Federal Reserve Payment System Improvement Public Consultation Paper

Problem statement

- *End users of payment services are increasingly demanding real-time transactional and informational features with global commerce capabilities.*
- *Legacy payment systems provide a solid foundation for payment services; however, some of these systems (e.g., check and ACH) rely on paper-based and/or batch processes, which are not universally fast or efficient from an end-user perspective by today's standards.*
- ***The challenge for the industry is to provide a payment system for the future that combines the valued attributes of legacy payment methods – convenience, safety, and universal reach at low cost to the end user – with new technology that enables faster processing, enhanced convenience, and the extraction and use of valuable information that accompanies payments.***
- *CONCLUSSION:*
    - *The U.S. payment system is undergoing a remarkable period of change, driven by rapid adoption of technology and evolving end-user expectations.*
    - *Going forward, opportunity exists to improve speed and efficiency of payments and to maintain payment system safety in the face of escalating threats.*
    - *The Federal Reserve Banks believe that collaboration and engagement with the industry is the foundation of any enduring strategic improvements to the U.S. payment system.*
    - *We look forward to public input to this consultative paper as we jointly explore the most promising ideas for payment system improvements.*

Fed position

- Key gaps and opportunities in current system
- Desired outcome to close the gaps
- Need input from industry on
    - Gaps
    - Opportunities
    - Desired outcome
    - Strategies and tactics
    - Fed Role

Issues

- Speed and efficiency (from notification to reconciliation)
- Maintain safety and accessibility
- Be inclusive end to end (end users, FIs, non-bank providers, processors)

    - Past initiatives focused purely on FIs
- Meet the needs of the end user
    - Mobile technology impacting how they make payments and how they manage their finances
- New v Old: Current payment system does not meet needs - new networks proliferating that lack broad base of users – legacy networks have ubiquity – how do we support innovative services with near ubiquity
- Similar gaps persist in comparison to 2002 (limited industry progress)

Gap Analysis

- Check writing persists – ubiquitous but inconvenient for receiver
- US is BEHIND other countries wrt RT payments
    - Other countries have mandated – US migrating incrementally thru industry innovation – but we have LITTLE to show for it
- Innovations have limited traction (limited participation – sender and receiver must join)
- Legacy systems lack desired capabilities
    - RT validation
    - Certainty (non-reversibility)
    - Timely notification to both payor and payee
    - Near RT posting of funds
    - "masked" account details (i.e. security or perceived security)
- Cross-border systems slow, inconvenient, costly
- Mobile wallet technology reduces end user transparency of payment and leaves uncertain role for payment providers)

Intended outcome

1. Key improvements for the future state of the payment system have been *collectively* identified and embraced by payment participants, and material progress has been made in implementing them.
2. A ubiquitous electronic solution(s) for making retail payments exists that does not require the sender to know the bank account number of the recipient. Confirmation of good funds will be made at the initiation of the payment.11 The sender and receiver will receive timely notification that the payment has been made. Funds will be debited from the payer and made available in near real time to the payee.
3. Over the long run, greater electronification and process improvements have reduced the average end-to-end (societal) costs of payment transactions and resulted in innovative payment services that deliver improved value to consumers, businesses, and governments.
4. Consumers and businesses have better choice in making convenient, cost-effective, and timely cross-border payments from and to the United States.
5. The Federal Reserve Banks have collaborated, as appropriate, with the industry to promote the security of the payment system from end-to-end amid a rapidly evolving technology and threat environment. In addition,

public confidence in the security of Federal Reserve financial services has remained high.

Questions for input

1) Q1. Are you in general agreement with the payment system gaps and opportunities identified above? Please explain, if desired. Yes
    i. What other gaps or opportunities not mentioned in the paper could be addressed to make improvements to the U.S. payment system?
2) Q2. Are you in general agreement with the desired outcomes for payment system improvements over the next 10 years? Please explain, if desired.
    i. What other outcomes should be pursued? Yes, however we would want to see milestones established throughout those 10-years. In addition to the system improvements, the Fed should consider the economic changes to incent end-users to migrate to more efficient electronic payment methods and away from less efficient methods.
3) Q3. In what ways should the Federal Reserve Banks help improve the payment system as an operator, leader, and/or catalyst? The Fed should establish partnerships with payment providers to develop a model that is friendly to the financial institution and the end payment user. System improvements will require more than just the Fed leading the charge and will require key strategic partnerships to accomplish the stated 10-year outcomes.
4) Q4. In discussions with industry participants, some have stated that implementing a system for near-real-time payments with the features described in the second desired outcome (ubiquitous participation; sender doesn't need to know the bank account number of the recipient; confirmation of good funds is made at the initiation of the payment; sender and receiver receive timely notification that the payment has been made; funds debited from the payer and made available in near real time to the payee) will require coordinated action by a public authority or industry group. Others have stated that current payment services are evolving toward this outcome and no special action by a public authority or industry group is required.
    i. Which of these perspectives is more accurate, and why? Companies are working towards enabling near real-time payments already. However, the Fed should stay involved in this work and establish key partnerships to encourage broad participation by financial institutions and end users.
    ii. What other perspective(s) should be considered?
5) Q5. The second desired outcome articulates features that are desirable for a near-real-time payments system. They include:
        a. Ubiquitous participation
        b. Sender doesn't need to know the bank account number of the recipient
        c. Confirmation of good funds is made at the initiation of the payment
        d. Sender and receiver receive timely notification that the payment has been made

e. Funds debited from the payer and made available in near-real time to the payee

i. Do you agree that these are important features of a U.S. near-real-time system? Please explain, if desired. Yes, these are important features.

ii. What other characteristics or features are important for a U.S. near-real-time system? Determining the appropriate value of near real-time payments and how does this change the economics of traditional payment methods.

6) Q6. Near-real-time payments with the features described in the second desired outcome could be provided several different ways, including but not limited to:

a. Creating a separate wire transfer-like system for near-real-time payments that leverages the relevant processes, features, and infrastructure already established for existing wire transfer systems. This option may require a new front-end mechanism or new rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions.

b. Linking together existing limited-participation networks so that a sender in one network could make a payment to a receiver in another network seamlessly. This option may require common standards and rules and a centralized directory for routing payments across networks.

c. Modifying the ACH to speed up settlement. This option may require a new front-end mechanism or new network rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions. Payments would be settled periodically during the day.

d. Enhancing the debit card networks to enable ubiquitous near-real-time payments.

e. Implementing an entirely new payment system with the features described in the second desired outcome above.

i. What would be the most effective way for the U.S. payment system to deliver ubiquitous near-real-time payments, including options that are not listed above? More information would be needed on each option to fully explore the best possible outcome and direction.

ii. What are the likely pros and cons or costs and benefits of each option? Each option will need to be fully explored to determine security, scalability, customer experience, and cost ramifications. What rule or regulation changes are needed to implement faster payments within existing payment processing channels? Depending on the direction new network rules and regulations will need to be created and be accepted by payment providers and financial institutions.

iii. Is it sufficient for a solution to be limited to near-real-time authorization and confirmation that good funds are on their way, or must end-user funds availability and/or interbank settlement take place in near-real time as well? Funds availability is generally the most important and desired outcome for the end user.

iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.) They are all potentially suitable but the feasibility and security of each will need to be fully explored.

7) Q7. Some industry participants have said that efforts to make check payments easier to use, such as by enabling fully electronic payment orders and/or by speeding up electronic check return information, will incrementally benefit the payment system. Others argue the resources needed to implement these efforts will delay a shift to near-real-time payments, which will ultimately be more beneficial to the payment system. Which of these perspectives do you agree with, and why? In the end, real-time electronic payments provide the most benefit to everyone making payments. Resources should be utilized towards this end state.
8) Q8. How will near-real-time payments affect fraud issues that exist with today's payment systems, if at all? Fraud is always a risk regardless of the speed of the payment. This will need to evaluated and monitored to ensure safety and soundness guidelines are met in the payments ecosystem.
    i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks. Any new payment mechanism introduces new risks that need to be protected against.
9) Q9. To what extent would a ubiquitous near-real-time system bring about pivotal change to mobile payments? Mobile is about speed and convenience. Near real-time would add additional value to the use of the mobile device for payments. However, mobile payments have other hurdles that need to be addressed beyond near real-time.
10) Q10. What would be the implication if the industry and/or the Federal Reserve Banks do not take any action to implement faster payments? This would create a lost opportunity and put the United States further behind other countries who have already deployed faster and more sophisticated payment systems.
    i. What is the cost, including the opportunity cost, of not implementing faster payments in the United States? This is very hard to measure as the United States has been behind for several years. However, the costs could continue to rise as the payment system is becoming increasingly more fragmented without key partnerships being established to drive payment system improvements.
11) Q11. To what extent will the industry need to modernize core processing and other backend systems to support near-real-time payments? This is unknown as the implementation path for a common real-time platform/network has not been established. Therefore, it is not currently possible to determine if core processing systems will need to be modernized.
    i. What is the likely timeframe for any such modernization? If needed, this will need to coincide with the implementation of the near real-time payment systems. This could be a cost prohibitive exercise for many financial institutions.
12) Q12. Some industry participants suggest that a new, centralized directory containing account numbers and routing information for businesses and/or consumers, to which every bank and other service providers are linked, will enable more electronic payments. A sender using this directory would not need to know the account or routing information of the receiver.

i. What are the merits and drawbacks of this suggestion? This would make paying and getting paid by anyone or any entity much easier which would open up the opportunity for more electronic payments. However, a cost structure would need to be determined that still has economic value for financial services companies, payment providers, and the end users.
ii. What is the feasibility of this suggestion? This is unknown at this time.

13) Q13. Some industry participants say that check use is an enduring part of the U.S. payment system and that moving away from checks more aggressively would be too disruptive for certain end users.
    i. Is accelerated migration from checks to electronic payment methods a high-priority desired outcome for the U.S. payment system? If the payment system improvements are done correctly, the migration away from checks should be natural and not need to be forced.(Accelerated means faster than the current trend of gradual migration.)
    ii. Please explain, if desired.
    iii. If yes, should the Federal Reserve Banks establish a target for the percent of noncash payments to be initiated via electronic means, by a specific date? For example: "By the year 2018, 95% of all noncash payments will be made via electronic means
14) Q14. Business-to-business payments have remained largely paper-based due to difficulties with handling remittance information. Consumer bill payments also are heavily paper-based due to the lack of comfort some consumers have with electronic alternatives. In addition, many small businesses have not adopted ACH for recurring payments due to technical challenges and/or cost constraints. The payment industry has multiple efforts underway to address these issues.
    i. To what extent are these efforts resulting in migration from checks to other payment types? Use cases still exist for businesses to pay using traditional methods. Improved systems and better use cases for business electronic payments will start to shift business payment usage.
    ii. What other barriers need to be addressed to accelerate migration of these payments? The barriers are summarized in the question above.
    iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments? If the payment system improves and is cost beneficial to business payments the migration should be a natural migration and not forced.
    iv. Which industry bodies should be responsible for developing and/or implementing these tactics? This should be done as a partnership between key industry bodies and payment providers.
15) Q15. To what extent would the broader adoption of the XML-based ISO 20022 payment message standards in the United States facilitate electronification of business payments and/or cross-border payments?
16) Q16. What strategies and tactics do you think will help move the industry toward desired outcome four - consumers and businesses have greater choice in making convenient, cost-effective, and timely cross-border payments? Developing a cohesive roadmap between the Federal Reserve and key partners

will help drive a clear strategy that will benefit consumers and businesses and help satisfy their payment needs.

17) Q17. Payment security encompasses a broad range of issues including authentication of the parties involved in the transaction, the security of payment databases, the security of software and devices used by end users to access payment systems, and security of the infrastructure carrying payment messages.
    i. Among the issues listed above, or others, what are the key threats to payment system security today and in the future? This will need to be reviewed based on the direction the payment system takes. As stated earlier, any new payment method introduces new risks and those will need to be protected against.
    ii. Which of these threats are not adequately being addressed?
    iii. What operational or technology changes could be implemented to further mitigate cyber threats?

18) Q18.What type of information on threat awareness and incident response activities would be useful for the industry?
    i. How should this information be made available?

19) Q19. What future payment standards would materially improve payment security?
    i. What are the obstacles to the adoption of security-related payment standards? There are many different standards in payments which will always allow for varying security measures. As long as payment methods are unique so will the security governance of those payment methods.

20) Q20. What collaborative actions should the Federal Reserve Banks take with the industry to promote the security of the payment system from end to end? This should be an ongoing dialogue between the fed and other relevant parties. Information should continually be presented and evaluated so that the industry can learn from previous incidents or attempted incidents. Actionable outcomes should come from this dialogue. Q21. Please share any additional perspectives on U.S. payment system improvements.