Payment System Improvement – Public Consultation Paper
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Questions for the Public

General

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

In general, PNC is in agreement with most of the gaps and opportunities identified in the consultation paper. There are several gaps, not identified, that will need to be addressed in the future as part of any plan to improve the US payment system for efficiency and competitive parity with other global retail payment schemes. Please see details below.

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

Within the context of the persistence of check writing, there are several attributes of a check that make it appealing as a payment instrument. An example is that the payee information remains anonymous and does not have to be disclosed (account and routing number) to the payor. Additionally from the lens of a payee, technology has enabled remittance received in lock boxes, along with the payment instrument, to be easily associated with the payment. This enables receivers to apply the cash from the payment to an open receivable on their books. This is not as straight forward with electronic payments. Despite attempts at standardizing formats for electronic remittance, various standards and multiple versions of the same standard exists. Subsequently remittance detail on electronic retail payments does not travel easily with the payment and often is sent separately via transmission, email or fax resulting in low automation of application and additional costs to resolve the outstanding receivable. If the Federal Reserve is planning to address remittance as part of this retail payment system improvement effort in a consistent manner with the efforts of the Remittance Coalition, PNC would be supportive. If the topic is not addressed as part of this effort, PNC would consider this an oversight and gap in attempting to improve the retail payment system. The ability to associate remittance detail to a payment is a vital function for companies as part of their cash application practices. We encourage the Federal Reserve to consider the significance of information content associated and traveling with non-cash payments when designing this platform and how it would support their own payment oriented applications (e.g. EFTPS, Pay.gov, etc.).

The paper suggests that private sector payment options for retail payments are limited participation and require membership by both payor and payee to settle payment. PNC also recognizes that while legacy payment systems are more ubiquitous, they are equally limited participation systems to those consumers that are un-banked and the payments are not ubiquitously accessible and the private–sector may still be right channel to drive a solution for this segment of clients.

Finally, PNC recommends a comparative review of the rules and regulations for check processing and settlement versus EFT payments to examine whether the present rule framework creates unintended incentives for check use and processing settlement that may prolong their use as a payment instrument. If we assume the payment industry participants are rational and that the cost of processing payments electronically is significantly lower than the costs associated with check, then we have factor there may be an artificial incentive influencing participants to continue to use check. A technology infrastructure as the Fed is proposing to develop a solution is only one of the variables that need addressed for this effort to succeed. The framework of rules and governance around the payment channel are equally as important in laying the foundation for a new payment mechanism and media.

Q2. Are you in general agreement with the desired outcomes for payment system improvements over the next 10 years? Please explain, if desired.

PNC is in general, however not absolute agreement with the desired outcomes outlined for retail payment system improvements. Most of the desired outcomes outlined would yield benefit to the sending and receiving parties involved in the payment as well as the institutions involved in the clearing and settlement of the transactions. PNC concedes that a collectively identified solution is desirable however with the breadth of participants in the network; unanimity will be difficult to achieve. Here the Federal Reserve will need to champion its membership to drive consensus as a change agent to implement the proposed system.

Outcome number 2 would work well if strictly applied to retail payment systems and aimed at improving consumer payments however these systems will also be leveraged for use for B2B payments and thus must also address the purpose of the payment and the need to associate an expansive amount of remittance with the payment consistent in theme with how the Remittance Coalition is proposing to address.

i. **What other outcomes should be pursued?**

In addition to those outlined the Federal Reserve should aim to consider the impact of potential money laundering and fraud. Banks are typically relied upon by Federal authorities to act as agents to interdict and stop these types of crime. While an expedited processing time line is a desired outcome, this cannot create impediments to Banks capabilities to monitor and prevent financial crimes. The Federal Reserve as a regulator should preserve rules to ensure that while settlement is expedited, payments should not be irrevocable and final similar to wire transfers. The rules of a successor retail payment system should still support the ability to stop, reverse or dispute payments as necessary to protect customers and financial institutions to avoid financial loss.

Another outcome which should be explicitly stated is that banks should be central to this Payment System Improvement. Given that the Federal Reserve is championing this consultation paper, this may be implied, however we believe this needs to be explicitly stated. The primary reason for this is that Financial Institutions, under the governance of multiple regulatory bodies, have built the infrastructure for compliance for various rules that have been enforced through the years. There is an infrastructure in place for compliance with federal rules and a framework of institutional knowledge amongst employees to support and enforce compliance with these rules. This would be onerous, time consuming and costly to replicate. Additionally, payments processing is a significant source of revenue and income for the Financial Industry and enables banks to earn an economic return for maintaining an infrastructure to ensure payment settlement and rules enforcement. It will be important to maintain this balance in the future.

Lastly, we believe that a significant outcome that needs to be addressed for this to be successful is an equitable revenue model. To drive universal participation means all agents in the payment processing role should have an incentive to participate, or an opportunity to benefit from participating. Universal participation should be driven by universal economic benefit. Previous attempts to address expedited settlement for payments have been unsuccessful as this was not adequately addressed to provide universal participation incentive.

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

With more than seven thousand members the Federal Reserve Bank will need to be a catalyst for change of this significance in scale and scope. The Financial Institutions members under the FRB vary in scale, technology capability and resource capacity to self engage and execute this uniformly left on their own. Similar attempts in other parts of the world such as Faster Payments or SEPA have demonstrated the importance of strong central authority, direction, and oversight. Without this same level of central direction a financial market with the vast number of participants like the US will not have a high probability for success. Countries that have seen similar type systems spawned from the private sector typically are not as fragmented with the number of financial institutions to drive consensus.

Recent attempts to push the industry towards consensus for expediting ACH settlement, stalled despite the fact that it is broadly accepted that ACH settlement should be same day. Here the Federal Reserve as an operator may determine to update an Operating Circular to formalize the change based on collaborative efforts with other industry groups.

It is PNC's position the Federal Reserve is in a unique position, as both an Operator and a Regulator, would be the most appropriate body to act as a catalyst for this effort by galvanizing support and coordinating subsequent activities with other rules bodies and Operators in the US. We don't believe the Federal Reserve will be successful by acting as a lone agent for change. We feel the Federal Reserve is however the appropriate body to drive consensus and align other necessary bodies (e.g. NACHA, TCH, etc.)

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?

Both perspectives are accurate. The former is accurate when discussed in the context of a broad universal scheme being developed that would encompass both financial and non-financial payment providers and integrating payments across both segments. This type of engagement requires more than an industry group's advocacy for change to be adopted and instead also requires a payment operator with regulatory oversight of the payment networks and channels as a strong partner if such a change is to be driven forward. PNC believes that a truly universal scheme will only find universal adoption, as a desired outcome, if driven through the participation and coordination of a public authority or industry group. PNC encourages the Federal Reserve to observe recent payment system developments in other markets for examples of similar partnerships which have affected a similar desired outcome.

The latter is accurate as the private sector (e.g. PayPal, Square, and Bitcoin) comprised of non-financial (non-bank) payment providers have been able to achieve most if not all of the paper's desired outcomes. Banking participants have also made ground in developing person to person payments as witnessed by clearXchange developed as a proprietary network solution by a small number of large banks. However, despite being true, these do not have the adoption rate and scale as the legacy payment systems provided by the banking sector today for retail payments, however they are growing in acceptance for retail payments as demographically the channel and medium they are executed across (mobile) is ubiquitous hardware and increasing in convenience for conducting payments. Lastly, Banks have improvised accelerating clearing between each other by settling payment outside the payment networks by means of direct send with bi-lateral partnerships. Where there is demand for an attribute like expedited settlement, innovation will occur.

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

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 US near-real-time system?**

PNC agrees that expediting the payment settlement versus the timeframes associated with retail payments today is a desired outcome. We believe if the system is designed to deliver near real time payment settlement then the system and rules governing the system should still provide protections by enabling, stops, returns, and the ability to dispute or reverse payments so they are not final and irrevocable. This will be important to protect network participants, and essential to fight fraud and afford system participants protections based on rules that govern payment systems today.

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 leverage the relevant processes, features and infrastructure already established for existing wire transfer systems. The 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 US 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.)**

To achieve all of the desired outcomes outlined, as well as additional opportunities we've highlighted, it would likely require implementing a new payment system rather than leverage an existing channel or crafting a hybrid of two or more existing payment platforms like ACH, wire transfer and/or debit card networks. Additionally, the system would need to process to scale which may not be factored into present applications.

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?

PNC would agree with the latter position. Rather than deploying funds and resources on what may be an intermediate step in expediting the electronification of paper checks, it would be a more effective use of time and resources to focus on the defined end state.

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.

Expediting the transfer and settlement of payments will cause banks and bank regulators to examine how activity is monitored and whether current surveillance tools are sufficient.. As an example, Consumer Bill Pay today is a batch oriented process. When this type of payment becomes near real time, protections that are present today in the settlement rules will need to still be present to ensure fraudulent activity doesn't proliferate based on unintended consequences from expedited settlement and finality of payment. If not, expediting the settlement of funds will be viewed by fraudsters as an opportunity without an appropriate framework of rules, tools and monitoring techniques are not implemented to provide additional protections to system participants.

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

In as much as the consumers that are comfortable with leveraging mobility for day to day activities and making purchases, integrating a ubiquitous near real time payment system to the channel would prove to be effective to build scale and would be versatile for P2P, C2B, POS and other retail payment needs. PNC would suggest that mobile phones or smart phones are devices which can be used to access applications which connect to payment systems. As they become more versatile and more widely accepted for payment activities due to better security, we would expect to see adoption and utilization of these devices for a variety of payment types (e.g. B2B, C2B, P2P, POS, etc.) to increase.

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

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

The most likely implication would be a continued fractured landscape of payment providers with more non-Financial Institution payment providers surfacing and existing providers facing increased competition to stay involved with their clients.

As Non FI providers become more ubiquitous and their payment capability more adopted, Banks will likely be challenged to remain integrated with the retail payment transaction processing if these companies are able to provide a convenient payment mechanism for them to make retail payments.

PNC's position is that faster payments are inevitable given a number of societal and technological factors. The core issue at stake by not taking action is that banks would lose their position as central to the payment process. And a framework of rules and regulations would need to be established to create commonality to payment system governance for Non Bank FI's as exists today.

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

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

Much of this will need to be determined based on the applications that are modernized. Traditionally banks have leveraged solution vendors to develop and maintain payment systems, so modernizing these systems will need to be coordinated in conjunction with lead times necessary for vendors to update their applications in addition to changes banks will need to drive on their core posting systems and other systems that interface with their payment applications. PNC would expect the full series of updates inclusive of vendor application updates to take no less than 5 year and more realistically up to 7years.

Recently implemented changes to payment applications (Expanded Remittance, Check 21, etc) and other proposals (Same Day ACH) may be a fair barometer to the extent of work and time needed.   An essential point of consideration is regardless of timeframes to implement, the amount of regulatory changes occurring today has created a backlog of enhancements. If the appropriate incentives are in place to support the case for making this change to the payment systems, then the motivation to execute will also drive the urgency of the industry to support the effort.

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 provider 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?**

PNC believes that the development of such a centralized directory is promising and may be a powerful tool to improve connectivity of retail payment commerce partners.   PNC believes the Federal Reserve Bank's influence and direction would be most effective in partnership with existing rules bodies and payment operators such as NACHA and TCH for guiding development and own the maintenance and security of this directory. PNC would be more confident that these entities collaborating together would pool and apply their collective experience to develop this type of capability. This would enable the industry to benefit from prior efforts and ensure subjects such as privacy are considered in the design.

PNC would expect the Federal Reserve Bank to provide and maintain the rails for the infrastructure of the payment system to be determined and developed. However, we do see it being in neither the Federal Reserve Bank's interest nor a core capability to develop and maintain a centralized directory.

Electronification

Q13. Some industry participants say that check use is an enduring part of the US Payment system and that moving away from checks more aggressively would be too disruptive for certain end users.

i. Is accelerated migration from check to electronic payment methods a high priority desired outcome for the US Payment system? (Accelerated means faster than the current trend of gradual migration.)

If the end goal is to migrate from paper to electronic payments to remove costs from the clearing networks then PNC would endorse this is as a desired outcome

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 by electronic means."

This has been attempted in other countries (UK) and they have found they have had to back away from mandating such decommission dates. We believe it is more achievable to attempt to find a target rate of natural attrition in usage, and then establish a target date to eliminate check when non-cash payments via paper hit a desired threshold. B2B Checks as a non-cash payment media has declined from over 80% in 2004 to 50% based on the recent AFP Payment study. Assuming a similar trajectory over the next 8 years PNC expects check use to naturally decline to fewer than 30% by 2020. We anticipate the Fed's own triennial Payment Study will reflect similar results. PNC believes this trend in declining use will continue and that setting a formal decommission date at this point isn't necessary.

iv. What is the appropriate target level and date?

PNC agrees with the proposed target level of 95% but does not agree that a target date should be used in concert with this target level. We do not believe establishing a target date prior to reaching a threshold of volume would be effective. If the system is well architected and accepted the target level may be achieved earlier based on ease of use, convenience and efficacy.

Q14.Business to Business payments have remained largely paper based due to difficulties in 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?**

Customer behavior continues to move non-cash payments from paper check to electronic or card based channels for both business and consumers. The most recent AFP Payment studies illustrate a continued decline in paper for non-cash B2B payments while more organizations planning to migrate activity to electronic in the future as a result of cost reduction plans and targeted efficiencies.

There will be a point in time when checks eventually decline at an asymptotic rate. It will be at this point that incentives or rewards will no longer influence behavior further and the decommissioning of paper checks will need to be determined to effectively eliminate them from circulation and use. Otherwise they will persist albeit in a small percentage similarly to cash.

The FRB or other governing authority should determine a percentage rate of non-cash payment processing for electronic and when the threshold is reached provide a reasonable time to migrate from paper to electronic channel.

While there may be some technology challenges, PNC recommends that focus be made specifically in areas called out earlier in this paper regarding the review of rules associated with payments made via paper versus electronic. Removing barriers to higher utilization by examining rules in place for electronic payments where not present in paper check is one strategy to increase adoption by creating convenience and consistency.

Cross Border Payments

Q15. To what extent would the broader adoption of the XML-based ISO20022 payment message standards in the United States facilitate electronification of business payments and/or cross-border payments?

Adoption of a unified standard facilitated by the adoption of XML-based ISO20022 would enable the ability to communicate payment instructions across transaction party participants for more end to end processing of payments. Adoption of this standard is more broadly accepted in other jurisdictions today and the US would be leveling the payment playing field by enabling the broad acceptance of one of the widest known formats and standards.

This would make communication easier with trading partners and FI's, however it wouldn't address variances in rules that are managed locally where no over arching global authority may be able to arbitrate disputes, returns and issues with payments as there are in domestic markets.

Without such a framework in place, bi-lateral or multi- lateral arrangements will still need to exist where participants agree to be bound by rules in the various local regions to manage payment processing and settlement.

Addressing the standards for messaging is one of several components to address which will be vital to promote cross border payment growth and revenue generation for banks. Recent research from The Boston Consulting Group (Global Payments 2013)illustrates the significant role banks fulfill in handling non-cash payments ($377 Trillion in 2012) with projections of volume growth in mature markets expected to proceed at 4 percent CAGR over the next 10 years while developing economies are projected to grow at 11 percent CAGR over the same time frame. Developing the framework for connectivity with global payment systems will ensure US Financial institutions remain vital and competitive for cross border payments.

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?

One of the challenges that is present for these objectives for cross border payments is the absence of central clearing and settlement authority on a global scale as there is on local and regional schemes. Recent central authority initiatives like SEPA have addressed cross border payment issues on a regional scale and have experienced success driving coordinative efforts. Absent this, several initiatives have been undertaken within both private and public sectors over the years to create alternatives to using wire transfer as the sole cross border payment mechanism. These initiatives are experiencing success in varying degrees to expanding the scale of reach for cross border payments. Additional consideration to local jurisdictional rules for payment schemes to drive cost effectiveness and timeliness of settlement.

As regional schemes continue to press for less friction in payment settlement between economically connected geographies (Europe – SEPA and non-SEPA regions, North America) regional schemes will expand to standardize and encompass broader global reach.

The recent implementation of the Consumer Remittance Rule finalized by the Consumer Financial Protection Bureau is designed to be greater transparency related to details associated with costs and settlement time expectations. The intention is to arm the consumer with more information so they will be able to make better decisions when sending international payments. Ultimately, to provide this service, banks are going to have to tighten the processing through their open correspondent networks to remain in compliance with the new rule. We see this as an effort that started with consumer remittances that may impact international business payment processing in the near future.

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

Our experience with payment security issues has illustrated there appears to be adequate security and safe guards in place between financial institutions and the respective clearing systems for payments today. Where issues often arise regarding security is when security offered by FI's is not robust or when protocols and safeguards are not practiced by end users which may be either consumer or corporate. The integrity of the security in place is only as strong as the diligence used by the end users to protect their computers and devices.

There have been coordinated efforts led by public and private organizations to the address cyber threats to the financial system. A strong example of this was the collective efforts by Microsoft, FS-ISAC and NACHA to collaborate against the Citadel Botnet. So examples where opportunities exist to strengthen the payment system do exist and have already yielded effective results.

PNC would recommend continued collaboration between these organizations and consultation with FS-ISAC to share information amongst the industry and collective address threats as they are identified.

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?**

Information on threat awareness and incident response has received significant attention over the past 12 – 18 months. Authorities from the Federal Government as well as the private sector have found a common need to share information with each other and collectively respond to threats as they are identified. To date, the current practice has been effective. PNC would recommend continued collaboration by these parties in the future to share collective intelligence and continue to collaborate upon preventative and remediation strategies and tactics for identified threats. This will ensure not only the safety and soundness of the payment system but of the national interest of securing our financial markets.

Q19. What future payment standards would materially improve payment security?

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

PNC will defer to standard setting bodies like ANSI and ISO as well as the work completed by FS-ISAC to identify future payment standards to improve security.

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?

As stated in Question 18, PNC recommends the Federal Reserve Banks continue participation with the existing collaborative efforts to share information and respond to threats that have been exercised over the course or the past 12 – 18 months in cooperation with various Federal agencies and private sector organizations.

Q21. Please share any additional perspectives on U.S. payment system improvements.
One of the most recent improvements in the US payment system was associated with the introduction of legislation that produced Check 21. The cost of investment in systems to implement Check 21 was significant for Financial Institutions to leverage check imaging technology for expedited settlement of checks. Added to this cost however, Financial Institutions also were faced with litigation costs associated with patents held on the technology they purchased from vendors. Any discourse on improving the retail payment system on such a large scale will need to also include discussion regarding protections from such patent suits and unintended consequences of modernizing the retail payment system.