December 14, 2018

Ms. Ann E. Misback  
Secretary  
Board of Governors of the  
Federal Reserve System  
Washington, DC 20551

Re: Docket No. OP - 1625:  
Potential Federal Reserve Actions to Support Interbank Settlement of  
Faster Payments, Request for Comments

Dear Madam:

We are pleased to submit this joint comment letter to the Federal Reserve Board (the “Board”) regarding its Request for Comments (RFC). Phyllis Meyerson and David Walker support the Federal Reserve Banks providing 24x7x365, online, real-time interbank settlement functions to support the next major level of enhancement to the U.S. payment system. This service is viewed as a prerequisite to a successful, effective real-time payment system and only the Federal Reserve is in the position to provide this service.

Ms. Meyerson and Mr. Walker have a combined banking, payments (ACH, check and Fedwire), and IT experience of more than 90 years. Most recently Ms. Meyerson was Executive Vice President of ECCHO and Mr. Walker was President and CEO of ECCHO. ECCHO, the Electronic Check Clearing House Organization, was the largest FI member organization in the U.S. based on total deposits held by its members. Additionally, ECCHO was the only trade association in the U.S. with members of every type of depository financial institution including credit unions, corporate credit unions, community banks, bankers’ banks, mid-tier banks and large banks. Both Ms. Meyerson and Mr. Walker were instrumental in the fastest transition in the history of payments in the U.S. In only six years, the check payment system transitioned from 100% paper-based interbank clearing to virtually 100% electronic. Mr. Walker participated as one of only four industry representatives in the Executive Signing Ceremony held in the Oval Office for the Check 21 Act. Ms. Meyerson holds MBA and MS degrees, is a permanent AAP (Accredited ACH Professional) a permanent CCM (Certified Cash Manager) and is an NCP (National Check Professional). Mr. Walker holds a BA in Economics and is an NCP. Mr. Walker was a member of the Faster Payments Task Force, the Governance Framework
Formation Team and is a Founding Member and Director on the interim board of the newly created Faster Payments Council.

**Introductory Comments:**

In our opinion, for a ubiquitous, new real-time payment system to be successful, there are at least four prerequisites; 1) real-time 24x7x365 settlement, 2) financial institution DDA posting in real-time, 3) 24x7x365 real-time payments clearing and 4) end-user broad acceptance. This joint response offers comments on each of these.

Given the Board’s objective to support the development and implementation of a real-time payment system that includes end-user to end-user ubiquity (anyone to anyone, anytime, anywhere), it is critical that the Board focus on end-user acceptance criteria, and especially for business users. Today, consumers have a wide array of payment options and the introduction of additional choices, while desirable, will likely spread the volume across even more payment options, many of which have little to no direct costs to the consumer user. Because of this, it seems unlikely that consumers would be willing to support the cost of an expensive, new payment option and thus the need to focus on business payments as a potential way to finance the new payment system.

Few payment choices have been broadly acceptable to most businesses. The technology and infrastructure are available today to significantly enhance business payments using the payment type selected by businesses for more than sixty percent of their payments; debit payments. Business end-users have consistently found credit push payments unacceptable for more than three decades so the road to business ubiquitous use of a new, credit push payment will be long and expensive, if it is ever successful. Therefore, the Board is urged to consider a new payment system that includes both credit push and debit pull payments to meet the end-user requirements of both consumers and businesses. While the volume of total consumer payments is greater than the volume of total business payments, it is more likely that businesses will be willing to pay more for an enhanced payment system than will consumers and therefore the gating factor for a successful, real-time payments system is the provision of a payment option that is readily acceptable to businesses. Credit push payment options for businesses have
consistently failed this market test and the decisioning economics for businesses are not significantly improved by yet another credit push option or at least in the next couple of decades. Perhaps it is time for the Board to consider an interim, transitional debit pull option for businesses to achieve the initial transition from paper payments to electronic payments with the potential for saving businesses tens of billions of dollars per year. Once businesses have successfully made the paper-to-electronic payment transition, the economics may have changed to allow businesses to then transition from electronic debit to electronic credit payments.

In the absence of a 24x7x365 settlement function, a real-time payment system as envisioned by the Faster Payments Task Forceiii is not possible, in our opinion. While some private sector providers offer “real-time” payment services, they can only provide those services when both the sending party and the receiving party have accounts with the same provider and have prefunded those accounts. Some providers might offer other “real-time” payment services in which both parties do not have prefunded accounts with a common provider but that requires traditional funding/settlement options that are not real-time. The timing differences for real-time payments with immediate availability of funds with traditional settlement create credit risk for one or more of the participants. This is an undesirable result given that with full implementation the amount of the short-term credit risk could total tens of billions of dollars of credit risk several times a day, every day.iv

For the current private sector options to achieve end-to-end ubiquity there must be a single provider for all users or every user must establish and manage accounts with every provider in a multi-provider environment. In the U.S. market, a single provider is impracticable given 11,000 financial institutions, hundreds of millions of individuals and tens of millions of businesses. Additionally, a single provider would not provide the competitive environment needed to encourage the experimentation and rapid evolution of a nascent real-time payment system. And a multi-provider environment in which all users must maintain multiple accounts is likely to be unacceptable to most potential users.

By providing a backbone 24x7x365 settlement system, the Board would be providing the opportunity for many providers to offer real-time payments and increase the likelihood of a faster, more predictable implementation for all users.
Additionally, we support the Federal Reserve providing network and clearing services to banks for Faster Payments as envisioned by the Faster Payments Task Force. We do not support the Fed providing direct access to customers of banks. We also encourage the Board to continue to enhance all payment systems and to use its current authority to support the use of Electronically Created Items (ECIs). The Board is encouraged to support both credit and debit payment options for online, real-time payments.

We applaud the Board for its leadership and efforts to improve and enhance the various U.S. payments systems such as the Check Clearing for the 21st Century Act (Check 21), Payment System Improvement – Public Consultation Paper, Strategies for Improving the U.S. Payment System and The Faster Payments Task Force. We support the Board’s objectives to improve and enhance the payment systems to achieve greater efficiency and value for the U.S. economy and all stakeholders.

The Request for Comment posed nine questions. Some of these included additional sub-questions. Following are our comments to those questions.

Questions & Comments

1. RFC Question - Is RTGS the appropriate strategic foundation for interbank settlement of faster payments? Why or why not?

   Comment - If the objectives are to match or exceed the payments systems being implemented in other countries and to meet the “very effective” criteria of the Faster Payments Task Force (FPTF) and to implement end-to-end, real-time payments, that are immediately final, safe and secure, a 24x7x365 real-time settlement system is a requirement and the Federal Reserve is the only organization in a position to offer a comprehensive settlement solution to all banks in the U.S. The RFC discusses two settlement options; Real Time Gross Settlement (RTGS) and Delayed Net Settlement (DNS). Of these, the Real Time Gross Settlement option may be more expensive to implement but avoids the inherent, undesirable credit risk created by the Deferred Net Settlement option. Additionally, the DNS option, if considered, should be considered only as an interim, transitional step to achieve the goal of RTGS.
If a new real-time payment system is implemented with immediate user access to funds, a DNS settlement option would place the service provider at risk for the time period between when the funds are available to the user and when the provider receives actual settlement. This is essentially the same credit risk addressed above for providers of “real-time” payments without user accounts with common providers.

2. **RFC Question** - Should the Reserve Banks develop a 24x7x365 RTGS settlement service? Why or why not?

   **Comment** – Please see Comment to Question #1.

3. **RFC Question** - If the Reserve Banks develops a 24x7x365 RTGS settlement service,

   a. Will there be enough demand for faster payments in the United States in the next ten years to support the development of a 24x7x365 RTGS settlement service? What will be the sources of demand? What types of transactions are most likely to generate demand for faster payments?

   **Comment** - The U.S. payment systems are already very fast. Most payments in the U.S. clear and settle either the same day or next day rather than in 3 or more days as is typical in most of the world today. Therefore, the inherent benefits of faster payments can be expected to be less pronounced in the current U.S. environment than was the case for other countries when they implemented or planned to implement their new, real-time payment systems. Potential demand could come from three primary sources, 1) consumers, 2) businesses and 3) governmental organizations. One example of the influence of governmental demand was the early adoption of ACH by the U.S. Treasury which led the way for the initial growth in ACH transaction volume.

   Today, U.S. consumers have an array of payment options that satisfy most of their needs. While these options can be enhanced, the improvements from a real-time payment system are anticipated to be only incremental and not substantial for most payments. In our opinion, because most consumers’ needs are currently being met by existing payment options, a new, additional option would not, in the near term, replace any of...
the current consumer options, such as debit card, ACH and check. Therefore, the volume of consumer transactions that would shift from existing payment types to a new Faster Payments system in the next ten years is likely to be relatively small.

Consider the experience of the United Kingdom (UK). The first Faster Payments in the UK were initiated in May 2008. Ten years after initiation of the first Faster Payments, the total volume of all Faster Payments (consumer, business & government) equals only about 9% of the total volume of non-cash payments in the UK and the volume of Single Item Immediate Faster Payments in May 2018 was only about 6% of total non-cash payments volume. Single Item Immediate Faster Payments in the UK most closely resemble the anticipated real-time payments in the U.S. It is noteworthy that the UK experience included a mandate for Standing Order payments to transition from the BAC system (the US equivalent of the ACH system) to Faster Payments. Standing Order payments are fixed amount, recurring payments such as mortgage payments, membership payments, etc. for which the timing of the payments does not change. Therefore, Standing Order Faster Payments do not provide the user with new or enhanced benefits.

Today, U.S. businesses select paper checks as their payment choice more often than any other payment option. One of the activities of the Faster Payments Task Force was to encourage potential providers to describe how they would support Faster Payments as envisioned by the Faster Payments Task Force. Almost all the potential providers that participated described credit push payments as the only option. In our opinion, this is problematic for business payments.

Businesses have had credit push options available for more than three decades and have not widely replaced paper checks with credit push payments. There are many reasons why businesses select the payment types they use. Some reasons include issues with remittance data, availability of beneficiary bank account information, lack of a standard remittance format, and a predictable return on the investment needed to change from a debit pull to a credit push payment.
The cost of writing and receiving a paper check is greater than the cost of initiating and receiving an electronic payment such as an ACH debit. According to the Association of Financial Professionals, the difference in the cost of writing and receiving a paper check versus initiating and receiving an ACH debit is about $4.32. This would suggest that there is plenty of financial incentive for businesses to have already transitioned away from paper checks so their reluctance to accept credit push payments must be based on factors other than the cost differential between paper and electronic payments.

It is our opinion that when these factors and others are aggregated, the result is that businesses would readily replace paper checks with credit push payments if they could anticipate a predictable return on the investment required to achieve the transition between payment types including the elimination of paper checks. However, even if Business A is willing to make the investment but Business B, Business A’s supplier or customer, is unable or unwilling to do so in the same time frame, Business A would not be able to anticipate a return on its investment.

In our opinion, the Board should not anticipate covering its costs in the first ten years of service but should pursue real-time settlement as a strategic prerequisite to the successful achievement of a viable Faster Payments system. The Federal Reserve is the only organization in a position to provide this foundational service. The Board should also consider how the economics and therefore the volume of payments can be altered to accelerate the achievement of the real-time goals. For example, if businesses are not expected to widely accept credit push payments, then the Board should consider Faster Payments options that include both credit push and debit pull payments to maximize the volume as rapidly as possible.

Also see Comment to Question #8.

b. RFC Question - What adjustments would the financial services industry and its customers be required to make to operate in a 24x7x365 settlement environment? Are these adjustments incremental or substantial? What would be the time frame
required to make these adjustments? Are the costs of adjustment and potential
disruption outweighed by the benefits of creating a 24x7x365 RTGS settlement
service? Why or why not?

**Comment** – See Comments on Questions #s 3.a., 3.e.i. and 8. Additionally, disruption
of business payments would include, in part, changes in all business payments
processing and control procedures from debit payments to credit payments.
Businesses would need to also provide and maintain their banking information
with one or more directories, change their remittance processing procedures and
develop and implement a whole new set of fraud controls. These would create a
substantial disruption to business as normal and would exacerbate the uncertainty
of return for those businesses.

**RFC Question** - What is the ideal timeline for implementing a 24x7x365 RTGS
settlement service?

**Comment** – The Board should approve moving ahead aggressively with the
implementation of a 24x7x365 RTGS settlement service. The industry will take its
lead from the Board’s position and with positive, aggressive support by the Board, the
industry will likely follow and follow more quickly than without that support.

c. **RFC Question** - Would any potential timeline be too late from an industry
adoption perspective? Would Federal Reserve action in faster payment settlement
hasten or inhibit financial services industry adoption of faster payment services?
Please explain. What adjustments (for example, accounting, operations, and
agreements) would banks and bank customers be required to make under a seven-
day accounting regime where Reserve Banks record and report end-of-day
balances for each calendar day during which payment activity occurs, including
weekends and holidays? What time frame would be required to these changes?
Would banks want the option to defer receipt of such information for nonbusiness
days to the next business day? If necessary, changes by banks represent a
significant constraint to timely adoption of seven-day accounting for a 24x7x365
RTGS settlement service, are there alternative accounting or operational solutions that banks could implement?

Comment – Please see Introductory Comments and Comment to Question 3.b. Delaying the implementation date would delay the achievement of the benefits anticipated from Faster Payments and would increase the complexity, cost and risk of quasi-real-time payments in the interim. To achieve ubiquity of real-time payments among every end-user in the U.S., every end-user would need to participate with every provider offering a service, create accounts with every provider, prefund every account with every provider and manage the balances among all the various accounts and providers. The number of potential new accounts could total in the billions. 

In our opinion, it is not likely that many consumers or small businesses would agree to that level of new accounts and resulting complexities and costs. Given the expected reluctance of users to establish multiple new accounts, a delay in offering a 24x7x365 settlement system would delay achieving the goal of ubiquitous real-time payments.

Additionally, a DNS settlement system would add DNS risk on top of the multiple account managements issues between DNS settlement cycles which could be hours or days depending on the frequency of the settlement cycles. These complexities and risks can be expected to elongate adoption and implementation of even a quasi-real-time payment system.

d. RFC Question - What incremental operational burden would banks face if a 24x7x365 RTGS settlement service were designed using accounts separate from banks’ master accounts? How would the treatment of balances in separate accounts (for example, ability to earn interest and satisfy reserve balance requirements) affect demand for faster payment settlement?

Comment – At a minimum, banks would need to establish which of its officers would have the authority to transfer funds between its accounts and how they would gain access to the transfer system. Should a bank officer have the authority to transfer funds between the bank’s account, that officer could directly or
indirectly facilitate fraudulent payments and transfer the funds to cover what have been an overdraft and especially after normal banking hours. To manage this, the bank would need a transferal system that requires more than a single individual to affect transfers and a tracking system of who transferred what and when, much as is currently used for wire transfer security.

e. RFC Question - Regarding auxiliary services or other service options,

i. Is a proxy database or directory that allows faster payment services to route end-user payments using the recipient’s alias, such as e-mail address or phone number, rather than their bank routing and account information, needed for a 24x7x365 RTGS settlement service? How should such a database be provided to best facilitate nationwide adoption? Who should provide this service?

Comment – In our opinion, a proxy database or directory is not a requirement for a 24x7x365 settlement system but is a requirement for ubiquitous, real-time, end-user to end-user credit push payments. A proxy database or directory is not a requirement for ubiquitous debit pull payments.

For a ubiquitous, credit push payment system to function, every payment initiator needs to know or have access to the bank and bank account information for every entity it wishes to pay. One way to accomplish this is through one or more comprehensive data bases/directories. This is no easy task to create, maintain and achieve a comprehensive data base including banking information for every entity in the U.S. Evidence of this is the multi-year process in which the Federal Reserve, NACHA and others have already engaged but has not yet been completed or has not achieved universal acceptance.

Key issues for a ubiquitous, credit push directory are who is liable for timely and accurate maintenance of the directory and what is the amount of that liability for fraud, errors, omissions, etc. Consider the scenario in which a new entry is made into the directory with the wrong bank and/or bank account number followed by a payment routed to that wrong account, followed by the funds
being removed from the account and the subsequent closing of the account. Would the responsible party to the misdirected payment be the initiator of the payment, the intended beneficiary of the payment, the directory manager, the initiator’s bank, the intended beneficiary’s bank, the processor of the payment or one or more intermediaries in the payment processing stream? Is liability shared among more than one of the parties based on comparative negligence, for example? Consider the scenario in which the owner of an insurance policy schedules a recurring insurance premium payment to occur on a date, such as the first day of the month, and is dependent on the directory for routing and posting information to cover the amount of the premium. Should the payment fail to occur and the insurance lapses followed by the occurrence of the insured event, would the liable party(ies) be liable for proximate damages? It would seem reasonable that the party in the best position to avoid these damages should bear the liability for its action or inaction that precipitated the events that created the loss to the policy holder’s beneficiary. The determination of the liable party and the amount of liability should not be left to the court system without some guidance. Resolution of these liability issues may determine the answer to the question as to whom should provide the directory service.

Similar damages could result from maintenance that is performed correctly but not timely. Either entry errors or untimely maintenance could result from changes in either party’s banking relationship or when replacing an account with an existing bank relationship. Additionally, should a party determine to open an additional account with another bank while leaving its other account(s) open and the directory not be updated correctly or timely to reflect the new account, the party could suffer the same kind of damages.

Another key question is whether the requirement of a credit push payments directory would cause current bank customers to join the ranks of the un-banked. If all banked parties were required to provide their banking information to a directory for use by all other parties, worldwide, some of those parties may determine that
their only option to protect their assets and privacy is to extract themselves from the process and the banking system. This would be an undesirable result. Without some requirement to provide everyone’s banking information to the directory(ies), it is unclear how ubiquity could be achieved.

Also, please see Comment on Question #8.

ii. RFC Question - Are fraud prevention services that provide tools to detect fraudulent transfers needed for a 24x7x365 RTGS settlement service? How should such tools be provided? Who should provide them?

Comment – Fraud goes to intent and is a subset of losses whether intended or not. Perhaps the focus should be on the larger issue of preventing and early detection of losses and the sources of losses. These are needed in all payment scenarios including Faster Payments and 24x7x365 RTGS settlement services. We realize that there is a common opinion that credit push payments are risk free and therefore extensive fraud controls are not needed. Also, please see Comment on Question # 3.e.i.

Additionally, the risks associated with debit pull payments is perhaps better understood than are the risks associated with credit push payments. For example, the risks associated with account take over from credit push payments was not generally recognized until a few years ago and the risks described in Comment on Question # 3.e.i. are not yet well understood. As more credit push payments are implemented and especially in real-time, there could be new risks that present themselves that we have, to date, not considered.

For credit push payments at least two services/controls are needed beyond the payment process and directory services. One is for the bank that is initiating a credit payment, by debiting its customer’s account, to notify its customer of the debit when the payment is issued. This offers the earliest possible detection of unauthorized debits since the customer is in the best
position to recognize the unauthorized payment. The second service is for the payment initiator or its payment provider to notify the initiator’s intended beneficiary of the issuance of the payment. This service offers the earliest possible detection of a misdirected payment and the beneficiary is frequently in the best position to recognize that he/she/it did not get paid. The effectiveness of these may ultimately depend on the quality and timeliness of directory maintenance.

iii. **RFC Question** - How important are these auxiliary services for adoption of faster payment settlement services by the financial services industry? How important are other service options such as transaction limits for risk management and offsetting mechanisms to conserve liquidity? Are there other auxiliary services or service options that are needed for the settlement service to be adopted?

**Comment** – The services described in 3.g.ii are not dependent on settlement services but would be enhanced by 24x7x365 settlement services. Faster Payments are also not dependent on those services but use of those services could diminish existing payment system risk as well as new risk created by Faster Payments. Without such additional services and in the presence of user loses, diminished trust in the new system could diminish acceptance and usage of the system. We recommend the Board encourage the use of these services/controls now and not wait for a new payment system.

f. **RFC Question** - How critical is interoperability between RTGS services for faster payments to achieving ubiquity?

**Comment** – If it is anticipated or supported that there should be only one provider of Faster Payments in the U.S., then interoperability is unimportant. In our opinion, it is highly undesirable to support or encourage a single provider of Faster Payments. The number of service providers should be determined by market forces. Consider that there are
about 11,000 banks in the U.S., ranging in sizes of less than ten million dollars in total deposits to more than a trillion dollars. It is unlikely that any one service provider would reach every customer of every bank and meet the various requirements of institutions of such diverse sizes. Therefore, it is our opinion that interoperability is a requirement to achieve ubiquity.

Interoperability should not, however, be required but rather should evolve through the demands of competitive market forces. Banks will want to develop products/services to offer to their customers and one of the characteristics of a successful payment product is that bank customers are assured that any payment they issue will reach the intended beneficiary. Without interoperability, this is problematic. Today, without Faster Payments, customers of banks are confident that they can issue or receive any payment to or from any other entity through a check or an ACH payment. For faster payment services to compete effectively with these two established, ubiquitous payment systems, interoperability is a necessity for payments clearing services and for proxy database/directory services.

In the transition from a paper-based interbank clearing of checks to an electronic image-based interbank clearing of checks, the Federal Reserve supported interoperability by providing a bridge service between those banks that could send and/or receive electronic check images and those that could not. That bridge service supported interoperability among banks and allowed banks to transition at a pace that matched their individual, internal priorities. Instead of waiting for the slowest banks to be ready for electronic check image exchange, those banks that were prepared to move quickly had a vehicle to do so which greatly accelerated the transition.

In our opinion, a successful, real-time payments system in a voluntary, U.S. market economy, requires interoperability.
Also, please see Introductory Comments and Comment on Question #1.

g. **RFC Question** - Could a 24x7x365 RTGS settlement service be used for purposes other than interbank settlement of retail faster payments? If so, for what other purposes could the service be used? Should its use be restricted and, if so, how?

**Comment** – It is unclear for what other purposes 24x7x365 might be used. Without some concept of what those purposes might be it is impossible to determine what restrictions if any should be implemented. However, implementation of a new 24x7x365 settlement service should be undertaken carefully and in incremental steps before determining to expand its usage.

h. **RFC Question** - Are there specific areas, such as liquidity management, interoperability, accounting processes, or payment routing, for which stakeholders believe the Board should establish joint Federal Reserve and industry teams to identify approaches for implementation of a 24x7x365 RTGS settlement service?

**Comment** – In our opinion, the collective analysis of all the parties will inform and benefit the design of the new system. The collective experiences of the users of the nascent system will provide early indications of needed modifications and enhancements to meet the needs of the marketplace.

4. **RFC Question** - Should the Federal Reserve develop a liquidity management tool that would enable transfers between Federal Reserve accounts on a 24x7x365 basis to support services for real-time interbank settlement of faster payments, whether those services are provided by the private sector or the Reserve Banks? Why or why not?

**Comment** - The concept of a dual account system within the Fed including a Master account and an RTGS account is an interesting concept. While this would increase the overhead for banks and especially for smaller institutions with very limited resources, a specialized, RTGS account without the right of offset by the Federal Reserve between the two accounts would isolate some of the risks to the RTGS account and protect the Master account, at least in the early years. The RTGS account could become the primary account for bank customer transactions, except possibly for high dollar Fedwire payments. The RTGS
account could allow better monitoring of the risks created by banks’ Faster Payments services and support better account liquidity monitoring. The Master account could continue to support high dollar Fedwire payments, Fed Funds trading activities, security trades, correspondent settlements, and daylight overdraft monitoring for non-RTGS payments, etc.

If the RTGS account were to include the right of offset by the Federal Reserve from the Master account, in the unexpected event of an overdraft in the RTGS account at the end of the day, the Federal Reserve could offset the overdraft by moving funds between the accounts. This would provide additional assurances that the new real-time payment system would function smoothly and create user confidence and avoid disruptions to the payment system.

With the implementation of a 24x7x365 liquidity management tool, daylight overdrafts should not be allowed in the RTGS settlement account. Under the Faster Payments Task Force’s Effectiveness Criteria, funds should be immediately available to the beneficiary. Providing immediate funds to users while allowing daylight overdrafts in the RTGS account would create new, potentially very large risk in the payment system. If a liquidity management tool is not implemented but a separate RTGS settlement account is added, an automatic transfer from the Master Account to the RTGS settlement might be needed to avoid daylight overdrafts in the RTGS account.

If daylight overdrafts were to be allowed in the RTGS account, which would be an undesirable result, some form of daylight overdraft monitoring and management would need to be implemented.

5. RFC Question - If the Reserve Banks develop a liquidity management tool,

   a. What type of tool would be preferable and why?

      i. A tool that requires a bank to originate a transfer from one account to another

         Comment – It is unclear why a bank would be “required” to originate a transfer but the ability for a bank to originate a transfer between accounts would be a key
benefit of such a tool.

ii. A tool that allows an agent to originate a transfer on behalf of one or more banks.

   **Comment** - Perhaps but limited to official agents of banks and not directly by non-banks that are not acting as agents of banks.

iii. A tool that allows an automatic transfer of balances (or “sweep”) based on pre-established thresholds and limits

   **Comment** - Yes and with immediate notification to the banks whose accounts are impacted.

iv. A combination of the above

   **Comment** – Both. See Comments to Question #s 5.a.i., 5.a.ii and 5.a.iii.

v. An alternative approach

   **Comment** – Perhaps but until such time as an alternative is proposed, it is not clear what that alternative approach might be.

b. Would a liquidity management tool need to be available 24x7x365, or alternatively, during certain defined hours on weekends and holidays? During what hours should a liquidity management tool be available?

   **Comment** – See Comment on Question #4 concerning daylight overdraft management. In our opinion, the liquidity tool as described would need to be available 24x7x365 so the interbank settlement would be in sync with the end-user settlement. This could avoid the creation of a new daylight overdraft risk or the unintended rejection of otherwise valid payments with the resulting negative impact to end-users.

c. Could a liquidity management tool be used for purposes other than to support real-time settlement of retail faster payments? If so, for what other purposes could the tool be used? Should its use be restricted and, if so, how?
Comment – Perhaps but until those other purposes are clearly defined, the use of the RTGS settlement account should be restricted to the settlement of payments other than Fedwire.

6. RFC Question - Should a 24x7x365 RTGS settlement service and liquidity management tool be developed in tandem or should the Federal Reserve pursue only one, or neither, of these initiatives? Why?

Comment - If a dual accounts approach is pursued (Master and RTGS Settlement), then they should be developed in tandem. If the Board’s decision is to not create separate accounts, then why would a management liquidity tool be needed?

Also, please see Comments to Question #s 4. And 5.b.

7. RFC Question - If the Federal Reserve pursues one or both actions, do they help achieve ubiquitous, nationwide access to safe and efficient faster payments in the long run? If so, which of the potential actions, or both, and in what ways?

Comment – Yes. See discussion above.

8. RFC Question - What other approaches, not explicitly considered in this notice, might help achieve the broader goals of ubiquitous, nationwide access to faster payments in the United States?

Comment – It is our opinion that the success of Faster Payments in the next couple of decades depends on features in the system that will be widely and quickly adopted by businesses as replacement for paper check payments. The current proposals that are only credit push-based do not address the key business needs to provide a predictable financial return that exceeds the return that businesses can expect to achieve from their normal goods and services.

For most businesses, payments are not their primary products or services but rather represent an overhead expense to support their normal business. Economics dictate that businesses will invest in overhead activities when either, 1) the overhead function is preventing normal business activities or 2) the return on the investment in the overhead
activity will yield a greater return on investment than will the return from the businesses’ normal goods and services or 3) there is a legal requirement for them to do so. With an unpredictable return on investment (please Comment on Question # 3.a.), it is easy to understand why businesses have not made the transition from paper debit payments to electronic credit payments. Given that the cost of Faster Payments is anticipated to be greater than ACH payments, the economic case is even more difficult to make. Publicly traded companies have a fiduciary obligation to return a profit and investing in unnecessary overhead expenses runs counter to that obligation.

The only electronic debit options currently available for business payments are debit card payments and ACH debits. Debit card payments are not designed to accommodate large remittance volumes needed by some businesses, such as for medical payments. ACH debits are an option for some business payments but the predominate use of ACH debit blocks would require very lengthy reorientation and implementation of a new, different set of fraud controls. It is likely that this would require many years to un-sell the use of and replace this very effective fraud control tool.

One approach is to add a debit pull payment option at least as an interim, transitional vehicle. Consider that the payment type of choice for businesses is a debit; a check. Also consider that the check system has transitioned from an entirely paper-based payment system to an electronic payment system, at least for inter-bank processes. The entire process from the time a check is deposited with a bank until it is posted at the paying bank is now electronic and on average takes less than one day.\textsuperscript{xv} The transition from clearing paper checks to clearing electronic check images following the implementation of the Check 21 Act, created the electronic infrastructure across all banks and the Federal Reserve to support electronic debit payments. The only part of the current check system that continues to be paper-based is the writing of the check by the payor and delivery of the check to the payee. Once the payee receives the paper check, it is deposited with its bank. Today, many banks offer electronic deposit options such as remote deposit of checks and the number of banks
offering such services is growing rapidly.

Given the existing infrastructure, the transition to a fully electronic payment system that uses the Check 21 infrastructure would be quick and inexpensive. The primary requirements for business payors would be to read their existing, digital account payable files, reformat the payment information and transmit the payment directly to the payees. The payees would need to receive the digital files and electronically deposit them with their banks. Minimal expense and minimal calendar would be required to implement this enhanced payment process. Please see Exhibit A that compares the key requirements to implement a new, real-time credit push payment system with the requirements to implement a new, real-time debit pull system.

Once electronic payments such as ECIs are supported by the Board, businesses could achieve significant financial savings without significant new cost or business disruption and with a much greater certainty of financial return. That value could potentially then be used by businesses to fund the next transition to an online, real-time credit push payment system should that become acceptable to businesses. Otherwise, the value could be used to fund the transition to an online, real-time debit pull payment system.

We should also note that businesses that primarily process medical payments have suggested that the savings that they could experience from the full implementation of ECIs is so significant that it could lower the cost of health care in the U.S.

The Federal Reserve estimated that in 2013 there were approximately 6.7 billion business to business (B2B) checks paid totaling $17.2 trillion. The Association of Financial Professionals (AFP) determined the cost savings between paper check and ACH debits to be approximately $4.32 per payment. This totals a potential savings for businesses for only B2B payments of $28.9 billion per year ($4.32 x 6.7 billion = $28.9 billion/year).
During the next decade, that would total more than a quarter trillion-dollar savings to the U.S. economy.

We are aware that the Board is of the opinion that authorization of debit payments is risker than the authorization of credit push payments, but this is a spurious argument that ignores the fact that electronic debits would be designed to replace paper checks (debits) and not credit payments. Authorization for electronic debits would be same as the authorization currently used for paper debits but with the potential for the added controls described below. Given that losses from checks declined between 2012 and 2015 by 35.5% (from $1.1 billion to $.71 billion) while losses from other non-cash payments increased by a whopping 51.8% (from $5.0 billion to $7.59 billion)\textsuperscript{xviii}, the anticipated impact of electronic check debits, such as ECIs, would be a decrease in risk.

In Comment to Question # 3.e.ii, we described some potential services/controls that could be implemented to reduce fraud for credit push payments. For debit pull payments, similar services could be provided. For example, when an initiator of a debit payment issues a payment directly to the beneficiary, a notice could be sent to the initiator’s bank notifying the bank that a payment had been issued. The initiator’s bank could elect to place a hold on the funds for the issued payment and thus prevent the funds being used for any other purpose. For Faster Payments under the “very effective” criteria established by the FPTF, the time would be almost instantaneous between when a hold is placed on the funds and the arrival of the debit payment at the paying party’s bank. With arrival of the debit at the paying party’s bank, the debit could be matched against the “issue” notice and the account holder could be notified of all unmatched debits. The account holder could then have the option of approving the unmatched debit or rejecting it. If the account holder determines to approve the debit and the posting of the debit would overdraw the account, the account holder could be provided the option of paying the account into overdraft or allowing the bank to reject the payment. It should be noted positive pay services already exist and therefore minimal modification
would need to be made to achieve this added fraud protection for all electronic debits.

An account validation service could also be offered to the intended beneficiary from the paying party or the paying party’s bank to notify the beneficiary that a payment had been issued from a valid account with available funds, perhaps qualified with “at that time”. If the service includes placing a hold on the funds at the paying party’s bank, the payment could be guaranteed by the paying party’s bank. The beneficiary or some other provider could then compare the payment notifications received with the payments received thus creating an early identification of a misdirected or misapplied payment.

According to the Federal Reserve\textsuperscript{xix}, check fraud has declined significantly in recent years and is less than fraud experienced in the ACH and card payment systems. Given this trend and with the additions of other existing security processes, fraud could be reduced even further for these electronic debits by applying, for example, encryption of the data, use of token or blockchain technology and other techniques that could render the electronic data unreadable just as is anticipated in a new credit push payment system.

The combination of the services provided by the paying party’s bank and/or the beneficiary’s bank and/or other service providers offer the best options for preventing fraud or for the earliest possible detection of erroneous or misdirected payments and allow corrective/recovery actions to be initiated almost immediately. The costs to implement these security procedures could perhaps be funded by reduced bank losses or by offering for-fee services to the account holder.

We are aware that the Board is of the opinion that there are questions about the legal standing of ECIs but this too is a spurious argument for not supporting ECIs. The onset of check image exchanges included new interbank transactions that were not defined in the Uniform Commercial Code (UCC) or Regulation CC.
The legal standing of these electronic images of paper checks was unclear in January 2005 when banks began exchanging check images instead of paper checks. The Federal Reserve used its authority to clarify, in its Operation Circular 3, the legal standing of check images and to not only allow them to be cleared through the Federal Reserve’s check clearing facilities but aggressively encouraged the use of check images to clear payments through the existing check payment system and discouraged the clearing of paper checks. It took twelve more years (2017) before the Board defined check images in Regulation CC even in the absence of similar provisions in UCC. The Federal Reserve’s use of its authority to create new payments (check images) helped to create billions of dollars of savings for banks, the Federal Reserve and the U.S. economy. The Board is encouraged to use its existing authority and take similar action to define and support ECIs.

By contrast to the Board’s concern about the legal standing of ECIs, the legal standing of real-time, credit push payments has not yet been determined. There are no provisions in the UCC or in Board regulations that define what a real-time payment is or how liabilities are to be allocated among the various interested parties. This is perhaps the greatest risk to the development of trust in the system needed to achieve ubiquitous adoption.

We are aware that the Board is of the opinion that it should not support ECIs because there are no standards for ECIs but this ignores the fact that ECIs are currently being cleared through the existing check payment system and through the Federal Reserve’s check processing facility as if they are check images. This would suggest that the existing check image standards satisfy most of the requirements for ECIs for depositing, exchanging and posting.

Consider that the investment by banks and the Federal Reserve to support electronic check images has already been made and likely fully amortized by most if not all banks. Both a credit push and a debit pull real-time payment system would require that banks implement a real-time DDA posting system and a 24x7x365 settlement
With a debit payment option, a system of new directories would not be needed nor would a standard format for remittances. The avoidance of these requirements would significantly reduce the expense and calendar to develop, implement and adopt an online, real-time debit system and accelerate significant savings for business users.

For example, the initiator of the debit payment would not need to know the bank and bank account information of the beneficiary only the electronic address to which to deliver the payment and the associated payment information, e.g. remittance information. Additionally, existing technology could mask the paying party’s bank information so any party that intercepts the payment would not know either party’s bank information. We are aware of the argument that in the check system users already share their bank information. But that argument fails to recognize the difference in a user determining to provide its bank information to a single, specific, known party and sharing its bank information with every entity in the world, known and unknown. For debit pull payment options, there is no need for the expense, risk, liability or delay in creating, loading and maintaining the directory(ies).

While the key issues with directories are being resolved, the industry could be moving forward with a debit pull payment option and the credit push option could be made available as soon as the directory issues were resolved. In the meantime, the users would have the benefits of a Faster Payments system without the transitional expense, risk and calendar delay and legal uncertainty of a real-time credit push payment system.

We are aware that the Board feels that the private sector could determine to use ECIs in lieu of any action on the Board’s part. This ignores that most unpaid check images are returned through the Federal Reserve’s system. For a viable alternative to this existing Federal Reserve Service, the private sector would need to replicate a new return service. This would be redundant, prohibitively expensive and unnecessary. Without a
viable return option, banks have been resistant to create new products such as ECIs. The Board’s prohibition of ECIs under Regulation J through the Reserve Bank’s check image system effectively creates a prohibitive barrier to this valuable enhancement and denies business end-users tens of billions of dollars of reduced costs each year.

9. **RFC Question** - Beyond the provision of payment and settlement services, are there other actions, under its existing authority, the Federal Reserve should consider that might help its broader goals with respect to the U.S. payment system?

**Comment** – See Comment 8. Additionally, the Board should avoid the active creation of barriers to enhancements to the payment systems including the check payment system. Such barriers as those created by its Operating Circular 3 and as strengthen by federal regulation in Regulation J that prohibit Electronically Created Items (ECIs) as eligible for exchange through the Reserve Banks’ image clearing system. The Board should also begin to support and encourage the use of ECIs and the creation of tens of billions of dollars of savings per year for businesses.

**Concluding comments:**

We support the transition to a real-time payment system which we believe is a critical next step in the enhancement of the payment system in the U.S. to the benefit of all users. We support the Federal Reserve as the provider of 24x7x365, real-time settlement as a strategic investment in the U.S. payment’s infrastructure and we support the Federal Reserve as the provider of 24x7x365 real-time clearing services. We support enhancement to all payment systems including to the check payment system. We support the creation of a real-time credit push payment system and a real-time debit pull payment system. Without a debit pull payment option, businesses are likely to continue their current selection of paper payments over electronic payments and it is our belief that without broad acceptance by businesses, a new, real-time credit push payments system will not be cost/benefit effective during the next couple of decades.

Businesses need an alternative other than credit push payments and ECIs offer a viable alternative with de minimis new investment dollars and the potential for tens of billions of dollars savings each year, ongoing. These savings can likely be achieved before real-time credit
push payments are a viable option for businesses. Banks and the Federal Reserve have already achieved significant savings from the interbank exchange of electronic checks. The Board is encouraged to support the extension of the positive economic impact of electronic checks to businesses by supporting ECIs. This supports the Board’s goal of moving to a real-time payment system and addresses its goal of bringing significant benefits to all end-users.

We compliment the Board for its leadership and efforts to improve the U.S. payment system and appreciate this opportunity to provide our comments regarding the topics included in the RFC. If you have any questions regarding this letter, please do not hesitate to contact one of the undersigned commenters.

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phylliscmeyerson@gmail.com

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Exhibit A

This chart compares the requirements to achieve ubiquity with Real-Time, Credit Push Payments with requirements to achieve ubiquity with Real-Time, Debit Payments (ECIs). Please note that significant savings can be achieved for business end-users through ECIs even in advance of real-time posting and settlement systems. ECIs are viewed primarily, but not exclusively, as replacements for paper checks.

<table>
<thead>
<tr>
<th>Real-Time Credit Payments</th>
<th>Real-Time Debit Payments (ECIs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Overall Needs:</strong></td>
<td><strong>System Overall Needs:</strong></td>
</tr>
<tr>
<td>- To implement alternate routing approach for remittance data</td>
<td>- N/A – Routing for electronic check images already implemented</td>
</tr>
<tr>
<td>- To develop, create, load and implement one or more directories to include the bank account information for every person, business, government and entity in the U.S.</td>
<td>- N/A – Directories not needed for electronic debits</td>
</tr>
<tr>
<td>- To implement real-time 24x7x365 DDA posting system at every FI in the US</td>
<td>- Not a requirement for ECIs but for real-time ECIs must implement real-time 24x7x365 DDA posting system at every FI in the US</td>
</tr>
<tr>
<td>- To create the legal environment to define each type of real-time payment and allocate the liabilities and amount(s) among the interested parties</td>
<td>- To create the legal environment to define each type of real-time payment and allocate the liabilities and amount(s) among the interested parties</td>
</tr>
<tr>
<td>- To create and implement a real-time 24X7X365 settlement system</td>
<td>- To create and implement a real-time 24X7X365 settlement system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Every Financial Institution Must:</th>
<th>Every Financial Institution Must:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Contract with one or more providers of real-time payment services</td>
<td>- N/A – Clearing of electronic checks already implemented</td>
</tr>
<tr>
<td>- Coordinate among various providers to minimize legal liability differences when more than one provider.</td>
<td>- N/A – Clearing of electronic checks already implemented</td>
</tr>
<tr>
<td>- Create account(s) with one or more providers of real-time services</td>
<td>- N/A – End-users only need their current accounts with their banks</td>
</tr>
<tr>
<td>- Fund and manage the liquidity of every account with every provider</td>
<td>- N/A – End-users only need their current accounts with their banks</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Every Business User Initiator Must:</th>
<th>Every Business User Initiator Must:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Re-engineer its payment process from a debit payment to a credit payment including initiation software, tracking</td>
<td>- N/A -Business end-users only need to reformat digital data that already exists and transmit to receiving party</td>
</tr>
</tbody>
</table>
and reconciliation of payment status, format, internal approval process, etc.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>N/A – Directories are not needed for electronic debit payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create, maintain and monitor directory profile(s) for every directory</td>
<td>N/A – Directories are not needed for electronic debit payments</td>
</tr>
<tr>
<td>Implement network connection with its FI for payments and/or remittance data</td>
<td>Not necessary but may be desirable to achieve new, enhanced positive pay services</td>
</tr>
<tr>
<td>Implement network and software to access directory for beneficiary bank account info</td>
<td>N/A – Directories are not needed for electronic debit payments</td>
</tr>
<tr>
<td>Implement application software to create payment</td>
<td>Reformat data in its existing accounts payable system to create electronic debit payment and modify its payment approval process</td>
</tr>
<tr>
<td>Implement function to separate payment from remittance information</td>
<td>N/A – Payment and remittance information travel together for electronic images</td>
</tr>
<tr>
<td>Implement network and transmittal for remittance information directly or indirectly to the payment beneficiary</td>
<td>Implement network connection to transmit payment and remittance data directly or indirectly to payee</td>
</tr>
<tr>
<td>Implement function to track any holdover payments not processed for any reason</td>
<td>N/A – Processes already implemented for electronic image processing</td>
</tr>
<tr>
<td>Implement function to verify bank/provider account balances in advance of initiating payment and resulting decisioning</td>
<td>N/A – Processes already implemented for electronic image processing</td>
</tr>
<tr>
<td>Requirements may vary when more than one provider is used</td>
<td>Requirements may vary when more than one provider is used</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Every Business User Receiver Must:</strong></th>
<th><strong>Every Business User Receiver Must:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement receipt software to receive payment receipt notification from bank/provider</td>
<td>N/A – Processes already implemented for electronic image processing</td>
</tr>
<tr>
<td>Implement receipt software to receive remittance directly or indirectly from payment party</td>
<td>Not needed as a separate function since payment and remittance move together</td>
</tr>
<tr>
<td>Implement new function to reconcile receipt of payment and receipt of remittance information</td>
<td>N/A – Processes already implemented for electronic image processing</td>
</tr>
<tr>
<td>Implement function to reject any payments received intended for other parties or payments not matching remittance information</td>
<td>N/A – Processes already implemented for electronic image processing</td>
</tr>
</tbody>
</table>
- Implement function to verify bank account balances in advance of initiating a rejected payment to avoid overdrafting beneficiary’s account
- Requirements may vary when more than one provider is used for receiving payments and for rejecting misdirected payments

<table>
<thead>
<tr>
<th>Every Consumer User:</th>
<th>Every Consumer User:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Contract with one or more real-time payment processors</td>
<td>• N/A – Consumers already have the needed accounts with their banks</td>
</tr>
<tr>
<td>• Create accounts with one or more real-time payment processors</td>
<td>• N/A – Consumers already have the needed accounts with their banks</td>
</tr>
<tr>
<td>• Fund each of the accounts with each processor</td>
<td>• N/A – Consumers already have the needed accounts with their banks</td>
</tr>
<tr>
<td>• Obtain and implement software from provider(s) to:</td>
<td>• Obtain and implement software from provider(s) to:</td>
</tr>
<tr>
<td>• To initiate and receive payments</td>
<td>• To initiate and receive payments</td>
</tr>
<tr>
<td>• To verify initiation of payments</td>
<td>• To verify initiation of payments</td>
</tr>
<tr>
<td>• To verify receipt of payments initiated</td>
<td>• To verify receipt of payments initiated</td>
</tr>
<tr>
<td>• To receive notification of funds received</td>
<td>• To receive notification of funds received</td>
</tr>
</tbody>
</table>

• N/A – Processes already implemented for electronic image processing
The assets of ECCHO were sold to The Clearing House as of December 31, 2017 and ECCHO as a legal entity was closed in the first half of 2018. 

1 Phoenix-Hecht Treasury Management Monitor. 


3 https://fasterpaymentstaskforce.org/meet-the-task-force/mission-and-objectives/. “As stated in the Faster Payments Task Force Charter, the mission of the task force is to “identify and evaluate alternative approaches for implementing safe, ubiquitous, faster payments capabilities in the United States.” “This mission supports a key desired outcome identified in the Federal Reserve’s strategies paper, to achieve: A ubiquitous, safe, faster electronic solution(s) for making a broad variety of business and personal payments, supported by a flexible and cost-effective means for payment clearing and settlement groups to settle their positions rapidly and with finality.” 

Faster Payments Task Force Faster Payments Effectiveness Criteria U.2.3, “The Solution should be accessible to End Users on a 24x7x365 basis, including to initiate the payment, have visibility into payment status, and receive final availability of Good Funds.” 

4 The combined daily value of check, ACH and debit card payments total approximately $260 billion. With full implementation of real-time payments to the exclusion of check, ACH and debit card, the potential credit risk could total as much as $260 billion each day. Depending on the frequency of DNS settlement, credit risk between settlements could range from as little as $43 billion for 6 settlement cycles per day to $130 billion for 2 settlement cycles per day. 

5 For the purposes of this documents the term “banks” is used to include depository financial institutions of all types including, but not limited to credit unions, corporate credit unions, community banks, bankers’ banks, mid-tier banks and large banks. 

6 Payments System Policy Advisory Committee, “The Committee’s purview includes...Strategies and policies to foster the long-term safety, efficiency, and accessibility of the U.S. dollar payments system...” 

Policies: The Federal Reserve in Payment Systems, issued 1984 and revised 1990, “It is recognized that the most significant further gains in payment efficiency are likely to come from the application of advances in electronic technology...The Federal Reserve will continue to promote the use of electronics in providing payment services where it can demonstrate that this technology will enhance the efficiency or effectiveness of its services.” 

7 The first Faster Payments in the UK were initiated in May 2008. May of 2018 was ten years later. 

8 In the UK there are three types of Faster Payments; Standing Orders, Future Dated Payments and Single Item Immediate Payments. The latter is the best equivalent of what is anticipated in the U.S. and as described by the Faster Payments Task Force. Volume sources are the UK Payments Council and the UK Cards Association. 

9 There was risk reduction benefits for financial institutions as the result of accelerated clearing and settlement. 

x Phoenix-Hecht Treasury Management Monitor. 

xi Examples of credit push options are Fedwire and ACH credits. NACHA has offered multiple ACH credit options to businesses over the past three decades with little acceptance by businesses as paper check replacements. 

xii Association of Financial Professionals, 2015 AFP Payments Cost Benchmarking Survey reported the estimated mean cost to issue and receive a paper check was $4.57 and the estimated cost to initiate and receive an ACH debit was $11 to $25 per transaction for a difference of approximately $4.32 per transaction. 

xiii Association of Financial Professionals, 2015 AFP Payments Cost Benchmarking Survey reported the estimated mean cost to issue and receive a paper check was $4.57 and the estimated cost to initiate and receive an ACH debit was $11 to $25 per transaction for a difference of approximately $4.32 per transaction. 

xiv The number of adults in the U.S. is estimated at approximately 250 million and the number of businesses in the U.S. is estimated in the tens of millions. If there were twenty providers of “real-time” payments and every adult and business were to create accounts with all twenty providers, there could be more than 5 billion new accounts to be funded and managed. 

xv This comment is based on anecdotal comments provided by banks across the U.S. over a period of several years. 

xvi Federal 2013 Payment Study 

xvii 2015 AFP Cost Benchmarking Survey Report 

While there may be business benefits associated with a standard format for remittance data, a standard format is not needed today for businesses to make payments and need not be a requirement for electronic debit payments. In the absence of a standard format, businesses could transmit the remittance data directly to the payee and the payee could follow the same processes they use today. This might mean printing out the information and working with it as if it had been received in paper format via mail. Should any business currently use a standard format it could continue to use that same format. Should a nationwide standard format be widely adopted in the future, that standard could be implemented at that time. But there is no need to wait for a standard to be developed to start receiving significant cost saving. Having said that, there is a standard format available today, electronic data interchange (EDI). EDI has been available for decades and has not been widely adopted. It is envisioned that the same limitation that impact the adoption of EDI would also impact the adoption rate of any other comprehensive standard format.

Group comment letter filed on May 13, 2018 and a revised letter filed on May 15, 2018 on proposed changes to Regulation J electronically filed for the group by David Walker via email from the address David.walker@tillerendeavors.com.