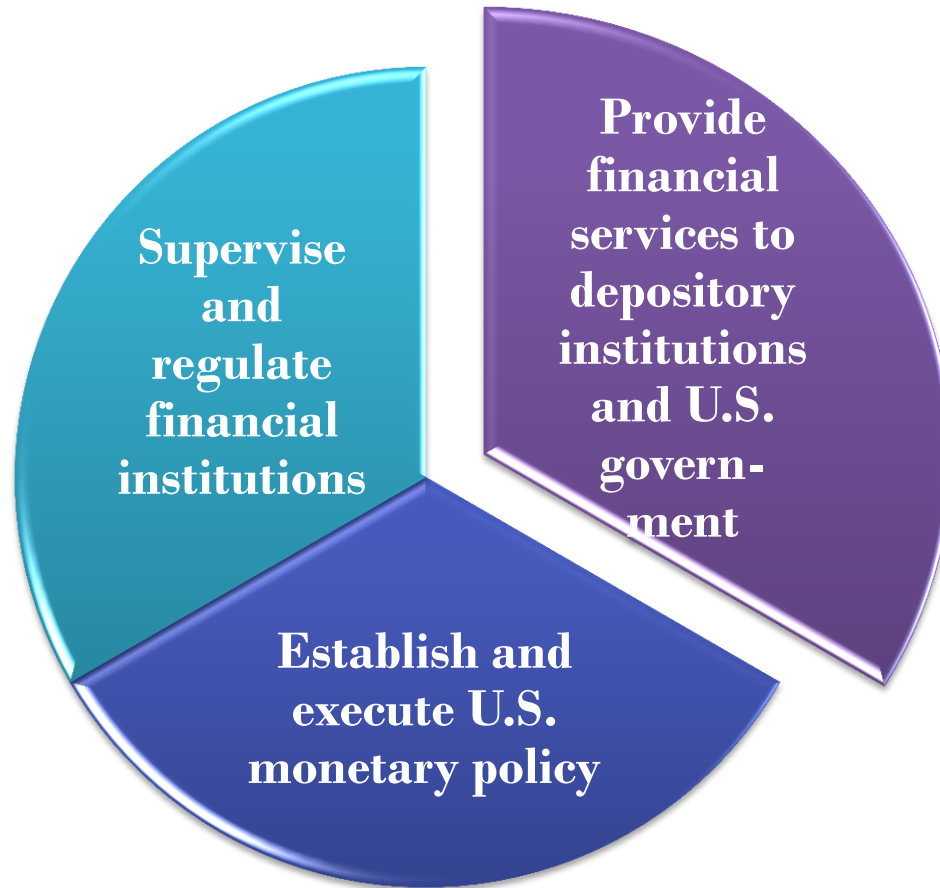


**The Road to**  
**U.S. Payment System**  
**Improvement**

# Who we are:



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

# Mission Driven:

## Our Mission

Foster the **integrity**, **efficiency**, and **accessibility** of U.S. payments and settlement systems in support of financial stability and economic growth.



## Our 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

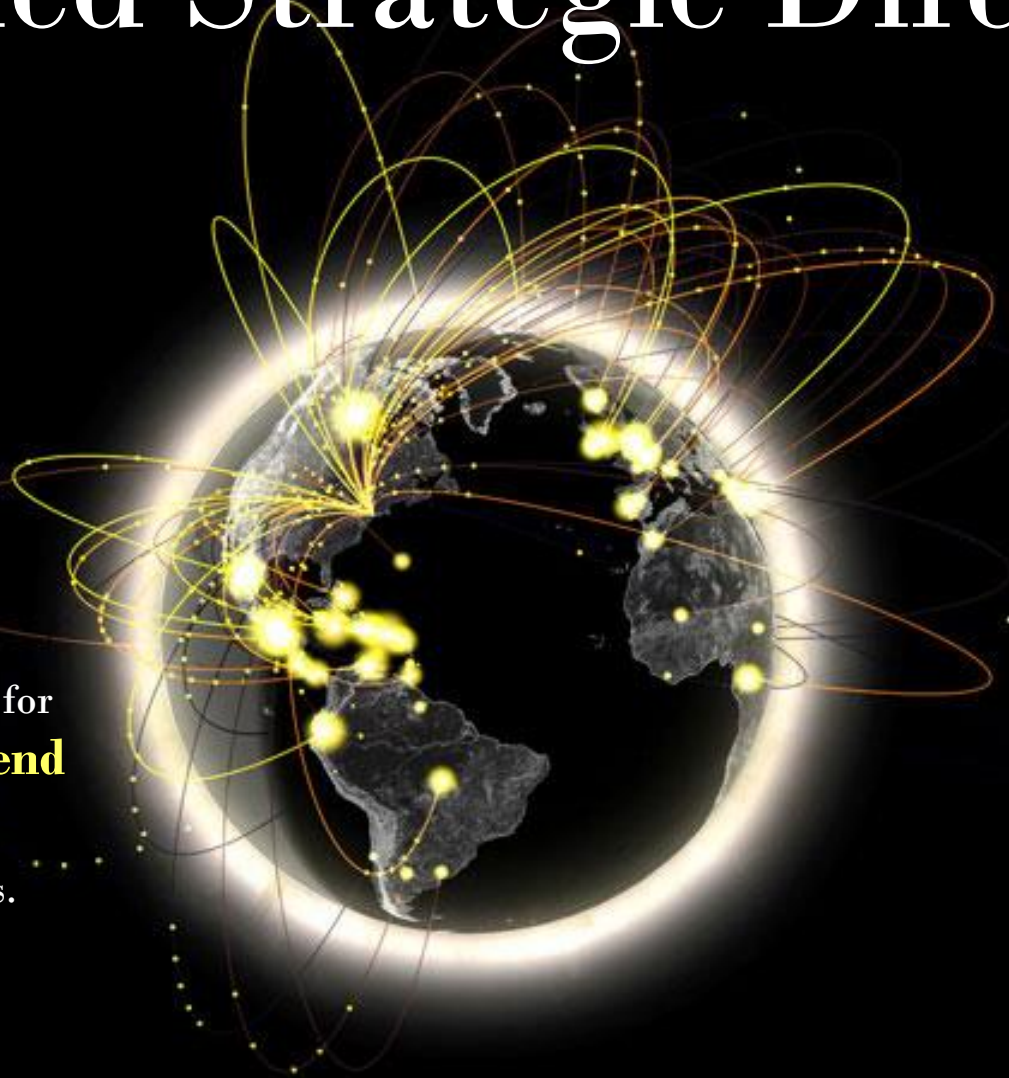
## Our Role

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

# Refreshed Strategic Direction

## The Power of Industry Engagement

The Fed has invited the public to share their thoughts on the most promising opportunities for enhancing the **end-to-end speed, security** and **efficiency** of payments. These insights will help shape the future U.S. payments system.



# We Envision

...a **ubiquitous**, **faster** electronic solution for making a broad variety of business and personal payments.



# Faster Payments Assessment



## Five Use Cases Could Benefit...

<u>Use case</u>	<u>Volume / % of total payments</u>	<u>Speed required</u>
<b>B2B<sup>1</sup> ad-hoc low value</b> (e.g., just-in-time supplier payments)	11.1 billion / 5%	<ul style="list-style-type: none"><li>▪ Real-time authorization/clearing</li><li>▪ Intra-day availability of funds</li><li>▪ Intra-day interbank settlement</li></ul>
<b>B2P ad-hoc high value</b> (e.g., insurance claims, legal settlements)	NA	<ul style="list-style-type: none"><li>▪ Real-time authorization/clearing</li><li>▪ Real-time availability of funds</li><li>▪ Late-day interbank settlement</li></ul>
<b>P2P<sup>2</sup> transfers</b> (e.g., rent repayment to roommates)	4.3 billion / 2%	<ul style="list-style-type: none"><li>▪ Real-time authorization/clearing</li><li>▪ Real-time availability of funds</li><li>▪ Late-day interbank settlement</li></ul>
<b>B2P ad-hoc low value</b> (e.g., temporary employee wages)	3.2 billion / 1%	<ul style="list-style-type: none"><li>▪ Intra-day authorization/clearing</li><li>▪ Intra-day availability of funds</li><li>▪ Late-day interbank settlement</li></ul>
<b>P2B ad-hoc, remote</b> (e.g., emergency bill pay)	10.3 billion / 4%	<ul style="list-style-type: none"><li>▪ Real-time authorization/clearing</li><li>▪ Late-day availability of funds</li><li>▪ Late-day interbank settlement</li></ul>

<sup>1</sup> Business includes Government

<sup>2</sup> Does not include P2P commerce such as paying babysitter/lawn mowing kid; these transactions are distributed across a number of P2B use cases

SOURCE: McKinsey expert and industry interviews, public consultation responses; McKinsey Payments Map; Consumer Financial Life Survey

# Faster Payments Assessment

## Perspectives on Options Assessment and Path Forward



- **Evolve ACH** may be quickest to implement with the fewest required changes. However, it only achieves near real-time, not real-time, notification and clearing.
- **Evolve ATM/PIN debit infrastructure** has existing real-time capabilities but presents challenges with aligning networks, integrating corporate cash management systems at FIs, expanding credit capability and changing the economic model.
- **Direct clearing over public IP networks** leverages existing, low-cost communications networks used by millions worldwide, but assuring stakeholders of the safety of the system will be challenging even if required security exists.
- **Build new clearing-only infrastructure (legacy settlement infrastructure)** may be able to meet the needs for real-time in the target use cases in a reasonable timeframe, but integration with legacy settlement constrains the flexibility of the design.
- **Build completely new infrastructure** offers the most flexibility to meet future needs, but cost and time to implement may make this challenging to pursue.

To meet the needs of targeted use cases, the options assessment suggests that building new infrastructure is the optimal solution.

# Faster Payments Assessment



## Overview of Business Case Findings

- The business case through 2025 for implementing a faster payments solution for the primary use cases is profit contribution net neutral to negative
- Payments would migrate from paper (cash – ~1%, check – 27%) and electronic (ACH – 11%, Wire – 7%), although migration may differ by design option
- If the faster payments solution includes improved information capabilities (e.g., e-invoicing) that enable more efficient AR/AP systems, \$10B to \$40B in business back office efficiencies can be captured annually, making the business case positive
- Developed using analytics on secondary research, interviews with industry practitioners/experts, international case studies and consultant proprietary knowledge and experts
- Does not include estimates of profit contributions from latent demand, new use cases and other sources of value; which if included, would further improve the business case



# Potential Strategies

Faster Payments Council

National Settlement Enhancements



# We Envision

... strong payment system security that engenders **public confidence**, and a **nimble industry** that keeps pace with rapidly evolving threats.

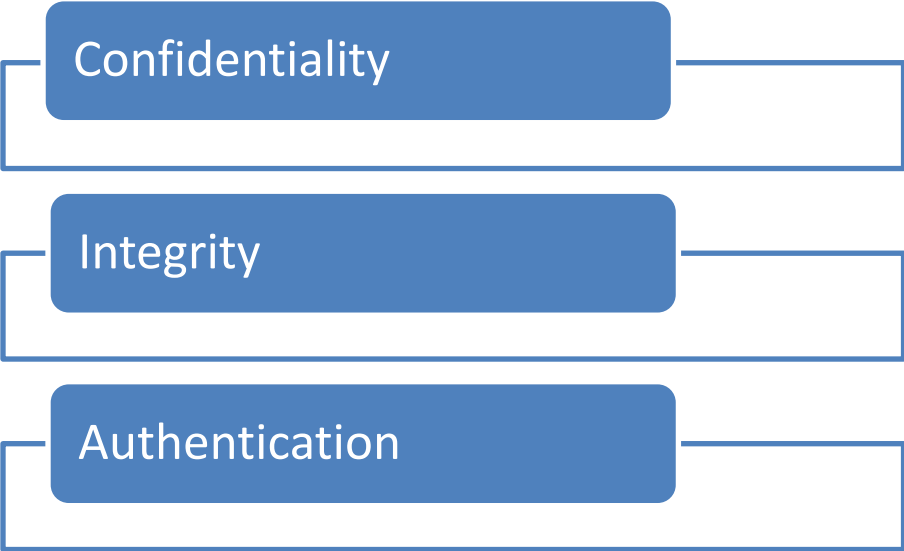


# Payments Security Landscape Study

## Objective, Definition and Scope



The Payment Security Landscape Study was undertaken to enhance our understanding of end-to-end payment security and identify opportunities for improving it in collaboration with payment system stakeholders.



**Legacy Networks**

- ACH
- Check
- Funds Transfer
- Credit Card
- Debit Card

**Emerging/ Alternative Methods**

- Mobile Wallets
- Money Transfer Solutions
- General Purpose Reloadable Cards
- Virtual Currencies

# Payments Security Landscape Study

## Key Takeaways



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**THEME 1.** Development and adoption of standards and protocols is not keeping pace with technology advances and changes in the threat environment.

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**THEME 2.** Mobile payment transactions may be exposed to higher risk because of the greater number of parties in process and unclear lines of accountability and oversight.

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**THEME 3.** Suboptimal security technologies or process can result in visible compromises that are damaging to public confidence.

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**THEME 4.** Collection and reporting of available data on fraud and payment security threats are insufficient to help facilitate improvements or prevention.

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**THEME 5.** A complex regulatory environment, particularly for nonbanks and emerging payments, poses challenges to coordination and communication among regulators.

# Potential Strategies

Payments Security Council

Enhanced Research  
and Fraud Data

Focus on Standards

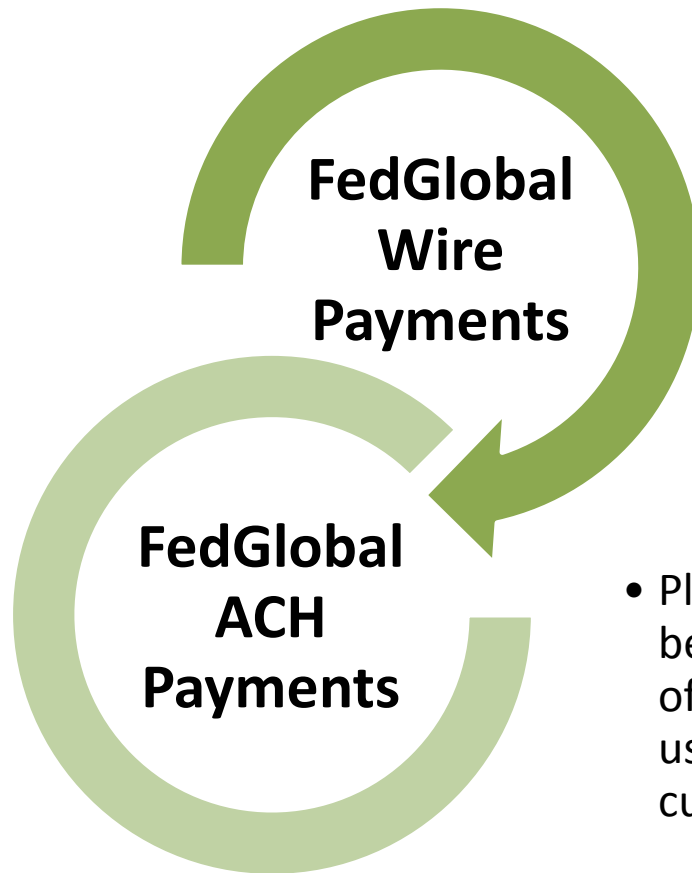
# We Envision

...better choices for convenient, **cost-effective** and **timely** cross-border payments.



# Potential Strategies

## Expansion of FedGlobal<sup>®</sup> Services



- A proposed service for Fedwire Funds Service participants to allow initiation of cross-border wires through their normal Fedwire Funds connection, payable in either U.S. dollar or foreign currency to beneficiaries in a diverse set of jurisdictions and currencies around the world.
- Plans to vastly expand network beyond the current 35 countries and offer improved features for business users, as well as remittance customers.

# Potential Strategies



## ISO 20022 Implementation in U.S.

What is ISO 20022?

- ISO 20022 is a harmonized set of XML messaging standards across major financial services domains (cash, securities, trade, card and FX) based on a shared data dictionary and business process model. It allows room for additional payment-related information from the remitter through the beneficiary.

Should the U.S. adopt?

- The Fed, X9, NACHA and The Clearing House completed a business case assessment in early 2014 to assess whether the U.S. ACH and funds transfer systems should adopt ISO 20022 to remain competitive.

What was assessed?

- The scope of the study included the current landscape of U.S. participants, ISO 20022 adoption activities in other markets, impact analysis for U.S. participants (adoption vs. lack of adoption) and competitive impact analysis



# Potential Strategies

## ISO 20022 Implementation in U.S.



### Phase 1

#### **Planning and Education**

*Promote ISO 20022 education and develop a national strategy for ISO 20022 adoption*

### Phase 2

#### **Cross-Border Payments**

*Enable ISO 20022 for cross-border wire payments; followed by cross-border ACH payments*

### Phase 3

#### **Domestic Payments**

*Assess value proposition and timing for adoption of ISO 20022 for domestic wire and ACH payments*

### Additional Consideration

*Use ISO 20022 as the standard messaging format for new products and services*

# We Envision

...further payments electronication, driving lower societal costs and greater innovation.



# Potential Strategies



## Directories Work

Convene diverse stakeholders to develop a shared vision, design and potential funding model for a national payment directory or directories

**Enable the storage, management and look-up of electronic payment identities of payees, including their accepted payment methods and requested remittance information**

**Open, trusted and secure and focused on enabling interoperability with closed-loop directory providers**

**Enable multiple payment types, providing institutions and end users with choice**

# Potential Strategies



## B2B Electronification

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Collaborate with stakeholders to develop a B2B directory

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Partner with the industry to develop and implement education for small businesses

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Work with the industry to develop and promote simplified, common guidelines to make it easier to implement and use B2B-focused standards

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Implement a Vendors' Council to promote interoperability and adoption of new B2B-focused standards

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Lead an industry effort to evaluate development of a B2B electronic and payment invoice and processing service

# Potential Strategies



## SameDay ACH

Collaboration with industry to achieve ubiquitous, same-day ACH settlement capability for virtually any ACH network transaction

Ongoing efforts to increase adoption of FedACH SameDay Service through education and promotion

Enhancements to FedACH SameDay Service in alignment with network initiatives and rule changes

# We Envision



...that this better future payments system will be the product of an unprecedented era of industry collaboration, both within the U.S. and across the globe.

# Potential Strategies

## Payments Councils



As noted in a number of the proposed strategies, industry advisory and working groups could be formed to assist with execution of specific roadmap strategies:

- **Faster Payments Council** to develop a detailed roadmap and execution plan for ubiquitous real time payment capabilities in the United States.
- **Payments Security Council** to discuss security issues and seek consensus on how to address.
- **U.S. Payments Advisory Council** to help guide industry direction on strategic issues and influence successful implementation of the Federal Reserve’s roadmap for payment system improvements.

# Potential Strategies



## Broad Outreach and Community Involvement

### In Pursuit of a Better Payment System



- Social Media
- Town Halls



- Webinars
- One-on-one Meetings
- Speaking Sessions
- Conferences

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FedPaymentsImprovement.org



# Release of Payment System Improvement **Roadmap**

Ongoing dialogue and engagement with  
**industry stakeholders**  
on these initiatives

