Comments on

Payment System Improvement – Public Consultation Paper

Issued by The Federal Reserve Banks on September 10, 2013

Submitted by

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These comments are in response to The Federal Reserve Banks' (hereafter "Reserve Banks") September 10, 2013, request for input on the information, ideas, and concepts contained in "Payment System Improvement – Public Consultation Paper." This response is based on practical experience managing Federal Reserve payment systems, research on related topics, and work advising central banks and international financial institutions around the world on payment system policy and the development of retail and wholesale payment systems.

This response is strongly influenced by the fact that the nation's money, banking, and financial systems are in an advanced stage of transition to a digital business model. In particular, money stock consists largely of digital records held in banks, and the greatest number of payments involves the transfer of these digital records. Payment services available to the public, however, do not generally allow immediate access to, or availability of, their money held digitally in banks. For purposes of reference, my thinking about the public policy issues involving digital payments is contained in the two 2012 papers cited in the first footnote.[1]

There are four main parts to this response. The first part reformulates the main problem and question posed in the consultation paper to take more direct account of the Reserve Banks' legal basis for and comparative advantages in promoting payment system development. The second part identifies ideas and themes contained in the consultation paper that need to be better explained and analyzed. These include the Reserve Banks' depiction of the payments market and its governance; their strategic direction in payments; and their assessment of gaps, opportunities and desired

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[1]Summers, Bruce J. "Facilitating Consumer Payment Innovation through Changes in Clearing and Settlement," proceedings of the March 2012 international payments conference sponsored by the Federal Reserve Bank of Kansas City, *Consumer Payment Innovation in the Connected Age*, http://www.kc.frb.org/publicat/pscp/2012/Session-5.pdf; and "Payment system design and public policy," in *Payment Systems: Design, Governance and Oversight,"* ed. by Bruce J. Summers, Central Banking Publications, 2012.

outcomes. The third part takes up the specific questions posed at the end of the consultation paper. The fourth part provides a summary and conclusions.

I. Problem statement

The consultation paper is motivated by the Reserve Banks' desire to develop strategies supporting their potential future role in the continuing evolution of the U.S. payment system. Questions about the Reserve Banks' future role come at a time when gaps between the payment system's capabilities and the public's needs have apparently widened considerably. Also, at this point in time, the Reserve Banks' historically important role as the national clearinghouse for payments has diminished greatly, to the point where their share of payments cleared has dwindled to fewer than one in five payments.[2]

The consultation process and request for public input on the future of the Reserve Banks in the payment system should be supported by a more complete assessment of the Reserve Banks' legal mandate and the reasons for what is now a greatly diminished clearinghouse role. In the absence of such an assessment, those providing comments are left to devise their own sense of the main public policy problems in today's payment system, and the main questions for public policy to address. My own sense of the main public policy problem and question is given below.

Simply stated, the main problem in today's payment system is that the check, which has historically delivered key capabilities, including versatility and universality, is in rapid decline, and there is no suitable substitute for the check that delivers these capabilities.

In its day, the check was an exemplary method of payment. It was useful for any type of transaction between any combination of payers and payees. It was (and still is) universal, able to connect all payers and payees through their bank accounts. It was (and still is) cost-efficient for the end-user, that is, payments are made at par, and end-users are charged competitive prices which closely track the cost of check processing. As explained in the consultation paper, emerging digital payments are not versatile or universal, and they are therefore not good substitutes for the check. Additionally, as discussed below, emerging digital payments are not fairly priced to end-users but are, rather, monopoly profit centers for payment providers.

The Reserve Banks were established by law in part to address acute problems involving speed and cost of the nation's payments system, which, except for cash, depended largely on the check. In fulfilling their legislative mission, the Reserve Banks undertook national clearing and settlement operations that were responsible for making the check a versatile, universal, and fairly-priced means of payment. Over the years,

[2] See the paper "Facilitating Consumer Payment Innovation through Changes in Clearing and Settlement," page 194.

however, the Reserve Banks have not pursued strategies to keep up with changes toward a digital economy, or with public needs, through modernizing their operations and supporting new means of payment that are being substituted for the check.

In short, the main problem is that no new means of payment has emerged that provides the key capabilities of the check, and that the Reserve Banks have not pursued their original operational mandate to ensure that these capabilities are available to the public across the nation. The main question implied by this problem is, will the Reserve Banks respond to the emerging digitized economy by again serving as the nation's payments clearinghouse, which ensures that the public has a versatile, universal, and fairly-priced payment instrument(s) now that the check is being phased out.

II. Themes needing more analysis

1. Efficiency of the payment markets. The consultation paper states "industry adoption of new payment services and technology…has been driven mostly by market forces." In addition, the consultation paper indicates that the payment markets are not producing desired outcomes when measured in terms of end-user benefits. Taken together, these two ideas lead the reader to think that the payment markets are not operating efficiently, presumably due to market imperfections and "market failure."

   The reasons that these markets are not producing desired results for users of payment services should be analyzed and explained, as any new Reserve Bank strategy for increasing end-user benefits depends crucially on an understanding of market imperfections or failures. In particular, the Reserve Banks should analyze the network characteristics of the payment markets, and the implications for competition, exercise of monopoly power, innovation, operational efficiency, and the pricing of services to end-users.

   The experience of other countries and of pricing practices in the U.S. market for payment cards should be part of the Reserve Banks' analysis.[3] Experiences in other countries suggests that governmental interventions are needed to ensure that payment network monopolies do not restrict competition and innovation, or that monopolies fail to share network efficiencies with the end-users of payment services. Governmental interventions could take the form of official oversight, regulation, or re-invigoration of the Reserve Banks' historical operational role as cost-based, public interest providers of payment services.

[3] A public interest analysis of practices in the market for payment cards is contained in: Board of Governors of the Federal Reserve System. "Debit Card Interchange Fees and Routing," Notice of proposed rulemaking, December 16, 2010.

2. Internal Federal Reserve governance and Reserve Bank strategy. It is an omission that the Reserve Banks would issue a consultation paper concerning their future role in and strategy for the payment system without reference to their governance relationship with the Board of Governors of the Federal Reserve System (hereafter "Board of Governors"). The respective roles of the Reserve Banks and the Board of Governors are described in one of the Federal Reserve's most recognized publications as follows: "The twelve Federal Reserve Banks provide banking services to depository institutions and to the federal government" and "The Board of Governors…supervises and regulates the operations of the Federal Reserve Banks [and] exercises broad authority for the nation's payments system…"[4]

   For there to be informed public input on the Reserve Banks' payment system strategies and potential future role in the payment system, the public needs to understand the oversight and decision processes that will ultimately determine what the Reserve Banks can and cannot undertake. For example, the public needs to understand how Reserve Bank initiatives to offer new banking services are authorized. The public also needs to be informed about the reasons why the Reserve Banks have avoided new services supporting digital payment methods, and have instead limited their banking services to support for old payment methods, such as check and ACH. The public also needs to be informed about why the Reserve Banks have limited their involvement in the multiplicity of immediate payments to only inter-bank wire transfer. Additionally, the public needs to understand the Reserve Banks' reasoning for why they, rather than the Board of Governors, which has broad regulatory and oversight powers, would be best suited to provide incentives to private providers of payment services to act more in the public interest when marketing and pricing innovative payment services.

   The Reserve Banks' depiction of their payment system strategy, without any acknowledged internal collaboration with the Board of Governors, is an issue of concern to the public. This is so because, historically, major advances in the U.S. payment system in which the Federal Reserve has played a role have resulted from internal collaboration between the Reserve Banks and the Board of Governors, whose respective operational and regulatory roles have proved complementary. It seems reasonable to think that the potential benefits of collaboration and engagement would involve three groups, namely, the Reserve Banks, the Board of Governors, and the public.

[4] Board of Governors of the Federal Reserve System. *The Federal Reserve System: Purposes & Functions*, Washington, D.C., June 2005, http://www.federalreserve.gov/pf/pf.htm.

3. Reserve Bank vision for stakeholder collaboration. One of the most significant changes announced in the consultation paper is an expanded scope of the Reserve Bank vision for payment system improvements. Up to the date of publication of the consultation paper, the Reserve Banks limited their vision to improving payment system functions between banks, that is, "inter-bank." Realization of this vision required the Reserve Banks to understand inter-bank needs, but not necessarily the detailed needs of the public using bank payment services.

   With the publication of the consultation paper, however, the Reserve Banks have announced that they are now focused on the payment system from "end-to-end," which is to say, from the point at which an individual, business, or government entity initiates a payment, to the point of final receipt by another individual, business, or government entity. This expanded focus means that the Reserve Banks are now more concerned about the public's needs for payment services, and implies that they will measure strategic success in terms the benefits experienced by end-users.

   Notwithstanding the Reserve Banks' stated end-to-end vision, the consultation paper predominately refers to collaboration and dialogue with "the industry," which is to say, with the producers and suppliers of payment services. The end-to-end vision requires more inclusive collaboration and engagement among producers, suppliers, and end-users. International best practice for engagement and dialogue in the development of payment system strategy calls for broadly inclusive outreach. The Reserve Banks should follow international best practice by pursuing collaboration and communications strategies that are both inclusive and transparent, that is, open and comprehensible to all interested stakeholders.

4. Gaps in the end-users experience with payment services. The key gaps that are identified in the consultation paper are explained largely in technical and mechanical terms. As such, the identified gaps tend to be tactical rather than visionary. Considered as a group, the identified gaps do not appear to sufficiently capture needs and problems as experienced by end-users. This is a crucial shortcoming in light of the Reserve Banks' end-to-end vision and their desire to adopt strategies whose success will ultimately be measured in terms of the end-user experience. Following are examples of gaps explained in terms of the unrealized needs of end users of payment services (as seen "from the shoes of the customer," so to speak).

   a. Efficiency. The typical method used for pricing digital payment services to end users is quite different than that used for pricing more traditional paper and electronic payments. End-users of digital payments typically face ad valorem prices; that is, the price of each payment is calculated as a percentage of its amount. This method of pricing is analogous to the non-par banking which prevailed before the Reserve Banks established a national clearinghouse, a time when payees received less than face value of their payments.

Once the Reserve Banks established a national clearinghouse, pricing came to be based on explicit fees set to cover production costs plus a reasonable mark-up. The Reserve Banks were instrumental in leading the change to cost-based, explicit fees end-to-end. They “led by example,” especially following passage of the Monetary Control Act of 1980, by pricing their inter-bank services based on production costs and being transparent as to what those costs were.

From the standpoint of end-users, payment system efficiency falls short of its potential, in that pricing is not explicit and tends to be much higher than production cost plus reasonable mark-up. The basic problem is that the method used for pricing digital payments to end-users – ad valorem pricing – does not reflect the cost of producing those services. A significant further problem is that ad valorem pricing produces monopoly profits for producers, which leads to industry resistance to transparency and to constraints on public governance of pricing of payment services.

b. Security. Information security is defined and measured according to attributes that include data integrity, authenticity, and confidentiality. The payment and financial systems must demonstrate these attributes to maintain public confidence in the security of financial transactions.

Confidentiality should take into account end-user privacy. This is especially so as payment services share the same delivery channels used for other digital information, including and especially channels controlled by non-bank providers of information services. One of the issues raised by privacy considerations is the potential barrier to adoption of digital payment methods, if end-users become concerned about their loss of privacy when they consider switching from older methods of payment (including cash payments).

It is widely recognized that providers of digital information services attach significant value to capturing, tracking, and mining all consumer data that flows through the channels they control. It is problematic whether end-users would want their payments and related financial information to be captured, tracked, and mined for marketing and other purposes. Accordingly, confidentiality of payment system security should take account of the privacy of payment information.

c. Accessibility. The consultation paper cites accessibility as a gap to be closed through ongoing innovation. The practical meaning of accessibility as the term is used in the consultation paper, however, is not clear. The Reserve Banks should explain what they mean by needed improvements in accessibility, and In doing so should relate the concept to end-user needs. One possible meaning of accessibility which is implied by the consultation paper is timely, that is, real-time or immediate, access to money balances for use in making payments.

   In today's payment world, end-users must, more often than not, trade off direct access to and control over their money balances held in bank accounts against the benefit of immediate payment. This is the case because, as described in the consultation paper, immediate payments are primarily supported by limited participation networks that do not link the end-user directly to their primary bank account(s).

   From the end-user standpoint, this accessibility gap could be closed by establishing a national network offering immediate payment services, linked to bank accounts. A related strategy is to provide a "narrow bank" charter option to non-bank providers of immediate payment services that allow these providers to offer transactions accounts just as "regular banks" do. Eliminating the distinction between "digital payment provider" and "bank" is a prerequisite for payment services that give end-users direct access to and control over their money balances held in the banking system. It is also an example of how the regulatory role of the Board of Governors would complement the operational role of the Reserve Banks in payment system innovation: the Board of Governors would be the payment bank chartering authority and the Reserve Banks would be the national clearinghouse for immediate payments.

5. Focus on improvements to the domestic payment system. The consultation paper's over-arching problem statement gives very high priority to improvements in international payments and support for global commerce, notwithstanding that only one of the eight key gaps identified in the consultation paper references international payments. The Reserve Banks likely have limited time, resources, and management capacity to devote to payment system

improvement, and they should guard against overreaching into areas such as global payments that distract them from the principal task at hand, which is to modernize the U.S. payment system. This is not to say that cross-border and global payment capabilities are not important, but rather that at this time, they should be pursued opportunistically and not as a principal strategic focus.

6. Strategic importance of the credit transfer payment process. The Reserve Banks have unparalleled experience designing and operating national-scale clearing and settlement processes supporting various methods of payment. The consultation paper could usefully build on this experience by taking up the question of how real-time or immediate payments should be designed. In particular, the consultation paper could better inform the public about credit transfer design alternatives in payment system modernization.

   Credit transfer (sometimes referred to as credit push) is the de facto design standard for immediate payments and is followed in all the major countries where immediate payment systems have been implemented.[5] Embracing credit transfer design will likely lead to a certain amount of "creative destruction" with less reliance on incumbent methods of payment, such as check and ACH debit. The Reserve Banks would perform an important public service by providing a practical explanation of the design implications of immediate payments.

III. Responses to questions for the public

Brief responses to selective questions raised in the consultation paper are provided below. The Reserve Banks are specifically asking "providers" and "end users" to provide responses to the questions. This inclusive approach to engagement is commendable and will, hopefully, continue to be followed by the Reserve Banks in their on-going dialogue and outreach.

Q1. While there are bits and pieces of useful insight into the gaps and opportunities listed in the consultation paper, the overall presentation is somewhat disjointed. It is difficult to piece the insights together to form a cohesive understanding of the issues and their strategic implications. The above section of this response titled "problem statement" is intended to provide an example of a more direct and "real

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[5] Summers, Bruce J., and Kirstin E. Wells. "Emergence of immediate funds transfer as a general-purpose means of payment," *Economic Perspectives*, Federal Reserve Bank of Chicago, Third and Fourth Quarter, 2011, http://www.chicagofed.org/digital_assets/publications/economic_perspectives/2011/3qtr2011_part2_summers_wells.pdf.

world" description of the issues and implications for the future role of the Reserve Banks in the payment system.

Q3. The role of the Reserve Banks as the operator of a modern, digital payment system that supports immediate transfer of bank balances is the key question to be answered in the consultation process. The Reserve Banks have a potentially significant operational role to play in leading the timely transition to immediate funds transfer. They would do so by fulfilling their original mandate to provide for a versatile, universal, and efficient national payment system. For example, acting as national clearinghouse for immediate funds transfer constitutes an operationally concrete and practical strategic direction. Operationally elusive and vague expressions of strategy, such as "leader" and "catalyst" are not suitable strategies. The key issue of concern to the public is, will or will not the Reserve Banks play an active operational role assuring the nation has a versatile, universal, and efficient digital payment system.

Q4. Coordination through a national clearinghouse is a prerequisite to implementing an immediate funds transfer system that allows the public to access and control their money balances held in banks. International case studies underscore the central role for a public authority, such as a central bank, in supporting immediate funds transfer. As suggested earlier in this response, a new bank charter that allows innovative organizations that are not banks to offer deposit accounts to the public is another strategic initiative that can accelerate the transition to immediate funds transfer.

Q5. The features listed in the consultation paper are appropriate for a "near-real-time payments system" and more specifically and concretely describe the immediate funds transfer (IFT) method of payment. Please consider the following three clarifications and additions to the list:

1. The second feature ("Sender doesn't need to know the bank account number of the recipient") implies, but does not explicitly state, that credit transfer is the design basis for the method of payment in question. This important assumption should be made explicit.
2. The new method of payment must support remittance information for it to be useful to businesses and provide an attractive alternative to the check. The type and amount of remittance information currently supported by the check method of payment should be described in order to provide a baseline operational requirement for any new method of payment.
3. Information security, with privacy as an attribute, should be added. Also in this general connection, real-time payments based on the credit transfer design would necessarily be accompanied by modernization of bank risk management and authorization systems. An important feature, therefore, is

"back office" support for the new, immediate funds transfer method of payment.

Q.6 None of the consultation paper's described approaches to achieving immediate funds transfers that possess the desirable features listed in Question 5 is operationally workable. The modification of existing legacy methods of payment – wire transfer, ACH, and debit card – are based on archaic business processes that are not suitable for a truly end-to-end payment system intended to support high-capacity, universal, immediate funds transfer. Further, the notion of linking together limited-participation networks would be a futile exercise in managerial and technical coordination, ultimately frustrating the goal of achieving universal immediate funds transfer in a timely way. The only practical approach, underscored by the experiences of many other countries, is to design and implement a new system. It is important to emphasize that implementing a new system does not necessarily mean that the system be custom built; there are enough existing implementations to suggest that the design and even an operational foundation for such a system could be acquired off the shelf.

Q.7 While the check method of payment continues to meet the needs of selected segments of the marketplace, mobilizing societal resources to improve the check is wasteful and will only distract from modernizing the payment system to keep up with the needs of the digital economy. The problem is that the check is based on archaic business processes, namely, debit transfer and batch processing; it does not make sense to apply the latest in technology to these old-style business processes. The Reserve Banks can best lead by embracing the fundamental shifts that needs to take place if the payment system to keep up with the digital economy.

Q.8 Yes, it is likely that real-time payments will give rise to new fraud risks that need to be managed. The challenges posed by these risks, however, are unlikely to exceed those which normally arise with the advent of any new financial and payment instruments and services.

Unfortunately, the way this question is framed casts a negative light on real-time payment innovation. Properly planned and managed, real-time payments based on the credit transfer design should enhance security and risk control. This is especially true for immediate funds transfer where authorization is the responsibility of the payer's bank; in this model, each bank "knows its customer" and all the payment orders it receives are from its known customers. This is in contrast to debit transfer where payment orders can be submitted by any number of unknown persons or businesses.[6]

[6] See the international reference model for immediate funds transfer described in the paper "Facilitating Consumer Payment Innovation through Changes in Clearing and Settlement" cited in footnote 1.

Q.9 International experience with immediate funds transfer services clearly shows that they are a natural application for and rapidly expand to mobile channels, including smartphones.

Q.10 Failure to act now to implement faster payments (i.e., real-time or immediate funds transfer) will result in further balkanization of the U.S. payment system and concomitant erosion of the foundation for universal payments. Failure to act now will increase the separation between digital payment innovation taking place in technology companies and in the money and banking system. One only needs to look to other countries, such as Canada, where opinion increasingly favors the establishment of a "payment industry" that is separate and distinct from the banking system.

Q.12 I would encourage the Reserve Banks to investigate a centralized directory (along the lines of the national clearinghouse function in the international reference model referred to above). Such an investigation should be open minded and, in particular, should not assume that bank account numbers need to be treated as non-public, confidential information (they are not today, as they appear prominently on checks). The approaches taken in other countries, such as reliance on two routing numbers, a public one for credit transfers and a private one for debit transfers, should be fully considered.

Q.13 The Reserve Banks should not adopt a strategy of accelerating the migration from checks, nor should they adopt a metric (such as the percentage of non-cash payments) as a strategic goal. As noted above, checks continue to meet the needs of selected end-users. The adoption of digital methods of payment ultimately depends on the ability of these types of payment to deliver the attractive attributes of the check: when they do, users of payment services will migrate to them spontaneously.

The thinking behind this question seems to be rooted in the "paper versus electronics" trade-off. Society has largely moved into the digital world and the Reserve Banks should as well, letting residual paper-based methods of payment die a natural death.

Q.14 See the answer to Question 5 above regarding the need for payment instrument features that meet business needs for remittance information. Note as well, however, that the assumption that the check best supports remittance information may be a red herring.

Q.15 ISO 20022 payment message standards have become the de facto basis for international interoperability in payments. Any serious strategy to increase the international functionality of U.S. payments must include ISO 20022 as a foundational element.

Q.17 See the answer to Question 5 above regarding the implications of immediate funds transfer for security and risk management. Note also the importance that this response gives to privacy as an element of security management in the digital world.

Q. 20 Improvements in end-to-end security through greater collaboration and dialogue should include not only “the industry” but also representatives of the different types of end-users of payments. An inclusive approach to determining security policy and strategy is needed in digital and mobile payments especially, because ease of use and acceptance of security features by end-users is necessary to the success of any strategy.

IV. Summary and conclusions

With the exception of the payment system, the nation’s financial system has largely made the transition to a digital business model. Certain older methods of payment, chiefly check and ACH, remain popular because they satisfy the public’s need for versatile, universal, secure, and fairly-priced payments, even though they cannot provide immediate funds transfer capabilities. The Federal Reserve Banks in particular have not modernized their national clearinghouse operations for payments by providing support for immediate funds transfers that universally link digital money held in bank accounts, and that are secure and fairly priced to the public.

The Federal Reserve Banks are now seeking public input on their emerging new vision for the payment system and the strategies they will pursue to realize this vision. In doing so, the Federal Reserve Banks should be clear about the main problem in today’s payment system, which is that no new means of payment has emerged that provides the key capabilities of the check, and that the Reserve Banks have not pursued their original operational mandate to ensure that these capabilities are available in new, digital payment methods. Further, the Reserve Banks need to address the main question implied by the problem, which is, will the Reserve Banks respond to the emerging digital economy by again serving as the national clearinghouse which ensures that the public has a versatile, universal, and fairly-priced payment instrument(s) now that the check is being phased out. In answering this main question, the Federal Reserve Banks need to collaborate with both the providers and users of payment services, and address their public policy relationship with the Board of Governors of the Federal Reserve System.