## **General Discussion**

Session 5

*Mr. Brown:* Thank you very much, Neil. I would like Bruce to make a couple comments.

*Mr. Summers:* I will make one comment and it is stimulated by what both Dick and Neil have said. Let me say that I respect both of these systems and I respect the energy, the thoughtfulness, and the entrepreneurship that have gone into both. My comment is along the lines of clarification, or crystallization if you will, about the role of the public-sector in achieving public policy in this space. In particular, U.K. Faster Payments is an example of what I would call "light touch" intervention. The role of public policy is not to define specific outcomes, notwithstanding that I specified such an outcome in the reference model presented in my paper, but I did so more by way of illustration. But the role of public policy is to say, "Here are desirable objectives we would like to see the payments system achieve."

And it is up to the private sector, then, to achieve those objectives. Some of them are very sensitive in that they have a bearing on business practices and even profitability. They have to do with affordability to the customer, which might challenge a pricing methodology or proposition. They might have to do with cooperation, working together more to define schemes and so on. I see public sector intervention not in an intrusive regulatory way, but as an in-touch overseer—oversight as opposed to regulation—to stimulate that working together where appropriate and to make sure we do not lose sight of the higher level public-policy objectives as the technical and business solutions are crafted, so we are getting where we want to be strategically with the payments system.

*Mr. Brown:* Thank you, Bruce. We are going to now open up the floor for questions for our panel.

*Ms. Benson:* First of all, thank you. It was a great paper and interesting comments. When I think about how consumers might use a service like this, I can see it would be used for person-to-person payments. One of the things we lose when we

move away from checks is the ability to make a payment to someone when you do not know their account details. That is a huge value. It is one of the reasons, by the way, that checks have remained pervasive in the B2B space. Let us move forward, then, and say OK, for a consumer using a service like this, it seems pretty clear the way around that problem is using a mobile phone number or something like that as the token. I am sure that is what Popmoney and many other services do.

In consumer bill payment in the United States, we have always had this terrible last-mile problem of getting the payment to the biller. The U.K., I believe, has done something with a sort code directory on that. I wonder if you could clarify how Faster Payments works to get the payment to the biller?

*Mr. Mabbott:* OK. There are two elements here. You referred to the biller's database that we are developing in the U.K. but we haven't got that yet. There is, however, already a culture in the U.K. that if you want to make payments using Internet banking or telephone banking then you will be asked for the sort code and account number of the beneficiary. The sort code for us is the branch office. It is the same as your transit routing code on a check. So there already is a culture, that if you want to make payments, you either know or seek out the sort code and account number of the beneficiary. That is how you would make a telephone banking payment or an Internet banking payment which goes through the ACH today. Translating that into just going faster, as with Faster Payments, isn't a problem.

As to bill payments, most of the Internet banking sites run by the banks will have pop-down menus. If you are trying to pay a utility bill it will help you get the right sort code and account number. Most utility bills in our country still have a detachable credit voucher at the bottom of the bill which, if you wanted to put it through the paper clearing, contains the account details of the utility anyway. So for bill payments, knowing the sort code and the account number you want to pay is not the problem.

If it is friends and family, then you do not mind trusting those relationships with your sort code and account number.

The gray area for us is if you want to be paid but you do not want to divulge your bank details to whomever is doing the paying. To that end we have also been looking at proxy systems and the favorite one is the mobile phone number. Here you could pay somebody using their mobile phone number instead of knowing their sort code and account number.

We are not there yet. Barclays launched its own service very recently. The U.K. Payments Council has ambitions to launch something similar before the end of this year, which will be an industry-run look-up database. If a bank quotes a mobile phone number, the database will disclose the beneficiary's sort code and account number back but not to you as the payer, only back to your bank, so sensitive account details are keep between the banks and not divulged to other customers.

*Mr. Frankel:* These were great presentations, all of them. I have a question for Richard. Is there anything in the governance, technology, or any other agreements that would prevent one of these creative innovators from putting some infrastructure on top of your engine to create a new retail payment card system or mobile phone application?

Mr. Mabbott: None, whatsoever.

*Mr. Greene:* Thanks again to all the panelists for a great discussion. My question is about security and whether we are better served by centralizing systems and having honey pot-type risks as I suspect may exist with Faster Payments. For instance, does Faster Payments enable faster fraud? Or whether distributed approaches, as we seem to have more fragmented here, are safer? The context of the question is there is a report this morning with a potential massive breach of security at MasterCard. So I would like thoughts from the panelists about the right way to have a secure payments system that is also IFT.

*Mr. Summers:* Maybe I will start the reply to the question. In general, security is a high-order question, a high-order issue to be addressed. The paper takes up security a little bit by discussing the trade-offs between credit-transfer and debit-transfer systems insofar as security is concerned, as well as the relevance of the concept of immediacy for security.

You have added another dimension to consideration of IFT-like payment schemes. However, I do not think the question of platform centralization versus decentralization it is specific to this topic. I faced this question in my own professional career. The side I come out on is a thoughtfully well-secured, consolidated environment buys a lot, as opposed to distributed platforms where the various components might not all have the capacity and the resources to provide the highest level of security for information assets. It is a question we will discuss forever. But the important question you raised here, Mark, is, Because fraud is scalable in an IT environment, what really defines confidence-building security in systems that are responsible for centralizing protection of our information assets and, in particular, our deposit money in banks?

*Mr. Mabbott:* In relation to Faster Payments, there is no honey pot. In the diagram I put up that showed the central switch and each of the members having to have a sending system and a receiving system (Figure 1), then security is distributed across the different components that between them make up that end-to-end process. And in this context, there is no substitute for the sending bank having a strong front door.

If the sending bank takes instructions from somebody purporting to be one of its customers who in fact is not—merely a fraudster masquerading as one—and acts on those instructions, then it has to take responsibility for the consequences.

During the development we tried to mandate that sending members should apply a minimum of two-factor authentication to accepting instructions from customers to make Faster Payments. Commercial pressures intervened however and we failed to get that mandated although many of the banks in fact implemented two-factor authentication on their Internet banking when taking instructions to make a Faster Payment. So there is no honey pot as such today.

If we go on to talk about further developments, such as the proxy database where we translate a mobile phone number into the beneficiary's sort code and account number, then, yes, that could be viewed as a potential honey pot.

Although we have yet to implement it in the U.K. we are alive to the danger and the developers are well-aware of the need for tight security on that database. The proxy database, however, is not Faster Payments.

*Mr. Platt:* I do not have a whole lot to add there. But I will just underscore we continue to see the weak link in the system as being the front door of the banks. Frankly, that is where we see all of the fraud come in now. It does not mean we will not be subject to other types of fraud or hacking in the future, but a lot of our attention is focused on working with our clients to help make sure they are only letting the right people in the front door.

*Mr. Fortney:* I appreciate all the comments. We have a lot of agreement with the desirability of a real-time payments system. I have one question, and I will address this to any of the panelists, but maybe Bruce or Richard may have a perspective on it. It sounded like in the U.K. you skipped this whole thing of, How are we going to rationalize the economic case for this? It sounded like it was a little more than a nudge and not quite a dictate, but it was enough to skip past the rationale there.

Bruce, you may be suggesting a similar process here. Let us just get Congress to dictate this. But assuming that does not happen, my question is whether or not there is a business case, for how could this be "sold?"

*Mr. Brown:* And before you answer, Bruce, I have an additional corollary question. The reality is you were talking about how the oversight committees in Congress have been soothsaying this or suggesting this some 20, 30, 40 years ago. Based upon those numbers, is it just "pie in the sky" that we should even think we will get any kind of an intervention from the Federal Reserve, the regulators, or Congress?

*Mr. Summers:* I will start and then turn to Dick and Neil. Let me clarify, I am not suggesting Congress play an active role beyond providing the impetus for the establishment of a national commission, another national commission that represents all the private-sector stakeholders in the payments system. For better or for worse, that is the role of Congress.

Then there is this question of incentives. In terms of the U.S. banking system, there is a cultural transition, there is a large investment cost, not just in central infrastructure, but maybe more importantly in the back offices of banks. The back

offices of banks are, by and large, antiquated. Banks cannot go on forever not keeping up with digital payments processing in their back offices.

Looking at international case studies, what I find is when the stakeholders through their governance arrangement finally decide to embrace a truly innovative approach or technology, that is a catalyst that leads to a breakthrough and causes the banks to upgrade their back-offices from batch processing to real-time processing.

You also see in the case studies banks attribute the cost of that upgrade to the specific innovation at hand. Let us say it is Faster Payments, something that has to happen and it has to happen soon. Faster Payments just happens to be the trigger that ignites the action taken by the banks to upgrade their back offices.

So, congressional intervention should be limited to sponsoring another national commission of private-sector stakeholders—and I would add public-sector stakeholders as well. Yes, there are costs, but at least in the U.S. context, lagging the digital economy in terms of servicers and technology platforms is a problem banks ought to step up to. Maybe something like this would be the trigger.

*Mr. Mabbott:* I would balk at saying that we skipped the rationale. We did not for instance build a Rolls-Royce solution and damn the cost. We had some serious debates about what we were going to spend the banks' money on. We also had some major challenges in terms of speed to market and universal reach.

What it eventually came down to was a debate between processing ever faster batches through an ACH versus breaking with that model because however fast you put batches through the ACH there is always going to be someone that wants you to process them faster. The way to avoid that is to go for a real-time solution.

So it came down to a debate between those who I characterized earlier as "conservative" who favored an ACH based solution and those who said we have an opportunity to do something new and innovative here. The government is going to make us do something, so let us at least capitalize on our investment while we are about it.

*Mr. Platt:* I would maybe have a slightly different perspective, which is probably caused by the short-term perspective under which we operate. We really do not look out more than 18 months, effectively, when we are doing our planning and thinking about what the next generation of payments is going to look like.

I am very interested in this notion of a "light-touch" intervention that Bruce referred to but, as someone who is in the guts of this every day, it is hard to imagine within my next two 18-month cycles that the settling and clearing environment is going to look much different than it does today. Much as we might actually like to see that, it is the skepticism that I referred to that is coming back here.

I am very interested in the U.K. story, though, which I had not heard before.

*Mr. Williams:* I would like to reflect on the universality of payments. I would like more information on bill payments in the U.K., like the lady from Glenbrook. But finally I have a question on end-to-end and how Bruce' model fits with Faster Payments.

On the clarification of the bill payments side, we are working with the Payments Council in the U.K. to create the central database of billers. As Dick says, you can use the sort code and account number to make that payment. But, from a consumer point of view, you actually want to pay Verizon, you do not want to pay necessarily with the transit routing number and the account number. Of course, what happens if Verizon decides to change banks or change accounting practice?

Finally, I would say is there are only two areas the Faster Payments scheme is deficient in comparison with Bruce's model. The first one is the notification of the recipient of the payment. That is not covered by the scheme rules. And the second one is, of course, not all the payments which are meant to be immediate actually occur in real time. If it is an agency bank, it only connects to its sponsoring bank every so often.

When we are talking about reconciling the payments that are coming into a credit card account, quite frequently the sender knows that payment has been received. But the business receiving the payment does not know about that until the end of the day when they get their statement. The real-time payment, then, lags four or five hours until that information is provided by the bank.

So the question is, Do we think we missed something? Was there an oversight in the definition of the scheme that said Faster Payments should inform the recipient the payment has been received?

*Mr. Mabbott:* In terms of the central infrastructure for Faster Payments, no, we did not miss that aspect. What we did was the minimum that required cooperation between the banks. So we allowed the maximum area for them to compete. There is absolutely nothing to stop banks launching services to tell recipients that they have received a Faster Payment. In fact, I believe some—Lloyds Banking Group, for instance—have already done that. You can usually opt-in for such services. I do not know about you, but I do know of anecdotes where people who have switched this on are desperate to switch it off again because their mobile never stops interrupting them. In that sense, this is in the competitive domain.

In terms of the agency bank point you raised, Jonathan, yes, you are right. If the Faster Payment is member-to-member, the service-level agreement says "if you receive a Faster Payment, you have to put it in the customer's account within two hours maximum." In actuality it is within seconds and if you are one of those people who move money from your checking account to a savings account, I know of numerous occasions where people have sent money to themselves and before they have logged-on to the savings account to check their balance, the money is already there. For the vast majority of payments, it happens in seconds—nothing like minutes or hours.

The reason we have agency banks in the system, however, is the regulator said we had to be able to reach over 95 percent of checking accounts. If we could not persuade second-line banks to join—the members of the Payments Council were bamboozled into joining—then the next best thing we could do was to make it possible for payers with member banks to send Faster Payments to customers at those second-line banks and thereby achieve our 95 percent reach. As I have said, we in fact reach over 98 percent.

The EU Payment Services Directive (PSD)—which many of you in this room will have heard of—also helps here. As of Jan. 1, 2012, the PSD imposed faster processing on EU banks and a lot of these agency banks have had to speed-up the process by which they receive payments through Faster Payments so the situation is improving all the time.

*Mr. Summers:* If I take Jonathan's question in the right way, I have tried to think entrepreneurially at the level of services provision. We talk about immediate funds transfer being a logical application for mobile. But, why does it have to be a mobile phone?

There was a day, not very long ago, when everybody carried something called a check register. We wrote checks and we kept our account balance up-to-date manually. It seems to me there is some opportunity for banks to think more specifically about what clients are enabled with, along the lines of the equivalent of a dedicated, mobile payment device and register that is electronic. A dedicated, mobile payment device has implications for security, too, as so you are not doing your value transactions on the same device you use for recreational applications. This is just by way of example, there are ways of taking an idea like this and being very entrepreneurial in terms of turning it into something that is attractive to consumers.

*Mr. Anderson:* If I may return briefly to the issue of security, there is potentially a tension for a regulator who gets involved in promoting a payments system, under the traditional regulatory role of looking after the interests of those customers who are less able to look after themselves.

A fundamental problem in the modern world is that a lot of computers are infected with malware and many of these are running the Zeus trojan, which tries to make payments through bank accounts. In the U.K., the proportion of infected PCs, as we have most recently measured it, is about 6 percent. I am afraid many people do not really put enough effort in trying to design systems which will still work, despite the fact that 6 percent of payment terminals are under the control of the bad guys. In the U.K., we see many hard cases where banks accuse complaining customers of being negligent or complicit, at least initially.

In the United States, I believe there is a problem with small and medium-size enterprises being dunned for ACH payments, because I understand that here if people do not spot a rogue payment within two days, it is no longer the bank's problem. It is the corporate customer's problem. Therefore, banks in the United States

apparently do not have enough incentive to crack down on this kind of thing.

My question, I suppose for Bruce, is this: If you were going to get Congress to give you the power to be a "light-touch" regulator to promote payments services, how do you manage the conflict between that and the role of upholding consumer protection?

*Mr. Summers:* So security is the top-level question. I will give a three-part or four-part response to Ross's important intervention here. First, to re-emphasize, I am suggesting "light-touch" intervention on the part of Congress or a regulatory authority to stimulate action in a public policy context where we have clear public policy objectives. But, do not pick winners and losers. Do not define security regimes. Leave that to the private sector.

Second, my paper hints at the kinds of design questions we should be asking from a security standpoint. In particular, the paper states that a credit-transfer system is inherently easier to secure than a debit-transfer system. I would also say that moving to immediate processing provides some opportunities for enhancing security, as opposed to a delayed settlement, batch-processing environment, if the notion is embraced within the banking system.

Third, I would like to re-emphasize a point related to something that Ross brought up for the first time yesterday. If you really want to be secure in your banking transactions, dedicate a device to banking and lock it in the cupboard. Do not use it for anything else. I adhere to that advice. The notion of a dedicated device for payments is consistent with my earlier suggestion about opportunities for banks to provide customers with access methods that are dedicated to their banking transactions and not shared with other types of riskier applications.

*Mr. Mabbott:* I ought to start off by saying by not being a central banker I have probably not been as precise in the terminology I have used when I talked about the regulator as perhaps I should have been. I have tended to lump all authorities together under the term regulator.

In the case of Faster Payments, it was the competition authorities that "leaned on" the payments industry to come up with faster clearing and settlement. It was not the banking regulatory authorities.

Now, Faster Payments, as an extant scheme, comes under the Bank of England's oversight. The Financial Services Authority also has a role in protecting customers' interests.

If banks are taking incorrect instructions masquerading as their customers' instructions and acting on them, then that is outside the perimeter of Faster Payments. In terms of a conflict between a regulator wanting to see an improved service and the security matters Ross raises, I do not see that particular conflict manifesting itself in the way the U.K. has established its Faster Payments system.

Ms. Hughes: Actually I have more of a comment, but it may prompt a reply, so we will see. We have a very good, but very long, stretched out track record in this country of causing people to take specific kinds of actions in this space. The Federal Reserve System was one, letting more institutions into Federal Reserve clearing and settlement was another, and more recently (remember I am a lawyer and not an economist) we had the Check 21 Act. And Check 21 is, in my opinion, a messy legal model, but a brilliant economic model, where Congress said, "Do this to allow more electronic transmission of information for clearing and settlement purposes and provide a solution." Although it is maybe not the most perfect one, it is an interesting solution for the small-bank holdouts—the 3 percent or 5 percent that you have not been able to reach in the U.K. with Faster Payments yet. We created an economic model that let them have paper if they insisted on paper, but let everybody else transfer electronically without specific bilateral electronic transfer agreements, which was really holding up the process.

So I am curious for the panel members, particularly those who are familiar with this system in the United States, whether you could conceive of a model that would create an economic opportunity—like Check 21 did in many respects—but which is not too heavy-handed, because it really is not very heavy-handed?

*Mr. Summers:* I could conceive of that model, but probably not on the fly. But I take the spirit of the question. We want to be collaborative and we want to be creative and we want to recognize the particular characteristics of our banking culture and our banking system. We have an ideal. We might not achieve the ideal overnight, but, if we can get real close to achieving it and then work on the residual over time, that is great. I would be hopeful about achieving the spirit of what you have to say.

*Mr. Platt:* I would echo that. One thing I feel has been in short supply in innovation in the banking industry, in general, is a consumer perspective. That is one thing we are very focused on.

For example, and here is where I will directly disagree with Bruce, the notion for us of asking consumers to maintain a separate digital device—a separate piece of hardware for transactions—is something we think has absolutely zero chance of succeeding in the market in the current environment. We need to rise to the challenges. Any regulatory, economic, or legal frameworks that attempt to solve this, really need to keep in mind what consumers are doing and adopt a consumer perspective. That is the genesis of the whole conversation. We need to improve the payments system to align with current consumer expectations about speed and immediacy of payments.