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General

1. Are you in general agreement with the payment system gaps and opportunities identified in the "Payment System Improvement Public Consultation Paper"? Please explain, if desired.

Yes.

1i. What other gaps or opportunities not mentioned in the paper could be addressed to make improvements to the U.S. payment system?

2. Are you in general agreement with the desired outcomes for payment system improvements over the next 10 years? Please explain, if desired.

Yes. Ubiquitous in payments is another word for simple. The Payments Industry is far too complex and therefore exploitable.

2i. What other outcomes should be pursued?

There are simply too many people in the middle of current payment methods, each taking their little slice. The major card brands are the biggest offenders, and their insistence on expanding the 60+ year old technology is very counter-productive. The transition to EMV in the US alone would be in the tens of billions, funds far better dedicated to more innovative and future-proofed methods.

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

Corporations will generally do what's best for them, and act accordingly, Governments, almost by definition, should do what's best for everyone. Without federal regulation to enforce the adoption of the new payment solutions, those who currently have a competitive edge will drag their feet. However, the formation of federally controlled incentive programs could kickstart the smaller players into providing a significant enough competitive threat to the larger players that they will have no choice but to move forward. No-one wants to be the next example of disruptive innovation.

Ubiquitous near-real-time payments

4. 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.

4i. Which of these perspectives is more accurate, and why?

A bit of both. Yes, the industry is headed in that direction, but without some form of guidance, or open standards, each player will go off on their own direction and we'll be back in the same position 20 years from now when payments evolve yet again, and we need to standardise. I want maximum benefit for the money I earned. The more players there are in the middle, and the more difficult it is to choose providers based on their constantly changing innovations, the less certainly I have that I am being given value for that money.

4ii. What other perspective(s) should be considered?

The basic transaction is the same the world over; someone has funds, and wants to spend them wherever they want to, whenever they want to, and with a minimum of complexity. Again, this is about authentication, not the payment process, so competitive advantage should be in security, cost, and customer service, not back-end processes.

5. 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

5i. Do you agree that these are important features of a U.S. near real-time system? Please explain, if desired.

Yes.

5ii. What other characteristics or features are important for a U.S. near real-time system?

If you accept that ubiquitous also incorporates simplicity, then yes, these are the major features required. Account numbers, or even banking institutions do not need to be a known part of a transaction. All the vendor needs to know is that the buyer has funds, and all the buyer needs to know is how much. With proper mutual authentication, there is no reason funds transfer and notification cannot be in real-time.

6. 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.

6i. 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?

6ii. 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?

6iii. 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?

6iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.)

7. 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?

The whole idea of paper based checks is redundant, and any efforts to maintain, or even improve it is pointless. Money as a concept is becoming less important, services that are provided for available funds is on the rise. In other words, I care how much I have in the bank, but only in terms of what I can DO with it. How I access those funds should not cause any delay to the fulfilment of my purchase. My guess is that the industry participants who suggested it be revamped have check handling as significant portion of their revenue stream.

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

The speed of the transaction does not affect by the ability of the anti-fraud mechanisms, the problems are in the anti-fraud mechanisms themselves. For example, credit card anti-fraud mechanisms are based on things like location of vendor, your reported location, number of transactions, type of transactions, spend history and so on. In the newer form of mobile transaction, your actual location can be recorded and compared to the vendor's location, the authorisation of the payment itself can go through several authentication checks and so on. With proper authentication, fraud becomes increasingly difficult, so if anything, fraud rates will down.

8i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks.

Yes. If it's online, it's vulnerable. That's just a fact of life. If someone wants something badly enough, and they have the skills, they can get it. It does not matter what technology advances are made, the thieves will catch up, and payment in any form will always be a balancing act between profits and losses.

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

It's not the time a transaction takes to clear that is slowing down the adoption of mobile payments, it's the card brands themselves, as well as general public ignorance. The card brands will be visually replaced if mobile payment can go direct to the holder of the funds, they are therefore putting blocks within their PCI regulations to permit these transactions from being compliant. Credit cards are still the dominate non-cash payment method in the world, and until the shift away from plastic occurs, the roadblock will remain in place. As for the general public, it's an education and familiarisation issue. Ask 100 people on the street what an e-wallet is, and 90 of them won't know. A credit card is tangible, perceived as relatively safe, phones are not. Eventually consumer confidence will reach critical mass, and phones will replace cards.

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

Very little, I can't think of any consumer who is disappointed in how quickly they can pay for something. The vendors might have issues, but they are not the ones with the power.

10i. What is the cost, including the opportunity cost, of not implementing faster payments in the United States?

Doing business globally will never be truly simple, but it can be fast. Competitive edge only lasts weeks or month, never years, and something as basic as payment transaction simplicity can take players out of the game. Payment need to keep up with the speed of decisions, not with bureaucratic process.

11. To what extent will the industry need to modernize core processing and other backend systems to support near-real-time payments?
Assume significant, but not my area of expertise.

11i. What is the likely timeframe for any such modernization?

As soon as there is money to be made. For example, EMV has advantages over mag stripe, but is massively more expensive to adopt. Banks would rather pay the higher fraud rates than make the switch. However, the new payment ecosystem will be easy and relatively cheap to introduce, and will ONLY significantly affect the back end, so adoption will follow consumer demand.

12. 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.

12i. What are the merits and drawbacks of this suggestion?

It's never a good idea to have a single point of failure, nor, in my mind, is it a good idea to have one monolithic database to stifle further innovation. Account numbers are not as important as authentication of the individual, and that will never be centralised. Choice of payment method will be driven by readily available mobile applications, routing will be automatic.

12ii. What is the feasibility of this suggestion?

Electronification

13. 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.

13i. 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.) Please explain, if desired.

No. The answer is actually yes AND no. Yes for business use, no for personal use. Every country globally, especially the US, has an enormous segment of the population known as baby boomers. As much as we would like for the them to adopt technology, education programs will not work, or be actively rejected. Checks will either phase out gradually, or cause significant hardship.

13ii. 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." If Yes, what is the appropriate target lever and date?

Yes. 2020

14. 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.

14i. To what extent are these efforts resulting in migration from checks to other payment types?

14ii. What other barriers need to be addressed to accelerate migration of these payments?

14iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments?

14iv. Which industry bodies should be responsible for developing and/or implementing these tactics?

Cross-border Payments

15. 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?

16. 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?

Safety

17. 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.

17i. Among the issues listed above, or others, what are the key threats to payment system security today and in the future?

The largest risk in payment today is the reliance on the account numbers being transferred for every transaction, being stored in countless databases, and being transmitted over insecure lines. Moving forward, front end authentication and approval will trigger back-end-only processes to complete the transaction. With less data bandied around, the risk is reduced.

17ii. Which of these threats are not adequately being addressed?

From the focus of this consultation, not seems that that security of the transaction itself is of primary concern, but as I have stated throughout my feedback, it's the authentication mechanism with will be the most important factor. There have been many advances in this technology, and innovation around multi-factor auth. is making it more mainstream, but there is still a long way to go before false-positive/false-negative rates are sufficiently low to address the risk/function balance.

17iii. What operational or technology changes could be implemented to further mitigate cyber threats?

18. What type of information on threat awareness and incident response activities would be useful for the industry?

Until ALL security core concepts, including awareness training and adequate incident response mechanisms are federally mandated, few businesses will make the expense. It's like selling insurance, no-one WANTS to buy it, and you only think about it when it's too late. Further, security departments are generally viewed as roadblocks to growth and innovation, and not the business enablers they should be. Only the PCI DSS has put its money where its mouth is, but even that is entirely inadequate when it comes to true security in support of business goals..

18i. How should this information be made available?

As stated above, until businesses HAVE to do security, they will scare by on the bare minimums. A significant fine structure in place for loss of personal data (include payment information) would help, but without a standard by which to measure the adequacy of the security controls in place, proving negligence will be difficult. The PCI standard goes to far, ISO/COBIT go no-where near far enough, but developing a standard to which all payment organisations must comply would be relatively simple. Simple to produce, yes, but without federal backing, it will be ignored.

19. What future payment standards would materially improve payment security?

No payment standard will improve security, SECURITY standards will improve payment security. Standards related to authentication, encryption (for both data at rest and in transit), Risk Assessment and Governance will certainly help, but not unless they are made mandatory. Security is never cheap, but it must be made a cost of doing business with other people's money.

19i. What are the obstacles to the adoption of security-related payment standards?

Ambivalence, cost, and lack of regulation. Not JUST regulation, regulation with teeth. Doing the right thing in terms of data protection is virtually unheard of, doing it because the cost of NOT doing so is significant, that gets attention. It's unfortunate that it's all stick, but until there is a way of providing a carrot, some security is better than none at all.

20. What collaborative actions should the Federal Reserve Banks take with the industry to promote the security of the payment system from end to end?

Make loss of payment data a significant offence. SoX brought in possible jail time for significant breaches, why would payment infrastructures be any different?

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

