



**U.S. Payment System:  
Recommendations for Safe Evolution and Future Improvements  
December 3, 2013**

## **I. Introduction**

Conversations regarding the future of the U.S. payment system have been occurring for many years in various forums and among different system participants. Recently the Federal Reserve Banks prompted a new round of conversation by publishing and requesting input regarding their “Payments System Improvement – Public Consultation Paper” (Public Paper).<sup>1</sup> The Clearing House,<sup>2</sup> as both an association and as a payments company, is pleased to continue its participation in these very important conversations.

The Clearing House and the Federal Reserve Banks together are the inter-bank infrastructure and service providers for wire transfers and ACH in the U.S. Similarly The Clearing House and the Federal Reserve Banks are both important inter-bank service providers for check clearing in the U.S. Thus, we recognize that the better aligned we are with the Reserve Banks about the future U.S. payment system, the more quickly and efficiently the payment system can evolve. We look forward to working with the Reserve Banks towards an improved payment system.

This paper is The Clearing House’s contribution to the current round of conversation prompted by the Public Paper. It responds to certain themes from the Public Paper but also sets forth our own views regarding optimal payment system evolution and outcomes.

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<sup>1</sup> The paper is available at [http://fedpaymentsimprovement.org/wp-content/uploads/2013/09/Payment\\_System\\_Improvement-Public\\_Consultation\\_Paper.pdf](http://fedpaymentsimprovement.org/wp-content/uploads/2013/09/Payment_System_Improvement-Public_Consultation_Paper.pdf).

<sup>2</sup> Established in 1853, The Clearing House is the nation’s oldest payments company and banking association. The Clearing House is owned by 21 of the largest commercial banks in America, which employ 1.4 million people domestically and hold more than half of all U.S. deposits. The Payments Company within The Clearing House clears and settles approximately \$2 trillion daily, representing nearly half of the U.S. volume of ACH, wire and check image transactions. The Clearing House Association is a nonpartisan advocacy organization within The Clearing House that represents, through regulatory comment letters, amicus briefs and white papers, the interests of its owner banks on a variety of systemically important bank policy issues.

As more fully discussed below, The Clearing House believes that a successful future payment system will:

1. **Provide an end user experience and functionality that fulfills needs that are not adequately met by existing payment systems.** Significant enhancements or changes to the payment system, including potentially faster clearing and settlement, must address actual, demonstrated needs to ensure that the new payment system capabilities provide additional value to end users.
2. **Set risk management and fraud protection standards that are appropriate for the essential characteristics of a payment (speed, value, debit or credit, etc.), rather than the clearing system or form of the payment.** A faster payment system will require that system participants synchronize the speed of their anti-fraud, AML, and OFAC processes with the speed of clearing and settlement. It may also require updated payment finality and dispute resolution rules that account for the changes in speed and risk. Additionally, higher-value payments, regardless of how they are initiated, present unique challenges for security and liquidity management.
3. **Be an open, global-ready platform.** By this we mean a payment system that is not limited to users of a single, proprietary platform but, similar to today's check and ACH systems, supports exchange between different payment operators. We also think that a system that adopts consistent global payment standards, and possibly supports multiple currencies, will assist financial institutions in serving the needs of their respective global customers.
4. **Provide economic models that ensure that all service providers in the payment system can expect a return on initial and ongoing investment.** The best way to achieve widespread participation, spur innovation, and identify applications that benefit customers is for payment service providers to have the opportunity to earn a reasonable return on their investment.

## II. Business Issues

### A. Use Cases for Faster

The Public Paper sets forth five “desired outcomes” to be achieved within the next ten years. Of these, the outcome that appears to be the most important to the Federal Reserve Banks is a near real time, ubiquitous payment system.<sup>3</sup> We agree that faster clearing and settlement is a

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<sup>3</sup> We think that “faster” is the key recommendation the Reserve Banks are making because it is the most detailed and specific of the five recommendations and twelve of the twenty one questions in the Public Paper are directed to the recommendation. Faster payments was also the predominant topic discussed at the Federal Reserve Bank of Chicago's Payments Symposium on September 24 and 25, 2013 as well as the topic that was emphasized in Sandra Pianalto's speech

desirable outcome insofar as it enhances end user experience. However, we also think that faster information flows to end users about their payments would be a valued enhancement to more use cases than faster clearing and settlement. Further, functionality for faster information flows can be developed separately, and perhaps more quickly, than functionality for faster clearing and settlement.

Again, we emphasize that faster clearing and settlement is not an enhancement for all payments. For example, some end users schedule bill payments through their banks' online banking service well in advance of a bill's due date and are less concerned with the timing of debits to their accounts than knowing that their bill payments have been scheduled and will be taken care of. Such end users are unlikely to pay extra for a near real time bill payment. Other end users, as described in Use Case #1 below, are likely to value a near real time capability. Similarly, not all end users will value P2P payments that clear and settle in near real time (though near real time information is likely to be valuable for all P2P payments).

Given the very significant investments the industry must make to accommodate faster payments, including, as discussed below, enhanced anti-fraud protections, it is critical that the entities that make such investments be able to market the faster funds enhancement for the uses cases in which there is an actual, demonstrated need. This will ensure that faster payments are valued by end users and commercially viable for the entities that make the investments. In other words, "faster" should not be imposed as a mandate on all payments since this will dilute its value in the market. Additionally, it is important that end users retain the ability to choose the speed and cost of their payments.

Some of the use cases that demonstrate a need for faster clearing and settlement are set forth below. We note, however, that the costs of providing faster clearing and settlement for each of the use cases would need to be weighed against the likely return on investment in order to determine if one or more of the use cases have a viable business case.

#### **Use Case #1: Online banking immediate credit alternative to biller direct (C2B)**

- The online bill payment services provided by financial institutions are constrained by the settlement times of ACH as these times determine how quickly funds can be sent to billers.
- Because ACH bill payments settle, at their earliest, the next day, bill payment services offered by financial institutions must either debit customers one or more days prior to payment date (the "good funds" model) or debit on settlement date and potentially overdraw the account (the "risk model") – neither of which is customer friendly.
- "Biller direct" bill payment in which customers authorize bill payments through their billers' websites, which are often funded by ACH WEB debits, is outpacing financial institutions' online banking bill payment options. This is because billers will credit their customers for payment at the time the online payment is made rather than waiting until the ACH entries

settle and many customers, especially young adults, prefer the certainty that they have been credited by their biller for a payment.

- Same-day payments, especially if matched with enhanced biller directory services, would allow FI's to offer a more compelling offering for FI customers while avoiding the problems with the "risk vs. good funds" models

**Use case #2: Same-day remittances and account-to-account transfers (P2P and A2A)**

- Same day remittances are already a popular, premium-priced payment service for closed, proprietary agent networks, indicating existing demand. Faster clearing and settlement between financial institutions would enable them to compete for remittance services.
- Transfers between accounts owned by the same person or company at different financial institutions currently take 1-3 days, due to the next day settlement schedule for ACH. This delay in funds movement is a source of frustration for many customers.

**Use case #3: Just-in-time supplier payments, small business premium payment service (B2B)**

- Allow smaller companies to adopt a just-in-time supply chain model even if they cannot get favorable credit terms that would allow immediate shipment by suppliers. Faster clearing and settlement between financial institutions would allow these companies to pay the supplier at time of order with real-time notification – which cannot be achieved with wire transfers today.
- Provides a way for small businesses to actively manage cash flows by paying invoices when it is optimal to do so and avoid the risk of late payments due to mail float. For B2B payments remittance data would need to be included in the payment message.

**Use case #4: Weekly payroll for hourly workers (B2C)**

- In industries such as food service and construction, it is common practice to pay hourly employees weekly, often the day after the week ends.
- Current schedules for initiating ACH Direct Deposit require that transactions be initiated at least one day ahead, making it virtually impossible to include weekly payroll for hourly employees.
- The ability to include non-salaried employees would boost direct deposit rates which have been stagnant at roughly 74% after making strong gains in the 1990s.<sup>4</sup>
- A same-day payment service would make it much easier to accommodate hourly paid employees with Direct Deposit.

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<sup>4</sup> 2011 NACHA PayItGreen Consumer Survey conducted by Javelin Strategy & Research. Available at [https://www.nacha.org/userfiles/File/NACHA%20PayItGreen%202011%20Javelin%20Study%20DD%20\(NPW\).pdf](https://www.nacha.org/userfiles/File/NACHA%20PayItGreen%202011%20Javelin%20Study%20DD%20(NPW).pdf).

**Negative use case for faster clearing and settlement: Point of sale**

One use case that we *do not think* provides sufficient benefit to justify the resources necessary to enable faster clearing and settlement is domestic point of sale (POS). These payments are well served today by the debit and credit card systems. The card networks already provide real-time verification of good funds to merchants and extensive anti-fraud capabilities to protect cardholders. Credit, debit, electronic benefit or prepaid card options are available to virtually all consumers or businesses, even those without conventional bank accounts. Smartphone and tablet-based card acceptance services are filling the remaining gaps in merchant coverage. Payment system operators including The Clearing House are developing services that replace card numbers with tokens, which are random codes that can only be used for specific merchants or transactions, to provide enhanced security for digital transactions.

We also note that the ability of debit and credit card systems to separate authorization from payment is helpful to end users. For instance, when a consumer purchases goods online using a debit or credit card, the merchant can be assured of payment at the time of the order. However, the merchant typically does not charge the consumer until the goods are shipped. In this way both end users have their needs met.

For these reasons we do not think that resources should be devoted to faster clearing and settlement of POS payments.

**B. The Future Payment Systems Should Be Open and Global Ready**

In order to encourage innovation and widespread adoption, any future payment system, whether it is an enhanced legacy system or a new system, should be open (i.e., interoperable). By this we mean that the reach of the network is not limited to customers of a single proprietary payment service. The network should have universal reach domestically, most likely by linking all U.S. payment system operators<sup>5</sup> so that any payment originator can reach any payment receiver regardless of which service provider they use or which payment system operator their service provider uses. We note that two of the most ubiquitous legacy systems, check and ACH, share the characteristic of being open systems. Checks can be negotiated between banks and ACH entries can be exchanged between ACH operators.

Ubiquity through interoperability is a way to optimize the benefits of both network effects and competition. In a market of proprietary, closed networks, the most likely way to maximize network effects is for one provider to achieve a monopoly. A monopoly, however, eliminates

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<sup>5</sup> An important feature of an interoperable payment system is that the entities that act as operators meet appropriate standards to ensure the safety and reliability of the payment system. For example, operators need to (i) satisfy infrastructure, information security, business continuity and risk management requirements; (ii) provide settlement for the transactions they process; (iii) have a well-founded legal structure; and (iv) have clear and effective rules and procedures to manage credit risk, liquidity risk, and participant default.

competition, and competition is necessary to drive customer value and innovation. With interoperability among payment systems, operators can compete vigorously to provide value for their participants and all enjoy the value created by a ubiquitous network.

Interoperability and competitive access depend on standards that are consistently followed. Operators must agree on data formats, technical protocols and processes. To the extent operators agree to use global standards rather than domestic standards, they can take advantage of a base of knowledge and commercial technology that has already been developed. Using global standards also makes it easier to integrate US payment systems into cross-border schemes. Using global industry standards also provides a common way for payment service providers to access core services from competing operators, and allows them to use off-the-shelf technology as a base instead of developing everything from scratch.

It is important to note, however, that the complexities of bridging disparate national payment systems, legal jurisdictions (including incongruous AML and counter terrorist financing requirements), tax regimes and financial conventions create practical constraints to international payments. Therefore, while global format standards are helpful, they alone will not solve for the “gaps” the Reserve Banks identified regarding international payments.<sup>6</sup>

The industry should also consider enabling multi-currency settlement to better support the needs of global customers. Payment tracking and notification of receipt would also be very beneficial for international payments.

### **C. Sustainable Economics are Key to an Improved Payment System**

As noted in the Public Paper, “funding for the investments required [for an improved payment system] may be hard to obtain, given competing priorities such as complying with new mandates.”<sup>7</sup> We believe this issue must be addressed directly and is a critical part of an end-to-end view of the payment system. Simply put, payment system providers will not invest in a payment system without the prospect of reasonable return on their investments.

Before further explaining why we think reasonable returns on investment are important for payment services, it is necessary to address a misconception that The Clearing House has observed among some payment system participants. This misconception is that financial institutions do not need to earn a reasonable return on investments in retail payments because retail deposit relationships are profitable. This is an incorrect assumption. First, prudent financial management requires that any investment should be evaluated based on its marginal potential to increase net income. An investment in payments that is funded out of existing retail deposit revenues but does not increase revenues does not meet this standard. Second, retail deposit profitability has been severely eroded. Retail deposits produce two forms of revenues: fees and interest earned on balances. Fees have been reduced substantially by

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<sup>6</sup> The Public Paper states on page 3 that cross-border payments are “slow, inconvenient, costly, and lack transparency regarding fees and timing.”

<sup>7</sup> Public Paper, page 6.

regulation over the past few years, while the sustained low interest rate environment has diminished the value of deposit balances. In fact, according to analysis by Novantas, the return on equity for retail accounts<sup>8</sup> has declined from 34% in 2006 to 4% in 2012.

TCH believes that the ability for all providers to earn a reasonable return on investment is not merely a way to justify funding; it is a design criterion that needs to be addressed at every stage of planning and development. Sustainable economics, meaning return not just on initial investment but also ongoing investment in maintaining and enhancing the payment system, are vital for the long term health of a payment system because without the prospect of such return on investment, participants will find it difficult to justify ongoing investment in the payment system. This underinvestment in turn creates exposure to risk as payment systems fail to keep up with evolving threats.

A reasonable return on investment is also the most effective way to harness market forces to achieve desired outcomes. The best way to spur innovation and identify applications that benefit customers is for payment service providers to have attractive financial expectations.

We think that the economics of a new payment system need to be worked out before, not after, investments are made. This does not mean that it is necessary to predict with accuracy or certainty the economics of the system for all participants. It does mean that the payment system supports mechanisms that allow participants to obtain a reasonable return on investment and that provide an incentive for innovative payment service providers to enhance existing products and develop new products. The specific approaches for achieving sustainable economics will depend on the use cases the payment system is designed to address. TCH does, however, propose the following guiding principles:

1. The business case for the payment system needs to be incrementally positive (vs. the status quo) for all participants, including financial institutions.
2. The business case needs to produce sufficient benefit for each participant to recover its investment in a reasonable amount of time.
3. The business case needs to be staged to produce net benefits, as feasible, at each phase of deployment, instead of front-loading costs and back-loading benefits.
4. The payment system needs to enable the development of payment products that provide enough incremental benefit for end users (compared with legacy payment systems) that the payer or payee will be willing to pay a reasonable fee for the service.
5. The payment system needs to support revenue models that will encourage universal participation by financial institutions, promote the development of innovative services and address economic externalities such as cost shifting.

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<sup>8</sup> For purposes of the Novantas study, retail accounts include consumer and small business deposits and lending, excluding first mortgage, auto, and credit card lending.

### III. Risk Issues

While we agree with some of the end user “gaps” that the Reserve Banks have identified in the Public Paper, we think there are also gaps related to risks in certain parts of the payment system that are not adequately addressed today. Closing the gaps related to these risks is an essential bridge to building an improved future payment system. With respect to the Reserve Banks’ desire for a faster payment system, we emphasize that we cannot increase the speed of payments without anticipating and protecting against the corresponding increased opportunities for fraud.

#### A. New participants are creating risk in the payment system

Non-financial institutions that act as service providers to end users have become important participants in the payments system and often carry out very similar functions to financial institutions. In some instances, the manner in which these service providers interact with the payment system decreases transparency and increases risk. Without consistent industry and regulatory oversight and standards these risks will only increase over time because we expect that non-financial institution service providers’ role in the payments system will continue to grow. Thus, it is important that these risks be addressed in the near term, laying a safe foundation for the future payment system.

We discuss below some of the significant risks that need to be addressed.

##### 1. Payment intermediaries must identify the true payee in the payment messages they create

There are a large number of alternative payment providers who act as intermediaries in the initiation of payments that are cleared and settled on legacy payment systems. However, contrary to payment network rules,<sup>9</sup> some of these providers identify themselves rather than the actual payee (typically a merchant) in the payment messages they create. This means that the financial institutions that hold the accounts to which the payments are charged may be unable to perform their OFAC screening requirements and that their fraud detection systems are hampered. Such practices also make it difficult to determine return and charge back rates for individual merchants, which is important for purposes of monitoring fraud in the ACH and card networks.

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<sup>9</sup> ACH Network Rules specify that with respect to an entry “in which the Originator of a debit Entry is not the payee of the transaction (the party to which payment is ultimately being directed), the Company Name field of the debit Entry [which appears on a receiver’s account statement] must contain the name by which the payee is known to and readily recognized by the Receiver of the Entry.” Parallel language applies to credits that are originated by entities that are not the actual payer. Appendix 3 – ACH Record Specifications, Company Name. Similarly, MasterCard and Visa rules require that both a payment intermediary name and actual merchant name appear in the merchant name field of all clearing records and billing statements. MasterCard Rules, Rule 5.6; Visa Rules, ID# 111011-010711-0026434.



Failure to identify the actual payee also means that account holders may not be able to recognize legitimate charges to their account or may have a harder time identifying fraudulent charges when there are a large number of charges identified to the same service provider.

We suggest that networks strengthen their enforcement of rules mandating identification of true payees in payment messages and that such requirements be included in any future payment system. Networks should also consider establishing fines for originators that do not correctly identify true payees.

## **2. There is a need for functional regulation of payment system participants**

Given the prevalence of non-financial institution service providers in the current payment system and, we expect, in the future payment system, The Clearing House recommends that payment system rules and regulatory regimes shift from requirements that apply based on entity's charter or corporate form to requirements that apply based on the functions that an entity performs. For example, we think that uniform data security and privacy standards should be applied to all entities that store and transmit account data. Furthermore, financial institutions and private sector rulemaking organizations should consider certification requirements for non-financial institution originators that originate large volumes of payments or engage in identified high risk businesses.

Some of the specific differences in regulatory requirements between financial institutions and non-financial institution are set forth below.

Data security. Many non-financial institution service providers are holding sensitive financial data such as card and bank account numbers. However, because the service providers are not financial institutions, they are not subject to the same data protection and information security standards that financial institutions are subject to. While certain state data security laws may apply to such service providers, such laws do not have the same level of regulatory detail as the information security mandates of the FFIEC agencies.<sup>10</sup> Further, non-financial institution service providers are not uniformly subject to examination regarding their data security practices and, hence, there may be no external validation that such providers are meeting their data security obligations. For these reasons we think there is a data security risk that exists today in the payment system.

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<sup>10</sup> Financial institutions are subject to extensive guidance regarding the safeguarding of customer information and bank systems, such as the FFIEC's Authentication in an Internet Banking Environment (June 2011). They are also subject supervisory expectations set forth in the FFIEC IT Examination Handbook, which cover topics such as information security in great depth.

Recent industry efforts to protect account data for mobile and online payments reflect the concern of financial institutions and card networks that sensitive financial data is being held on insecure devices or by entities that may not adequately protect it.<sup>11</sup> Though these efforts are still in early stages, they may eventually help to solve for the data security risks presented by new payment service providers.

KYC risk. Financial institutions are required to perform due diligence on their customers for both anti-money laundering purposes as well as for general safety and soundness purposes. Under anti-money laundering regulations financial institutions must have customer identification programs that specify the information that must be obtained from a potential customer before opening an account as well procedures to verify a customer's identity.<sup>12</sup> Additionally guidance by federal financial institution regulators sets the expectation that financial institutions implement risk assessment processes for their payment services. Through such risk assessments financial institutions are expected to understand the nature of their customers' businesses, identify potential risks to the financial institution (including reputation and compliance risk related to a customer's fraudulent activities) and mitigate those risks to guard against loss or harm to their institutions.<sup>13</sup> Moreover, financial institutions that provide services to payment processors or other payment intermediaries are expected to understand the nature of their customers' customers.<sup>14</sup>

While entities that are money services businesses under FinCEN regulations must have anti-money laundering programs in place, they are not required to have customer identification programs. Moreover, there are no safety and soundness regimes that require non-financial institutions to understand and mitigate against the risks of their customers' businesses. Given the increasing prominence of non-financial institutions in the payments space, we are concerned that insufficient KYC requirements and enforcement for this class of payment participants presents a risk to the current payment system and that this risk will expand as the payment system evolves.

Customer and cost impact. Financial institutions that hold the accounts that are leveraged by other payment service providers have legal responsibilities to make their customers whole for unauthorized transactions and to resolve errors related to payments. While many service providers have contractual terms with end users under which the service provider may undertake to resolve certain issues with the payments

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<sup>11</sup> On July 1, 2013 The Clearing House announced its development of an open standard, credentialing solution that will protect account information for payments made in digital channels. Information available at <http://www.theclearinghouse.org/index.html?f=075084>. On October 1, 2013 Visa, Mastercard, and Amex announced a proposed standards framework for using tokens in lieu of actual account numbers for mobile and online payments. Information available at <http://about.americanexpress.com/news/pr/2013/mc-visa-amex-propose-new-global-standard.aspx>.

<sup>12</sup> 31 CFR 1020.220(a).

<sup>13</sup> See FFIEC IT Examination HandBook, Retail Payment Systems Risk Management; FFIEC Guidance: Risk Management of Remote Deposit Capture; Guidance on Automated Clearing House Activities, OCC Bulletin 2006-39.

<sup>14</sup> See Guidance on Payment Processor Relationships, FDIC FIL-127-2008, and Risk Management Guidance: Payment Processors, OCC Bulletin 2008-12.

they initiate, such contracts are non-uniform and often subject to change without end user consent. Ultimately end users look to their financial institutions to solve for issues that may result from the data security, KYC, and default risks of non-financial institutions noted above. This results in customer support costs as well as potential financial loss for financial institutions.

### **3. The industry should consider standards for financial institutions that act as payment system gateways for certain payment service providers**

The Clearing House also recognizes the important role that financial institutions play in serving as gateways for non-financial institution service providers to payment systems. Although the great majority of financial institutions honor their commitments to perform upfront due diligence and ongoing monitoring of non-financial institution customers, there are a minority of institutions that fail in this responsibility. Such weak links undermine the safety of the payment system and bring scrutiny and the potential for further regulatory burden to the entire community.<sup>15</sup> Therefore, the industry may also consider standards to be applied through network rules to financial institutions before they are permitted to serve as payment system gateways for entities that (i) engage in high risk businesses; (ii) will originate significant volumes or values of payments as service providers to end users; or (iii) will introduce untested payment methods into the payment system.

## **B. A faster payment system must control for the risks related to faster clearing and settlement**

### **1. A Faster Payment System Will Present New Fraud Risks**

According to a study performed for The Clearing House by KPMG, the U.K. experienced a very significant increase in online banking fraud after the introduction of their near-real

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<sup>15</sup> One example of such a weak link is First Bank of Delaware, which served as the financial institution gateway for Landmark Clearing, Inc. and Automated Electronic Checking, Inc. (AEC). These entities were payment processors that catered to fraudulent telemarketers. While in November 2012 the bank's charter and FDIC insurance were terminated and \$15 million in civil money penalties imposed upon the bank as a result of its involvement in the fraudulent activities of the payment processors, these actions came after many consumers were harmed. See FDIC and FinCEN joint press release, dated November 19, 2012. Earlier this year the Federal Trade Commission (FTC) proposed to revise the Telemarketing Sales Rule to ban telemarketers from using remotely created checks (RCCs) and remotely created payment orders (RCPOs), which were used by both Landmark Clearing and AEC. See Telemarketing Sales Rule, 78 Fed. Reg. 41200 (July 9, 2013). As TCH has publicly commented, we believe the FTC's proposal will not deter bad actors but will create an unrealistic regulatory expectation that financial institutions police the RCC/ RCPO ban when there is no technical means to do so. Landmark Clearing and AEC's abuse of RCCs and RCPOs are cited in the FTC's proposal to justify the ban of RCCs/RCPOs, which indicates that First Bank of Delaware's role in enabling the misuse of the payment system was a contributing factor to the proposal.

time payment service.<sup>16</sup> Bad actors found that they could move funds beyond the reach of fraud detection systems within the sending bank within seconds before meaningful action could be taken to stop fraudulent payments. Hence, at a minimum, a faster payment system will require that system participants synchronize the speed of their fraud detection and deterrence systems with the speed of clearing and settlement.

For originating financial institutions this synchronization would include increasing the speed of systems that validate new payees, enforce volume and value limits, and identify out of pattern payments. For inter-bank payment system providers, such as the Reserve Banks and The Clearing House, there may be a need to set volume and value limits, to identify unusual concentrations of payment receipt or origination, and to increase security around the file submission process. For receiving financial institutions a faster payment system that allows for debits may require that their customers use positive-pay (“white list”) services or that blocked-entity (“black list”) services be available.

Financial institutions may also need to adopt stronger internet banking login protections as U.K. banks that did not implement two factor authentication experienced significant increases in fraud in the early stages of the new service. Further, in a study performed for The Clearing House by Lipis & Lipis it was noted that financial institutions that participate in the real-time payment systems in Denmark, Norway, Sweden, Switzerland, and South Africa all have stricter authentication methods for payment initiation than most banks in the US employ.<sup>17</sup>

We also think the enhanced fraud detection and security systems will need to be equivalent among financial institutions. Otherwise, the payment system will suffer from the weakest link problem that exists in current payment systems today. Equivalency can be achieved by setting standards that financial institutions must meet in order to participate in the system. However, such standards will diminish the ubiquity of the system as it is likely that not all financial institutions will meet the standards. An alternative approach would be to establish a central utility that controls end user access and performs fraud monitoring on the payments they initiate.<sup>18</sup>

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<sup>16</sup> In 2008, the year in which the Faster Payment Service was launched, financial losses from online banking fraud increased 132% from losses experienced in 2007. Although measures have been taken since 2007 to reduce fraud losses, such as financial institutions implementing new fraud detection systems and providing customers with two factor authentication tools, fraud losses as of 2012 were still higher than 2007 losses by approximately 75%. See “Online banking fraud losses 2004-2012” in “Fraud the Facts 2013” by Financial Fraud Action UK available at <http://www.financialfraudaction.org.uk/Fraud-the-Facts-2013.asp>.

<sup>17</sup> In particular the study noted that the use of SMS PINs, key fobs or RSA SecureID tokens is common for both consumer and business customers in these countries. Other systems use USB hardened browsers or chip and PIN readers, especially for business customers. “Fraud Prevention and Real-time Payments” (September 2013).

<sup>18</sup> We do not presume that a central utility is a viable option. The details of a central utility, such as which entity would serve the role, what risks the central entity would assume, and whether the benefit of such a utility would justify its costs would first have to be determined.

The costs associated with improving fraud detection systems and possibly internet authentication, either at individual financial institutions or through a central utility, will be significant and additional to the other costs associated with enabling faster clearing and settlement of payments. The Clearing House again emphasizes the need for an appropriate economic model to ensure that financial institutions can make these investments and expect a reasonable rate of return on those investments.

A near-real time payment system may also need to be limited to “push” (credit) payments. This is because it is harder for bad actors to fraudulently take money from multiple accounts if a system only allows credits. While a single bad actor can initiate debits to many accounts at once using stolen account data, it is more difficult to push credits out from multiple accounts as the authentication factors (rather than the account number) for each account must be compromised. We note that the U.K.’s low value, real time payment system is a credit only service. Further, in the Lipis & Lipis study it was observed that low value, immediate payment systems in Denmark, Norway, Sweden, Switzerland, and South Africa are all credit-only systems.<sup>19</sup> However, the study found that low value, *same day* payment systems in Belgium, the Netherlands, Hungary, and South Africa allow debits.

## **2. A Faster Payment System May Create New Inter-Bank Settlement Risk**

Another element of risk that a faster payment system presents is settlement risk. If financial institutions will be providing end users with access to funds in near real time or intermittently throughout the day, it is important that the systems upon which financial institutions rely for inter-bank settlement support such funds availability schedules. Otherwise financial institutions are at risk of loss for funds they release prior to receiving settlement.

We note that today the Reserve Banks’ National Settlement System closes at 5 p.m. eastern time and does not re-open until 8:30 a.m. eastern time. Further, the system does not operate on bank holidays or weekends. However, the use cases which would benefit from faster clearing and settlement (identified in Section II.A. above) are not confined to an 8:30 a.m. to 5:00 p.m. eastern time, banking day schedule. Therefore, we would expect that the Reserve Banks would synchronize the National Settlement Service with inter-bank settlement needs of a faster payment system.

## **3. A Faster Payment System May Create Risks to Senders if Credits are Irrevocable**

Finally, a near real time payment system will likely require that rules regarding finality, dispute resolution, and other legal matters be reviewed in light of the faster movement

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<sup>19</sup> The low value, real time payment system in Switzerland, SIX, technically allows debits but these are processed as requests for credit (message only) rather than an entry for value.

of funds and its attendant risks. For example, the credit payments made via the U.K.'s service are irrevocable. However, the U.K.'s service has seen data entry errors on the part of senders, which sometimes result in payments sent to the wrong payee or for the wrong amount. Such mistakes have proven problematic as the service does not provide a process by which consumers can recover funds sent in error.

The Clearing House believes that it would be beneficial for credits on a near real time payment system to be irrevocable as this would provide certainty to receivers and would avoid the complexity of return processes. However, occasional sender errors are foreseeable. Further, U.S. consumers are accustomed to return and dispute rights for low value electronic payments. Therefore, if credits were to be irrevocable, we think that a combination of consumer education, limits on the value of consumer transfers, and an effective process to recover funds sent in error (without revoking the original transfer), is needed to mitigate the risk of errors.

### **C. A faster payment system that accommodates high-value payments must control for high-value risks**

Because the Public Paper envisions a near-real time payment system that accommodates high value payments<sup>20</sup>, it is important to note that high-value payments present unique risk management challenges. The potentially sizeable losses associated with even a single fraudulent high-value transaction demand strong preventive security measures. Unlike anti-fraud measures applied to low value payments, which often rely on identifying patterns of fraudulent behavior, the lower volume of large payments diminishes the effectiveness of statistical methods.

High-value payments can also have an outsized impact on liquidity and credit risk. Bulk, low-value payments rarely create unsettled inter-bank positions large enough to present a significant risk to the financial system. A small number of high-value payments, however, can quickly result in either large credit exposures or a liquidity squeeze among financial institutions. A bank initiating a large number of high-value payments without an offsetting amount of receipts can create a large net debit position, in which it owes more to other settling institutions than it is owed. If it cannot fund this position, other financial institutions must bear the cost of failed settlement. If instead financial institutions wait to receive funds before initiating transactions, the payment system becomes less liquid.

Wire transfer systems have developed highly effective methods for handling fraud, credit and liquidity risks. While fraud is constantly evolving in all payment channels, including wire systems, and no channel is fraud proof, security protocols and technology, both for interbank networks and between financial institutions and their customers, are much stronger for wire transfers than for low-value payments. Security is also tiered, with additional levels of scrutiny and multi-

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<sup>20</sup> We note that in the Public Paper the Reserve Banks described "retail" payments to include all payments except inter-bank or other systemically important payments. See footnote 6, page 3. Thus, high value commercial payments would be included in the near-real time system that the Reserve Banks envision.

party approval for the largest transactions. Financial institutions optimize wire transfer workflows and scheduling to mitigate liquidity and credit risks.

Likewise, high-value payment systems such as Fedwire and CHIPS employ rigorous controls to prevent the creation of large unfunded positions. For example, CHIPS employs a sophisticated payments release mechanism that prevents the release of payments that would create (i) debit positions for its participants or (ii) credit positions that concentrate liquidity with a single participant.

The measures employed by wire transfer systems to address fraud, credit and liquidity risk add to the cost of high-value payments, but these costs are commensurate with the risk. If a new, faster payment system is intended to handle both low-value and high-value payments, it must incorporate similar measures.

An alternative would be to limit the size of transactions permitted on the fast, low-value payment network. The limit should be designed to exclude transactions that represent excessive fraud exposure for a single transaction, or potentially large credit or liquidity risks in aggregate. Higher value transactions would continue to be handled by wire transfer networks or other settlement mechanisms.

The Zengin network in Japan is an example of a hybrid approach. It is a real-time payment system used primarily for low-value payments that also handles a relatively small number of large transfers (greater than approximately \$1 million). A recent enhancement now diverts these large transactions for settlement through the BOJ-NET real time gross settlement system.

#### **IV. Role of the Federal Reserve Banks in the Evolution of the Future Payment System**

The Clearing House thinks that the most useful and appropriate role for the Federal Reserve Banks in the evolution of the payment system is to facilitate discussions among payment system participants, as the Reserve Banks have done with the release of the Public Paper. Providing a common space in which system participants can interact and share ideas is tremendously valuable. While the Reserve Banks will likely need to support payment system evolution through their services to financial institutions, the evolution itself should be industry-led. Significant changes or enhancements to the payment system that are market driven will have better outcomes and fewer unintended consequences than changes mandated through regulation or legislation.