

Consumer Payment Choice: A Central Bank Perspective

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Presentation overview

- Survey of Consumer Payment Choice (SCPC)
- “Payments Transformation:” Consumer view
- Evidence by type of DI
- Some results with policy implications
- Conclusions and future plans

SCPC overview

- *Survey of Consumer Payment Choice (SCPC)*
 - Annual data (2008-2009, ongoing); publicly available, free
 - Panel of about 1,000 consumers, age 18+ (representative of U.S.)
 - Estimates of adoption & use for 9 payment instruments
 - Two types of data and purpose:
 - Aggregate data for macroeconomic and trend analysis
 - Consumer-level data for microeconomic and policy analysis
 - Fills a niche not covered by other sources, e.g.
 - *Survey of Consumer Finances (SCF)* – not much payments data
 - *Federal Reserve Payments Studies (FRPS)* – includes bus. & govt.

2008 SCPC official tables

Public Policy

Discussion Papers



No. 09-10

The 2008 Survey of Consumer Payment Choice

Kevin Foster, Erik Meijer, Scott Schuh, and Michael A. Zabek

Abstract:

This paper presents the 2008 version of the Survey of Consumer Payment Choice (SCPC), a nationally representative survey developed by the Consumer Payments Research Center of the Federal Reserve Bank of Boston and implemented by the RAND Corporation with its American Life Panel. The survey fills a gap in knowledge about the role of consumers in the transformation of payments from paper to electronic by providing a broad-based assessment of U.S. consumers' adoption and use of nine payment instruments, including cash. The average consumer has 5.1 of the nine instruments, and uses 4.2 in a typical month. Consumers make 53 percent of their monthly payments with a payment card (credit, debit, and prepaid). More consumers now have debit cards than credit cards, and consumers use debit cards more often than cash, credit cards, or checks individually. Cash, checks, and other paper instruments are still popular and account for 37 percent of consumer payments. Most consumers have used newer electronic payments, such as online banking bill payment, but they only account for 10 percent of consumer payments. Security and ease of use are the characteristics of payment instruments that consumers rate as the most important.

JEL Classifications: D12, D14, E42

<http://www.bos.frb.org/economic/ppdp/2009/ppdp0910.htm>

SCPC 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)

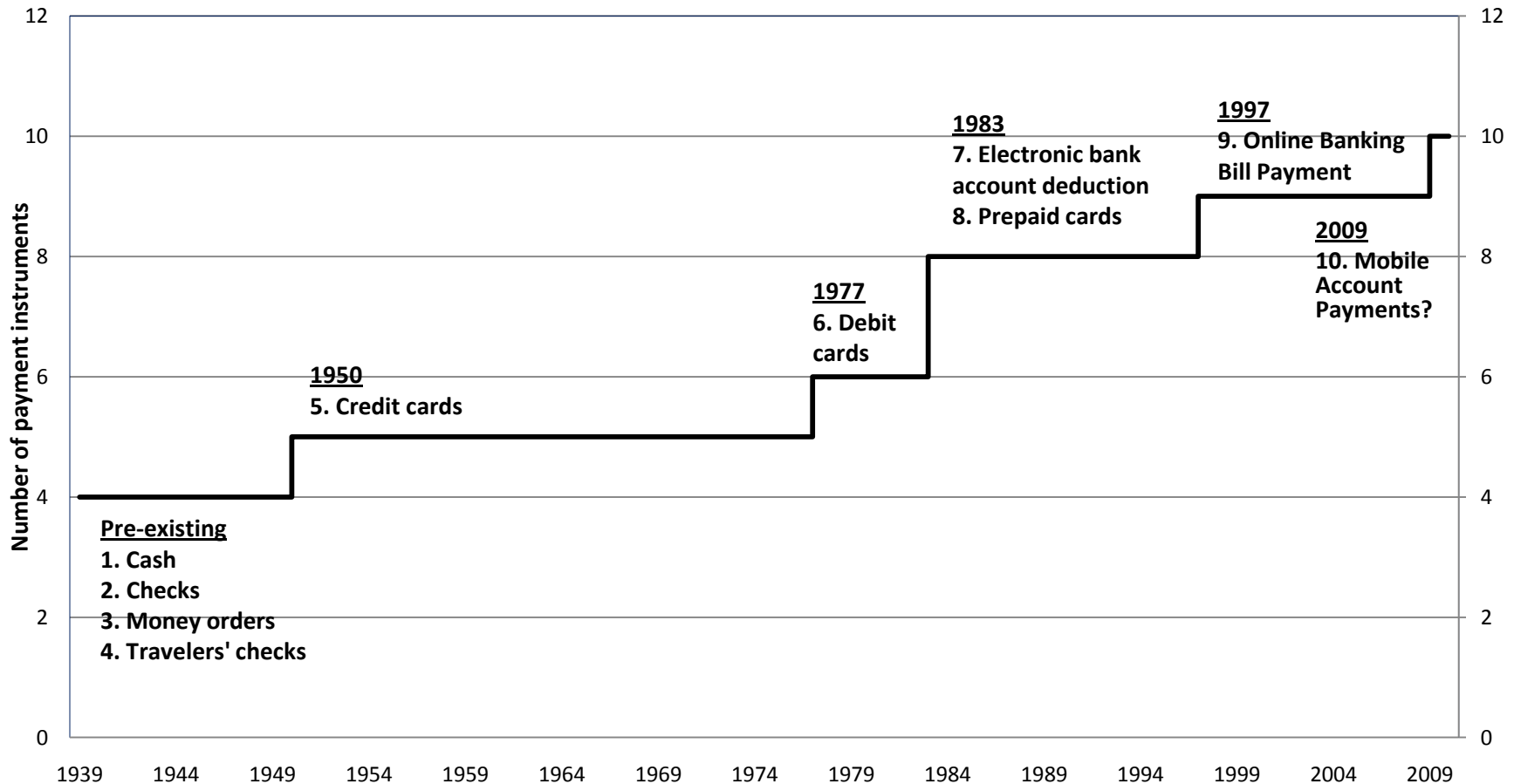
8. Online banking bill payment (OBBP)
Consumer initiates payment from "inside" bank (w/o disclosing BA number)
9. Electronic bank account deduction (EBAD; changed to BAN in 2009)
Consumer uses BA number to authorize third-party payment

Payment concepts

- **Adoption** – “Do you have...?”
 - *Historical* – ever had?
 - *Current* – have now?
 - *Discarding* – ever discarded? (historical minus current)
- **Use** – “How many payments do you make...?”
 - *Incidence* – use at least once during a period? (yes or no)
 - *Frequency* – intensity of use in a period (# of payments)
 - Dollar value of payments not collected (time limited, more difficult)

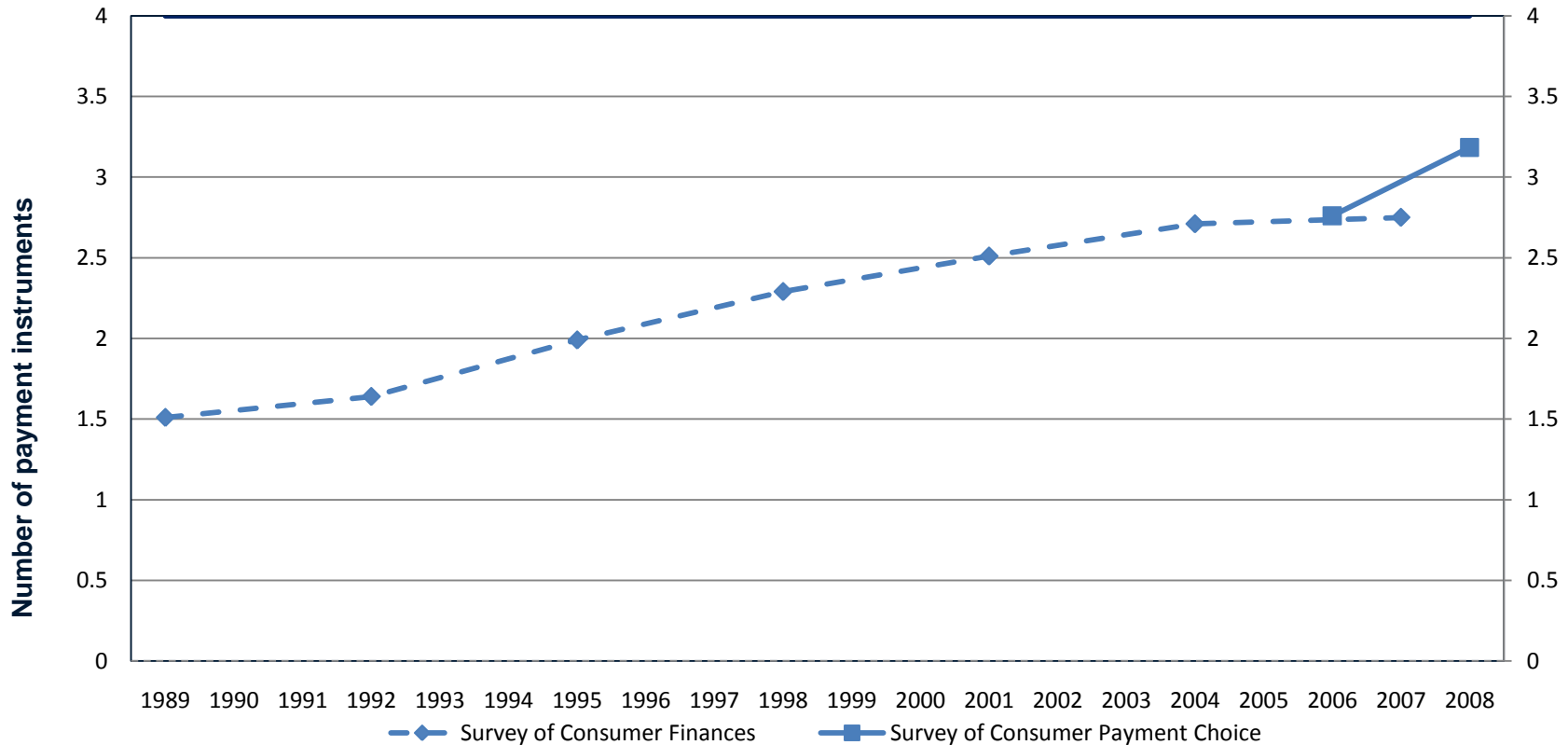
History of payment instruments

Consumers have more payment instruments to choose from...



Payment instruments per consumer

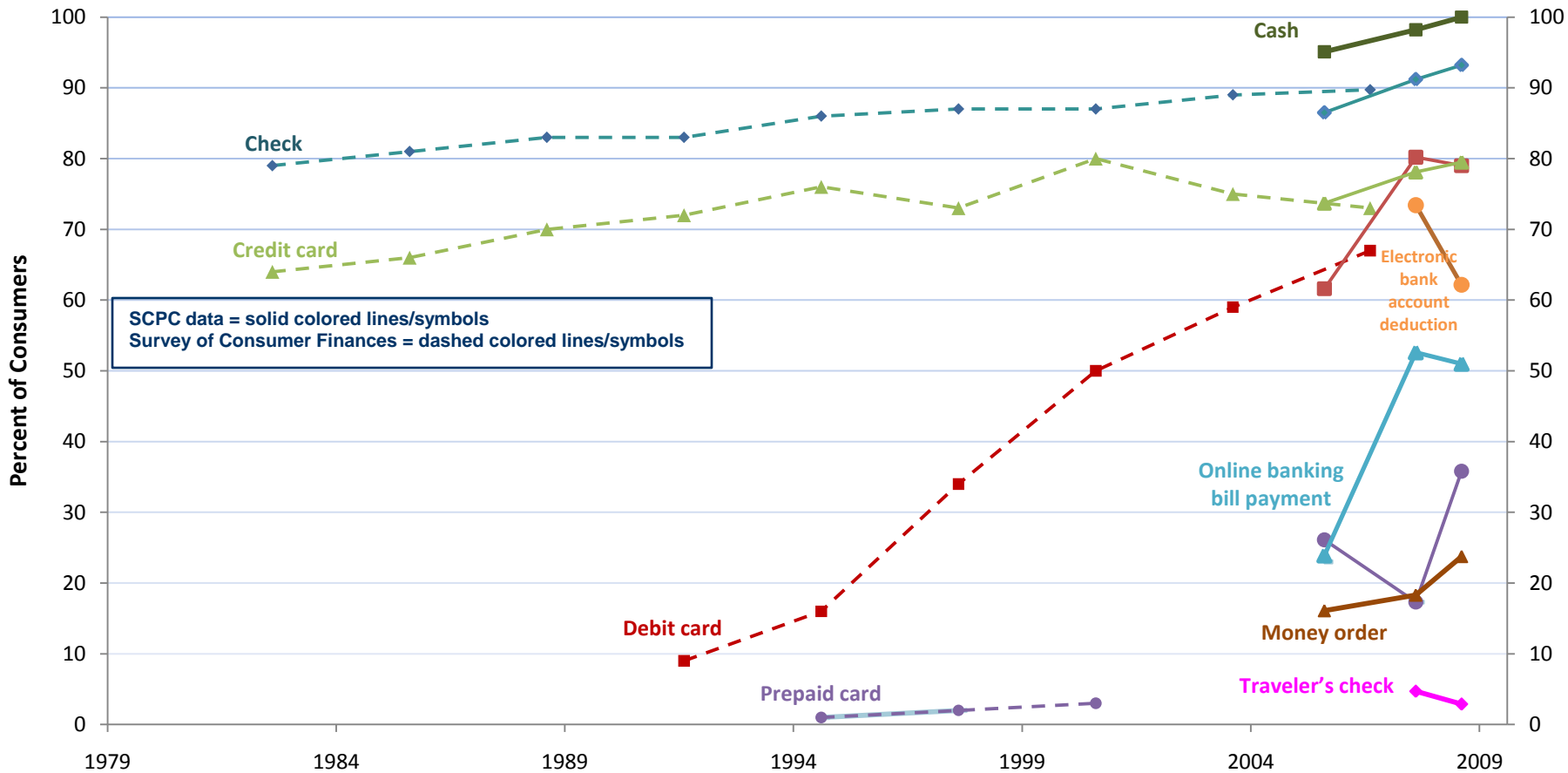
...and consumers are choosing to hold more payment instruments
(Number held out of 4 means of payment = Check, CC, DC, and ABP)



SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008 Survey of Consumer Payment Choice, subject to revision. See 2008 SCPC Table 8.

Adoption of payment instruments

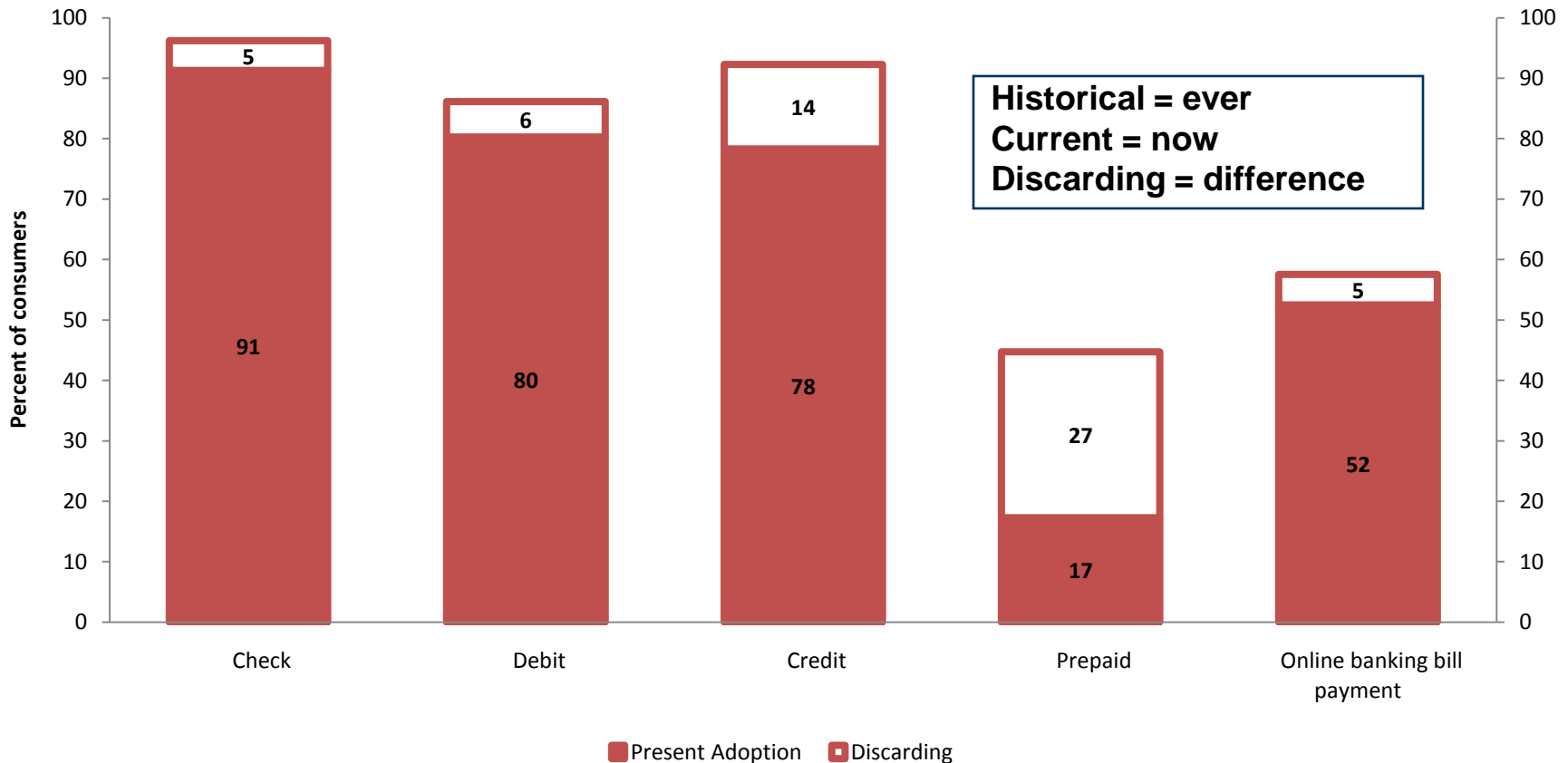
Consumers are adding new instruments and not dropping old ones...



SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008, and 2009 Survey of Consumer Payment Choice, subject to revision. See 2008 SCPC Table 4.

Historical adoption of payment instruments, 2008

... but consumers do not keep their payment instruments forever



Note: For all other payment instruments, adoption is a function of use, and the 2008 SCPC does not ask about historical use. Mobile payments were not considered a payment instrument in 2008.

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 4 and 6.

Consumer cash management

Some consumers are unusually cash intensive (mean > median)

Statistic	Institution	Current Cash Holdings			Typical Cash Withdrawals		
		Total (\$)	On Person (\$)	Other (\$)	Monthly Amount (\$)	Typical Amount (\$)	Monthly Frequency (#)
Median	<i>Overall</i>	70	30	14	180	50	3.0
Mean	<i>Overall</i>	230	79	157	335	102	4.3
	Large commercial	208	78	133	311	100	3.8
	Small commercial	263	90	181	330	93	4.6
	Credit union or other	251	63	199	325	90	5.0

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Table 10.

Consumer cash withdrawals

Consumers get cash most often at ATMs and using an ATM card

LOCATIONS where consumers get cash most often (% of consumers)

	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

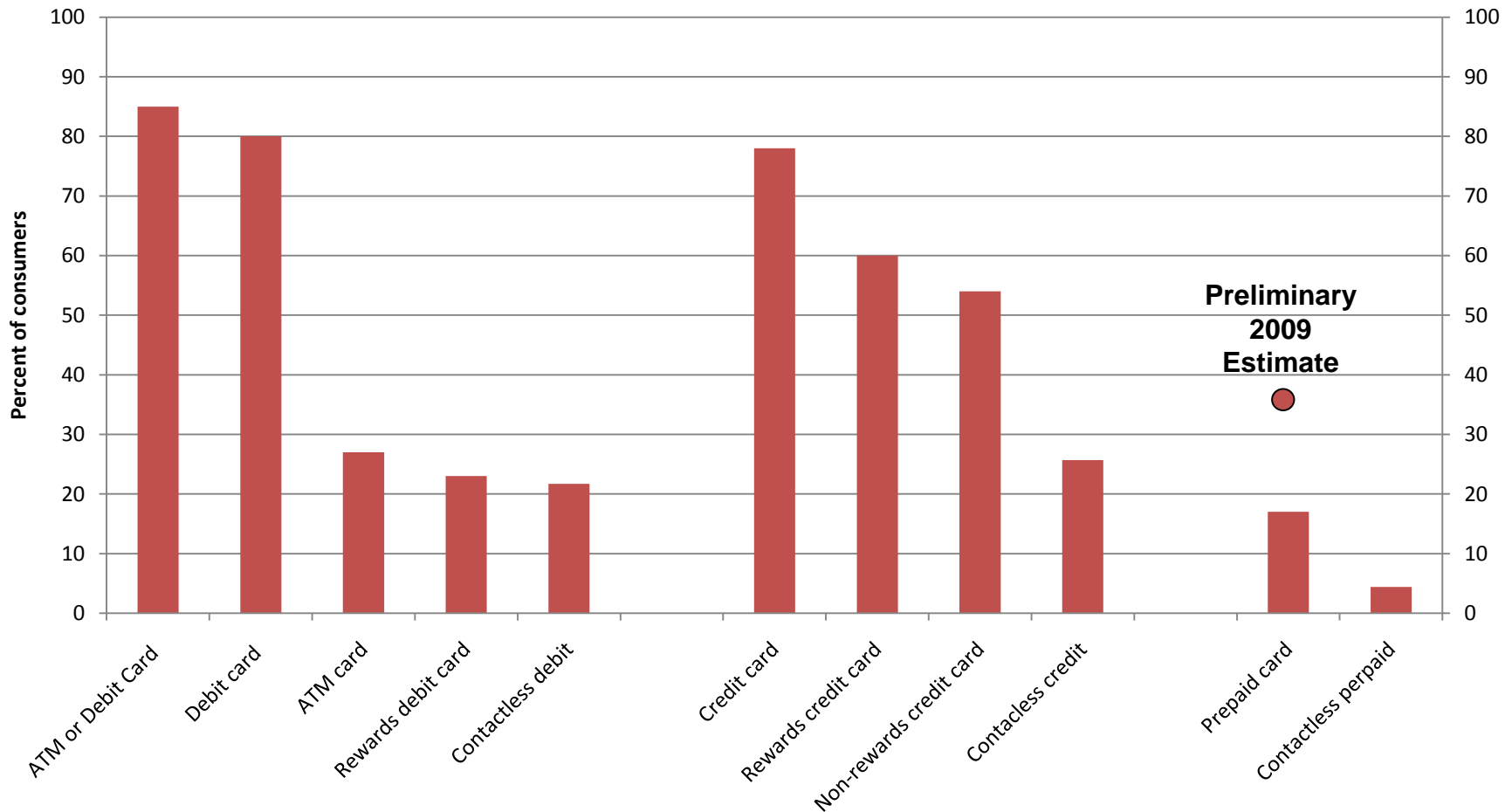
METHODS consumers use to get cash most often (% of consumers)

	ATM or debit card – ATM	ATM or debit card – cash back	Account withdrawal	Cashing personal check	Cashing paycheck	Paid by employer in cash	Unknown Methods
First Choice	54	7	11	7	10	2	3
Second Choice	14	21	29	14	6	1	5

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Table 13.

Adoption of payment cards, 2008

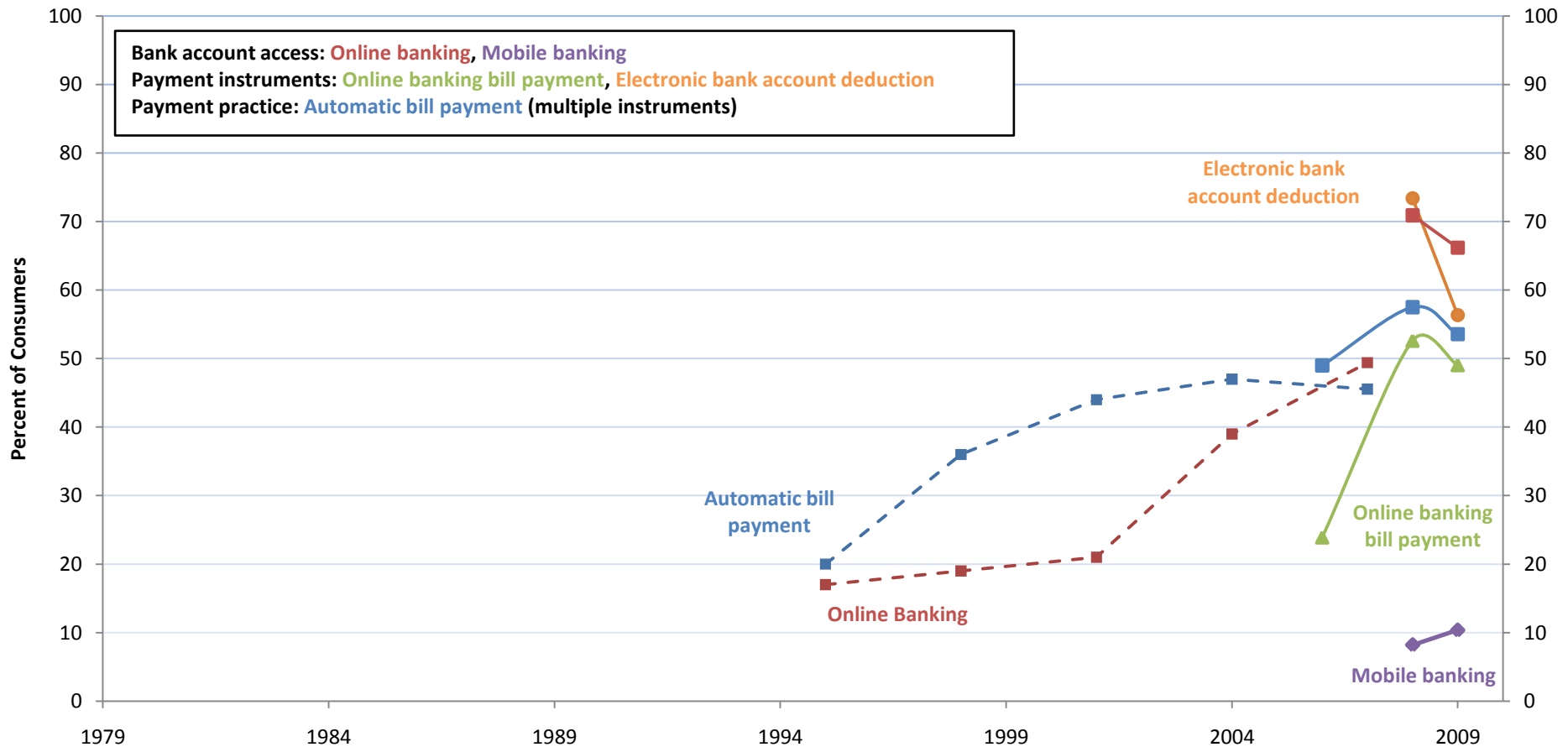
Consumers like debit and credit cards more than prepaid cards



SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Table 5.

Adoption of payment practices

Consumers are finding new ways to access banks, make payments

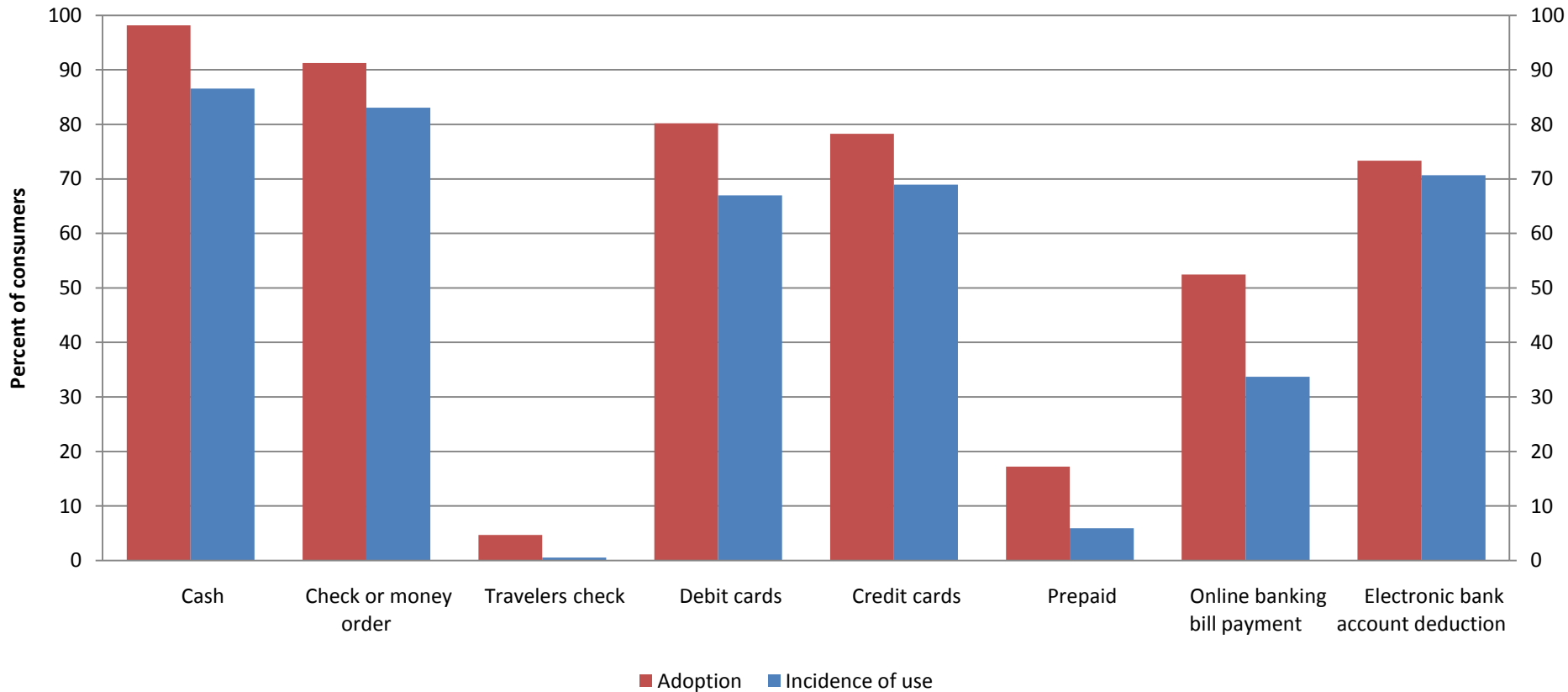


SOURCES: 1983-2007 Survey of Consumer Finances; 2008 and 2009 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 1, 4, and 15.

Incidence of use, 2008

Not all consumers use each payment instruments every month

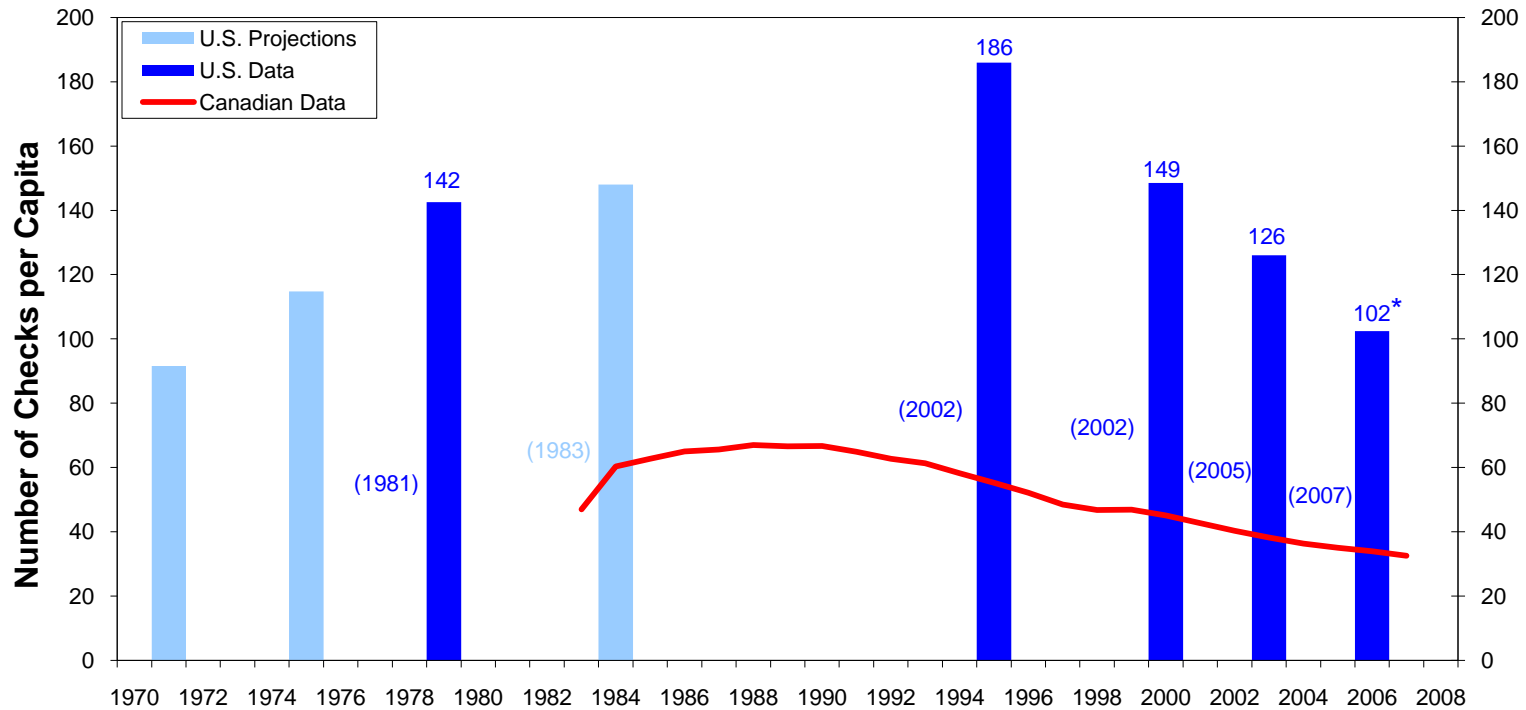
Adoption and monthly incidence of use for payment instruments



SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 4 and 14.

U.S. and Canadian check use

U.S. decline occurred later, not reflected in public data until 2002



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).

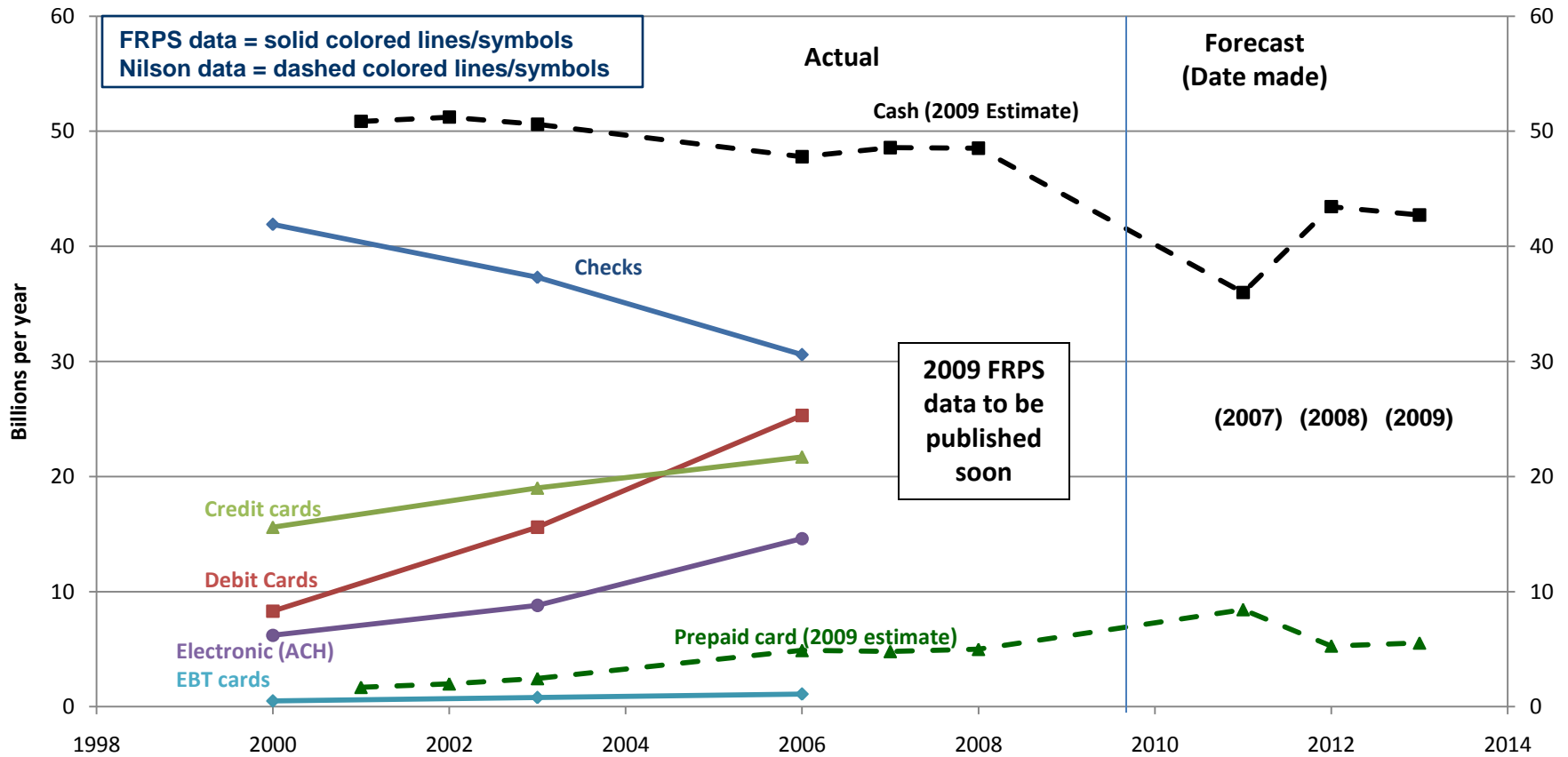
Canadian data: Automated Clearing Settlement System (ACSS) Clearing Exchange Report (2008).

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

Number of U.S. payments (FRPS)

Cards and electronics are replacing paper overall

Number of US payments



SOURCES: 2006 Federal Reserve Payment Study (FRPS), 2009 Nilson

U.S. consumer check use (FRPS)

Consumers are reducing their check use more slowly than others

Checks written by consumers

	Number (billions)	Share of US checks (%)
2000	21.3	50.9
2006	17.7	58.0

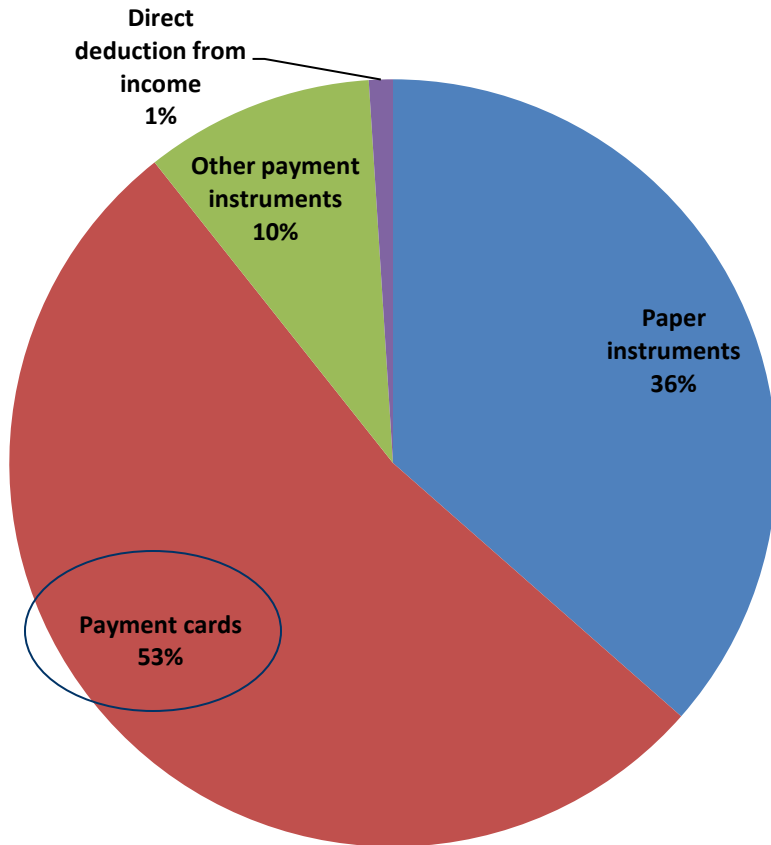
NOTE: Federal Reserve Payment Studies only have consumer data for check use but not for any other payment instruments.

SOURCES: Federal Reserve Payment Studies from 2001, 2004, and 2007.

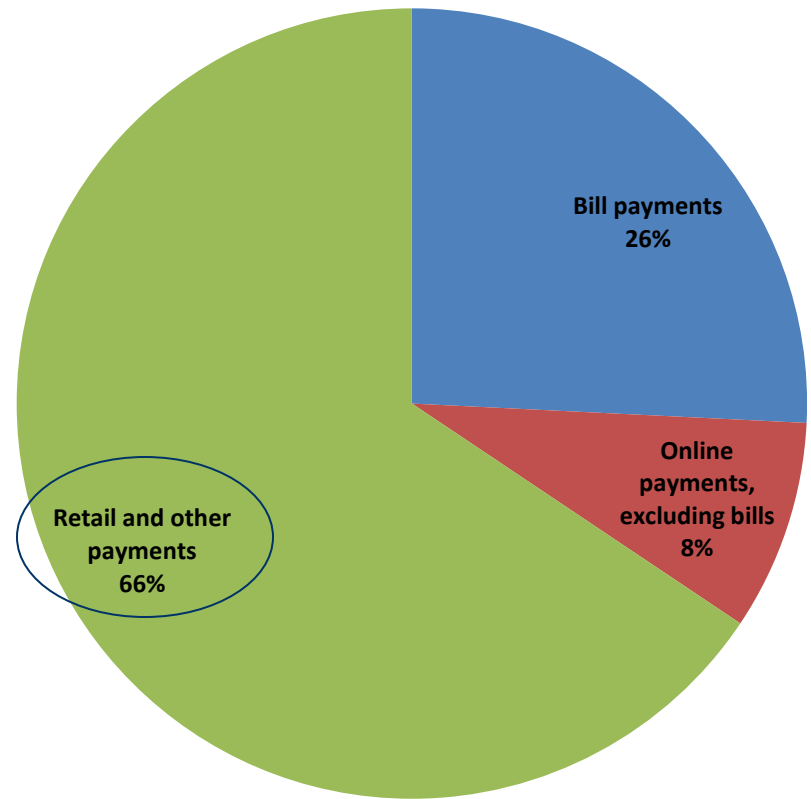
Payment use, 2008

Share of monthly volume of payments, 2008

By Payment Instrument



By Transaction Type



SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision . See 2008 SCPC Tables 19 and 20.

Cash use

Consumers make one-quarter of their payments with cash; most cash payments are for retail and other transactions

Share of consumer 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	14	34	32	30	0	23

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

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 19 and 21-23.

Mobile banking and payments

	<u>2009</u>	<u>2008</u>
• Bank account adopters	93.0%	93.8%
• Mobile banking adopters	10.2%	8.2%
– Used mobile banking last 12 mos.	8.9%	n.a.
• Cell phone adopters	89.5%*	n.a.
– Mobile payment adopters	3.0%	n.a.
• Paid using SMS/Text**	2.0%	
• Paid via contactless mobile	1.1%	

****Consistent with industry estimates of mobile phone subscribers by household***

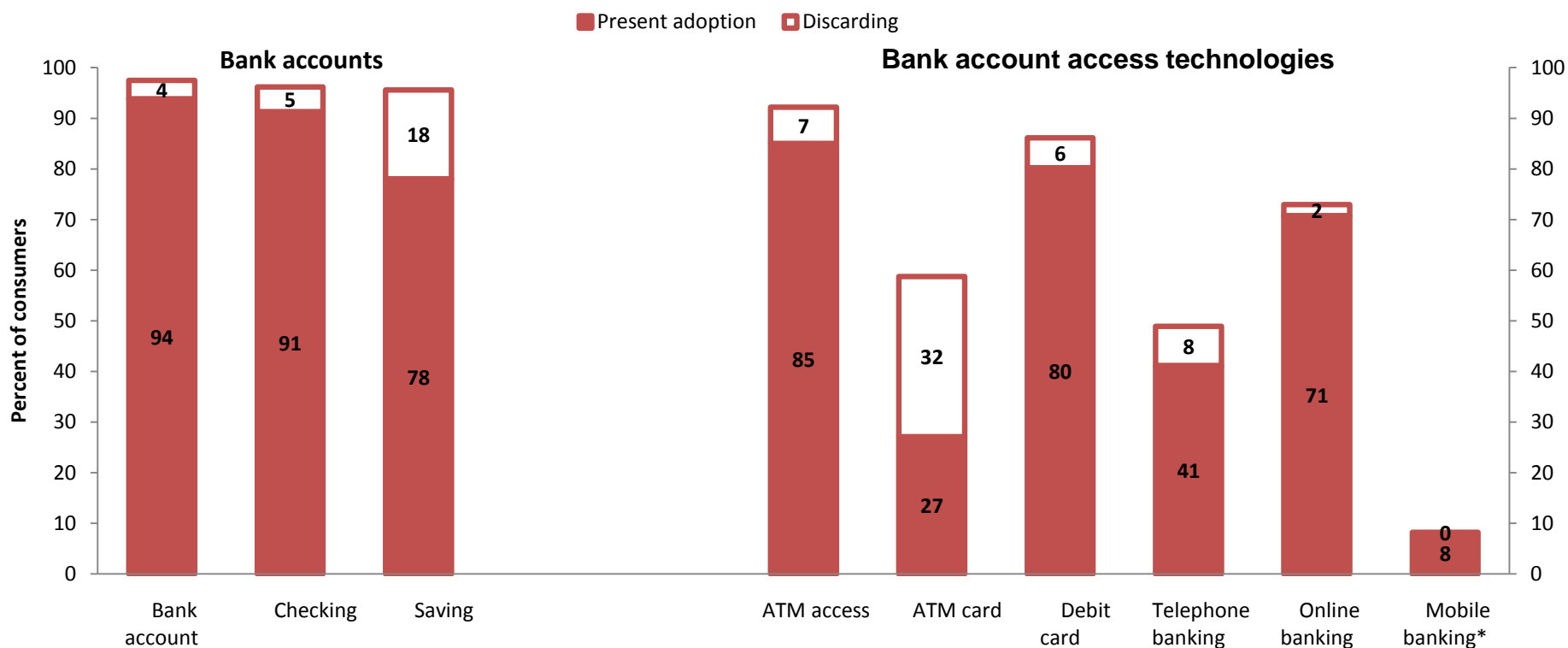
***** Before Haiti earthquake***

SOURCE: Crowe, M., M. Rysman, & J. Stavins (2010). "Mobile Payments in the United States at Retail Point of Sale: Current Market & Future Prospects." Federal Reserve Bank of Boston, PPDP No. 10-2.

Historical adoption of bank accounts, 2008

Nearly all consumers have a bank account but access is changing

Bank accounts adopted and discarded



* Discarding is zero by assumption because respondents were not asked if they ever had mobile banking.

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision . See 2008 SCPC Tables 1 and 2.

Deposit accounts and institutions, 2008

Consumers have bank accounts at different types of institutions

Primary savings account

Primary
checking
account

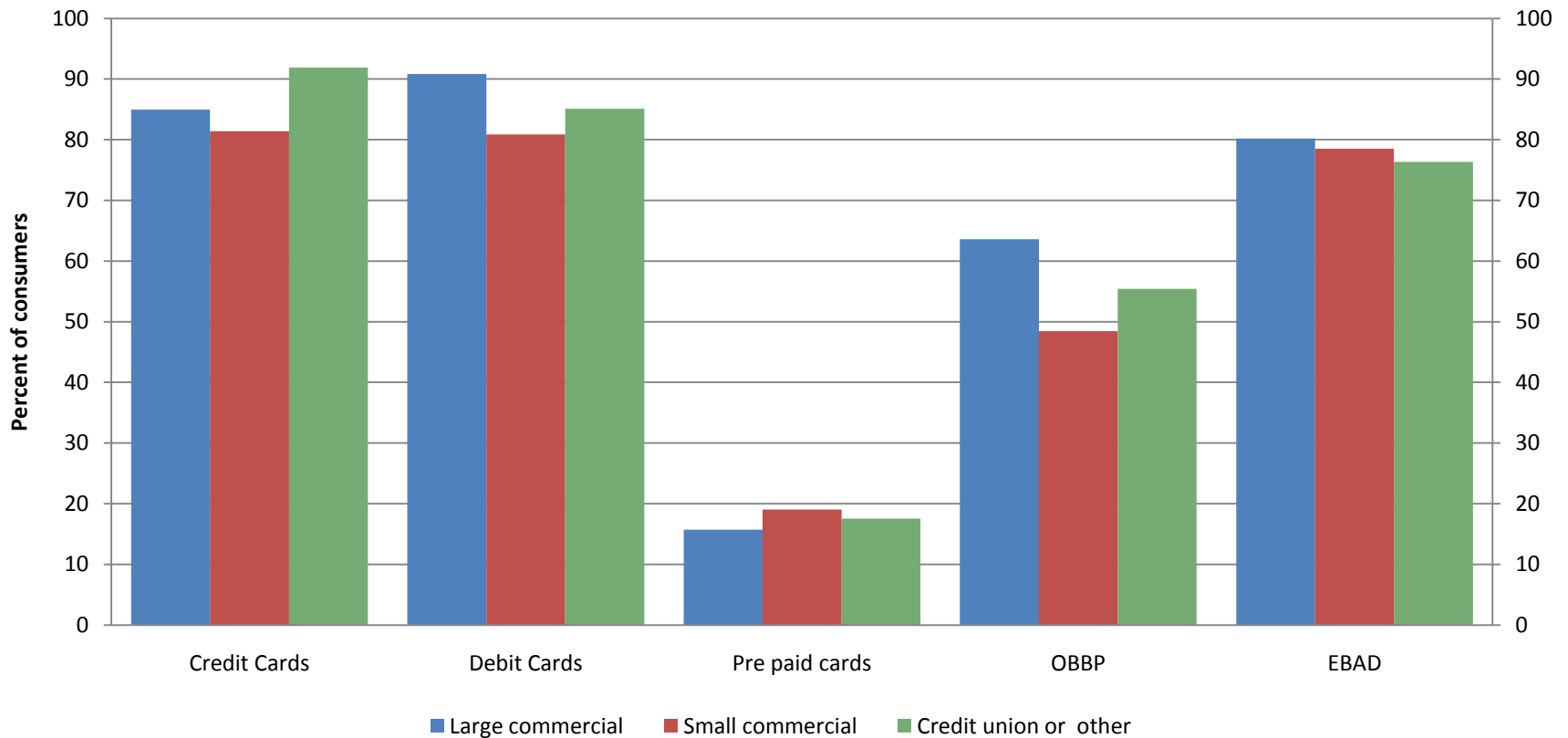
	Large commercial	Small commercial	Credit union or other	None or not specified	Total
Large commercial	29.6	0.9	4.3	8.3	43.1
Small commercial	2.1	14.1	2.5	7.9	26.7
Credit union or other	1.1	0.1	18.2	1.1	20.6
None or not specified	0.2	0.8	1.7	7.1	9.7
Total	33.0	15.9	26.7	24.4	100.0

SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Table 3.

Payment instruments by institution

Consumers' adoption of payment instruments varies by institution

Adoption of payment instruments

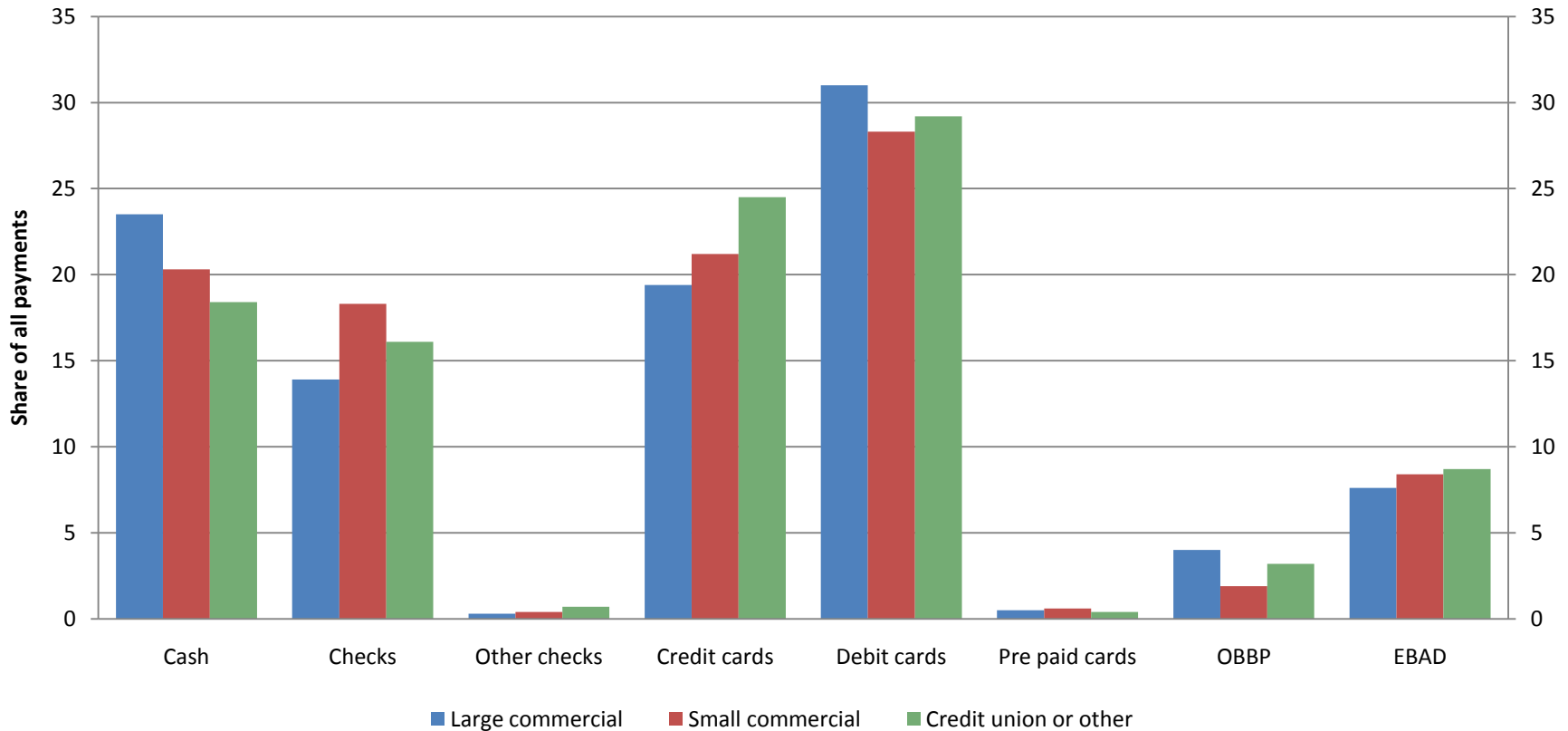


SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 3 and 4.

Payment use by institution

Consumers' use of payment instruments varies by institution

Shares of payments by payment instrument

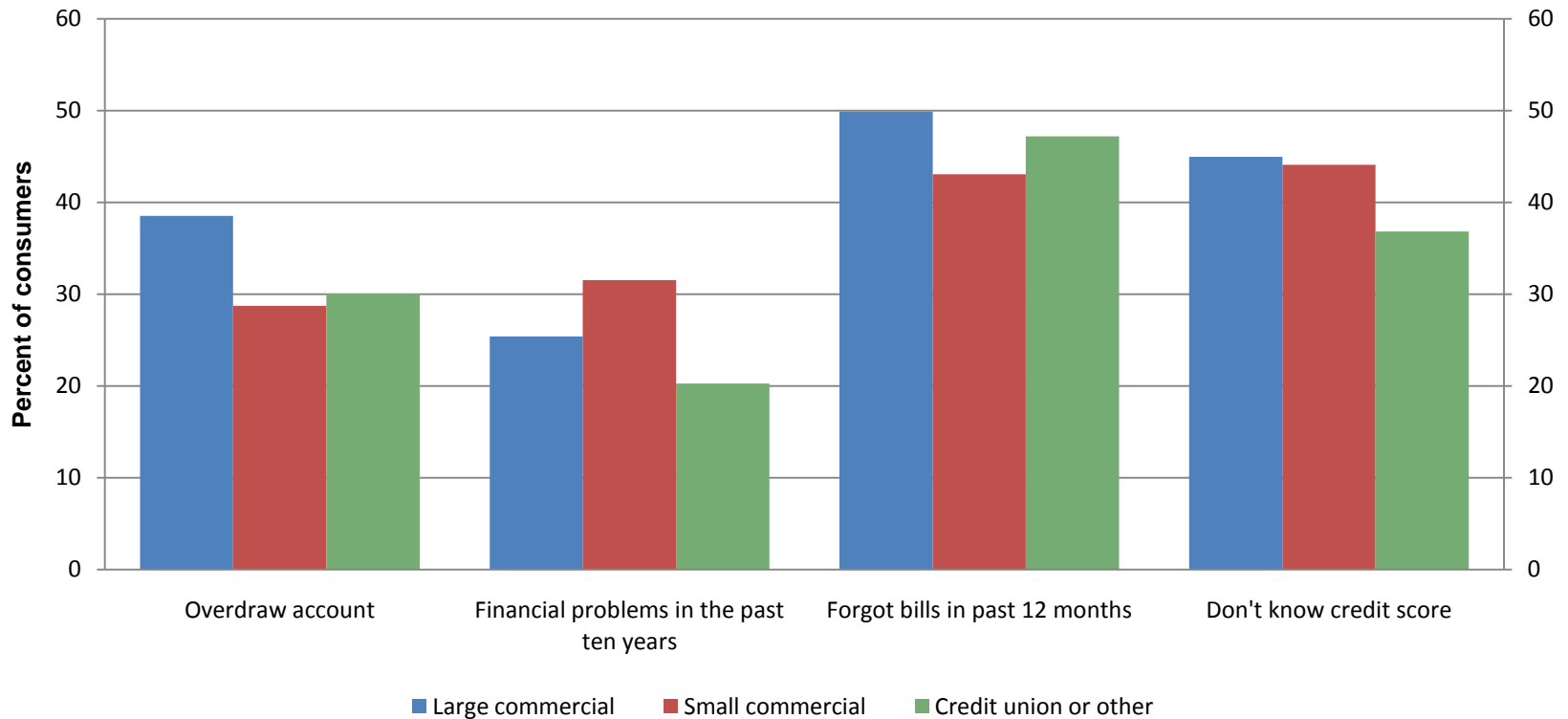


SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Tables 3 and 19.

Financial experiences by institution

Consumers at smaller banks tend to have better financial experiences

Financial problems

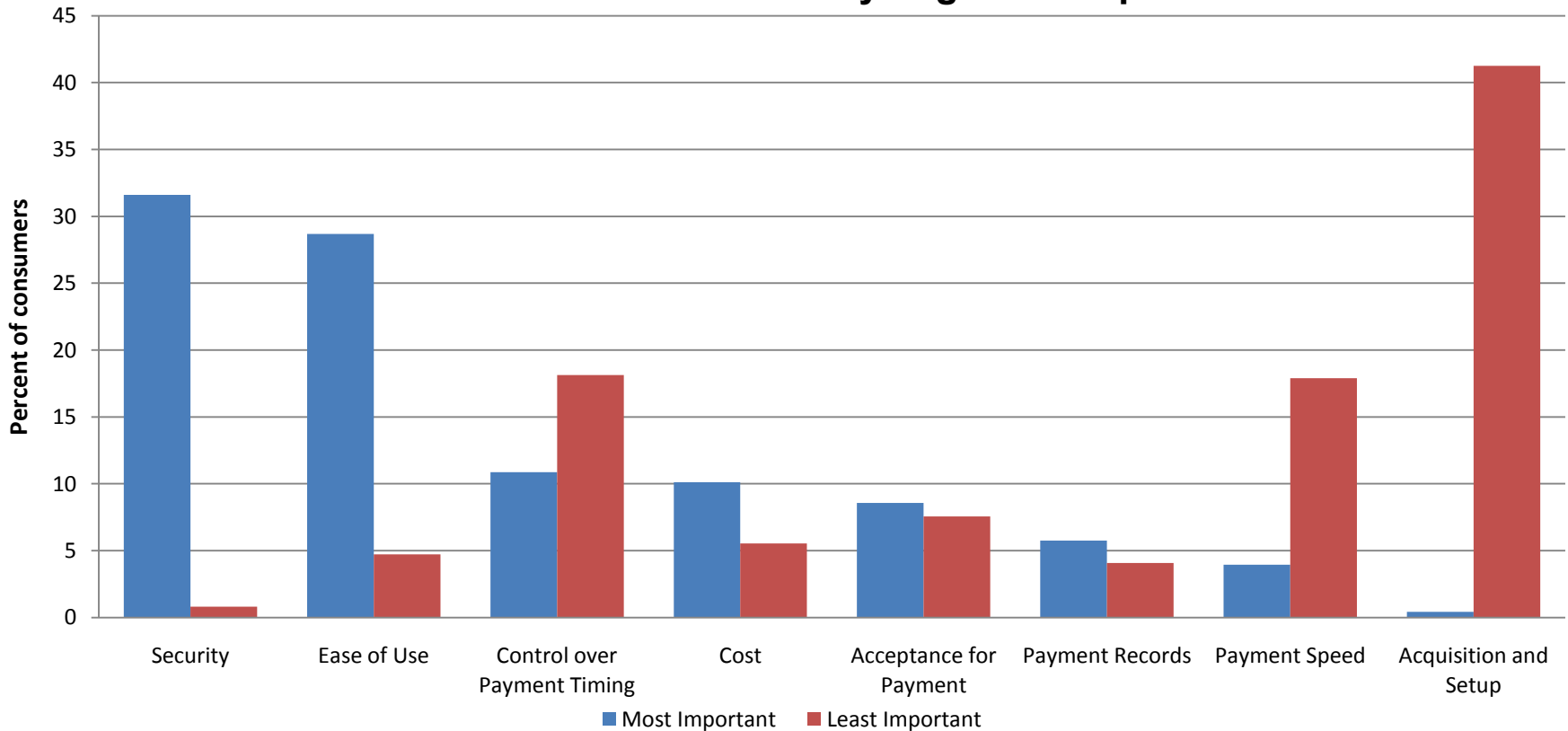


SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision.

Payment instrument characteristics

Consumers say security and ease of use are most important to them

Consumers' assessments by degree of importance



SOURCE: 2008 Survey of Consumer Payment Choice statistics subject to revision. See 2008 SCPC Table 26

Simulated changes in check share, 2003–2006

Changes in cost and convenience partly explain decline in check use

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," *Journal of Banking and Finance* (2009, in press)

Data expansion plans

- Diary of Consumer Payment Choice (DCPC)
 - Collect daily consumer payments (self-recorded)
 - Pilot scheduled for October 2010
- Transactions data project
 - **CPRC is seeking DI's for research collaboration:**
 - Implement the SCPC with DI customers
 - Merge with DI customers' actual transactions
 - Conduct research on consumer payment choice

SCPC production plans

Date	Projects
2010:Q2	<ul style="list-style-type: none"> • Release 2008 micro data (4/1/2010) • Publish 2008 overview paper • Publish 2009 official tables
2010:Q3	<ul style="list-style-type: none"> • Publish 2008–2009 overview paper • Release 2009 micro data
2010:Q4	<ul style="list-style-type: none"> • Implement 2010 survey
2011:Q1	<ul style="list-style-type: none"> • Board of Advisors meeting (March)
2011:Q2	<ul style="list-style-type: none"> • Publish 2010 official tables
2011:Q3	<ul style="list-style-type: none"> • Publish 2008–2010 overview paper • Release 2010 micro data

More information

To download this presentation, the SCPC Tables publication, and/or SCPC micro data, or for more information about the

Consumer Payments Research Center
Federal Reserve Bank of Boston

visit our web site:

<http://www.bos.frb.org/economic/cprc/index.htm>