



Comments on  
***Payment System Improvement – Public Consultation Paper***  
Issued by the Federal Reserve on September 10, 2013

Submitted by  
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United Bankshares, Inc. (UBSI), with dual headquarters in Washington, DC and Charleston, WV, is a bank holding company with full service banking offices in West Virginia, Virginia, Washington, DC, Maryland, Ohio, and Pennsylvania and total assets of \$8.5 billion. UBSI holds state bank charters in the name of United Bank in both West Virginia (0519-0039-5) and Virginia (0560-0444-5).

United Bank appreciates the opportunity to provide input into the Federal Reserve's Payment System Improvement process. To that end, we offer the following comments (in red) to the questions posed in the Public Consultation Paper. Please direct any questions or comments to the submitter.

# # #

***General***

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

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

*United Bank generally agrees with the assessment of the Federal Reserve; however, three gaps that were not acknowledged in the position paper are worthy of note. First, the general environment for check processing, from technology to legal precedents, is well established and is generally more favorable to businesses. Insurance companies, for example, can include restrictive endorsements on checks that release the insurer from further liability – a feature that does not exist in the electronic payment world. Lockbox banks, with years of experience in data capture and validation, can often provide higher quality remittance information from paper payments than they can from ACH or Wire payments that aren't "scrubbed" in the same way. Finally, the rules around settlement for checks are generally better understood than they are for ACH payments where rescission rules and reversals uniquely exist. In such an environment, businesses have little incentive to move to an alternate payment system other than the potential to avoid a portion of postage and printing costs. And the often cited notion that checks cost several dollars or more per payment while ACH transaction costs are measured in pennies<sup>1</sup> is one of those things that intuitively seems to be correct but doesn't translate*

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<sup>1</sup> From <http://www.electronicpayments.org/financial-institution/direct-deposit/learn/calculator> (a site sponsored by NACHA) "Companies can save from \$2.87 to \$3.15 per paycheck with Direct Deposit via ACH"

*well into the real world. If the savings were truly that substantial, businesses would have already moved completely to electronic payments. There are some savings opportunities to be sure, but they may not be sufficient to offset the environmental advantages enjoyed by checks and overcome other impediments to implementation (like enrollment and authorization challenges).*

*The second gap in the Federal Reserve position paper involves recent court decisions regarding liability for unauthorized electronic funds transfers. In several well-known cases (e.g., "Experi-Metal", "PATCO" and "Village View Escrow"), financial institutions have been held responsible for or agreed to cover losses incurred by businesses when those businesses failed to safeguard access to their on-line banking systems. Forcing financial institutions to absorb such losses and/or incur the costs of added security for businesses that do not have adequate controls can have a chilling effect on access to and investment in electronic payment systems.*

*The third, and perhaps most important gap, are legal and regulatory changes that adversely impact the ability of financial institutions to be adequately compensated for electronic funds transfers. One has only to look at the consequences of the Dodd-Frank Act with its restrictions on debit interchange or the VISA/MasterCard settlement relative to credit interchange to see significant amounts of revenue compression in electronic payment systems where financial institutions should be investing. The market, rather than Congress or the courts, should be the driver of pricing and profitability, and these, in turn, will drive investment and expansion. When a market's normal functions are interrupted by the intervention of outside parties, there is an unsettled period while stakeholders reassess its attractiveness.*

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

i. What other outcomes should be pursued?

*United Bank agrees generally with the Federal Reserve's desired outcomes, but it is not apparent that financial institutions (particularly banks) will be in the center of the solution. Given the Federal Reserve's role, it might be inferred that any changes would be bank-centric, but it should be explicitly stated. A non-banker might think the Federal Reserve is advocating for a payment system run by phone companies, ATM networks, or some kind of payment entrepreneur with banks serving simply as a means for settlement. This would be a serious problem as research by the Federal Reserve Bank of New York estimated that "the payments business generates between one-third and two-fifths of the combined operating revenue of the twenty-five largest BHCs." <sup>2</sup> While that research was done in the late 1990s and focused exclusively on the 25 largest bank holding companies, it likely remains true today. In fact, payments-related revenue is even more important today than it was in the mid to late 90's due to the shrinkage in interest rates and loan margins. And like their larger counterparts, payments represent an important source of income to smaller and mid-sized financial institutions as well. Therefore, to maintain a robust and viable banking system in the United States, the Federal Reserve needs to help ensure that banks are actively involved in all aspects of payments processing, not just the settlement utility.*

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<sup>2</sup> [http://www.newyorkfed.org/research/staff\\_reports/sr62.pdf](http://www.newyorkfed.org/research/staff_reports/sr62.pdf), page 22

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

*The Federal Reserve has a unique ability to bring together industry stakeholders for ideation and collaboration because participants understand that the Federal Reserve isn't motivated by profit or share prices. There is a greater good being served for the economy as a whole, and that is something that cannot be said about most other payment system providers. In that context, the Federal Reserve can be a thought leader and catalyst.*

*One of the Federal Reserve's capabilities that has not been leveraged historically is its role as a regulator. Often, FRB representatives in the Retail and Wholesale Payments Offices go out of their way to separate themselves from the regulatory side. When proposing large scale changes, the regulatory side of the Federal Reserve has to be an active participant. No one wants to create a solution and then wonder about the unintended regulatory consequences it might bring. The regulatory framework needs to be integral with the product development, not after the fact. In other words, it needs to be built in rather than bolted on.*

#### ***Ubiquitous near-real-time payments***

Q4. In discussions with industry participants, some have stated that implementing a system for near-real-time payments with the features described in the second desired outcome (ubiquitous participation; sender doesn't need to know the bank account number of the recipient; confirmation of good funds is made at the initiation of the payment; sender and receiver receive timely notification that the payment has been made; funds debited from the payer and made available in near real time to the payee) will require coordinated action by a public authority or industry group. Others have stated that current payment services are evolving toward this outcome and no special action by a public authority or industry group is required.

- i. Which of these perspectives is more accurate, and why?
- ii. What other perspective(s) should be considered?

*It is United Bank's position that ubiquity will only come from the participation of a public authority or industry group. Yes, there are payment solutions that exist or are in development that have many of the desired attributes, but they are open only to selected financial institutions, or the barriers to entry are so high as to make them inaccessible even though the sponsoring group purports to have an open concept. Among the larger payment networks, SWIFT perhaps comes closest to achieving the desired state with a broad base of global membership, near-real time messaging, a wide array of compatible software solutions to serve its members, and an International Bank Account Number (IBAN) that can be validated, at least in part, prior to payment submission. On the other hand, SWIFT membership requires the acquisition of capital stock, funds availability can't be determined, and it is fundamentally a messaging system rather than a payment system. So while it doesn't meet every objective established by the Federal Reserve, SWIFT could serve as a model for whatever solution is ultimately adopted.*

- Q5. The second desired outcome articulates features that are desirable for a near-real-time payments system. They include:
- a. Ubiquitous participation
  - b. Sender doesn't need to know the bank account number of the recipient
  - c. Confirmation of good funds is made at the initiation of the payment
  - d. Sender and receiver receive timely notification that the payment has been made
  - e. Funds debited from the payer and made available in near-real time to the payee
    - i. Do you agree that these are important features of a U.S. near-real-time system? Please explain, if desired.
    - ii. What other characteristics or features are important for a U.S. near-real-time system?

*Real-time or near-real-time payments are a highly desirable objective, but it is the opinion of United Bank that getting a real-time or near-real-time notice that a goods funds payment will be made on a date certain might be a more realistic first step. For most people and businesses, knowing that a payment has been made today and that funds will be available tomorrow is sufficient. After all, that's the credit card model. The card is presented and validated, and the merchant can reasonably rely on settlement to occur. By focusing on notification and non-repudiation, the Federal Reserve might be able to build on existing payment rails, like the ACH, rather than inventing an entirely new payment system.*

*The Federal Reserve's preoccupation with the idea that the sender doesn't need to know the recipient's bank account number might be misplaced. There is always some unique identification of the recipient in any payment system, be it a code number, e-mail address, or name. The concern we have with sharing bank account numbers in the US is that they can be used for both deposits and withdrawals. In a system where accounts are used to receive credits only, would recipients be overly concerned about sharing that information? Probably not. Recipients are concerned about revealing account numbers because they can be used for fraudulent checks and ACH debits. The Universal Payment Identification Code (UPIC) model developed by The Clearing House (TCH) is a practical example of how an "account number" can be freely distributed because it can't be used for checks or ACH debits. The Federal Reserve should not be concerned about whether or not an account number is needed. The concern should be around limiting that number (or code or name) to one specific purpose – receiving a payment.*

- Q6. Near-real-time payments with the features described in the second desired outcome could be provided several different ways, including but not limited to:
- a. Creating a separate wire transfer-like system for near-real-time payments that leverages the relevant processes, features, and infrastructure already established for existing wire transfer systems. This option may require a new front-end mechanism or new rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions.
  - b. Linking together existing limited-participation networks so that a sender in one network could make a payment to a receiver in another network seamlessly. This option may require common standards and rules and a centralized directory for routing payments across networks.

- c. Modifying the ACH to speed up settlement. This option may require a new front-end mechanism or new network rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions. Payments would be settled periodically during the day.
- d. Enhancing the debit card networks to enable ubiquitous near-real-time payments.
- e. Implementing an entirely new payment system with the features described in the second desired outcome above.
  - i. What would be the most effective way for the U.S. payment system to deliver ubiquitous near-real-time payments, including options that are not listed above?
  - ii. What are the likely pros and cons or costs and benefits of each option? What rule or regulation changes are needed to implement faster payments within existing payment processing channels?
  - iii. Is it sufficient for a solution to be limited to near-real-time authorization and confirmation that good funds are on their way, or must end-user funds availability and/or interbank settlement take place in near-real time as well?
  - iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.)

*It is impossible to identify the most effective way to achieve the desired goals without additional research. Having said that, linking together disparate networks seems the least likely to succeed. There would be an ongoing coordination effort needed at multiple levels, and there is no guarantee that the goals and objectives of these organizations would remain aligned with those of the Federal Reserve. Whatever technology is ultimately chosen, it is important to keep in mind that payment processing is a business for which the providers (primarily financial institutions) need to earn a reasonable return. The ACH network, with 67% of commercial payments originated by the top five financial institutions in 2012, is already so skewed toward large financial institutions that smaller FIs have limited economic incentive to make continued investments in that technology<sup>3</sup>. It didn't start out that way. In 1980, "value flow pricing"<sup>4</sup> enabled Receiving Depository Financial Institutions to participate in the benefits of ACH processing in a more equitable manner, and that was especially beneficial while the network was being established. The key to ubiquitous adoption is ubiquitous benefit.*

Q7. Some industry participants have said that efforts to make check payments easier to use, such as by enabling fully electronic payment orders and/or by speeding up electronic check return information, will incrementally benefit the payment system. Others argue the resources needed to implement these efforts will delay a shift to near-

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<sup>3</sup> Given current market conditions, virtually all the revenue derived from ACH processing comes from Originators paying fees to Originating Depository Financial Institutions (ODFIs) for debits and credits delivered through the ACH network. Receiving Depository Financial Institutions (RDFIs) have very little opportunity to monetize the vital role that they play as Receivers, in most cases, are not charged a fee.

<sup>4</sup> "Value flow pricing" was the term used to describe a system in which the party that received the funds paid for the transaction. Originating Depository Financial Institutions paid for debits originated but not for credits originated. Receiving Depository Financial Institutions paid for credits received but not debits received. Current Federal Reserve ACH pricing charges for items originated and received without regard for whether they are debits or credits.

real-time payments, which will ultimately be more beneficial to the payment system. Which of these perspectives do you agree with, and why?

*In the near term, electronic payment orders (EPOs) have a lot of potential as they achieve many of the desired state objectives. They can be initiated easily through a process that resembles the creation of a traditional paper check. They are negotiated under established check law which, in most cases, is more beneficial to the maker of the payment than EFT law, and that is important because the maker of the payment generally chooses the payment mechanism. Payments can be made without the recipient providing his/her bank account information, and banks will retain an integral role in the process. EPOs are not without their challenges, however. The issue of funds verification needs to be addressed, and the EPO process requires the recipient to deposit the item in question while most electronic payment systems move the money directly into the recipient's account without any action on the part of the receiver. Nevertheless, the presentation of a verified EPO to a recipient who can then deposit it easily and obtain same day or next day funds availability would be a quantum leap forward from a payments perspective.*

Q8. How will near-real-time payments affect fraud issues that exist with today's payment systems, if at all?

- i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks.

*United Bank cannot speculate on fraud issues absent some form of proposed payment framework. As has often been seen in the past, fraud remains an escalating "arms race". As one hole is plugged, a new one is exploited. So yes, it is likely that near-real-time payments will create new fraud risks while addressing known risks from current systems. What those risks might be cannot be anticipated without additional information.*

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

*It is important to keep in mind that mobile devices are just an access mechanism for the payments network, much like a debit or credit card or a check book. Mobile payments will prevail over existing access methods if and when they offer more convenience, better information, more security, etc., and the increased adoption of mobile payments among certain market segments suggests that mobile payment options are already doing just that – without the benefit of near-real-time payments. If the only way to access near-real-time payments is with a mobile device, it will certainly be transformative. If the near-real-time network can be accessed through multiple channels, mobile will compete for market share with cards, on-line payments, batch/bulk payments, and other access methods, and those methods will evolve to meet specific market needs or they will fade away.*

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

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

*We need to acknowledge that faster payments are coming, one way or another. What the industry has to ask is whether we want to drive the process or react to it. It would not be difficult to envision a telecommunications company, a technology company, or a national retailer setting up some form of payment exchange and relegating banks and other financial institutions to a very limited role. And because these interlopers are not burdened with many of the regulations imposed on financial institutions, they may be in a position to offer more innovative services than traditional banks. PayPal, for example, allows banks to do all the mundane work of verifying identity and providing regulatory disclosures and then layers a value-added service on top of that foundation for which it earns about 3% of the face value of payments processed. PayPal wouldn't be possible without the banking infrastructure, but with the exception of PayPal's handful of financial institution partners, banks and others do not reap any benefit. If banks and the Federal Reserve do not take the lead, payments innovation and the revenue opportunities that come with it will flow elsewhere.*

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

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

*Again, without some additional framework, it is impossible to answer this question. There are some clues, however, that suggest the work set will be formidable. When NACHA proposed its Expedited Payment process, the initial reaction was that the changes needed would be minimal. Upon further review, many large financial institutions realized that they would not only need to make a substantial investment in ACH software but that they wouldn't have a way to recover that cost. There were a number of flaws in NACHA's proposal, but the cost of the changes coupled with an inadequate business case proved to be fatal. The Federal Reserve's Wholesale Payments Office pushed through "extended remittance" information for Wire Transfers in November 2011. Despite the fact that this solution was widely endorsed by the Association for Financial Professionals and supported by market research sponsored by TCH and the Federal Reserve, utilization has fallen well short of expectations thus far. Why? The technology changes needed before the market could fully embrace "extended remittance" went far beyond the wire system itself, and the benefits of extended remittance accrued largely to the receiver of the payment, not the originator. As noted previously, the originator of the payment generally controls the payment mechanism, and senders of wire transfers, lacking a financial incentive and facing a significant cost of implementation, have been slow to adopt the new capability. On the other hand, when we look at Check 21, the industry moved at an unheard of pace to transition quickly from checks to substitute checks to image exchange. There was a compelling economic benefit for the change, and financial institutions quickly adopted it. Like Check 21, the changes needed for near-real-time payments will be sizable, but given adequate incentives, the industry will find a way to implement them. Without an economic benefit, change will come slowly, if at all.*

Q12. Some industry participants suggest that a new, centralized directory containing account numbers and routing information for businesses and/or consumers, to which every bank and other service providers are linked, will enable more electronic payments. A sender using this directory would not need to know the account or routing information of the receiver.

- i. What are the merits and drawbacks of this suggestion?
- ii. What is the feasibility of this suggestion?

*Such a solution has been discussed at length by NACHA, the Federal Reserve, and others. It has significant merit conceptually, but there are challenges to building and maintaining such a table. If banks are to provide the needed information, is that compatible with existing privacy regulations? Can consumers or businesses opt out of the directory? If a consumer or business has accounts with multiple financial institutions, will there be multiple entries in the directory? How would a remitter determine the proper recipient among a list of multiple entities with similar or identical names? Logistically, it makes more sense to adapt some variation of the UPIC model developed by The Clearing House. Recipients who benefit from the payments have the most incentive to create and maintain a payment identification number. By providing that information to the maker of the payment, the burden of trying to figure out which number should be used is eliminated, and this approach parallels many current business practices which simplifies its implementation.*

### **Electronification**

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

- i. Is accelerated migration from checks to electronic payment methods a high-priority desired outcome for the U.S. payment system? (Accelerated means faster than the current trend of gradual migration.)
- ii. Please explain, if desired.
- iii. If yes, should the Federal Reserve Banks establish a target for the percent of noncash payments to be initiated via electronic means, by a specific date? For example: "By the year 2018, 95% of all noncash payments will be made via electronic means."
- iv. What is the appropriate target level and date?

*As has been noted multiple times in this response, United Bank believes that market forces rather than regulation or arbitrary goals should drive payment migration. If the industry creates a more efficient and effective payment process with appropriate economic incentives for the participants, adoption will follow quickly.*

Q14. Business-to-business payments have remained largely paper-based due to difficulties with handling remittance information. Consumer bill payments also are heavily paper-based due to the lack of comfort some consumers have with electronic alternatives. In addition, many small businesses have not adopted ACH for recurring payments due to technical challenges and/or cost constraints. The payment industry has multiple efforts underway to address these issues.



- i. To what extent are these efforts resulting in migration from checks to other payment types?
- ii. What other barriers need to be addressed to accelerate migration of these payments?
- iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments?
- iv. Which industry bodies should be responsible for developing and/or implementing these tactics?

*The questions being posed are based on flawed assumptions. For example, the lack of adoption of electronic remittances for B2B payments has less to do with difficulties in the handling of remittance information and much more do with the challenges of setting up an electronic payment in the first place. Obtaining a valid authorization with electronic routing instructions is not cost effective for occasional or one-off payments. And paper-based consumer bill payments have been declining rapidly for years. According to data from Ernst & Young's annual Survey of Cash Management, there were an estimated 272 million Retail Lockbox payments made in January of 2003. A decade later, that number was down to approximately 140 million payments per month. While the banks and non-bank providers that participate in the E&Y survey don't represent the entire market, they are a large enough segment to represent consumer bill payment trends overall, and that market has definitively moved toward electronic payments. Finally, like their larger counterparts, small businesses are challenged to obtain authorizations and understand the rules of electronic payments. Technology and cost are not necessarily major impediments since many commercial accounting programs offer ACH payments as a standard feature and there are service bureaus that offer electronic payment services for those that do not want to do it internally.*

*For businesses, then, the big challenge is obtaining authorizations and understanding an increasingly complex regulatory environment. UPIC or a national payments directory could help with the enrollment/authorization process, and the regulatory environment is a complex maze driven by both the government (consumer protection laws, privacy laws, mandatory disclosures, etc.) and industry groups like NACHA and SWIFT that are actively developing products and responding to market conditions to promote growth. Check and Wire have much more stable infrastructures, but they are both declining in volume. Creating a simple and stable payment environment that meets the needs of most users and does so in a way that is economically viable for the participants will be a challenge.*

### ***Cross-border payments***

Q15. To what extent would the broader adoption of the XML-based ISO 20022 payment message standards in the United States facilitate electronification of business payments and/or cross-border payments?

*In an environment where we should walk before we start to run, ISO 20022 is overkill for most payment applications. For those situations where ISO 20022 is needed, there are cross-walks (conversion protocols) for FedWire with extended remittance information and the STP 820 convention (which can be used for payments via the ACH) so translation between the formats is possible. Encouraging the market to use*

*technology that is more sophisticated than is needed is not an effective use of time or resources.*

*Ultimately, the challenge of cross-border electronic business payments is less about formatting and more about education, risk management, and the regulatory environment. In 2012, the Federal Reserve's Retail Payments Office contemplated changes to Operating Circular 4 that would have exempted the Federal Reserve from some onerous language in the NACHA Operating Rules to make it easier for banks to use the Fed's Cross-Border Gateway service. Those changes to OC4 did not take place and NACHA eventually modified the rules in question, but that is the kind of break-through thinking that will be needed if the Federal Reserve wants to be a catalyst for change. Some might argue that modifying OC4 would have created an uneven playing field by giving the Federal Reserve an advantage that other Gateway operators didn't have. Perhaps it would have, but simply raising the issue generated the kind of discussion that was needed to remove one barrier to cross-border payments for everyone.*

Q16. What strategies and tactics do you think will help move the industry toward desired outcome four - consumers and businesses have greater choice in making convenient, cost-effective, and timely cross-border payments?

*There are several avenues to explore. Dodd-Frank 1073, while well-intentioned, does not necessarily achieve the desired objective of convenient, cost-effective, and timely cross-border payments. Recent clarifications have helped, but the Consumer Financial Protection Bureau should re-evaluate the impact of the law on payment processing with an eye toward further adjustments, as needed. Other than that, the Federal Reserve needs to work with its Central Bank counterparts in Europe and Asia to create some rules around the complex surcharges that are sometimes applied to international payments. "Lifting Fees" and "Repair Charges" can add considerably to the cost of a payment, and such costs cannot easily be identified or controlled in an open network. Creating a framework for the application of such charges would help in the area of cost-effectiveness.*

### **Safety**

Q17. Payment security encompasses a broad range of issues including authentication of the parties involved in the transaction, the security of payment databases, the security of software and devices used by end users to access payment systems, and security of the infrastructure carrying payment messages.

- i. Among the issues listed above, or others, what are the key threats to payment system security today and in the future?
- ii. Which of these threats are not adequately being addressed?
- iii. What operational or technology changes could be implemented to further mitigate cyber threats?

*Of the threats listed, the authentication of the parties involved and the security of the software and devices used by end users stand out as the weakest links. The Federal Reserve and other organizations have demonstrated that it is possible to create and*

*maintain highly secure environments. Network infrastructure between financial institutions can similarly be secured. However, when there are millions of potential participants and access points, it will be almost impossible to guarantee security. Biometrics would seem to be the obvious choice for both authentication and security of the access device, but doing so would raise a host of concerns from privacy advocates and would stretch the limits of available technology. Another alternative to consider would be to use the vast quantity of payment-related information currently held by the Federal Reserve and TCH to do real-time validation of payment orders. From a data mining perspective, it would be possible to determine the number of transactions previously sent to a particular bank account, whether there were any rejections or returns, the name(s) associated with those transactions, and so on. By sending a "risk rating" back to the party making the payment, that party can determine if additional steps are necessary to validate the recipient and the recipient's account information. Frankly, this type of data mining could have multiple applications from a payment perspective if one or both of the ACH Operators elected to take it on.*

Q18. What type of information on threat awareness and incident response activities would be useful for the industry?

- i. How should this information be made available?

*Financial Services – Information Sharing and Analysis Center (FS-ISAC) has done extensive work in this area. United Bank defers to the experts there on how best to set up a monitoring and communications program.*

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

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

*Biometrics and data mining, as discussed in the response to Q17, appear to have the most potential at this time. The Federal Reserve should also be leading discussions on the allocation of liability when payment errors and frauds occur. Consumers who feel completely insulated from losses associated with fraudulent or erroneous electronic transactions have no reason to implement even basic security features. The same may be true for businesses that can point to recent court rulings shifting significant liability to banks even though the bank acted in compliance with the terms of its business agreement. Banks can employ advanced software solutions for anomalous transaction detection, but in a highly distributed payment network like the one envisioned by the Federal Reserve, it is doubtful that such services would be very effective.*

Q20. What collaborative actions should the Federal Reserve Banks take with the industry to promote the security of the payment system from end to end?

*In addition to the many suggestions already provided, it would be beneficial if the Federal Reserve could develop a payment cost model that banks could use to evaluate the impact of changes in payment patterns on the bottom line. Previous efforts by NACHA and others have suffered from design flaws that have undermined confidence in the projected outcomes. A cost model developed and validated by Federal Reserve economists, without profit or self-promotion considerations, could go a long way toward*



*engaging "C" level bank executives in a discussion about the necessity of making changes.*

Q21. Please share any additional perspectives on U.S. payment system improvements.

*United Bank has no further comments at this time. Thank you for the opportunity to contribute.*