

*General*

Q1. Are you in general agreement with the payment system gaps and opportunities identified above? Please explain, if desired.

i. What other gaps or opportunities not mentioned in the paper could be addressed to make improvements to the U.S. payment system?

*Yes, we are in agreement with the gaps and opportunities as presented in the paper.*

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, we are in general agreement with the desired outcomes. Additionally we believe the solution should adequately serve the under-banked, be cost effective for banks, and protect the banks' revenue streams. Also, safety without over-regulation is important.*

Q3. In what ways should the Federal Reserve Banks help improve the payment system as an operator, leader, and/or catalyst?

*We believe in Fed involvement over digital cash solutions to ensure the safety and security of payments in partnership with key industry groups involved in the payment chain.*

*Ubiquitous near-real-time payments*

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?

ii. What other perspective(s) should be considered?

*We believe a combination of both perspectives is accurate. For example, letting P2P evolve with the creation of convenient payment solutions as Pay Pal or C2B with the creation of eMarketplace such as Amazon.com is healthy. It should be noted that these innovators use existing payment rails.*

*However, we believe a good cross-section of parties involved in the payment chain would yield the best non-partisan direction for the future. This might include participants from the Fed, key payment industry groups, financial institutions, businesses and consumers groups.*

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.

ii. What other characteristics or features are important for a U.S. near-real-time system?

*Yes, we agree and a solution also needs to include appropriate remittance information for businesses as well.*

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?

ii. What are the likely pros and cons or costs and benefits of each option? What rule or regulation changes are needed to implement faster payments within existing payment processing channels?

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?

iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.)

*We believe it may be more cost effective, practical and timely to make improvements to existing payment system rails rather than creating an entirely new payment system. After performing our own payment system comparison, we believe using the ACH system rails brings us closest to achieving the desired outcomes in a B2B trusted payments environment. However, regarding*

*P2P and P2B, we believe leveraging card-like capabilities for a next generation digital wallet type solution would be more attractive to consumers.*

*Regarding a centralized directory, we believe privacy, security and logistical concerns may overshadow benefits and creates a prime target for fraud.*

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?

*We believe foregoing further investment in checks and moving forward with the end state solution is the best scenario.*

Q8. How will near-real-time payments affect fraud issues that exist with today's payment systems, if at all?

- i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks.

*Regardless of any new fraud issues that may arise as a result, we believe there must be adequate standards and processes to be able to recover funds in a quick, low cost manner in the event of fraud.*

Q9. To what extent would a ubiquitous near-real-time system bring about pivotal change to mobile payments?

Q10. What would be the implication if the industry and/or the Federal Reserve Banks do not take any action to implement faster payments?

- i. What is the cost, including the opportunity cost, of not implementing faster payments in the United States?

*We believe the market will drive innovation but solutions may be disjointed. With the exception of digital money (e.g. BIT coins), most innovation in the US rides the rails of our existing payment systems but this may not be enough for cross border capabilities as it exists today. Any solution does need to adequately address cross-border.*

Q11. To what extent will the industry need to modernize core processing and other backend systems to support near-real-time payments?

- i. What is the likely timeframe for any such modernization?

*If the rails of an existing payment system can be utilized and leveraged, modernization may occur in a more timely fashion. Organizations that process in a batch environment may find themselves needing to process many more batches throughout the day to accommodate near-real-time payments.*

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?
- ii. What is the feasibility of this suggestion?

*We anticipate there may be end user concerns about the risks associated with keeping a central directory where it pertains to fraud and may be akin to "keeping your eggs all in one basket."*

*Electronification*

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? (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."

iv. What is the appropriate target level and date?

*Due to the float benefit to the payer, we believe checks as a payment instrument will endure at some level for a while. We believe consumers and businesses will dictate any targets for using and accepting checks as well as any related charges for the convenience of accepting checks for payments.*

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?
- ii. What other barriers need to be addressed to accelerate migration of these payments?
- iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments?
- iv. Which industry bodies should be responsible for developing and/or implementing these tactics?

*We agree that cost will be the driver to acceptance. We believe that the ability to integrate with businesses key operating software will also be a driver to acceptance. All barriers should be well researched and taken into consideration. It may be necessary to provide funding to assist businesses with carrying the potential associated costs of new solutions.*

#### *Cross-border payments*

Q15. To what extent would the broader adoption of the XML-based ISO 20022 payment message standards in the United States facilitate electrification of business payments and/or cross-border payments?<sup>12</sup>

<sup>12</sup> For information on ISO 20022, see, for example, <http://www.iso20022.org/faq.page>.

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?

*Ensuring cross border payment capabilities that are safe and reliable will be key drivers to adoption.*

#### *Safety*

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?
- ii. Which of these threats are not adequately being addressed?

What operational or technology changes could be implemented to further mitigate cyber threats?

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?

Q19. What future payment standards would materially improve payment security?  
i. What are the obstacles to the adoption of security-related payment standards?



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?

Q21. Please share any additional perspectives on U.S. payment system improvements.