Lipis Advisors GmbH • Knesebeckstrasse 61a •10719 Berlin • Germany

Ann Misback
Secretary
Board of Governors of the Federal Reserve System,
20th Street and Constitution Avenue, N.W.
Washington, DC 20551

December 3, 2018

**Comments on Docket No. OP – 1625: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments**

Dear Ms. Misback:

Lipis Advisors is pleased to submit extensive comments in response to your request for feedback on Docket No. OP – 1625: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments.

In summary, we believe that If the system is developed as proposed, the results will be contrary to the Federal Reserve's intentions and diminish the effectiveness of faster payment solutions already in the market, according to criteria established by the Faster Payments Task Force. It will likely delay ubiquitous adoption, complicate and inhibit interoperability, and result in lower volumes and higher costs to the industry and end-users.

Without being 100 % interoperable with existing services in the market, it would fragment the market. Evidence from other markets where this has occurred shows that it will inhibit the adoption and usage of faster payments, increase costs, and prevent both itself and others from succeeding.

We strongly urge the Federal Reserve to refrain from developing an RTGS settlement system for low-value payments.

We do support the proposal to develop a liquidity management tool to accommodate settlement 24/7/365 and believe that prolonging Fedwire hours may be the best way to accomplish this goal.

We are happy to provide further evidence or answer any additional questions.

Sincerely,

Leo Lipis, Ph.D.
Chief Executive

Response to Federal Reserve RFC
Lipis Advisors
December 3, 2018

**Introduction**

The Board of Governors of the Federal Reserve System has requested comment on its proposal to provide a real-time settlement service for low-value payments and a liquidity management tool for financial institutions to administer accounts used for the settlement of low-value, real-time payments.

If the system is developed as proposed, the results will be contrary to the Federal Reserve's intentions and diminish the effectiveness of faster payment solutions already in the market, according to criteria established by the Faster Payments Task Force. It will likely delay ubiquitous adoption, complicate and inhibit interoperability, and result in lower volumes and higher costs to the industry and end-users.

These conclusions are drawn based on evidence available in other markets around the world that exhibit similar market structures. A system broadly similar to the Federal Reserve proposal has been developed by the European Central Bank. It has delayed the adoption of faster payments in the Euro area. The lack of ubiquity of real-time payment systems has hindered development in Poland and South Africa and contrasts sharply with broad adoption in countries with ubiquity (Denmark, Sweden, United Kingdom). The consequence of fragmenting the market will increase uncertainty, decrease utility and volume, and therefore increase cost.

**About Lipis Advisors: Our credentials**

Lipis Advisors is a consulting firm focused exclusively on payments and the payments industry, and specializing in payment strategy, product development, and interbank payment system design. For more than ten years we have studied and advised central banks, financial institutions, payment system operators, and payment associations in over 30 countries and on six continents about faster payment systems and we monitor the development and impact of faster payment systems in even more markets around the globe. In particular, we have studied the relationship between payment system design and its impact on reaching public policy objectives, especially in Europe and parts of Africa, and we are widely recognized experts on issues related to payment system governance and competition.

Our founder, Dr. Leo Lipis, was an employee of the Federal Reserve Bank of Boston where he served on the staff of the Financial Services Policy Committee from 1999-2000. From 2004-2008, he worked at VocaLink (and its predecessor companies) in the United Kingdom and provided some of the seminal research that led to the design of the Faster Payments system, which launched in 2008. He was also a member of the US Faster Payments Task Force and has worked with industry bodies throughout North America, Europe, and English-speaking countries elsewhere to ensure that payment systems are modernized in accordance with public policy goals.

Since 2016, Lipis Advisors has helped numerous banks and payment system operators devise and develop their faster payments strategies. These activities have ranged from payment system design for operators, to product strategy for financial institutions, to choosing which operator to use for faster payments (when multiple options are available), to accompanying them through the onboarding process. Last but not least, we have collaborated with regional payment associations, third party processors, and The Clearing House to promote real-time payments to small and medium-sized financial institutions at 12 executive briefings and working sessions in six different American cities in 2018. Few firms in the world can boast of deeper experience in this narrow market.

**Summary of the proposal in the Register Entry**

The Federal Reserve seeks to ensure "a safe and robust U.S. payment system, including a settlement infrastructure on which the private sector can provide innovative faster payment services that serve the broad public interest." As part of this mission, The Federal Reserve is looking to "promote ubiquitous, safe, and efficient faster payments in the United States by facilitating real-time interbank settlement of faster payments." The Federal Reserve has stated, however, that meeting its overarching mission promoting these three goals could take multiple forms, including the creation of a "24x7x365 real-time interbank settlement for faster payments," or a "liquidity management tool that would enable transfers between Federal Reserve accounts on 24x7x365 basis to support services for real-time interbank settlement of faster payments…". Regarding the latter, The Federal Reserve said this option could be used regardless of whether The Federal Reserve itself or a private entity provides faster payment services to the country's diverse set of financial institutions. Lastly, The Federal Reserve has asked whether both of these activities, in combination with one another or stand-alone, "would help achieve ubiquitous, nationwide access to safe and efficient faster payments." (p. 1)

The Federal Reserve has outlined principles and criteria by which it should evaluate the possible introduction of any new payment service or a liquidity management tool to its existing services, namely expectations that it (1) "achieves full cost recovery over the long run, (2) the service will yield a clear public benefit, and (3) the service is one that other providers alone cannot be expected to provide with reasonable effectiveness, scope, and equity." (p. 8) In addition to these criteria and its own long-standing principles and the Monetary Control Act of 1980, The Federal Reserve also states that it will "conduct a competitive-impact analysis for any new service or major enhancement that would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services." (ibid).

In addition, the Faster Payments Task Force laid out six categories of criteria to evaluate the effectiveness of a national faster payment solution:

- Ubiquity
- Efficiency
- Safety and security
- Speed
- Legal framework

- Governance

Our concerns are chiefly with the impact that the Federal Reserve's proposal will have on ubiquity and efficiency. If the Federal Reserve develops a solution as proposed, having multiple payment system operators may also have a negative impact on the other effectiveness criteria (especially safety and security and speed), but without operational and technical details, it is difficult to judge the extent of these effects.

Lipis Advisors believes that the introduction of a 24x7x365 real-time interbank settlement for faster payments does not pass its own evaluation criteria or increase the effectiveness of other solutions. Moreover, creating a system that will inevitably compete with existing solutions in the market would have detrimental effects. Regardless of intention, it would actually increase market fragmentation. This, in turn, would delay ubiquity in the short term and decrease FI incentives to join either of the two faster payment systems, thereby decreasing system utility in the medium-to-long-term, and hinder private sector investment and innovation.

**The European experience with Instant Payments**

After an investigatory phase, the European Central Bank (ECB) first announced the creation of TIPS (**T**ARGET **I**nstant **P**ayment **S**ettlement), its 24/7/365 settlement solution for low-value real-time payments, in June 2017. The ECB launched the system on November 30, 2018, more than one year after the launch of the rule set for real-time payments in Europe (SCT Inst).

This ECB's TIPS service is broadly similar to the RTGS settlement system proposed by the Federal Reserve and it has already had several unintended consequences on real-time adoption in Europe, including:

- Slowing bank adoption of real-time payments
- Increasing market fragmentation
- Making interoperability among operators more difficult
- Crowding out private sector-led initiatives

Despite its intentions, TIPS exaggerates some of the very issues it hopes to mitigate.

**Payments clearing and settlement in the Euro area**

It is helpful to begin with an explanation of how low-value batch payments are cleared and settled in Europe.

Since the completion of the migration to the Single Euro Payments Area (SEPA) in 2014, all Euro-denominated, low-value batch payments have been governed by the same set of rules, set by the European Payments Council (EPC). The EPC has also developed a rulebook for real-time payments (known as SEPA Instant Credit Transfer or SCT Inst), which was launched in November 2016. For both batch and real-time payments, financial institutions are free to clear and settle transactions through any operator they choose, as long as the operator complies with the rulebooks; the EPC does not award a contract to an operator. Settlement takes place via the European Central Bank's RTGS system, TARGET2, via its Ancillary Systems Interface, a service broadly similar to the Federal Reserve's National Settlement Service.

For batch payments, there are over 20 operators, nearly all of which serve national communities, although some (e.g., EBA Clearing, Equens Worldline, and STET) serve several national communities. One operator, EBA Clearing, serves multiple national communities and operates a pan-European clearing system, and it can reach virtually every bank in Europe through its network. Accordingly, low-value batch payments initiated via an operator can be cleared in one of three ways:

1. The national operators and EBA Clearing clear the payments they can clear among their own members (typically 97-98% of total batch payments).
2. Most of the remaining volume is typically sent to EBA Clearing for delivery and settlement. Iberpay, the Spanish national operator, for example, serves the banks in Spain with clearing services and would only send nearly all of the 2-3% of cross-border payments to EBA Clearing for delivery and settlement. The national payment system operators effectively act as ACH operators for national payments and as third-party processors for cross-border payments. EBA Clearing can play both roles.
3. A few of the larger operators have established bilateral links for exchanging payment files directly with one another. In this scenario, a very small portion of payments originated via Iberpay, may be sent directly to STET in France for delivery to a French receiver. The bilateral contracts for these exchanges are based on a framework developed by the European ACH Association (EACHA), a trade association of ACH operators in Europe. The volumes exchanged in this manner are well below 1% of total volume.

Real-time payments using the SCT Inst scheme are cleared and settled in a similar environment. Outside of TIPS, there are only eight operators of SCT Inst-compliant payment systems in the Euro area, and these also largely serve their national communities. EBA Clearing also operates a pan-European clearing service, called RT1, and – prior to the announcement of TIPS – was widely expected to play for real-time payments a role similar to what it does for batch payments.

The ECB's solution is hampering private sector initiatives in multiple ways. First, it is directly competing with EBA Clearing's pan-European real-time solution, RT1. While RT1 acts a national operator for some markets, such as Finland, Ireland, and Germany (analogous to method 1 above for batch payments), in other markets such as France it acts as a bridge to the rest of the Euro area (analogous to method 2 above). TIPS' entrance to the market competes directly with EBA Clearing's offering, forcing banks with limited resources to decide whether to use RT1 or TIPS. This increases market fragmentation on the one hand while slowing ubiquity by delaying the decision-making process for some banks on the other. Without TIPS, EBA Clearing would be the default choice for banks in the 10+ countries without a national operator and for cross-border payments. TIPS has therefore undermined a key principle of EBA Clearing's offering in the market.

**TIPS effect on interoperability in Europe**

TIPS went live on November 30, 2018, a full year after many national operators and EBA Clearing went live with their SCT Inst clearing systems. Because it will make Instant Payments

available to every bank that participates in the ECB's RTGS system TARGET2, TIPS is offering the same basic SCT Inst-compliant services that other European payment system operators offer their customers. An originating FI will be able to route a message via SWIFT or any other interbank network to the receiving FI and instruct TIPS to settle the payment. The TIPS service is only very basic, but it will probably be adequate for the expected low volume of cross-border payments. It is premature to judge how competitive it will be for national volumes in countries with national payment system operators.

The ECB has been very careful to characterize the nature of its service as a settlement service only. Its functionality is very lean – based on a payment message it will move funds from the account of one financial institution to that of another. TIPS has also defined a role for national operators to act as "instructing parties" as third-party processors to TIPS, so that they can use TIPS to deliver payments beyond their members. In this arrangement, clearing and settlement happens entirely via TIPS.

EBA Clearing has defined a similar role for other operators as "technical facilitators" to reach its members, allowing them to submit payment messages on behalf of originating banks for receipt by EBA Clearing members. In this arrangement, clearing and settlement happens entirely via EBA Clearing's RT1 system. In order to serve its members adequately, EBA Clearing will be forced to become an instructing party to TIPS, but it is unlikely that TIPS will become a technical facilitator to EBA Clearing. TIPS has not announced any intention to send payments to national operators or EBA Clearing. Given that TIPS can already reach all banks participating in TARGET2 (i.e., all banks in Europe), interoperability with TIPS will only be one-way. This reduces the attractiveness and competitiveness of EBA Clearing's service.

There has been no attempt, however, to harmonize TIPS' offering with those of EBA Clearing or national operators in Europe or to create genuine interoperability. Even though they have a single rule book, national communities within Europe have already begun to create variations on it. The Dutch payments community, for example, has agreed a faster service-level agreement than the pan-European rules require. The Belgian payment community has agreed to waive the maximum amount enforced. EBA Clearing has historically catered to the needs and wishes of multiple national communities through modified cut-off times (Ireland) and custom-tailored clearing services (Italy, Germany, Finland). Harmonizing all of these and creating interoperability with the ECB's TIPS would be a difficult and lengthy task.

The basic nature of TIPS service and the lack of interest in establishing interoperability will inhibit innovation into the future. On November 12, 2018, EBA Clearing announced the establishment of a task force to create Requests for Pay functionality and intends to process these messages via RT1. Its members include more than 25 of Europe's largest banks. TIPS has not publicly or privately stated any intention of supporting this service. Without interoperability with TIPS, Request for Pay could be stifled due to lack of interoperability, and it is considered one of the cornerstones for new and innovative functionality enabled by real-time payments.

Lastly, the ECB has announced that TIPS will charge no more than 0.2[1] cents per transaction for the first two years and then operate on a cost-recovery basis. This price is highly unlikely to recover initial implementation costs or general operation costs, given that less than 3%[2] of all instant payments are likely to be made via TIPS, at least initially. In the long-term, TIPS pricing will have to increase substantially to recover its development and operational costs.

In the meantime, however, many banks are using this pricing to negotiate lower costs with EBA Clearing or national operators, making it difficult for an industry association – which itself operates on a cost-recovery basis – to break even and recover substantial investment costs. An effort to create bilateral links for real-time payments among national operators (analogous to method 3 on p. 4 above) has largely been abandoned by the organizations that created it. In our judgement, TIPS may siphon off enough volume to make other payment system operators sub-scale when they would otherwise be commercially viable.

The ECB's stated goals for TIPS were to promote pan-European reach, prevent the market fragmentation that existed after the initial introduction of SEPA, and encourage bank adoption of real-time payments all while ensuring that the service was offered at a reasonable price that ensured cost recovery. TIPS is expected to usurp EBA Clearing, a private entity, as the default operator for cross-border, real-time payments in Europe, as well as in the 10 or more Euro area countries that do not have a national payment system operator. It also obviates the need for bilateral links among national operators, thus undermining additional private sector initiatives to promote pan-European ubiquity.

The announcement of TIPS, contrary to it stated goals, has actually increased market fragmentation, crowded out private sector initiatives, and slowed bank adoption of real-time payments all while promising a price that is very unlikely to achieve the ultimate goal of cost recovery.

**Slowing bank adoption of real-time payments**

Prior to the announcement of TIPS, many in the industry expected real-time payments to mirror batch payments, i.e., through a tiered system for national and cross-border payments. After the announcement of TIPS, small banks enjoyed increased choice but faced a complicating element: should small banks with limited resources join national solutions and rely on these solutions to provide pan-European reach or should they wait for TIPS to go live and utilize it for all real-time payments? Announcing its intention caused many smaller banks to re-think their strategy regarding real-time payments when many would have made a decision to either go with their national payment system operator or with RT1. Many of the smaller banks have still not made

[1] https://www.ecb.europa.eu/paym/target/tips/html/index.en.html

[2] To quote the ECB Economic Bulletin Issue 3/2017, (p.71) "...around 2.5% of credit transfers and 1.7% of direct debits initiated in 2015 were sent to an account held at a PSP resident in another country." There is little reason to believe this figure has changed since its publication. https://www.ecb.europa.eu/pub/pdf/ecbu/eb201703.en.pdf

their decision and are waiting for more information until after the TIPS service becomes available despite the fact that real-time payments have been live for an entire year. As a result, many of these smaller banks are at a competitive disadvantage and have delayed the adoption of instant payments in Europe.

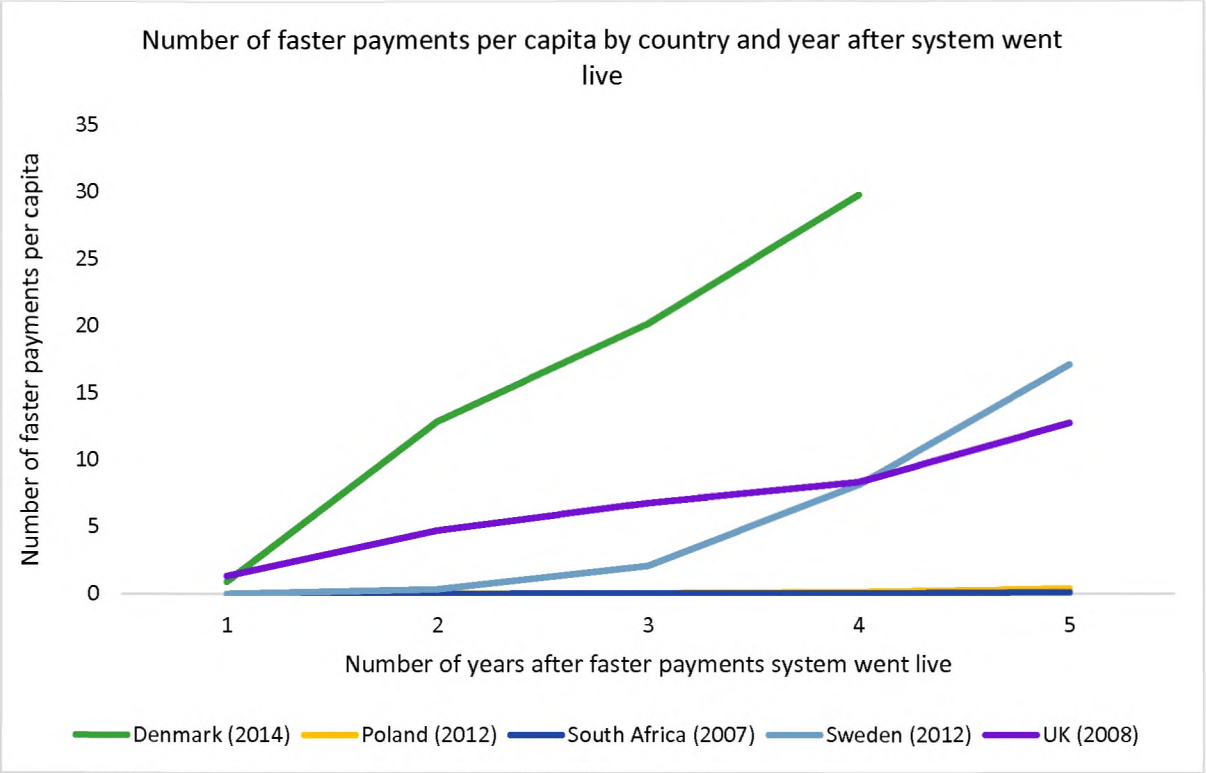
Over the past two years, Lipis Advisors has been engaged by numerous banks, operators, and technology providers – all of whom have a stake in real-time payments adoption – to provide advice. We have advised banks to wait and see what TIPS brings before joining RT1. We have spoken with many more banks about their plans and they are indeed waiting. We have also seen banks use TIPS' very low pricing as a negotiation tactic when approaching other operators, even though these services are not a like-for-like comparison.

There is little reason to think that a similar announcement by The Federal Reserve would not have the same effect in the United States. The 24x7x365 settlement solution proposed by the Federal Reserve would compete with RTP and fragment the US faster payment market, decreasing each system's utility for end users, which in turn would delay ubiquity, decrease potential volume, increase costs, and could even have a negative effect on long-term private sector innovation.

**Importance of ubiquity for faster payment systems**

One of the key drivers of real-time adoption – and indeed the adoption of any type of interbank payment system – are the positive network effects promoted by ubiquity. Closed-loop systems that lack interoperability make initiating payments more difficult and complicated for all end users, and this slows adoption. We have seen time and again that the systems that cover a higher percentage of consumer and corporate accounts have higher adoption rates than systems in which ubiquitous coverage takes longer to establish. In the same way that users would not sign up for a telephone service that only allowed users to call other people with the same telephone provider, closed-loop payment systems lack the network effect needed to encourage widespread usage. Consumers and businesses do not want the hassle of trying to make a payment only to find out that the intended recipient cannot receive it.

This scenario has been played out in several countries previously.




Source: National payment system operators, Lipis Advisors analysis

The chart above illustrates per capita faster payment volumes in five countries during the first five years after their faster payment systems went live. The three countries in which faster payments were ubiquitous from the beginning (defined as covering over 90% of accounts, namely Denmark, Sweden, and the UK) saw much higher per capita transaction volumes than those countries where ubiquity was limited, namely Poland and South Africa. In Denmark, over 90% of the financial institutions that participate in the country's bulk systems also participate in the faster payments solution, *Straksclearing*, while in Sweden over 95% of all accounts are connected to the *BiR* system. Looking at the other countries is also helpful. Poland, for example, has 3 competing systems (Express ELIXIR, BlueCash, and BLIK), none of which are interoperable with any of the others, while in South Africa some major banks still do not offer end users the ability to send real-time payments more than 10 years after its introduction.

The conclusion from the data above is clear: establishing a competitive service that is not 100% interoperable would be detrimental to the adoption of real-time payments.

**The effects of market fragmentation on the US market**

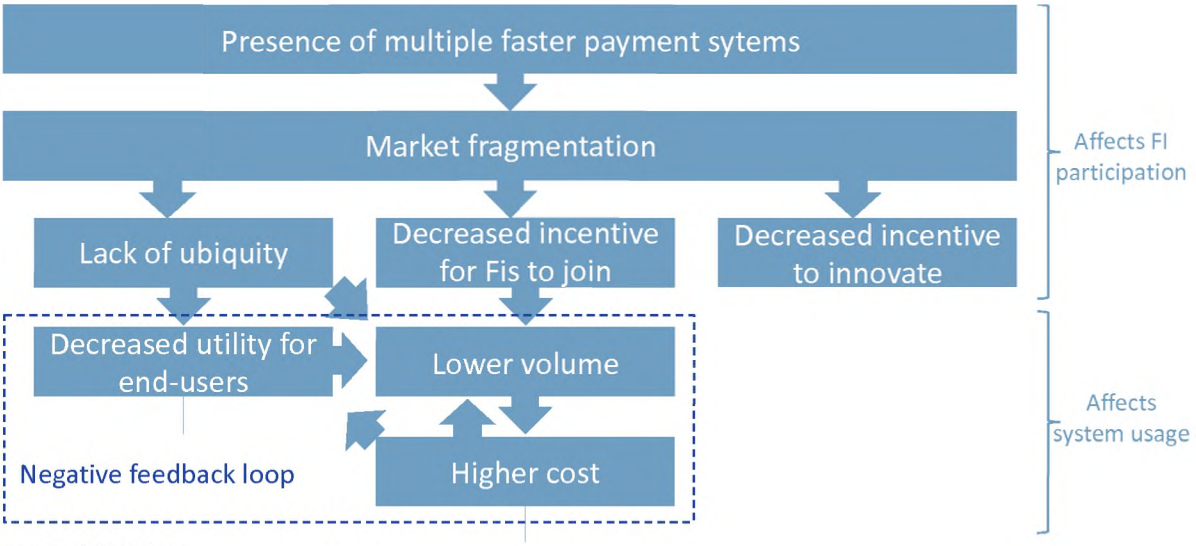
While the parallels between the European and the American markets are not perfect, there are enough similarities for us to draw some important conclusions, depicted in Figure 2 below:

- The presence of multiple operators for faster payments will fragment the market. While TIPS is most attractive for only a small proportion of European payments, the nature of

the US market means that a Federal Reserve solution could achieve a significant minority market share.

- Market fragmentation (without complete interoperability) will lead to lack of ubiquity, decreased incentives for financial institutions to join either system, and decreased incentives to invest in innovation.
- The lack of ubiquity and decreased incentive for financial institutions to join leads to a negative feedback loop of decreased utility for users, lower volume, and higher cost, all of which reinforce each other.

Figure 2: The long-term effects of market fragmentation




Source: Lipis Advisors

There are several reasons why implementing a new system would have these negative effects. In the short-to-medium term, The Federal Reserve will be busy building, testing, and onboarding financial institutions to its system. Small banks would almost assuredly delay their decision-making until more information about The Federal Reserve's system is released, while TCH's RTP is likely to continue onboarding its member banks. This leaves medium-sized banks caught in the middle: should they try to be forerunners and join a system that may never reach critical mass or should they wait to see what The Federal Reserve can offer? On the other hand, can they afford to not offer their customers cutting-edge products while a new system is being built? At the very least, any announcement by The Federal Reserve would lead to greater uncertainty in the short-term.

By the time any potential Federal Reserve system goes live, large banks, which account for approximately 60% of US deposits, will have already gone live with TCH. These banks would then need to connect to another system, which is very unlikely to offer comparable service or offer interoperability between the two systems. This difference of services would prevent both systems from reaching the critical mass necessary for either to succeed and make it more difficult for financial instsitutions and system operators to recoup investment costs. Given that

The Federal Reserve is obligated to recoup investment costs, likely to be done via volume-based transaction pricing, this will be made more difficult if a critical mass is not reached. All of these effects stand in direct opposition to the stated goals of the Federal Reserve and the Faster Payments Task Force's (FPTF).

The difficulty of interoperability (if it is at all possible) between the two systems would also hinder end-user adoption. For example, RTP has a request-for-payment functionality, and any Federal Reserve-operated system may not be interoperable with this function, leading to user frustration and very different service levels for end users. The example that this would set, namely that The Federal Reserve would be entering a market already being served by a private sector company, could also make the private sector hesitant to innovate new solutions that The Federal Reserve could potentially undercut in the future.

Even if multiple operators in the United States adopt a single rule set for faster payments (as the Euro area has for SCT inst), this will not guarantee interoperability. The European experience with faster payments and batch payments demonstrates that achieving full interoperability on a practical level requires complete harmonization, which has not been achieved with faster payments anywhere in the world, to our knowledge. And without complete interoperability, islands of service are created, degrading the user experience to a basic level, and inhibiting the adoption of advanced and innovative features.

While on the one hand The Federal Reserve has stated it will "conduct a competitive-impact analysis for any new service or major enhancement that would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services," it is hard to imagine how creating a new system that lacks interoperability with a competing system would not negatively impact the private sector solution. While third party providers would be able to step into this market gap to provide this missing functionality, interoperability may only be achieved after many years, if at all.

These factors combine to create a system that would be less attractive to end-users and would depress volume and increase cost, leading to a vicious cycle that would function to inhibit the adoption and usage of faster payments in the United States.

**Conclusion**

In summary, if the Federal Reserve were to develop an RTGS settlement service for low-value payments, without being 100 % interoperable with existing services in the market, it would risk fragmenting the market. Evidence from other markets where this has occurred shows that it will inhibit the adoption and usage of faster payments, increase costs, and prevent both itself and others from succeeding. We strongly urge the Federal Reserve to refrain from developing such a system.

**APPENDIX: Responses to specific questions posed by the Federal Reserve**

| Question | Response |
|---|---|
| 1. Is RTGS the appropriate strategic foundation for interbank settlement of faster payments? Why or why not? | Both net and gross settlement are in use successfully in other countries. The settlement method is not relevant to the user experience of faster payments. If net settlement is used, however, we strongly urge the use of individual FI collateral that acts as a net debit cap during the net settlement period. |
| 2. Should the Reserve Banks develop a 24x7x365 RTGS settlement service? Why or why not? | No. The development of a service as proposed would make faster payments less attractive to end-users and would depress volume and increase cost, leading to a vicious cycle that would function to inhibit the adoption and usage of faster payments in the United States.<br><br>Please see the extensive discussion in our response above. |
| 3. If the Reserve Banks develop a 24x7x365 RTGS settlement service, | |
| a) Will there be sufficient 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? | Yes, the demand will be there, but it will be well served by private sector initiatives. |

| Question | Response |
|---|---|
| b) 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? | Other countries have found the burden on FIs of posting to user accounts 24/7/365 to be greater that managing settlement 24/7/365. The vast majority of operational changes take place in dealing with users rather than with central bank settlement systems. |
| c) What is the ideal timeline for implementing a 24x7x365 RTGS settlement service? 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. | We believe strongly that it would inhibit adoption by FIs, as have similar developments in other countries. Please see our extensive discussion of this topic in our long-form response. |
| d) 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? | No response.<br><br>Note, however, that the concept of end-of-day processing loses much of its relevance in a 24/7/365 processing environment. In addition to any technical, operational, and personnel changes, it requires a change of mindset and an increased use of automation. |

| Question | Response |
|---|---|
| e) 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? | No response |
| f) 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? | There is no doubt the proxy databases and other services that increase the user-friendliness of a payment system can promote usage, but we are not aware of a central bank anywhere in the world that operates such services. They are always operated by individual financial institutions or a cooperative. In the United States, we believe that the private sector is better positioned to provide such functionality. |
| ii. 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? | See previous answer.<br><br>Note that Lipis Advisors has completed an extensive analysis in 2017 of fraud prevention by payment system infrastructure operators. See https://www.psr.org.uk/psr-publications/consultations/Lipis-report-on-international-fraud-practices<br>While central banks coordinate fraud prevention in many countries, in none of the 11 countries or regions examined does the central bank run a fraud prevention system. |

| Question | Response |
|---|---|
| iii. 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? | Auxiliary services are very important for adoption by end users, but not necessarily for adoption by the financial services industry.<br><br>Proxy databases and fraud can go a long way to inspire confidence in the system.<br><br>Most faster payment system around the world use value limits to manage fraud risk, not settlement risk. Those that use net settlement usually require collateral to secure the settlement. The effect on liquidity conservation is therefore minimal.<br><br>Moreover, the Federal Reserve has proposed an RTGS system, not a real-time netting system for faster payments. Within an RTGS, no offsetting mechanisms are available. |
| g) How critical is interoperability between RTGS services for faster payments to achieving ubiquity? | If the Federal Reserve chooses to develop a system as proposed, interoperability would be absolutely essential. Lack of ubiquity (or interoperable systems) is a key inhibitor to adoption. Please see our extensive discussion in the free response above.<br><br>That said, achieving 100% interoperability would be exceptionally difficult. |
| h) 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? | No response |

| Question | Response |
|---|---|
| i) 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? | If the Federal Reserve elects to move forward, interoperability and payment routing teams will be essential to create a working system.<br><br>We have no opinion regarding joint teams regarding liquidity management and accounting processes. |
| 4. 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? | Yes. Allowing FIs to transfer funds in and out of settlement accounts outside of Fedwire operating hours would be useful.<br><br>Extending Fedwire operating hours would accomplish similar goals. |
| 5. If the Reserve Banks develop a liquidity management tool,<br>a) What type of tool would be preferable and why?<br>i. A tool that requires a bank to originate a transfer from one account to another<br>ii. A tool that allows an agent to originate a transfer on behalf of one or more banks<br>iii. A tool that allows an automatic transfer of balances (or "sweep") based on pre-established thresholds and limits<br>iv. A combination of the above<br>v. An alternative approach | A combination of these approaches would be best. |
| 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? | The tool should be made available 24/7/365. Daily windows (30 minutes as in New Zealand? 60 minutes as in South Africa?) for technical maintenance would be acceptable. |

| Question | Response |
|---|---|
| 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? | The tool could be used to affect 24/7 RTGS payments of all values. It could be the gateway for 24/7 operation for Fedwire and NSS. |
| 6. 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? | The RTGS settlement system should not be developed at all. It will inhibit market adoption.<br>The Liquidity Management tool should be developed.<br>Please see our extensive free response above. |
| 7. If the Federal Reserve pursues one or both of these 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? | No. The development of an RTGS settlement service will inhibit adoption of faster payments.<br><br>Please see our extensive free response above. |
| 8. 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? | Opening Fedwire and NSS for (much) longer operating hours. |
| 9. 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? | The Federal Reserve could consider acting as an access provider to existing faster payments solutions. This would promote FI adoption and ubiquity without creating market fragmentation. |