



# **Economic Insights:** Conversations with the Dallas Fed

Centennial Origins Series

*The Federal Reserve and Financial Services:  
Past, Present, Future*

June 20, 2014

# The Federal Reserve in the Payments System

*Learning from the Past and Poised for the Future*

*Federal Reserve Bank of Dallas  
June 20, 2014*

Facilitated by Matt Davies  
*Payments Outreach Officer*

*FIRM – Financial Institution Relationship Management  
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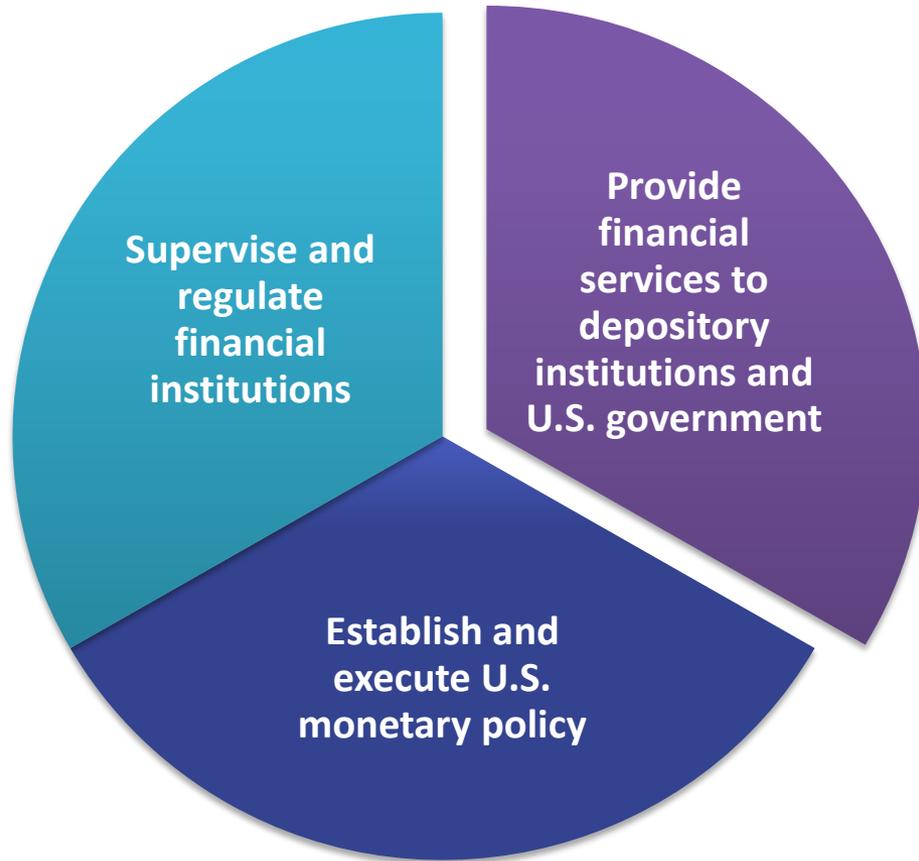
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# Agenda

- A historical review of the Fed's influence on payments system improvements
- The Federal Reserve Banks' refreshed strategic direction for its financial services businesses and recent initiatives
- Top 10 insights on U.S. payments system improvements from Fed research and stakeholder input
- Panel discussion

# Federal Reserve Financial Services Overview



***...to maintain a stable financial system and contain systemic risk***

## Mission

- To foster integrity, efficiency and accessibility of the U.S. payment system



## Vision

- Payments are safe and efficient
- End users can select payment options with attributes (e.g., speed, convenience, cost, security) that meet their needs
- Incentives promote efficient selection and use of these options



## Role

- Act as a major service provider to the interbank market
- Collaborate with industry and emphasize innovations in electronic payment systems

## 1919: Western Union Telegraph Network and Morse Code



*The way funds transfer messages were sent in the early days of the Federal Reserve.*

A ● -	J ● - - -	S ● ● ●
B - ● ● ●	K - - -	T -
C - ● - ●	L ● - ● ●	U ● ● -
D - ● ●	M - -	V ● ● ● -
E ●	N - ●	W ● - -
F ● ● - ●	O - - -	X - ● ● -
G - - ●	P ● - - ●	Y - ● - -
H ● ● ● ●	Q - - ● -	Z - - ● ●
I ● ●	R ● - ●	



## 1930s: Check Collection by Planes and Trucks



The Federal Reserve initiative to eliminate non-par clearing of checks was one of the first efficiency initiatives during the 1920s.

In the 1930s, clearing checks between financial institutions relied on trucks and planes.

## 1953: “ERMA” and “MICR” increase check processing productivity five-fold



From 1939-1952, annual check volume had increased from 3.5 to 8 billion and the number of checking accounts nearly doubled to 47 million.

The Electronic Recording Method of Accounting, or ERMA, was the first computer used in banking and the world's first successful use of computers in business operations.

# 1960s Check Processing Efficiencies from IBM 803 Proof Machines

## Dallas Check Processing

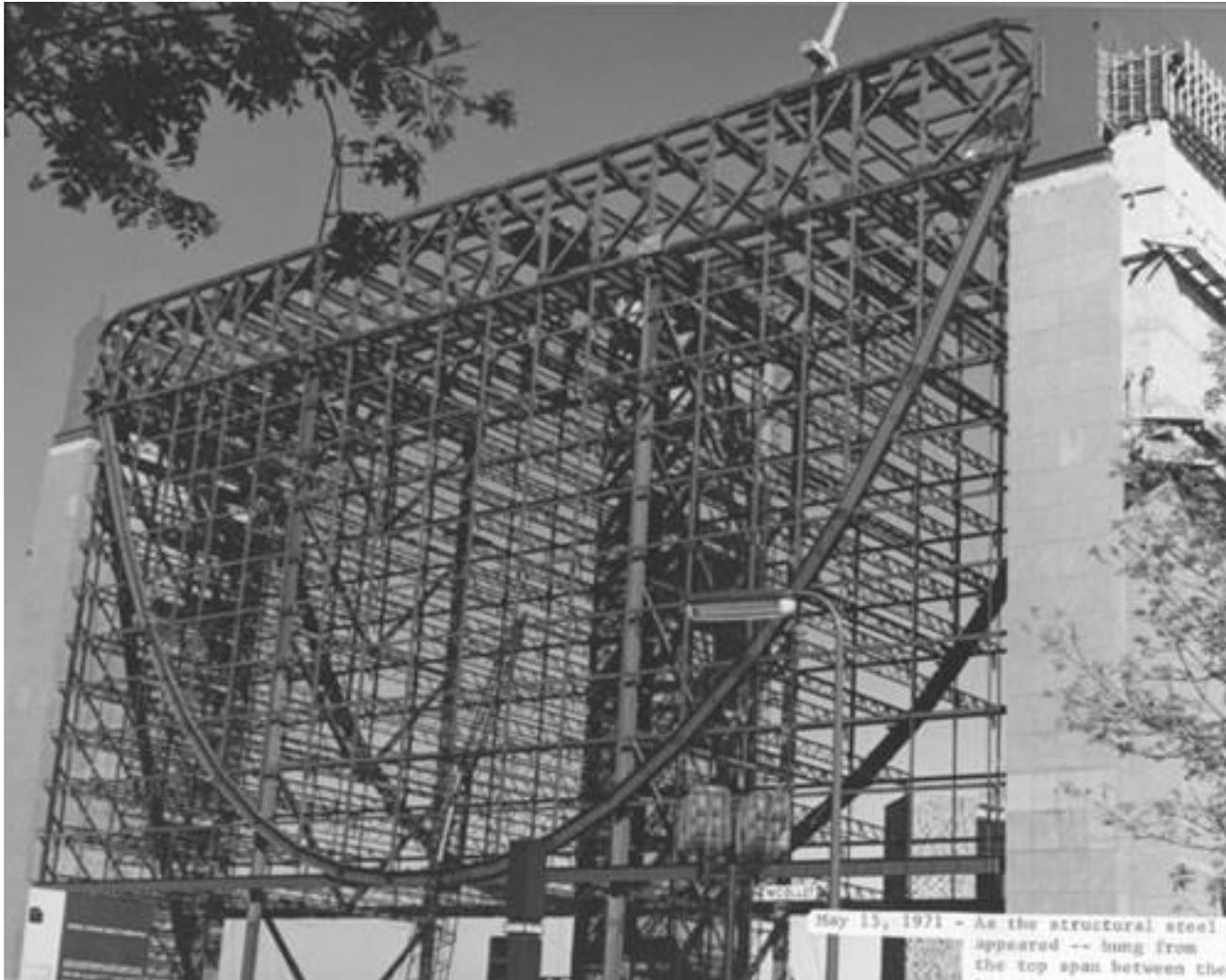
The IBM 803 Proof Machine was used to sort, list, prove and endorse checks in a single operation.

It contained 32 sorting receptacles with a control tape that recorded all transactions in the original sequence.

The machine was retired in 1981.



# 1970s: The “Checkless Society” Prediction



## Minneapolis Fed Building

This photo from May 15, 1971, shows the steel frame for the unique catenary arch hung between two towers. The narrow building created a challenge for our colleagues in Minneapolis who handled 3 million checks per day in the 1970s.

## 1970s: The Automated Clearing House network ... not so “automated”



Magnetic tapes were used to transport and clear ACH payments until the Fed mandated electronic receipt and delivery in 1994

Burroughs magnetic tape drives in the early 1980s (FRB Atlanta Electronic Text Center)

# Lessons Learned from the Development of the Automated Clearinghouse (ACH)

Success factors for broad adoption of a new payments system:

- Broad support from the industry for change
- Opportunities to generate economies of scale and scope
- Regional presence, collaboration and experimentation
- Ensuring broad access of the new network to thrifts and smaller financial institutions
- Ability to fund and spread capital costs broadly among participants



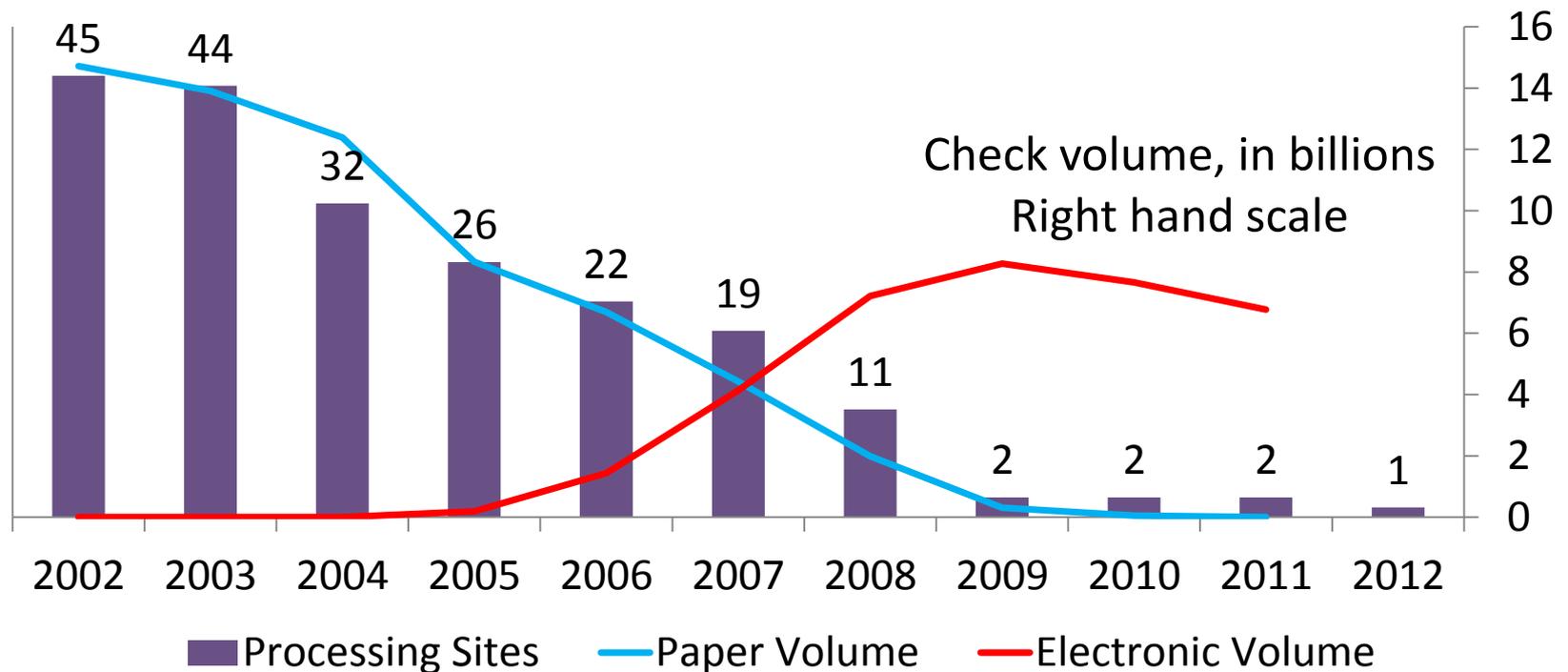
**1970s: Federal Reserve Board  
Governor George Mitchell**  
Had a vision for an all-electronic  
payments system

# 1990s: Challenges to the Fed's Operator Role in Payments



**Late 1990s: Vice Chair of the Board of Governors, Alice Rivlin** led a commission to review the role of the Fed in the payments system. Confirmed both operator and leader/catalyst roles to encourage electronic retail payments.

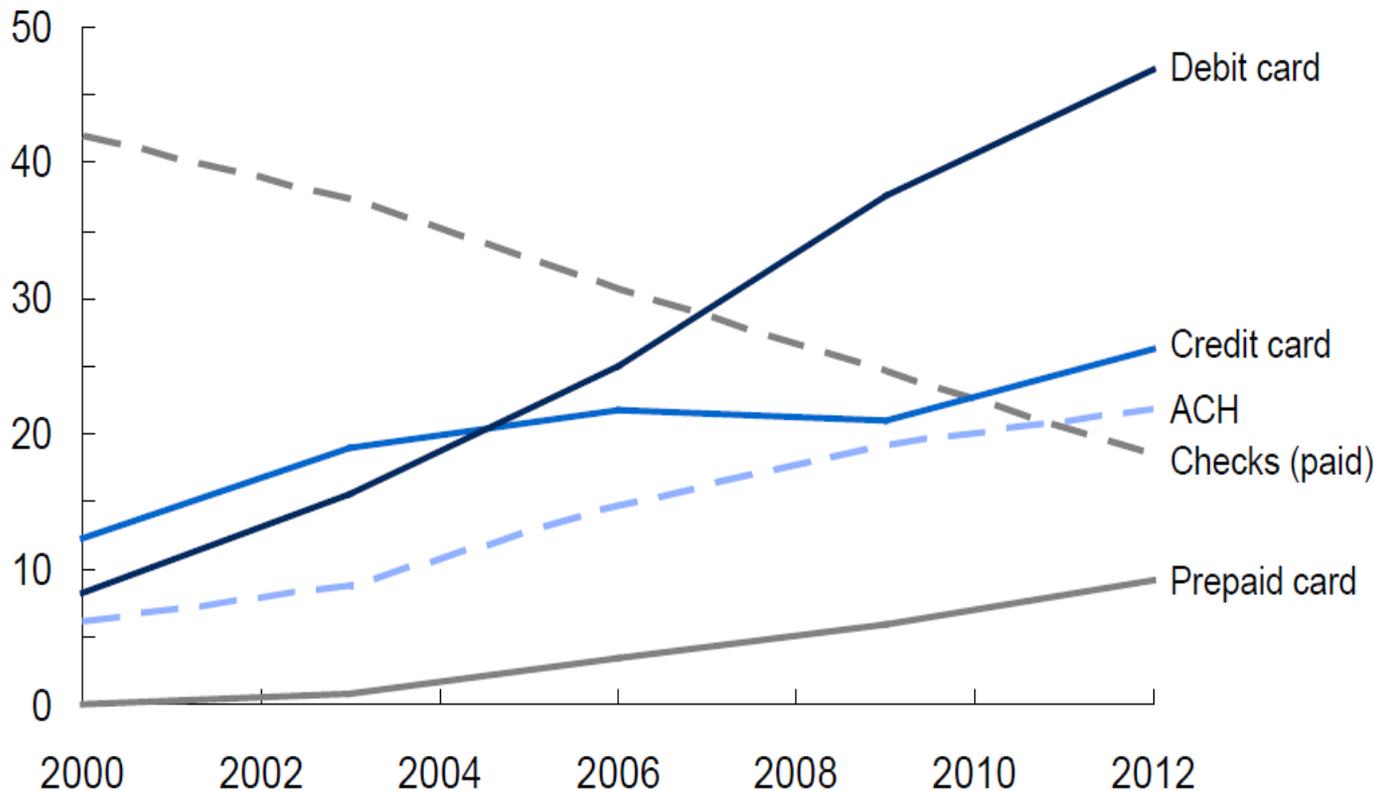
# 2003-2004 Check Clearing for the 21<sup>st</sup> Century Act Passed & Implemented



# The Latest Payments Trends

## Federal Reserve Retail Payments Study 2013

Trends in noncash payments by number and type of transaction  
Billions

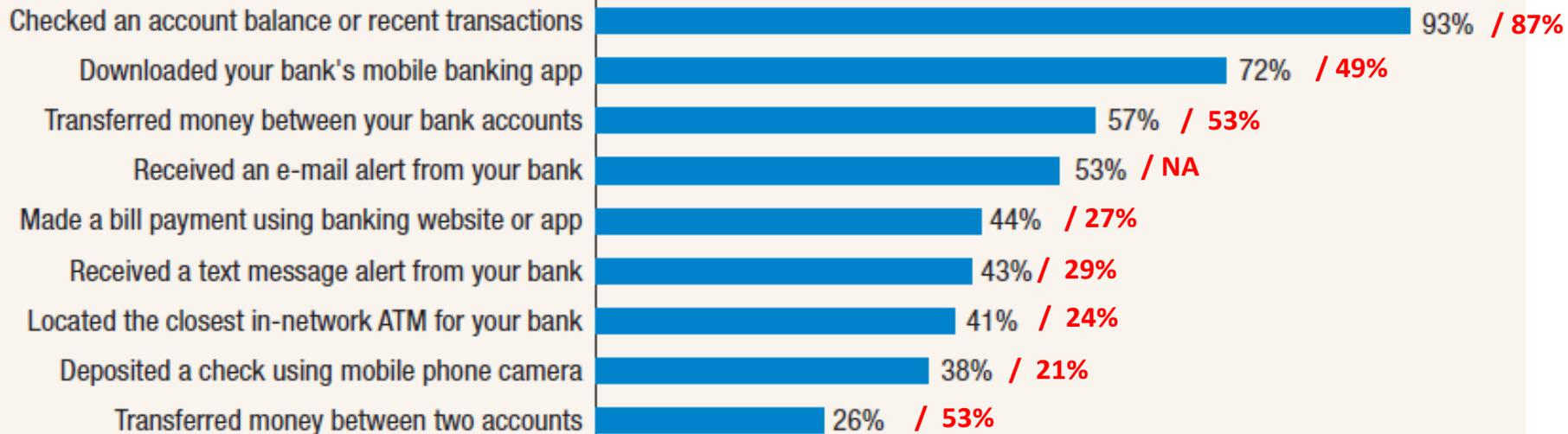


- Card payments drive growth in noncash retail payments
- Checks in decline while ACH grows at trend
- Prepaid growth rate accelerates

# The Future of Payments: Digital/Mobile



Figure 3. Using your mobile phone, have you done each of these in the past 12 months? (Among mobile banking users)



# Federal Reserve Banks' Strategy 2012-2016

## A New End-to-End Focus

### Safety and Security

- Maintain and enhance FRB network security
- Enhance understanding of end-to-end security
- Collaborate and promote industry best practices

### Speed

- Develop solutions to enhance payment speed
- Understand market demand for faster payments
- Continue migration of paper to electronic

### Efficiency

- Develop solutions to promote efficiency
- Understand needs and barriers
- Promote standards adoption to improve efficiency

Payments System Improvement Roadmap

New End-to-End Strategic Focus on Speed, Security and Efficiency

Retail Payments Study

ISO 20022 Business Case Assessment

Industry Engagement

Faster Payments Assessment

Consultation Paper

Research on End-User Demand for Select Payment Attributes

Payment Security Landscape Study

*The road we traveled...*



## Top 10 Learnings from Recent Fed Research Efforts



**Stretch your global muscles, BUT don't prioritize over domestic issues**



Some think the Fed should:



Expand the reach of FedGlobal<sup>®</sup> ACH Payments



Consider linking any new, near-real-time system to similar systems abroad

## Top 10 Learnings from Recent Fed Research Efforts

# 9

### So many regulations, so little time ... and money!

- ➔ Depository institutions believe they are held to higher regulatory and risk management standards
- ➔ The industry thinks the Fed should help address regulatory change issues

## Top 10 Learnings from Recent Fed Research Efforts

### **Businesses are feeling the pain (points)**

8



In 2012, image deposits represented 17% of total checks, of which businesses accounted for 93%



71% of businesses would use a B2B or B2C electronic payment service if their bank offered it

## Top 10 Learnings from Recent Fed Research Efforts



### Live and Let Checks

-  Checks declined to 15% of payment volume in 2012 from a high of 22% in 2009, but still comprise 33% of value
-  Let checks evolve, but don't steer resources away from needed future investments

## Top 10 Learnings from Recent Fed Research Efforts

# Fraud happens... and the industry should do something about it.

- 3<sup>rd</sup> party fraud accounted for 31.1 million unauthorized transactions totaling \$6.1 billion in 2012
- Card Not Present fraud was 3x as likely to occur as Card Present fraud in 2012
- Cards have the highest rates of unauthorized transactions; Checks have the highest average value
- Respondents suggest the industry work together to develop a coordinated fraud database and enhance other fraud information services

## Top 10 Learnings from Recent Fed Research Efforts

# 5

## Plastics are so in!

- By number, debit card payments grew more than any other payment type
- The number of debit, prepaid and credit card transactions increased from 60% in 2009 to 66% in 2012
- The value of debit, prepaid and credit card transactions remained steady between 2009 and 2013 at 5%
- Cards offer some of the features end-users value, including ease-of-use, ubiquity, and—in the case of debit—fast debiting of funds

## Top 10 Learnings from Recent Fed Research Efforts

# 4

## Don't undermine the power of information



“It’s important to receive timely notification that a payment has been made”  
 (~75% of consumers, ~84% of businesses)



“It’s important to receive notification when the payment was received by the payee”  
 (~70% of consumers, ~82% of businesses)



Many suggest near real time confirmation of good funds and notification are more important than near real time posting to end-user accounts and interbank settlement

## Top 10 Learnings from Recent Fed Research Efforts

### 3

## It's not complicated: People prefer **FASTER**



69% of consumer payers and 75% of business payees indicated preference for instant or one-hour payment speed



Roughly 1/3 of consumers and 3/4 of businesses expressed willingness to pay some fee for payments that have faster availability to the payee



Diverse opinions on how to get there

## Top 10 Learnings from Recent Fed Research Efforts

# 2

## There's lots of skin in this game!

- Received nearly 200 written responses to the consultation paper from all segments
- Merchants would like a voice
- Non-banks would like direct access to the payments system

## Top 10 Learnings from Recent Fed Research Efforts

### The Fed is on the right track!



- ~3/4 of consultation paper respondents agreed with the gaps, opportunities and desired outcomes outlined in the consultation paper
- Many felt that more action should be taken in the near term

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