

Consumer Payment Choice: A Central Bank Perspective

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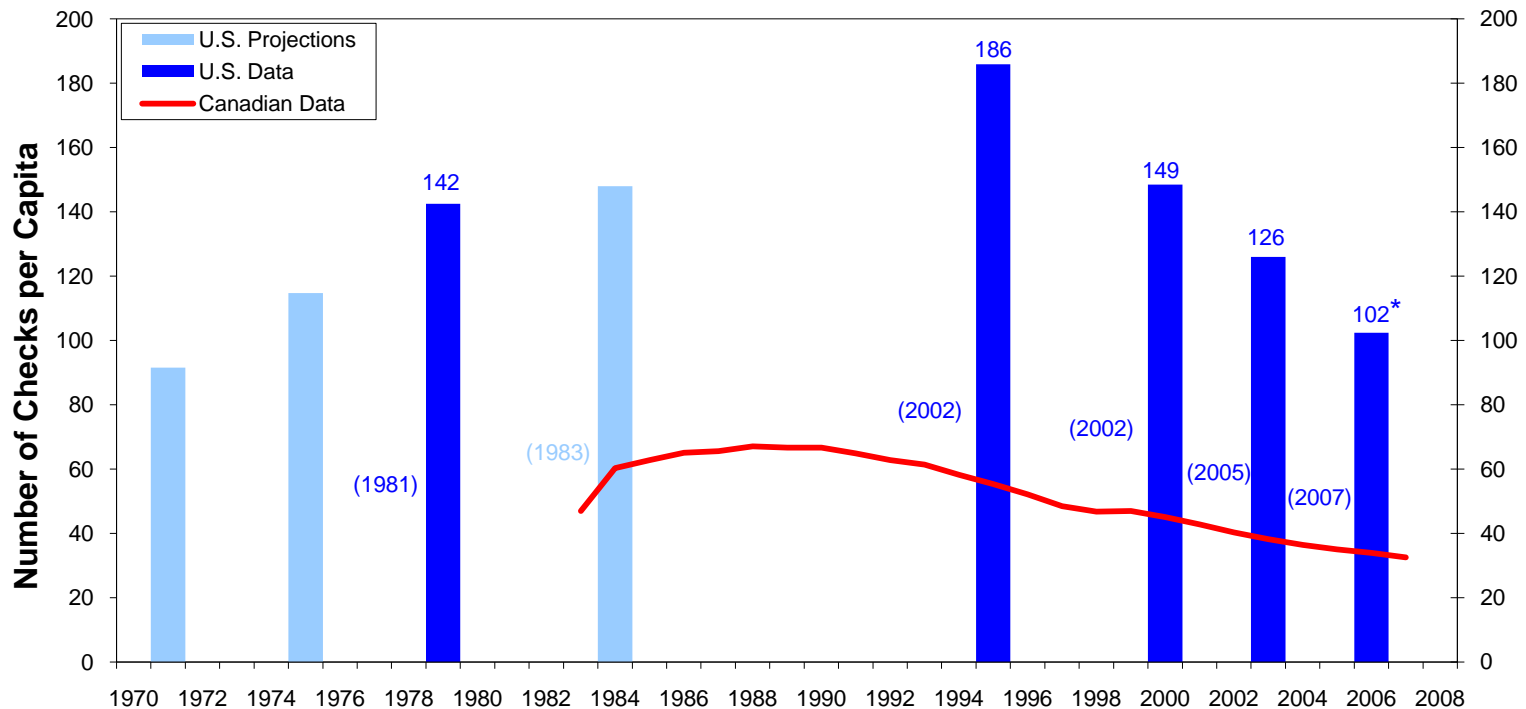


**Fiserv Cash and Logistics Connect Forum 2009
Boston Marriott Copley Place**

Presentation overview

- Why consumer payments data are important
- Overview of consumer payment choice
- Preliminary cash results from 2008 SCPC
- Case study: cash & debit card acceptance
- Future plans

Checks – public data



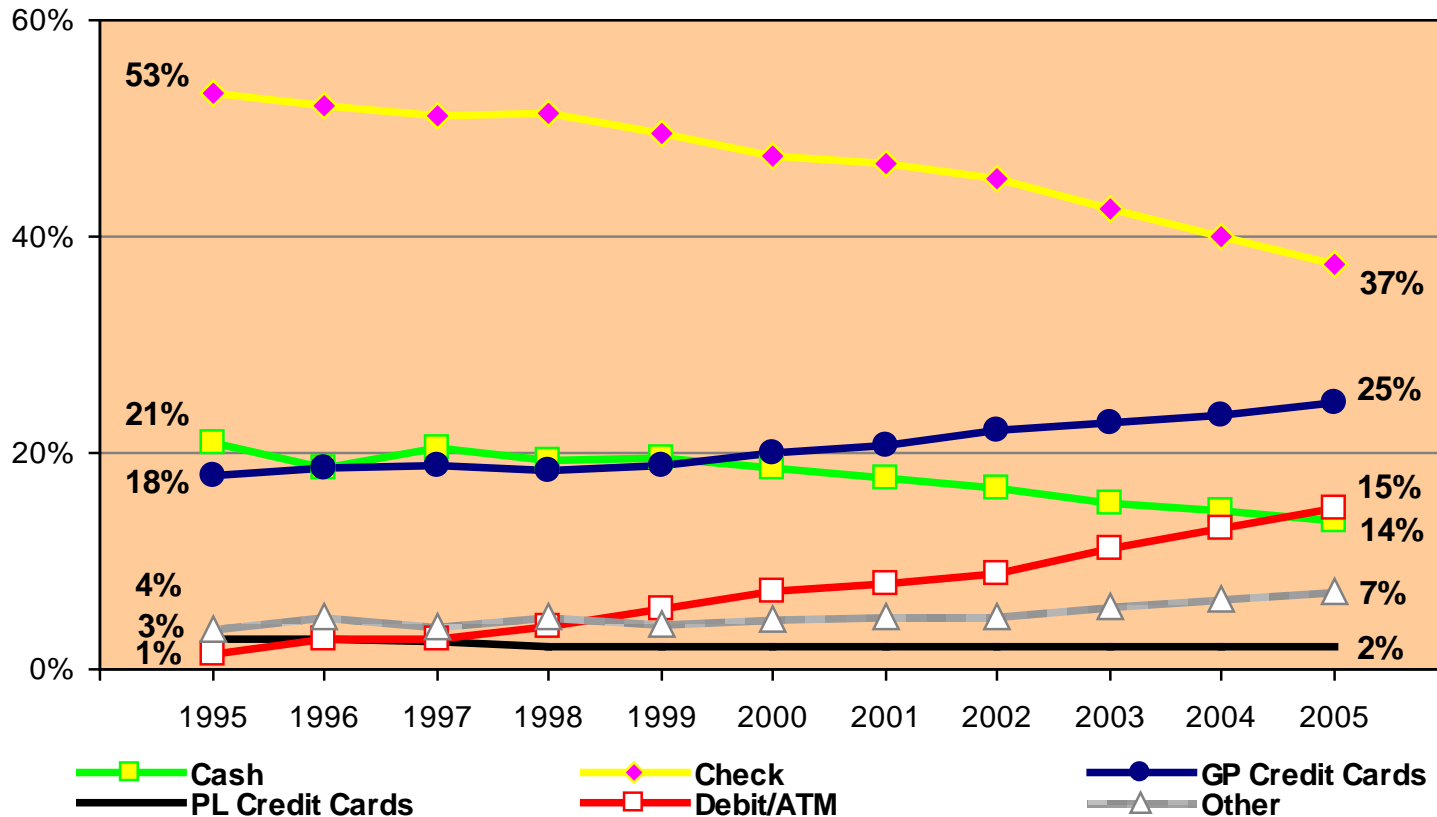
SOURCES: U.S. data: Federal Reserve Bank of Atlanta (1981, 1983); Federal Reserve System (2002, 2004); Gerdes and Walton (2002); Gerdes, Liu, Parke, and Walton (2005); Gerdes (2008); Benton, Blair, Crowe, and Schuh (2007).

Canadian data: Automated Clearing Settlement System (ACSS) Clearing Exchange Report (2008).

*The 2006 U.S. number excludes paper checks written and converted to ACH, which were included in earlier years.

Checks – private data

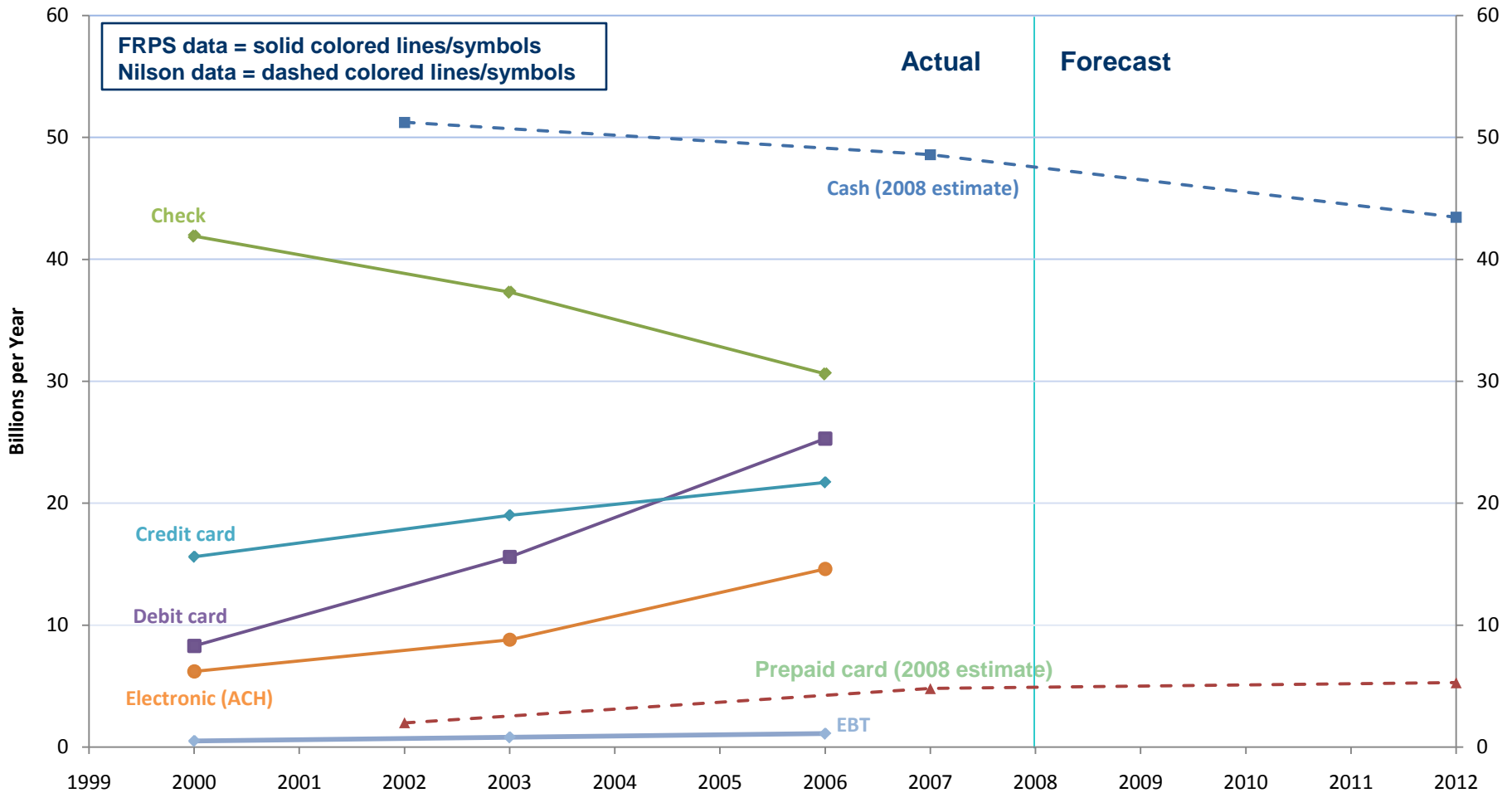
Payment method share of dollar value (all merchant categories)



SOURCE: Visa USA Research Services. (2006) "Visa Payment Panel Study." Page 9.
<http://www.bos.frb.org/economic/eprg/conferences/payments2006/papers/hampton.pdf>.

US payment trends

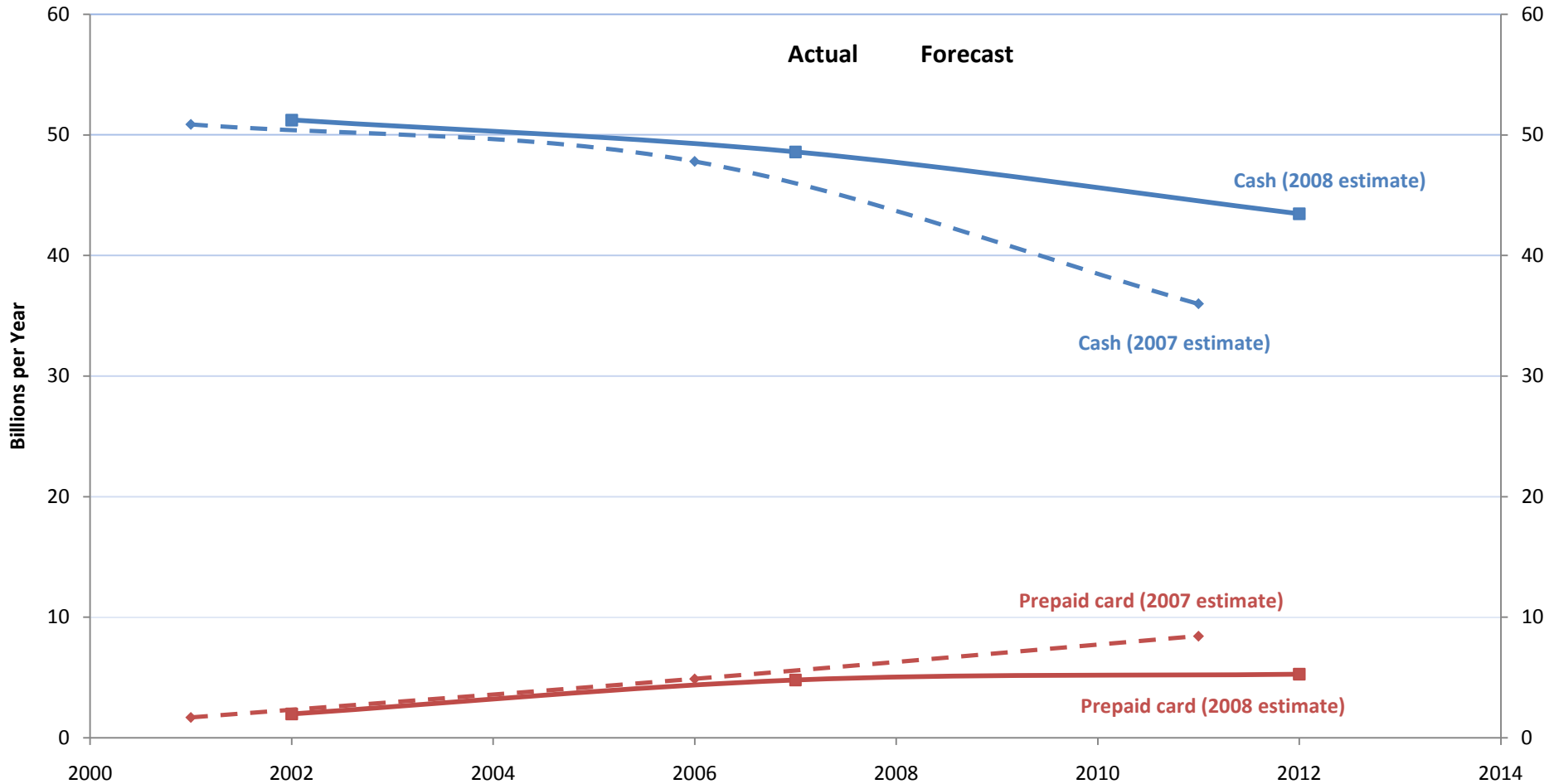
Number of transactions



SOURCES: 2006 Federal Reserve Payment Study (FRPS), 2007 Nilson

U.S. payment trend revisions

Annual Number of Transactions by Payment Type



Source: Nilson

Boston Fed data collection

- Consumer Payments Research Center (CPRC)
 - Established in 2004 to study demand side of payments
 - Develop data
 - Conduct economic research
 - Evaluate public policies toward payments
- Examples of survey work
 - *Survey of Consumer Payment Choice (SCPC)*
 - *Survey of Payment Choice & Shopping Behavior (2008-09)*

SCPC overview

- *Survey of Consumer Payment Choice (SCPC)*
 - Annual data for public use (2003-04, 2006, 2008-ongoing)
 - Fills niches not covered by the *Survey of Consumer Finances* and the *Federal Reserve Payments Studies*
 - Detailed adoption & incidence of use of payment instruments and practices
 - Detailed frequency of use of payment instruments by consumers
 - Aggregate data for macroeconomic and trend analysis
 - Consumer-level data for microeconomic and policy analysis

Payment instruments

Paper

1. Cash
2. Check
3. Money order
4. Traveler's check

Cards

5. Debit
6. Credit
7. Prepaid (including EBT)

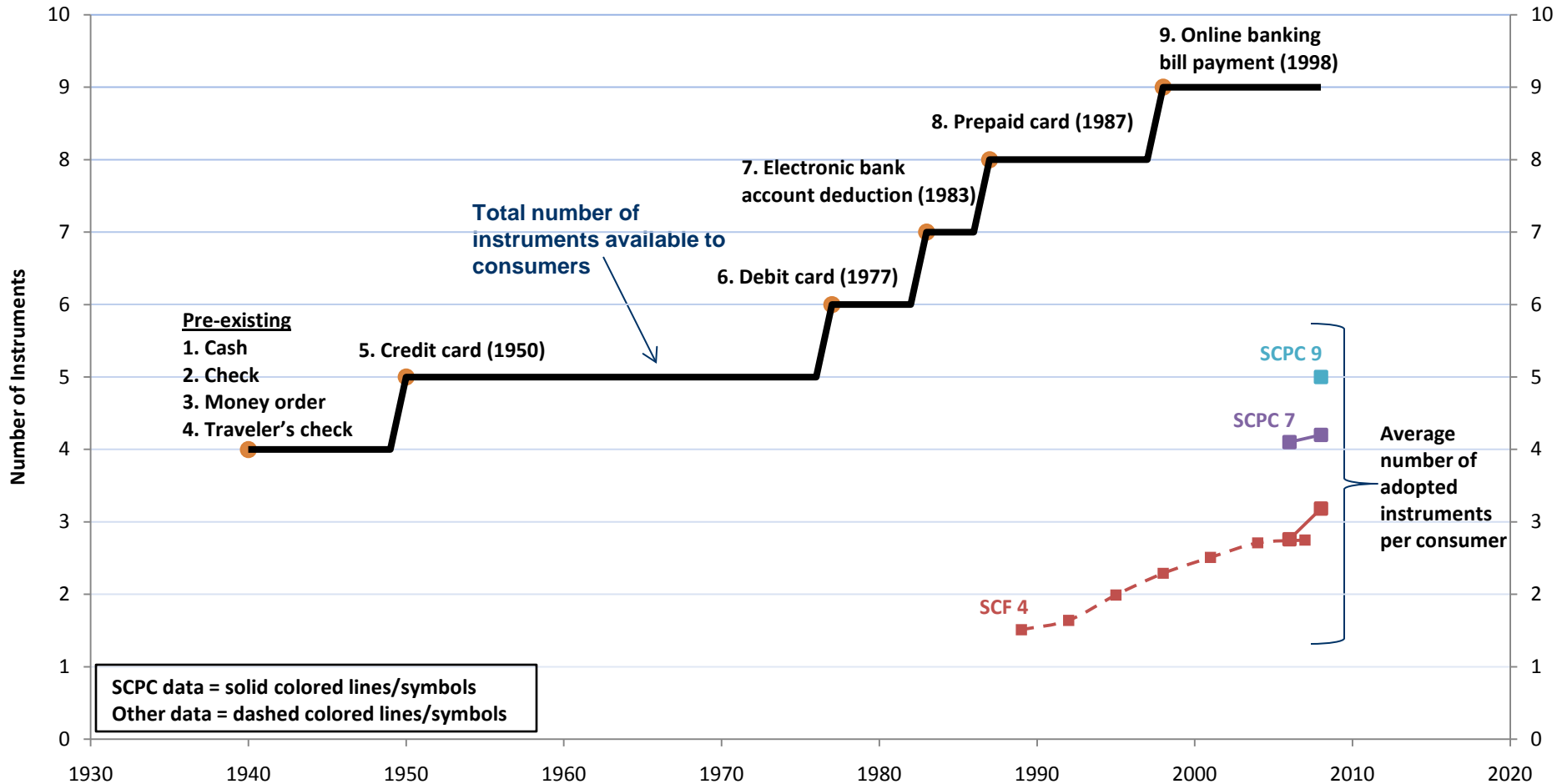
Electronic (ACH-based use of bank accounts)

8. Online banking bill payment (OBBP)
Initiated by consumer from "inside" his/her bank without disclosing BA number
9. Electronic bank account deduction (EBAD)
Consumer use of BA number or information to authorize third-party payment

Payments concepts

- **Adoption** – questions like, “Do you have...?” Three types of adoption of payment instruments:
 - *Current* – consumer has the payment instrument now
 - *Historical* – consumer has ever had the payment instrument
 - *Discarding* – whether the consumer has discarded the payment instrument (difference between historical and current)
- **Use** – questions like, “How many payments do you make...?” Two types of use of payment instruments:
 - *Incidence* – a binary indicator of use (yes or no)
 - *Frequency* – a continuous indicator of intensity of use (number of payments)
 - Dollar value of payments not collected (time limitations, degree of difficulty)

History of consumer payment instruments

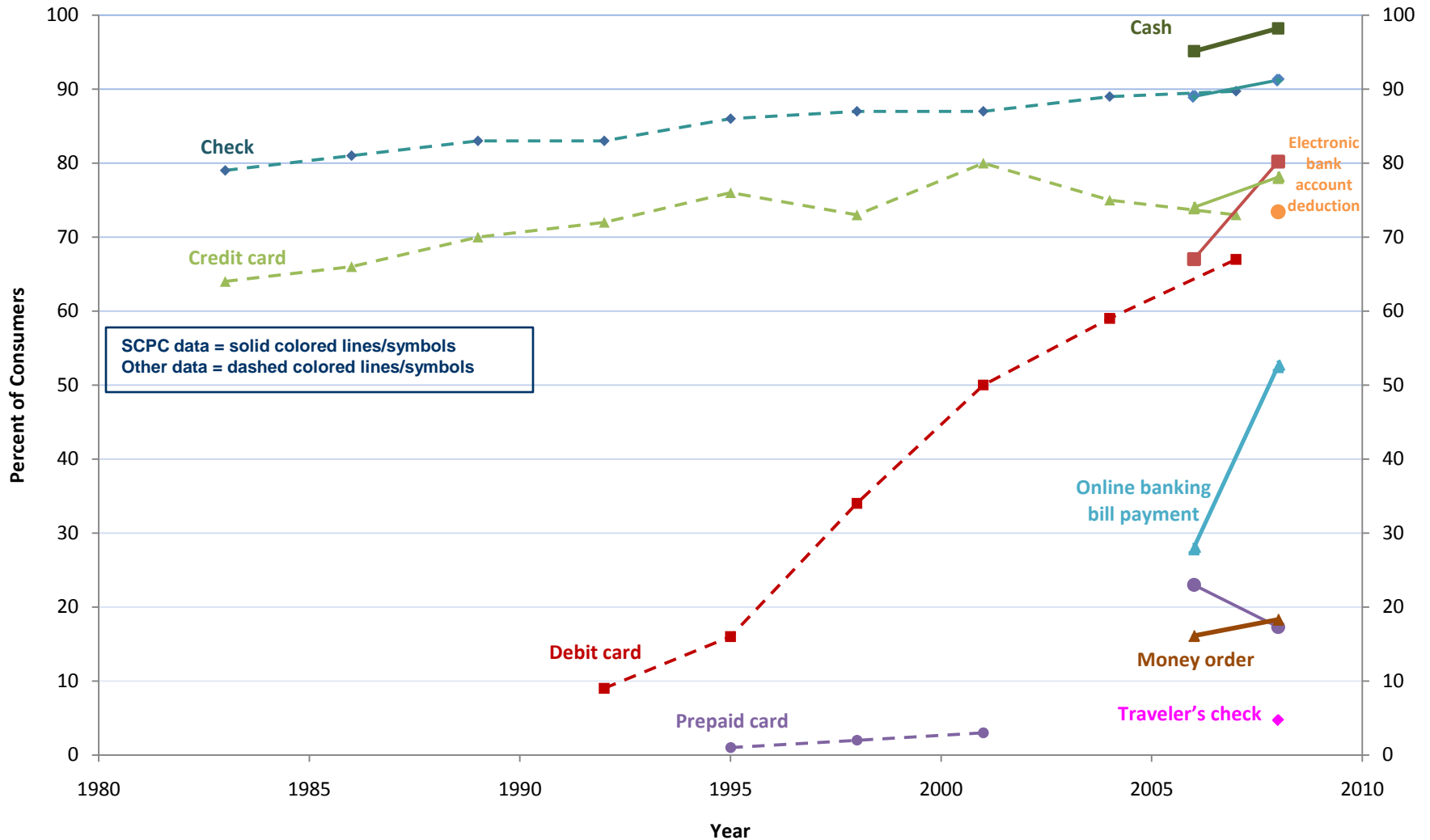


NOTES: SCF 4 = checks, credit cards, debit cards, and electronic bank account deduction
 SCPC 7 = cash, check, money order, credit card, debit card, prepaid card, and online banking bill payment
 SCPC 9 = SCPC 7 plus traveler's check and electronic bank account deduction

SOURCES: 2006–2008 Survey of Consumer Payment Choice (SCPC), 1989–2007 Survey of Consumer Finance (SCF)
 preliminary and unofficial statistics, subject to revision.

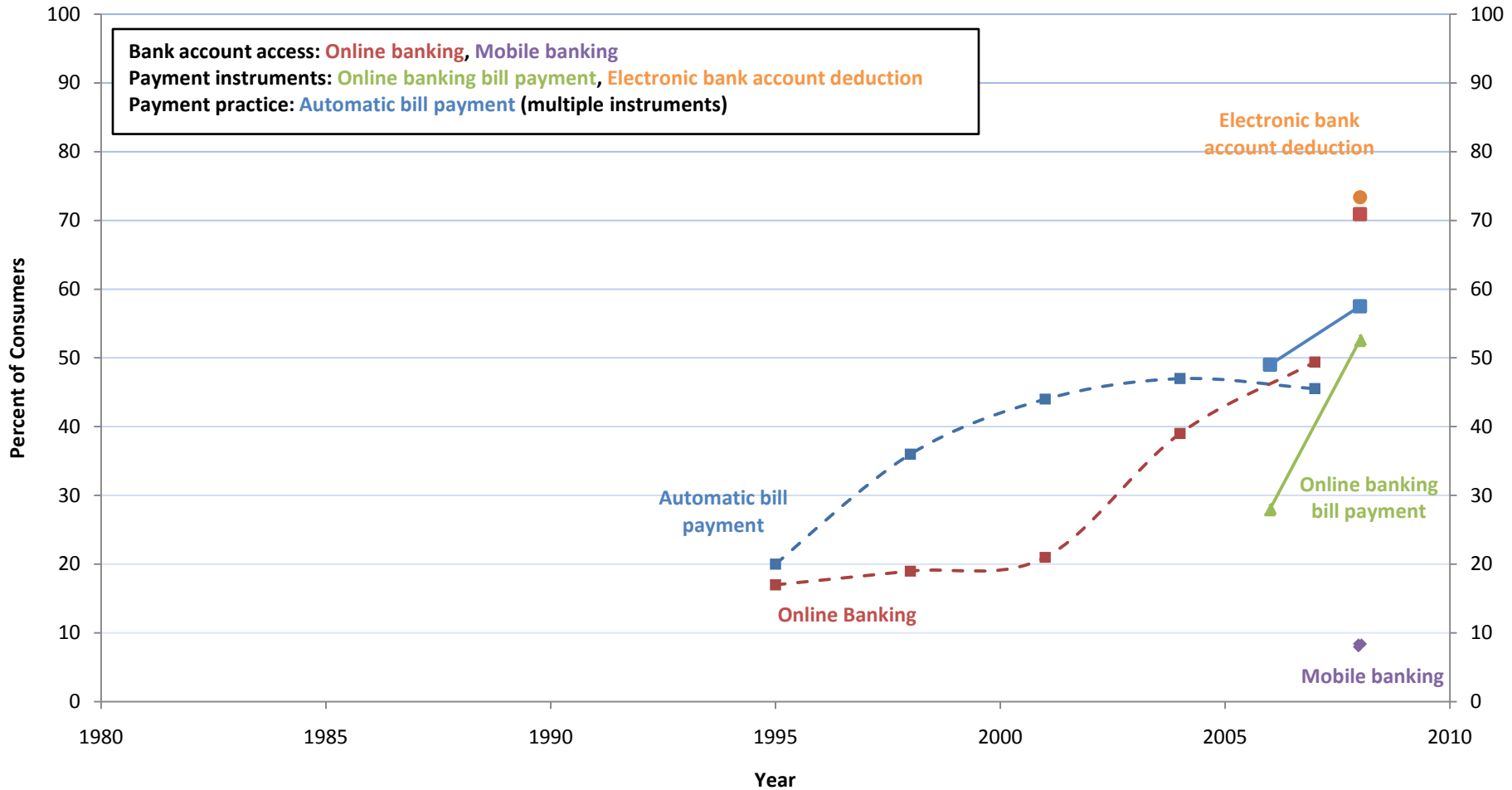


Consumer adoption of payment instruments



SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer adoption of payment practices



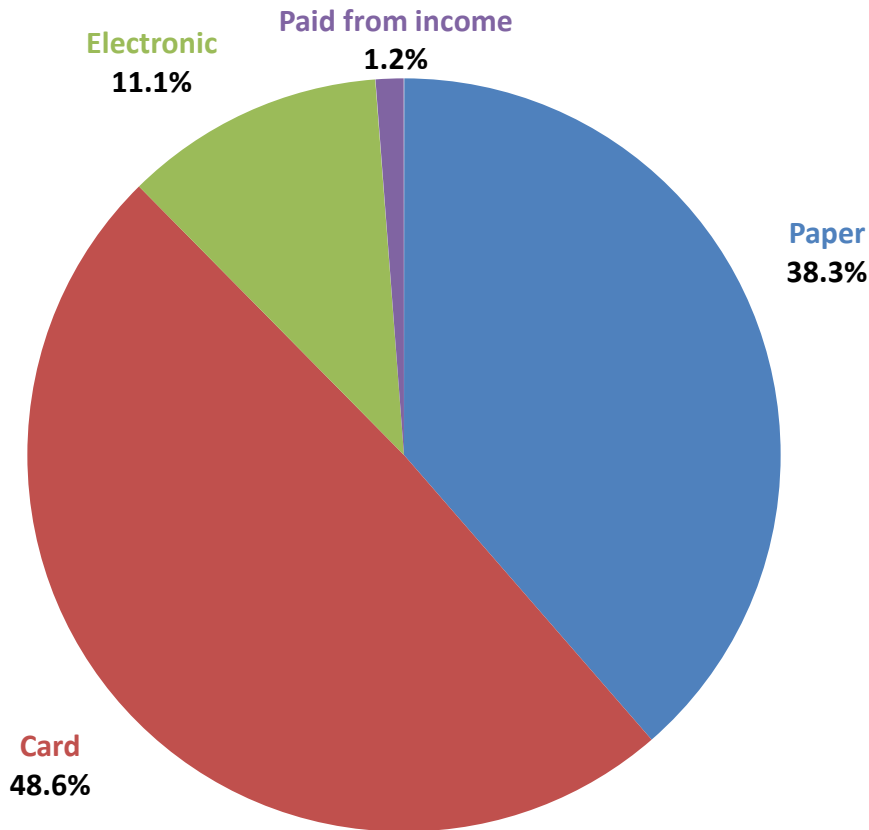
SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.



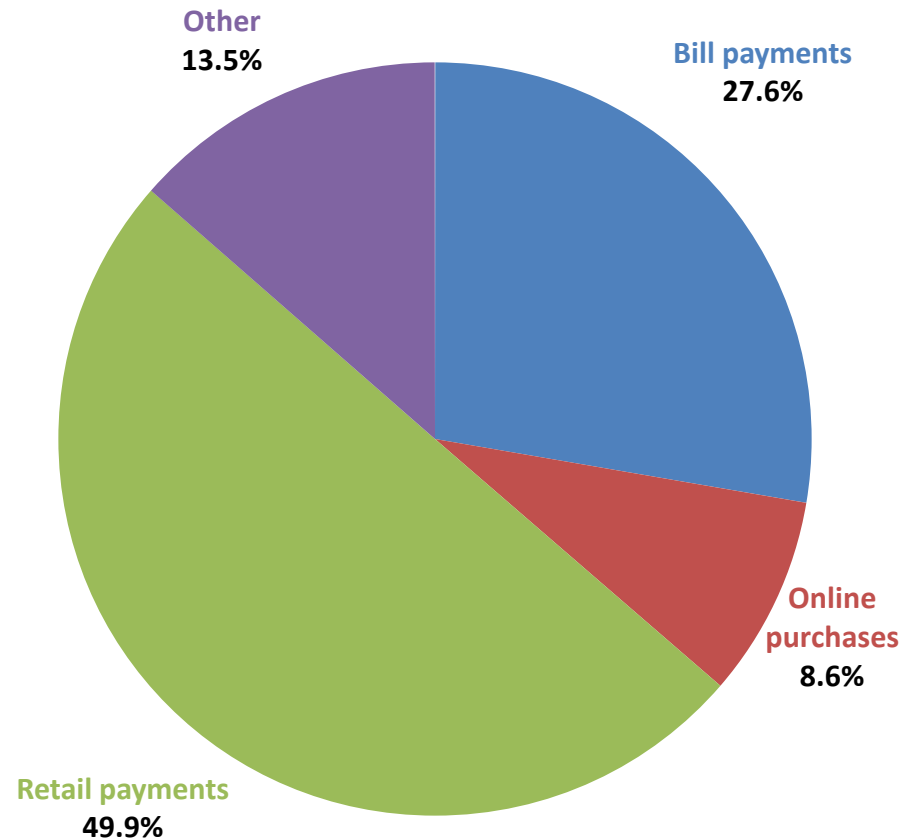
Consumer payment behavior

Share of monthly volume of payments, 2008

By Payment Instrument

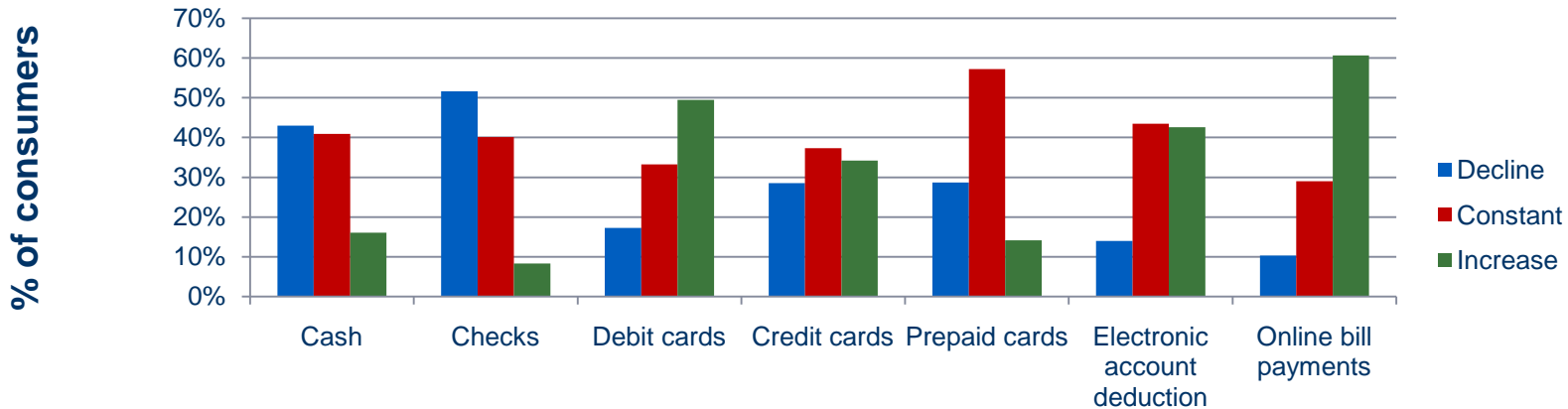


By Transaction Type

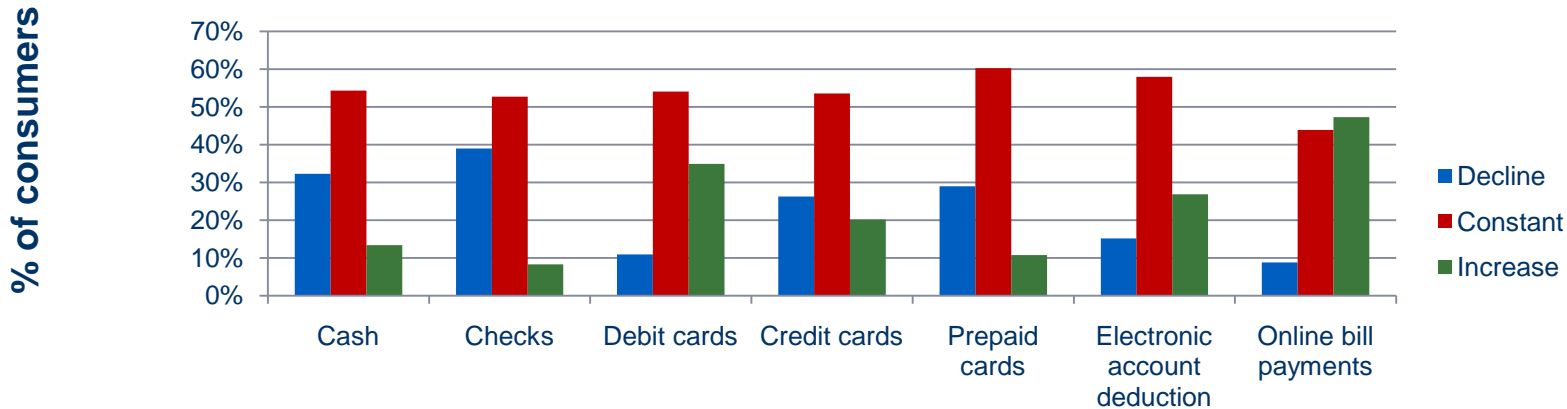


Change in payment use

Actual use, past three years (2005-2008)



Expected change in use, next three years (2008-2011)



SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer cash use (volume)

Percentage of payments made with cash

	Bill payments by mail or in person	Essential retail payments*	Other retail payments*	Other non-retail payments*	Payments where cash is not accepted	Cash share of all payments
Share of cash payments in category	12	34	31	29	0	24

Payment category	Examples
Essential retail payments	Groceries, prescription drugs, food from restaurants and payments for gas (petrol)
Other retail payments	General merchandise, electronics, household goods, hardware, office supplies and others
Other non-retail payments	Tolls, medical, entertainment, charitable donations, person to person payments among other payments
All other payments	Any payments made online, bill payments, payments made by travelers checks or money orders

Consumer cash management

Statistic	Current Cash Holdings			Typical Cash Withdrawals		
	Total (\$)	On Person (\$)	Other (\$)	Monthly Amount (\$)	Typical Amount (\$)	Monthly Frequency (#)
Mean	230	79	157	335	102	4.3
Median	70	30	14	180	50	3

Consumer cash withdrawals

LOCATIONS where consumers get cash most often

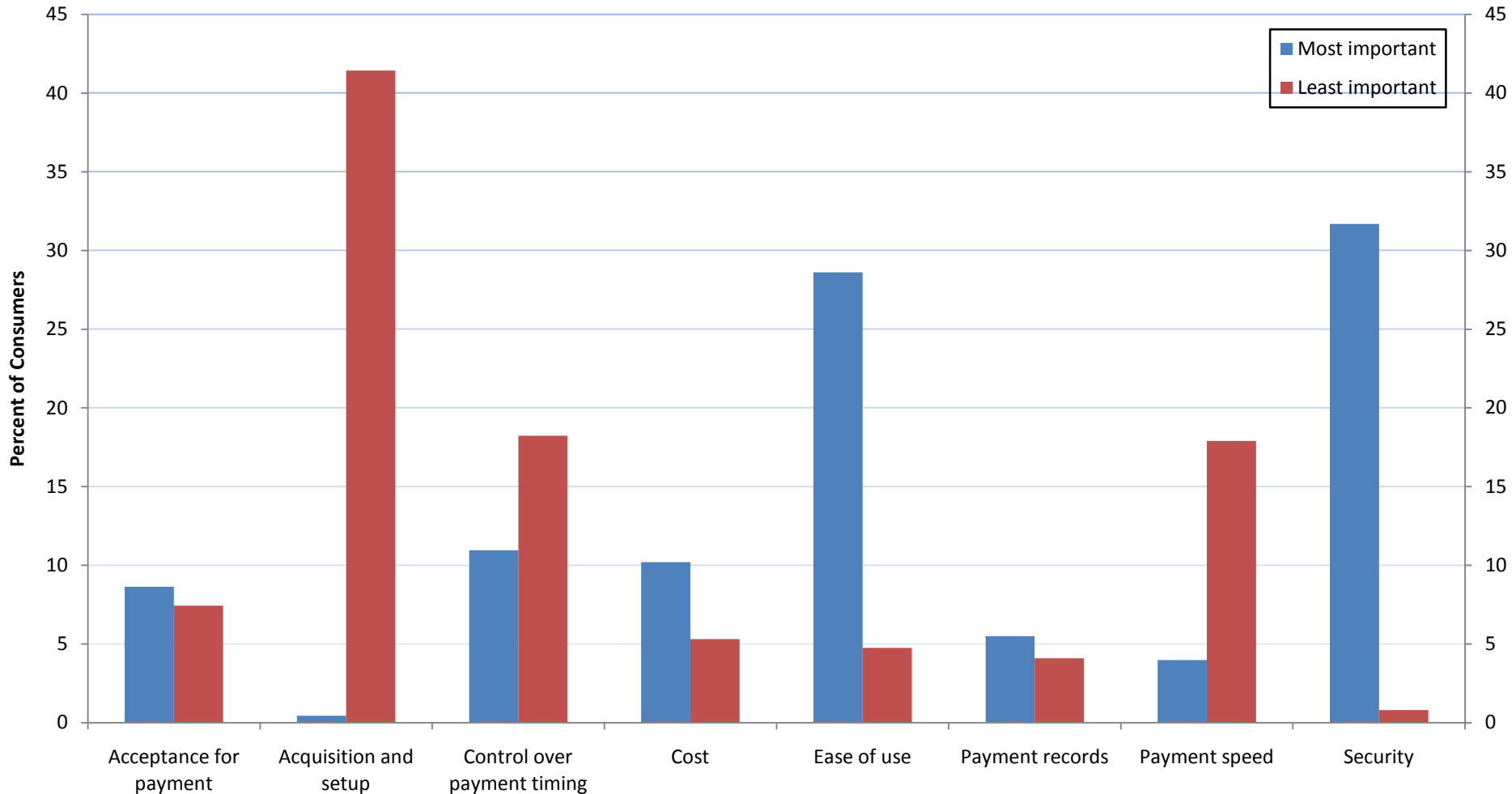
	ATM	Bank Teller	Check Cashing Store	Retail or Grocery Store	Employer	Family	Other
First Choice	54	23	2	9	5	3	0
Second Choice	14	44	2	24	2	5	1

METHODS consumers use to get cash most often

	ATM or Debit card	Account withdrawal	Cashing personal check	Cashing paycheck	Paid by employer in cash	Unknown Methods
First Choice	61	11	7	10	2	3
Second Choice	34	29	14	6	1	5

Payment instrument characteristics

Consumers' assessments by degree of importance



SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Payment characteristic ratings

	Acceptance for payment	Acquisition & setup	Control over payment	Cost	Ease of use	Record keeping	Security	Speed	AVG
Cash	4.6	4.4	4.0	4.5	4.2	2.4	2.5	4.4	3.9
Check	3.6	3.8	3.2	3.8	3.4	4.2	2.9	2.9	3.5
Debit card	4.3	3.9	3.7	3.9	4.3	4.0	2.9	4.1	3.9
Credit card	4.6	3.7	3.6	2.8	4.4	4.3	3.0	4.1	3.8
Stored value card	3.8	3.4	3.4	3.3	3.7	2.9	2.6	3.8	3.4
Electronic account deduction	3.1	3.3	3.7	3.8	3.7	4.0	3.3	3.8	3.6
AVG	4.0	3.8	3.6	3.7	3.9	3.6	2.9	3.8	3.7

NOTE: Ratings are on a 5-point scale (1 is lowest, 5 is highest)

 = Significant determinants of cash use in prior research

Simulated changes in check share, 2003–2006

SIMULATION	Estimated change in check share	Percent of actual change in check share
Actual change (0.310 to 0.226)	-0.084	100
Increase in number of payment instruments (0.25 per consumer)	-0.021	25
Decrease in relative convenience of checks (30 percent)	-0.029	34
Increase in relative cost of checks (30 percent)	-0.009	11

NOTE: Each simulation is independent and the results are not a complete decomposition of the actual change in check share.

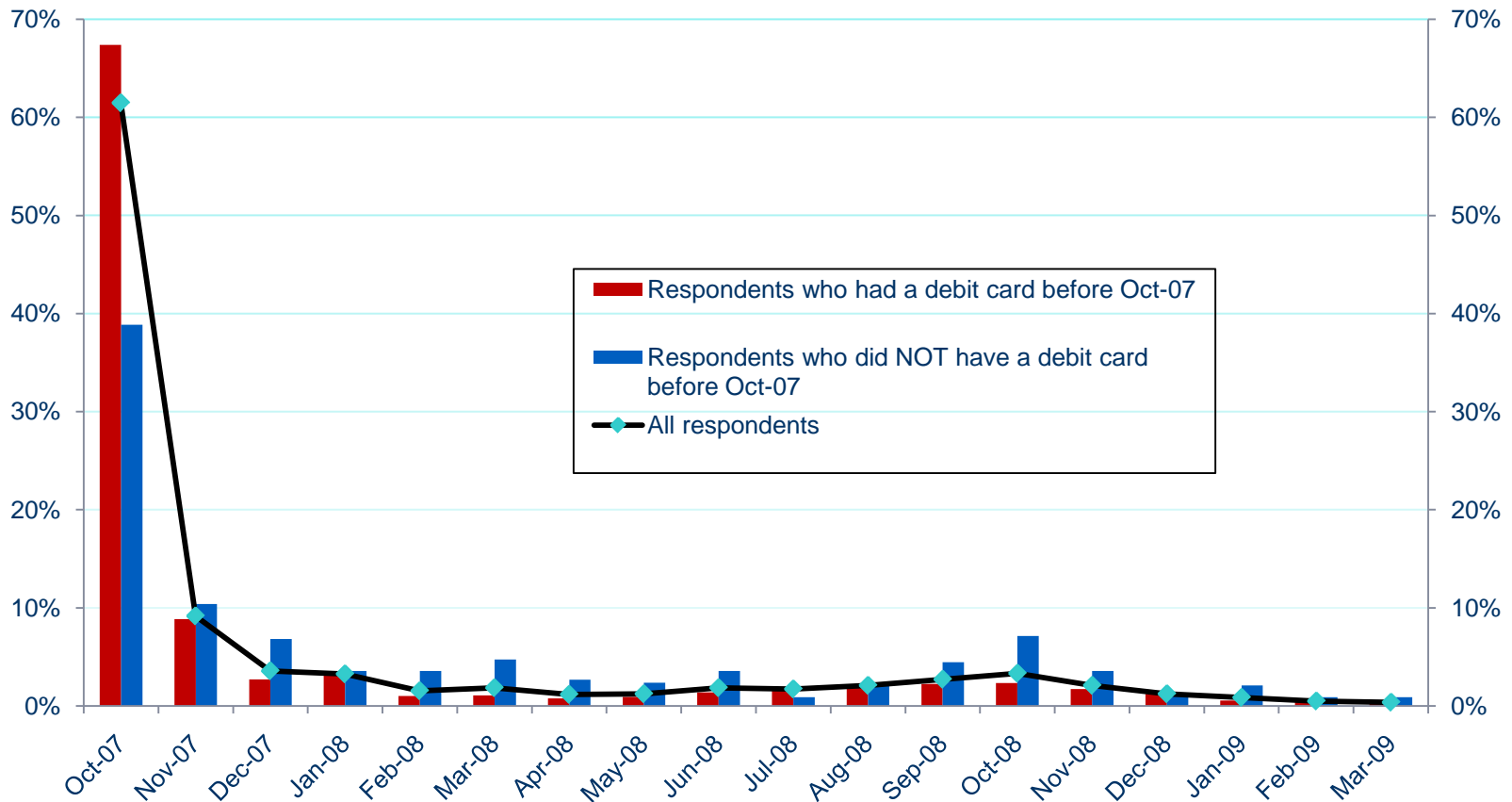
SOURCE: Scott Schuh and Joanna Stavins, “Why Are (Some) Consumers (Finally) Writing Fewer Checks? The Role of Payment Characteristics” forthcoming in the Journal of Banking and Finance

Cash/debit case study

- *Survey of Payment Choice and Shopping Behavior*
 - Specialty food store changed its payment acceptance:
 - Before Oct 2007: cash, check, money order, food stamps/EBT
 - Since Oct 2007: also accepts debit cards
 - Surveyed members from Dec 2008 to Apr 2009
 - Effect of DC acceptance on consumers behavior?
 - Who switched to debit cards when and why?
 - How did payment choices change?
 - How did shopping behavior change?
 - A few very preliminary results...

Response to debit card acceptance

First use of a debit card at the food store
(Percent of members)



SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Changes in payment use

Instrument used most often at the food store
(Percent of members)

		Instrument used most often since October 2007				Choice before October 2007
		Cash	Check	Debit Card	Missing/ Other	
Instrument used most often before October 2007	Cash	9.2%	0.2%	50.5%	4.6%	64.5%
	Check	0.4%	1.9%	8.8%	1.1%	12.1%
	Missing/ Other	1.4%	0.0%	12.5%	9.5%	23.4%
Choice since October 2007		11.0%	2.1%	71.8%	15.2%	100.0%

SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

All cash withdrawals

Where do food store members get cash most often?

	Before October 2007	Since October 2007
ATM	1,382 (90.1%)	1,439 (89.3%)
Bank teller	52 (3.4%)	63 (3.9%)
Check cashing store	2 (0.1%)	1 (0.1%)
Cash back from retail or grocery store	25 (1.6%)	27 (1.7%)
Employer	37 (2.4%)	42 (2.6%)
Family, friend or household member	18 (1.2%)	22 (1.4%)
Other	18 (1.2%)	17 (1.1%)
Total responses	1,534	1,611

SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

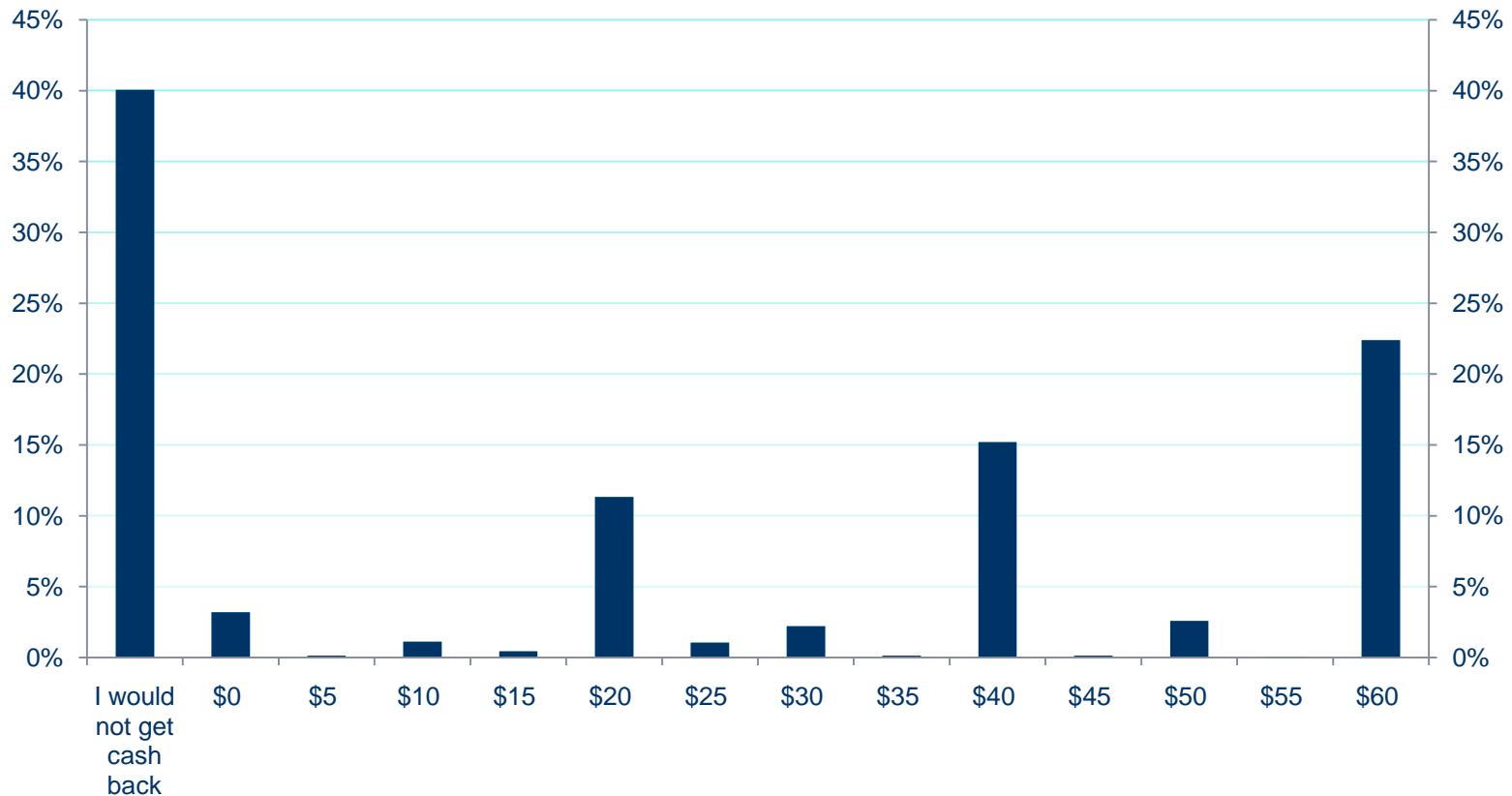
Cash withdrawals for shopping

Where do members get cash most often for shopping at the food store?

	Before October 2007	Since October 2007
I never pay by cash at the Coop	29 (2.1%)	327 (21%)
From cash I have at the time	502 (35.5%)	694 (44.6%)
ATM	827 (58.5%)	473 (30.4%)
Bank teller	25 (1.8%)	22 (1.4%)
Check cashing store	0 (0%)	0 (0%)
Cash back from retail or grocery store	1 (0.1%)	1 (0.1%)
Employer	18 (1.3%)	19 (1.2%)
Family, friend or household member	8 (0.6%)	16 (1%)
Other	4 (0.3%)	5 (0.3%)
Total responses	1,414	1,557

Cash back from debit card – amount

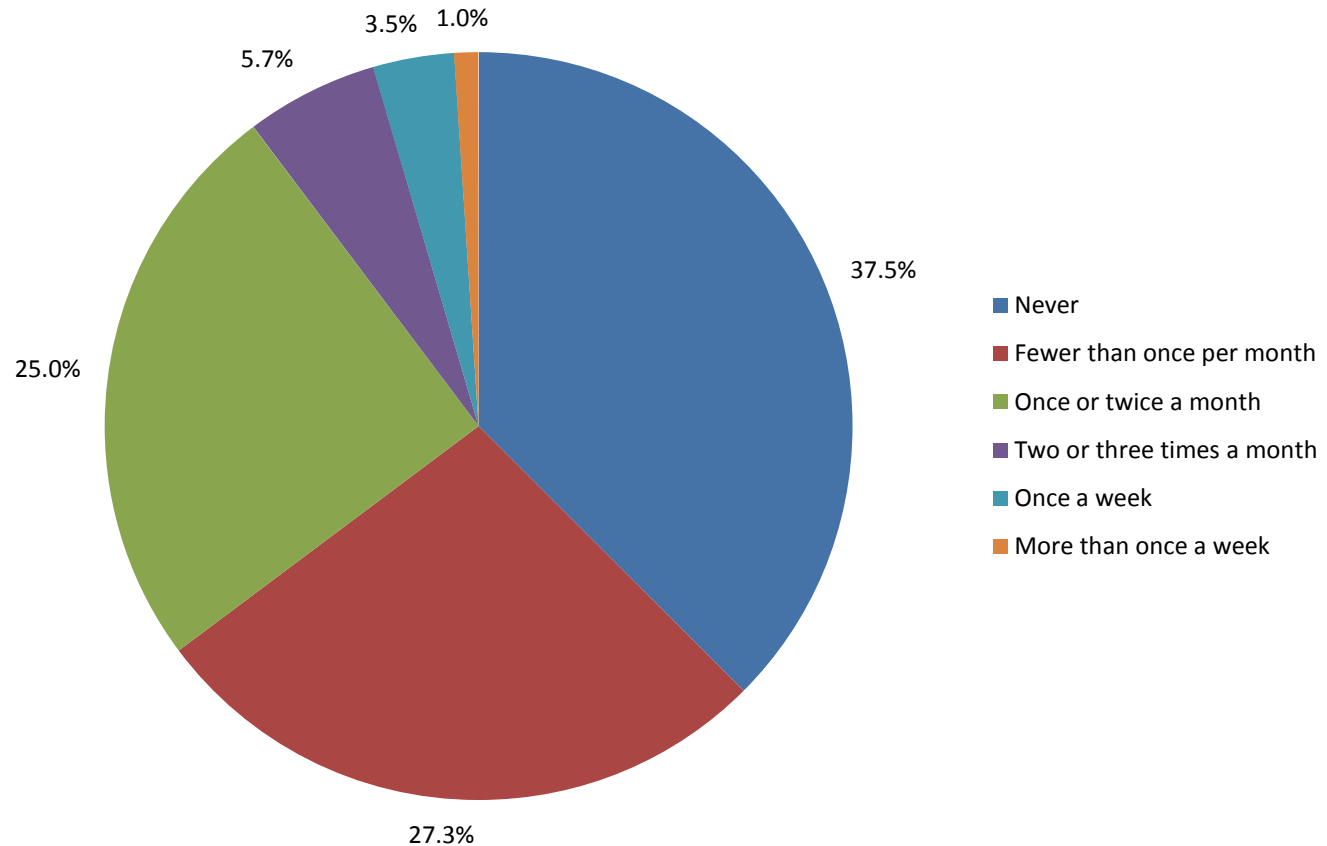
If store offered cash back from DC, what amount would members get most often?
(Percent of members)



SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Cash back from debit card – frequency

If store offered cash back from DC, how often would members get cash back?
(Percent of members)



SCPC future plans

- Publish data and results regularly
- Develop, improve, and expand survey program
 - Panel dimension starting in 2009
 - New modules in 2010 and beyond
 - Consumer payment diary
- Invite all stakeholders to participate
 - Board of Advisors (openings available)
 - Aim for payments industry standard data source

SCPC production plans

2009	Q3	<ul style="list-style-type: none">➤ Publish 2008 aggregate data, survey instrument➤ Revise 2008 survey instrument
	Q4	<ul style="list-style-type: none">➤ Implement 2009 SCPC
2010	Q1	<ul style="list-style-type: none">➤ Publish 2008 data by demographics
	Q2	<ul style="list-style-type: none">➤ Publish 2009 data, survey instrument➤ Publish 2008–2009 SCPC micro data
	Q3	<ul style="list-style-type: none">➤ Revise 2009 survey instrument
	Q4	<ul style="list-style-type: none">➤ Implement 2010 SCPC

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More information

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