Changes in U.S. Payments Fraud 2012–2016
Talk About Payments Webinar
November 1, 2018
CHANGES IN U.S. PAYMENTS FRAUD FROM 2012 TO 2016

Evidence from the Federal Reserve Payments Study

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Webinar presenters

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Federal Reserve Bank of Atlanta

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Principal Economist, Payment System Studies
Board of Governors of the Federal Reserve System

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Payments Risk Expert, Retail Payments Risk Forum
Federal Reserve Bank of Atlanta
Today’s conversation

- Data, environment & scope

- 2012–15 noncash payments fraud
  - Rates
  - Distribution by type
  - PIN use and fraud

- 2015–16 card fraud
  - Methods of fraud
  - Mix by debit and credit
  - Mix by location
  - Mix by chip and no-chip
# Just a taste: Key findings

<table>
<thead>
<tr>
<th>Period</th>
<th>Fraud Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012–15</td>
<td>Rates of payments fraud, number &amp; value, increase</td>
<td>Increase in card fraud by value, excluding ACH fraud</td>
</tr>
</tbody>
</table>
|          | Card fraud by value increases     | • <2/10 of 1 percent of card payments  
• Increased from ≈ 2/3 to >3/4 of all, excluding ACH fraud |
|          | ACH fraud rates stable            |                                                                       |
|          | Check fraud, value & rate, declines|                                                                       |
| 2015–16  | Rate of card fraud by value stable | In-person counterfeit card fraud declines  
Remote card fraud increases  
Credit card fraud rates remained higher than debit rates |
FRAMEWORK
A framework for looking at noncash payments fraud
Why study payments fraud?

• Payments are vital to U.S. economy

• Measurement aids understanding

• Data informs efforts to improve infrastructure
Federal Reserve Payments Study

Estimates of total number and value of all U.S. noncash payments

<table>
<thead>
<tr>
<th>Noncash payment instruments</th>
<th>Economic actors</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cards</td>
<td>• Government</td>
<td>• Banks</td>
</tr>
<tr>
<td>• Credit</td>
<td>• Business</td>
<td>• Savings institutions</td>
</tr>
<tr>
<td>• Non-prepaid debit</td>
<td>• Consumer</td>
<td>• Credit unions</td>
</tr>
<tr>
<td>• Prepaid debit</td>
<td></td>
<td>• Card</td>
</tr>
<tr>
<td>ACH</td>
<td></td>
<td>• Networks</td>
</tr>
<tr>
<td>• Originated</td>
<td></td>
<td>• Processors</td>
</tr>
<tr>
<td>• Received Checks</td>
<td></td>
<td>• Issuers</td>
</tr>
<tr>
<td>Wires</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Third-party payments fraud defined

Paying bank perspective

Gross Fraud

- Cleared & Settled 3rd party
  - Returned
    - Courtesy write-off
    - Recovered from 3rd party
  - Not returned
    -Courtesy write-off
    - Recovered from 3rd party

Cleared, not settled

- Depositing customer charged
- Accountholder charged

Source: Federal Reserve Payments Study.
2012–2015 NONCASH PAYMENTS FRAUD

Depository institution survey
Fraud increased by value & number

<table>
<thead>
<tr>
<th>Year</th>
<th>Value ($ Billions)</th>
<th>Number (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>8.3</td>
<td>31.4</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Payments Study.
Fraud rates increased 2012–15

Payments fraud rates (basis points)

A basis point is 1/100 of 1 percent. Source: Federal Reserve Payments Study.
Fraud a small fraction of payments value

- 46¢ for every $10,000 in payments in 2015
- <1/200 of 1% of all noncash payments by value

Most payments fraud is by card

- Card fraud by value: 77.5%
- Card fraud by number: 97.8%

Source: Federal Reserve Payments Study.
Card fraud rates exceed ACH, check

<table>
<thead>
<tr>
<th></th>
<th>Cards</th>
<th>ACH</th>
<th>Check</th>
<th>Cards</th>
<th>ACH</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>10.80</td>
<td>0.08</td>
<td>0.25</td>
<td>6.07</td>
<td>0.33</td>
<td>0.32</td>
</tr>
<tr>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rates of fraud 2015 (basis points). Note: A basis point is 1/100 of 1 percent. Source: Federal Reserve Payments Study.
Of cards, credit fraud rates highest, increased most rapidly

Rate of payments fraud from credit card payments, debit card payments, and ATM withdrawals, by value, 2012 and 2015 (basis points)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit cards</td>
<td>9.97</td>
<td>9.17</td>
</tr>
<tr>
<td>Debit cards</td>
<td>7.20</td>
<td>4.65</td>
</tr>
<tr>
<td>ATM withdrawals</td>
<td>3.73</td>
<td>13.88</td>
</tr>
</tbody>
</table>

Rates of fraud by value (basis points). Note: A basis point is 1/100 of 1 percent. Source: Federal Reserve Payments Study.
ACH rates low and (relatively) stable

Rates of fraud (basis points). Note: A basis point is 1/100 of 1 percent. Source: Federal Reserve Payments Study.
CNP more prone to fraud

Distribution of fraudulent and non-fraudulent card-present and card-not-present payments, 2015.
Source: Federal Reserve Payments Study.
PIN helps protect against fraud

2015–2016 CARD PAYMENTS FRAUD

Card network survey
Card fraud methods realign, 2015–16

- By value
  - Counterfeit most common in 2015
  - Account number fraud most common in 2016
- Counterfeit declined
- Account number fraud increased

Value of card fraud, 2016
(by industry category, $billions)

- Fraudulent use of account number: $3.46 billion
- Counterfeit card: $2.62 billion
- Lost or stolen card: $0.81 billion
- Other: $0.60 billion

Source: Federal Reserve Payments Study.
Underlying fraud channel mix alters

In-person fraud $ rate decreased

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>12.17</td>
</tr>
<tr>
<td>2016</td>
<td>9.34</td>
</tr>
</tbody>
</table>

Remote fraud $ rate increased

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>15.45</td>
</tr>
<tr>
<td>2016</td>
<td>18.71</td>
</tr>
</tbody>
</table>

Rates of fraud (basis points). Note: A basis point is 1/100 of 1 percent. Source: Federal Reserve Payments Study.
Sharp increase in chip use at POS

Source: Federal Reserve Payments Study.
Remote card channel increasingly popular overall—especially for payments fraud

2015–16 percentage change in value, remote card payments

- All remote: 11.1%
- Fraudulent remote: 34.6%

Source: Federal Reserve Payments Study.
DISCUSSION

Questions & comments
Questions & Discussion

Ask a Question
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Reports & Data

For more information
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Resources

• Federal Reserve Payments Study
• Survey of Consumer Payment Choice
• Diary of Consumer Payment Choice
• Survey of Consumer Finances
• Survey of Household Economics and Decisionmaking
• Survey of Consumer Expectations
• Consumers & Mobile Financial Services
• Blog: Take On Payments every Monday