisons of the 2016 DCPC: PFM

	Full Sample (%)	PFM (%)	Non-PFM (%)	Difference (p.p)
Race				
White	74.5	64.5	75.1	-10.6
Black	12.8	14.2	12.7	1.5
Asian	3.2	8.2	2.9	5.3
Other	9.4	13.1	9.2	3.9
Age				
< 25	5.4	3.5	5.5	-2.0
25-34	23.3	39.5	22.2	17.3
35-44	16.9	21.0	16.6	4.4
45-54	17.6	17.6	17.6	0.0
55-64	17.2	10.5	17.6	-7.1
> 64	19.7	8.0	20.5	-12.5
Male	47.9	45.6	48.1	-2.5
Education				
No high school diploma	7.2	4.6	7.4	-2.8
High school	32.8	8.9	34.3	-25.4
Some College	17.9	14.7	18.1	-3.4
College - Bachelor's Degree	28.0	41.4	27.1	14.3
Post-Graduate Study	14.2	30.4	13.1	17.3
Household Income				
Less than $25,000	21.2	8.8	22.0	-13.2
$25,000 - $49,000	23.7	16.7	24.2	-7.5
$50,000 - $74,999	17.6	16.0	17.7	-1.7
$75,000 - $99,000	11.8	10.6	11.9	-1.3
$100,000 - $124,999	10.9	17.4	10.5	6.9
$125,000 - $199,999	11.1	24.0	10.2	13.8
$200,000 +	3.7	6.4	3.5	2.9