A Corporate Perspective on Nonbanks and Risk in Payments

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Agenda

• The extent of nonbanks in payments
• Risk and risk management
  – At the level of the firm
  – At the level of the payment industry
• A focus on data breaches and payments fraud
Share of Transaction Volume by Ownership of ATM Network
Top 20 Regional Networks--United States

Source: EFT Network Data Book (various years) and author calculations.
Method for Determining the Importance of Nonbanks in Payments

- Develop stylized model of payment process
  - Pre-transaction (21 subactivities)
  - During transaction Stage 1 (12 subactivities)
  - During transaction Stage 2 (14 subactivities)
  - Post Transaction (8 subactivities)
- Determine importance of nonbanks at each point of payment process
  - Questionnaire completed by central banks
Nonbanks in Payments: Who are these guys?

• Back-end: process and/or facilitate payments
• Front-end: customer interface
• All enterprises that accept and originate payments
  – Including retailers, commercial firms, corporations
Importance of Nonbanks in Retail Payments: Europe

• Mixed bag
  – Important: Austria, Germany, the Netherlands, Italy
  – Not so important: Finland, France, Latvia, Slovenia
  – In between: Bulgaria, Cyprus, Czech Republic, Greece, Lithuania, and Portugal

• There appears to be a correspondence between use of payment cards and nonbank prevalence
Importance of Nonbanks in Retail Payments: United States

- U.S.: nonbanks important almost everywhere

- Both EU and U.S.: nonbanks unimportant at the point of settlement
Types of risk in payments

• Traditional risks: liquidity, credit, settlement agent risk
• More recent concerns
  – Operational risk: malfunctions, data security, counterfeit and associated fraud
  – Compliance and illicit use
## Table 4: Payment Activities and Selected Risks

<table>
<thead>
<tr>
<th>Payment Activity</th>
<th>Liquidity and Credit</th>
<th>Operational</th>
<th>Illicit use (AML, terrorist financing)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liquidity</td>
<td>Credit</td>
<td>Malfunctioning and/or other operational problems</td>
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<td>Pre-Transaction</td>
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<td>a</td>
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<td>x</td>
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<tr>
<td>7</td>
<td>a</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>8</td>
<td>a</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

**Note:** Data security risk is associated with the online environment.
Payment Activities and Selected Risks

• Data security risk and compliance risk is present in a large portion of the payments process.

• Security upgrades, such as those required by the PCI DSS, attacks this type of risk.
  • One goal: reduce data breaches

• Issue: there are many points of vulnerability
Payment Activities and Selected Risks

- Risk of counterfeit and fraud is present in a smaller portion of the payments process.
- But this is where the fraud cycle ends.
- Can a more narrowly focused improvement to payment authorization be more effective at reducing losses due to payment fraud?
Risk management when there are spillover effects
Risk management in retail payments

• Pricing and insurance
  – Limitations force the payment industry to rely heavily on containment

• Containment
  – Centralized effort is valuable because individual efforts tend to benefit all payment participants
  – Works because access to the payment system can be restricted
Containment of Retail Payment Risk

• Industry self-regulation
  – NACHA: sets security policies and access rules for the ACH system
  – Card Associations: PCI data security standards

• Government policy
  – Some rules but more recently principles-based expectations and promotion of appropriate internal controls
Nonbanks and the Challenge of Risk Management

• Alternative points of access to payment data
• Banks and networks as gatekeepers to the payment system
• Nonbanks with key roles in entire retail payment systems
  – Single point of failure?
• More complex system to manage risk
Industry Sources of Data Breaches
United States, April 2005-August 2008

0% 10% 20% 30% 40% 50% 60%

- **Incidents**
- **Records exposed**

- **Banks and Credit Unions**
- **Nonbank payment processors**
- **Retail and Commerce**
- **Insurance and Fin. Services**
- **Education**
- **Medical**
- **Government**

Source: Privacy Rights Clearinghouse website and author calculations.

AFP Annual Conference
## Annual Costs of U.S. Payments Fraud

<table>
<thead>
<tr>
<th>Payment type</th>
<th>Losses (billions)</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Banks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit cards</td>
<td>$1.240</td>
<td>2006</td>
</tr>
<tr>
<td>Checks</td>
<td>$0.969</td>
<td>2006</td>
</tr>
<tr>
<td>Debit cards</td>
<td>$0.626</td>
<td>2005</td>
</tr>
<tr>
<td>ACH</td>
<td>$0.065</td>
<td>2005</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$2.89</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Merchants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checks at retail locations</td>
<td>$10</td>
<td>2006</td>
</tr>
<tr>
<td>Credit cards at online retailers</td>
<td>$3.6</td>
<td>2007</td>
</tr>
<tr>
<td>Debit and credit cards at brick-and-mortar retailers</td>
<td>$2</td>
<td>2006</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$15.6</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All payment losses due to ID theft</td>
<td>$5.6</td>
<td>2007</td>
</tr>
</tbody>
</table>

AFP Fraud Survey

• AFP members have limited exposure to losses from payments fraud
• Tools to limit fraud are available and are effective when applied
  – Internal controls, positive pay, ACH debit blocks, ACH returns, segregation of duties, password changes, card spending limits
  – Working with your bank and payment providers is a good practice
Trouble ahead?

- Many AFP survey respondents experienced an increase in fraud (2007 over 2006)
- Trends are toward payment instruments with higher loss rates

<table>
<thead>
<tr>
<th>Respondents experiencing:</th>
<th>Fraud attempts</th>
<th>Attempts with losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checks</td>
<td>94%</td>
<td>17%</td>
</tr>
<tr>
<td>ACH</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Corporate cards</td>
<td>13%</td>
<td>33%</td>
</tr>
<tr>
<td>Consumer electronic payments</td>
<td>4.3%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Conclusion

- Nonbanks are important to retail payments in the U.S. and in some EU countries
- Overall, retail payment risk is sufficiently managed
- Balanced public policy seems warranted
  - Encourage industry self-regulation
  - Carefully design laws regarding responsibilities and liabilities
  - Prudent use of government regulation
- Keep in mind that confidence in the payments system is also a public good
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