## AFP<sup>®</sup> Annual Conference

Original \* Essential \* Unbiased \* Information

#### A Corporate Perspective on Nonbanks and Risk in Payments

Presentation to the Association for Financial Professionals 2008 Annual Conference Los Angeles, CA

October 20, 2008

Richard J. Sullivan Federal Reserve Bank of Kansas City

The views expressed in this presentation are those of the author and do not necessarily reflect those of the European Central Bank, Federal Reserve Bank of Kansas City or of the Federal Reserve System.

www.AFPonline.org/sessions

### 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.



AFP Annual Conference

### 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
  - questionaire 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



#### **Payment Activities and Selected Risks**

Table 4: Payment Activities and Selected Risks

					2				
		Type of Risk							
		Liquidity and Credit		Operational					
Payment Activity		Liquidity	Credit	Settlement agent credit risk	Malfunctioning and/or other operational problems	Data security risk associated with fraud or violations of privacy responsibilities	Counterfeit and associated fraud	Compliance	Illicit use (AML, terrorist financing)
Pre-	Fransa	ction		-	_				
1	а		x			x	х	x	x
1	b	x	x			x	x	x	x
2	а		x		x	х			
	b				x	x			
	а				x	х	х	х	
2	b				x	х		х	
3	с					x			
	d				x	x	x		
	а				x	х		х	
4	b				x	х		x	
	с				x	х			
	а				x	x		x	
5	b				x	х	х	х	
5	с				x	x		x	
	d				x	х	х		
	а					x	x	x	
б	b				x	x	x	x	
	с				x	x	x	x	
7	а					х		х	
8	а				x	X		x	

Note: Data security risk is associated with the online environment.

#### **AFP Annual Conference**



#### **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
   AFP Annual Conference

e of Risk	of Risk					
Operational						
Data security risk associated with fraud or violations of privacy responsibilities	Counterfeit and associated fraud	Compliance	Illicit use (AML, terrorist financing)			
v	v	v	v			
A V	A V	A V	v			
x	•	•				
x						
x	x	x				
x		x				
x						
x	x					
х		х				
х		х				
х						
x		x				
x	x	x				
х		x				
х	х					
х	х	x				
x	x	x				
x	x	x				
x		x				
X		x				



#### **Payment Activities and Selected Risks**

Table 4: Payment Activities and Selected Ri	sks
---	-----

	Type of Risk		
	Liquidity and Credit	Operational	
		Data security	
		Malfunctioning risk associated	~
			0

- 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?

al						
rity ≏ted or of	Counterfeit and associated fraud	Compliance	Illicit use (AML, terrorist financing)			
		-				
	X	x	x			
	х	x	x			
	X	X				
		X				
	x					
		x				
		x				
		x				
	x	x				
		x				
	x					
	х	x				
	X	X				
	х	x				
		x				
		X				



### Risk management when there are spillover effects



Financial Professionals\*

### 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 principlesbased 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



Source: Privacy Rights Clearinghouse website and author calculations.



AFP Annual Conference

#### **Annual Costs of U.S. Payments Fraud**

	Payment type	Losses (billions)	Period
Banks	anks Credit cards		
	Checks	\$0.969	2006
	Debit cards	\$0.626	2005
	ACH	\$0.065	2005
	Subtotal	\$2.89	
Merchants	Checks at retail locations	\$10	2006
	Credit cards at online retailers	\$3.6	2007
	Debit and credit cards at brick-and-mortar retailers	\$2	2006
	Subtotal	\$15.6	
Consumers	ners All payment losses due to ID theft		2007

Source: Richard J. Sullivan, "Can Smart Cards Reduce Payments Fraud and Identity Theft?" *Economic Review*, Federal Reserve Bank of Kansas City (Third Quarter 2008), pp. 35-62.



### **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

	Respondents experiencing:		
	Fraud attempts	Attempts with losses	
Checks	94%	17%	
ACH	30%	15%	
Corporate cards	13%	33%	
Consumer			
electronic	4.3%	67%	
payments			





### 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



# AFP<sup>®</sup> Annual Conference

Original \* Essential \* Unbiased \* Information

#### A Corporate Perspective on Nonbanks and Risk in Payments

Richard J. Sullivan Federal Reserve Bank of Kansas City

816-881-2372 Rick.J.Sullivan@kc.frb.org www.kansascityfed.org/home/subwebs.cfm?subWeb=9

www.AFPonline.org/sessions