# **Evolving Consumer Financial Services Marketplace: Payments and Banking**

#### **Scott Schuh**

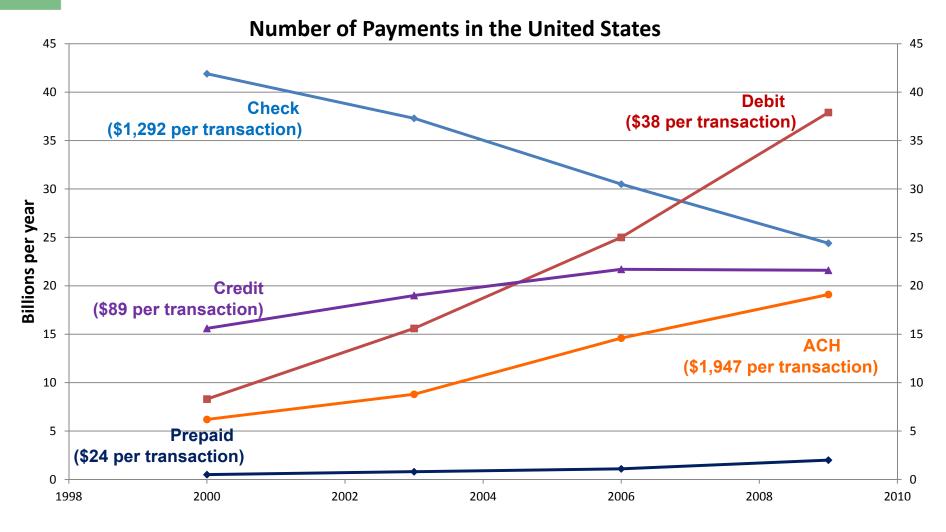
Federal Reserve Bank of Boston Consumer Payment Research Center

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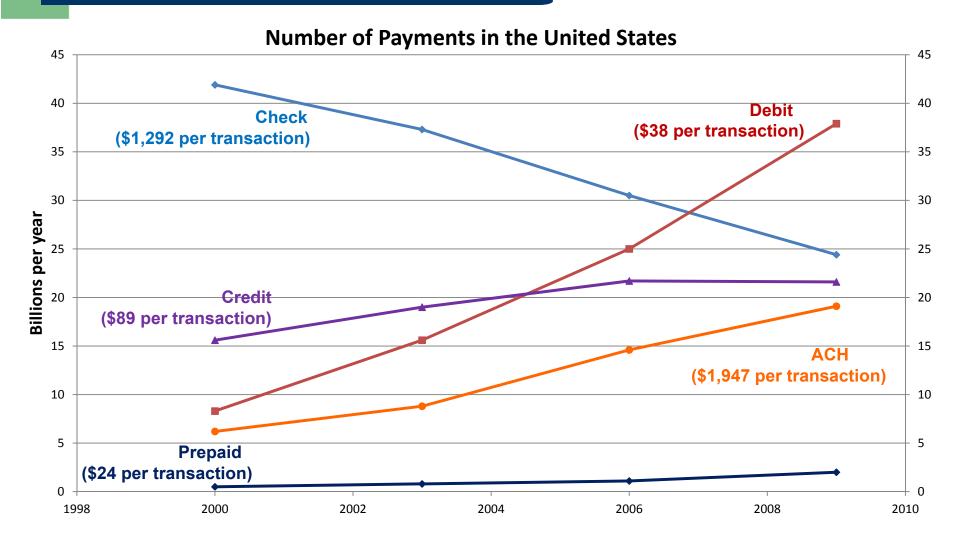
# **Payments Transformation**



**SOURCE: 2010 Federal Reserve Payment Study (FRPS)** 



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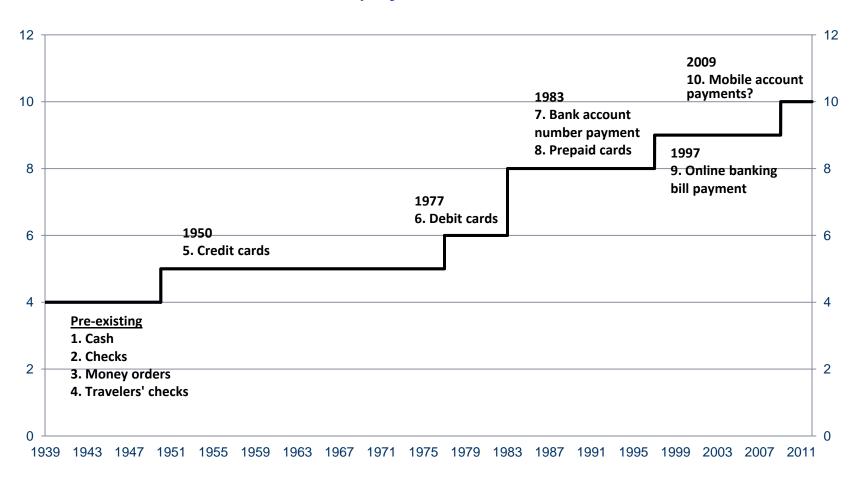


**SOURCE: 2010 Federal Reserve Payment Study (FRPS)** 



# **History of Payments**

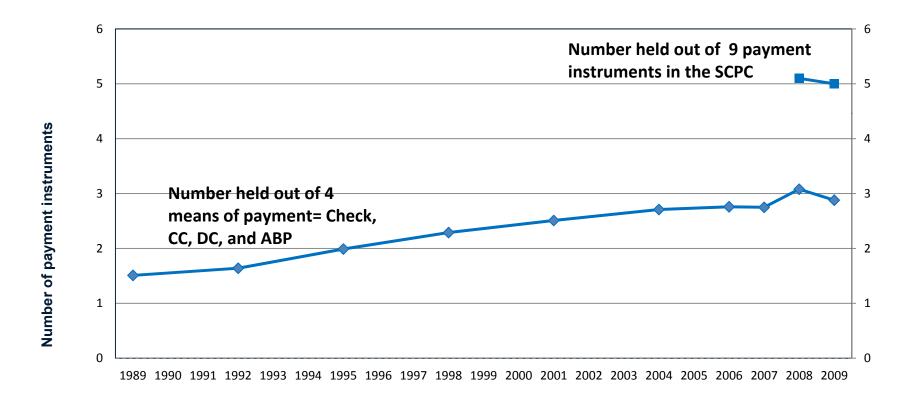
### U.S. consumers have more payment instruments to choose from...





### **Consumer Response**

...and consumers are holding more payment instruments over time



SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008-2009 Survey of Consumer Payment Choice, subject to revision. See 2009 SCPC Table 8.



### **Instrument Portfolios**

#### # of Instruments

#### Most popular portfolios, 2010

Percent of consumers

9%

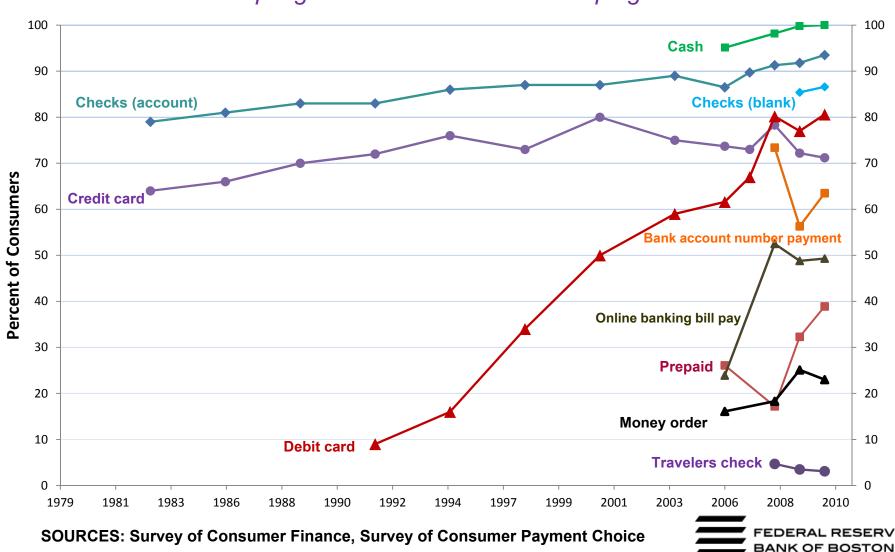
| Continue Banking questions? |



4%

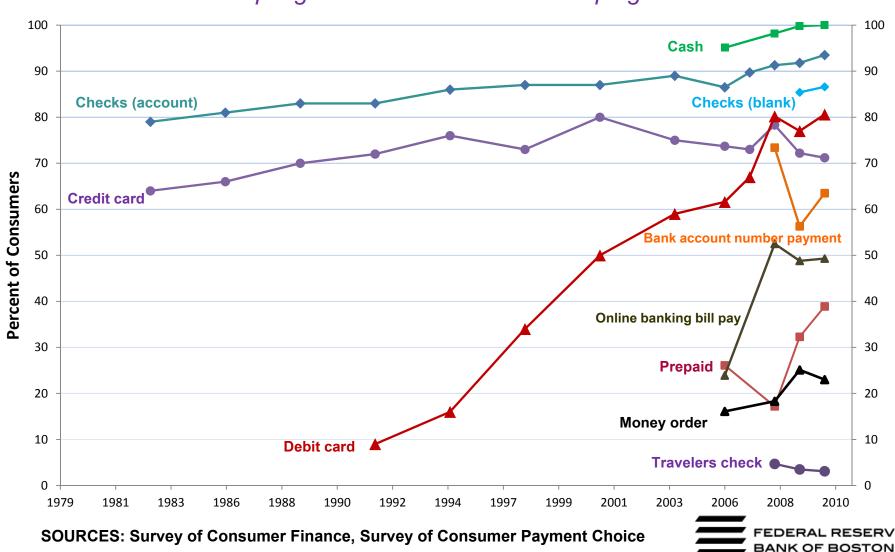
### **Instrument Adoption**

Consumers are adopting newer instruments but keeping most older ones...



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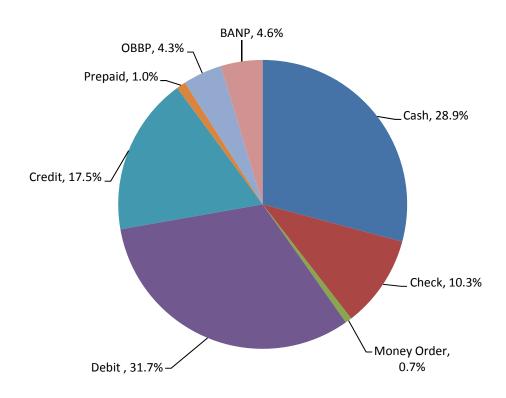


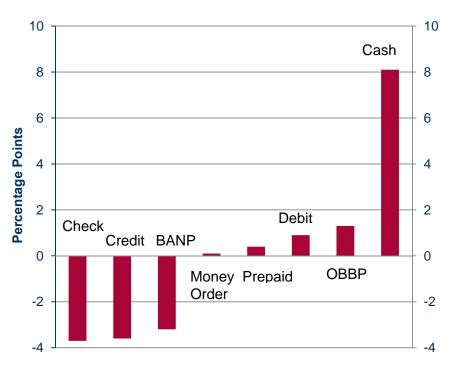
### **Instrument Use**

#### Consumer use of cash has increased since the financial crisis

#### # Payments per Month, 2010 shares

#### Change in Shares, 2008-2010

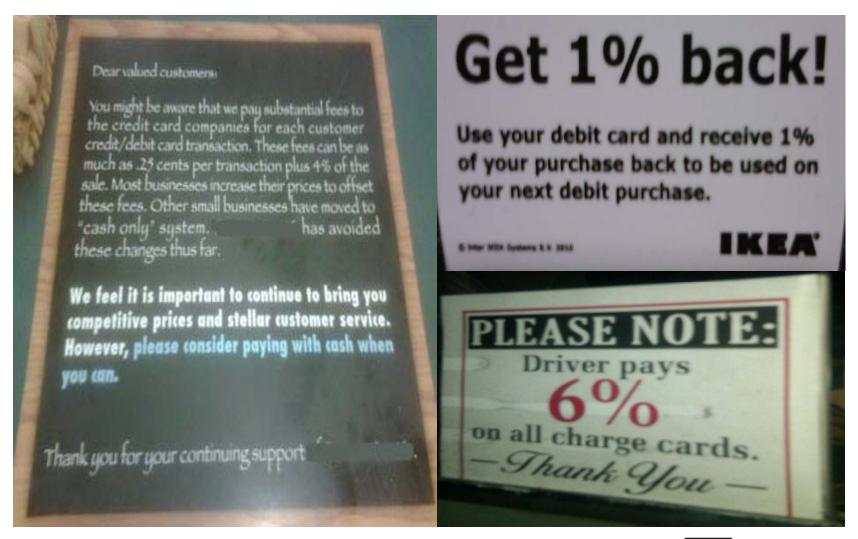




**SOURCE: Survey of Consumer Payment Choice** 



### **Merchant Payment Signs**





### **Merchant Payment Costs**

### Merchants face higher costs of accepting payment cards

| Payment Instrument  | Estimated Cost (% of sale price) |  |
|---------------------|----------------------------------|--|
| "Cash"              | 0.50                             |  |
| Electronic (ACH)    | <0.1                             |  |
| Currency            | 0.50                             |  |
| Debit card (PIN)    | 0.58 - 1.14                      |  |
| Check               | 1.20                             |  |
| Debit card (No PIN) | 1.75                             |  |
| Credit cards        | 2.00                             |  |

SOURCE: Scott Schuh, Oz Shy and Joanna Stavins(2011), "Who Gains and Who Loses from Credit Card Payments? Theory and Calibrations," Federal Reserve Bank of Boston Working Paper 10-03.



# "One Price" Policy

#### 0% merchant credit card fee





\$100 Price \$100



#### 2% merchant credit card fee





\$101 Price \$101





### "Reverse Robin Hood" Effect

Credit card merchant fees (2%) and "one-price" policy for payments induce transfers from low-income to high-income consumers

| Annual Income    | Transfers received  |                    |  |
|------------------|---------------------|--------------------|--|
|                  | Total (\$ Billions) | Per household (\$) |  |
| Under \$20,000   | -1.5                | -63                |  |
| \$20,00049,999   | -3.4                | <b>–89</b>         |  |
| \$50,00079,999   | -2.2                | <b>-96</b>         |  |
| \$80,00099,999   | -0.5                | <b>–56</b>         |  |
| \$100,000119,999 | -0.6                | -89                |  |
| \$120,000149,999 | 0.1                 | 10                 |  |
| Over \$150,000   | 8.2                 | 823                |  |
| Low (< 100,000)  | <b>-7.7</b>         | <b>–</b> 81        |  |
| High (≥ 100,000) | 7.7                 | 355                |  |

SOURCE: Scott Schuh, Oz Shy and Joanna Stavins(2011), "Who Gains and Who Loses from Credit Card Payments? Theory and Calibrations," Federal Reserve Bank of Boston Working Paper 10-03.



### **Policy Responses**

### Durbin Amendment to 2010 DFA

- Instructs Fed to regulate <u>debit</u> interchange fees
- Allows merchants to "steer" payment w/discounts

# 2011 Settlement of DOJ antitrust complaint against credit card companies

- Allows more merchant "steering" of payment
- Allows merchants to disclose payment card fees
- To work, merchants must get detailed fee data!

SOURCE: Scott Schuh, Oz Shy, Joanna Stavins(2011), "An Economic Analysis of the 2010 Proposed Settlement between the Department of Justice and Credit Card Networks," Federal Reserve Bank of Boston Public Policy Discussion Paper 11-04 (forthcoming Journal of Competition Law and Economics.)



# **Payment Service Pricing**

Is checking really "free"?...

|                                 | Bank of America<br>debit | PayPal<br>debit | Green Dot prepaid |
|---------------------------------|--------------------------|-----------------|-------------------|
| Initial purchase [fixed]        | FREE                     | FREE            | \$4.95            |
| Monthly fee                     |                          |                 |                   |
| Regular                         | \$6.00                   | FREE            | \$5.95            |
| Waived*                         | FREE or \$5?             | FREE            | FREE              |
| Cash withdrawals                |                          |                 |                   |
| ATM/in network                  | FREE                     | \$1.00          | FREE              |
| ATM/out of network              | \$2.00                   | \$1.00          | \$2.50            |
| Teller cash advance             | FREE                     | na              | \$2.50            |
| Balance inquiry                 |                          |                 |                   |
| Lost/stolen card replacement    | ?                        | ?               | \$4.95            |
| Reload at retailer (max)        | na                       | na              | \$4.95            |
| Expedited card delivery (FedEx) | ?                        | ?               | \$19.95           |
| Second card                     |                          |                 |                   |
| Non-student                     | FREE                     | FREE            | \$4.95            |
| Student                         | FREE                     | FREE            | FREE              |
| Overdraft fees                  |                          |                 |                   |
| No protection                   | \$35.00                  | ?               | NONE              |
| Protection                      | \$10.00                  | ?               | NONE              |
| Cash back reward                | ?                        | 1%              | na                |

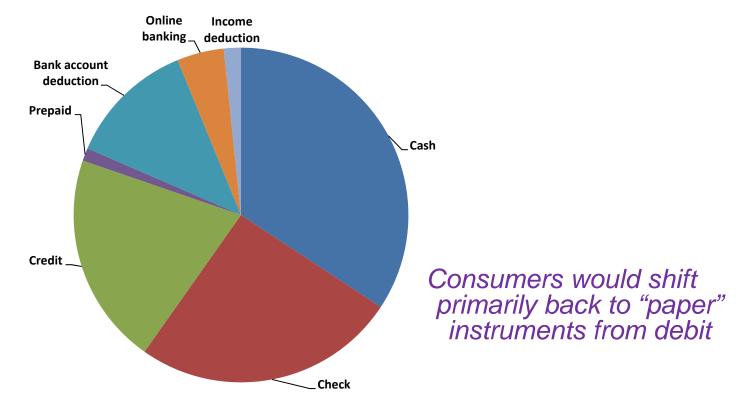
**SOURCES:** Company web sites.

NOTES: Bank of America data as of 3/18/2011; PayPal as of 10/14/09.



# **Substitution among Payments**

Forecasted increase in consumer use of alternative payments after an increase in the cost of debit card use (assumes no change in bank accounts)

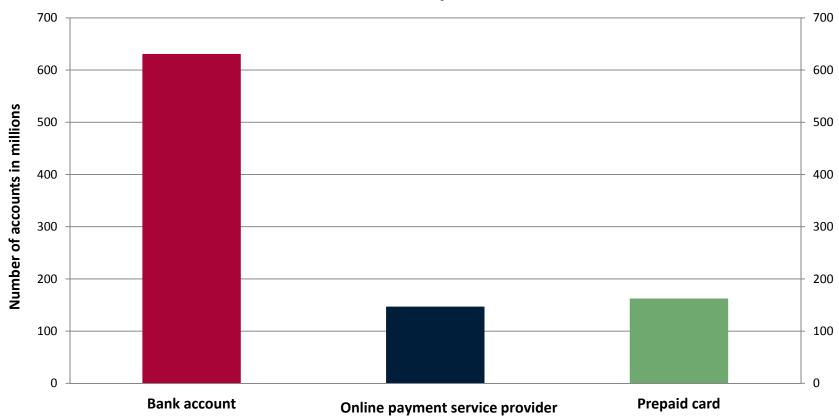


Source: Sergei Koulayev, Marc Rysman, Scott Schuh and Joanna Stavins (2011), "Explaining adoption and use of payment instruments by U.S. consumers," unpublished working paper.



# **Payment Accounts**

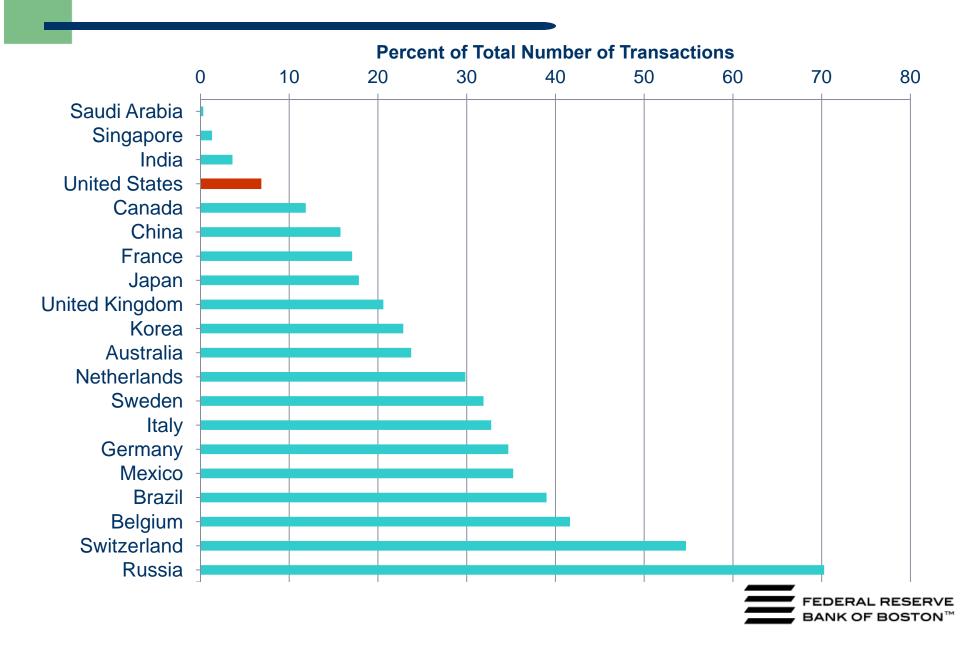
#### Number of accounts held by U.S. consumers 2010



SOURCES: 2010 Call Report; 2010 Survey of Consumer Payment Choice (preliminary, subject to revision).



# **A2A Electronic Money Transfers**



# **A2A Electronic Money Transfers**

During the last 2 years, some banks began introducing this service. *Problem*: Multiple standards!







# **Consumer Saving**





# **Banking and Budgeting?**

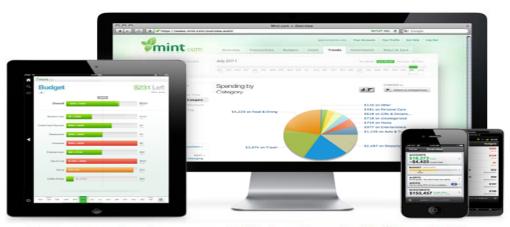


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