BANK OF ENGLAND

Speech

The UK payments landscape

Remarks given by

Chris Salmon, Executive Director for Banking Services and Chief Cashier, Bank of England

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Introduction

Today's conference provides an opportunity to review how the Canadian payments landscape could evolve. On the basis that there will be some relevant crossovers, perhaps the most helpful contribution I can make is to summarise some of the challenges we face in the United Kingdom. In line with this session's focus, I will cover the core sterling payments infrastructure, defined as the key wholesale and retail payment schemes that the Bank oversees, and focus on integrity, which is at the heart of a central bank's interest in payments.

As a precursor it may be helpful to give a brief overview of the current set-up of the UK's payments landscape. The Bank of England operates the UK's real time gross settlement infrastructure, RTGS. CHAPS, our high value payment system, has settled on a real time gross basis since 1996, and CREST, our securities settlement system, since 2001. They settle in central bank money across accounts their members hold in RTGS. While high value payment systems (HVPS) in many countries are owned and operated by the central bank, CHAPS is run by "CHAPS Co," a non-profit-making, private company owned by its members. Its role includes setting system rules, monitoring compliance and administrating membership. The Bank of England was given statutory oversight responsibilities in the Banking Act of 2009 and CHAPS Co are formally overseen on this basis. To reiterate, in the UK, although the Bank of England owns and runs the RTGS infrastructure, CHAPS Co is responsible for the provision of CHAPS. There is a parallel with Canada here, where the HVPS ("LVTS") is managed by the Canadian Payments Association (CPA) instead of the Bank of Canada. This parallel is limited though as the CPA both manages and also runs the infrastructure behind LVTS.

There are also a number of privately-operated retail payment systems in the UK which settle across RTGS accounts on a deferred net basis. These include Bacs, which handles direct debits and credits over a three day clearing cycle; Faster Payments (FPS), a near real-time retail payment service which operates "24/7"; and systems for clearing cheques, interbank ATM obligations (LINK), and card payments (Visa Europe currently settles over RTGS though Mastercard does not) – all are industry owned. Except for Visa Europe, each of the systems that settle with the Bank has a contractually separate, industry-run payment scheme, which manages its rules, while their operational infrastructure is 'outsourced' to a supplier company. For Bacs, FPS and LINK, this supplier is VocaLink, a specialist infrastructure provider split out from Bacs in 2003, which remains owned by the banks. The Bank oversees Bacs and FPS, but not Visa Europe or LINK.

The sterling payment schemes which settle across RTGS have limited membership, each having somewhere between ten and thirty direct member banks. To put things into context, the gross value transferred by these systems each day is around £280 bn of CHAPS payments, £420 bn of payment obligations arising from securities settlement in CREST, and in the order of £20 bn for the retail systems.

Although there are similarities between the UK's structure and those seen in other countries, it has unique aspects. This reflects the high-degree of path dependency in the way different countries' payments systems evolve. So while internationally we have harmonised oversight standards through the work of organisations like the Committee on Payment and Settlement Systems (CPSS), the structure of payment systems across countries is diverse. As a consequence we all face slightly different challenges when considering structural change within our payments landscape: what is pressing in the UK may or may not resonate in Canada and vice versa. With that caveat in mind, let me start by reviewing the focus of recent activities in relation to the core payment systems, before pulling out some of the key elements of our forward work programme.

Recent Priorities

Amongst the numerous lessons from the financial crisis were: don't under-estimate tail risks, do worry about contagion, and liquidity matters. Although the payments systems in the UK (and elsewhere) performed well during the crisis, those insights prompted us to address a number of credit, liquidity, and operational risk issues within our core systems with more vigour than previously, and have shaped much of our recent work programme.

Concerns about tail risks and contagion have prompted changes in both the wholesale and retail spheres. In the wholesale sphere, the recent focus has been on tiering. Historically, CHAPS had a very tiered structure, with the majority of payments being made by settlement banks on behalf of their customers, a practice which generated significant intraday credit and liquidity exposures between direct participants and their customers. This model also concentrated operational risks, given that an outage at one of the big settlement banks would have prevented its customers from making payments. These risks would be exacerbated in periods of stress, potentially contributing to contagion as payment services were withdrawn or collateral suddenly demanded. Since the crisis, the Bank, working with the scheme manager CHAPS Co, has acted to reduce tiering. Five banks have become direct participants of CHAPS since 2007, and a further five have given us formal indication that they will do so soon. As a consequence, the proportion of CHAPS payments made by direct members on their own account is set to increase from around 40% in 2007 to approaching 70%, substantively addressing the tiering risks that had previously existed in the wholesale sterling markets.

In relation to the retail systems, we have also sought to address latent contagion risks by reforming the arrangements covering member default in two of our largest retail payment schemes (Bacs and Faster Payments). As currently structured, these default arrangements contain a heavy "survivors pay" element, where the other members of the payment scheme assume a portion of a failing member's payment obligations (either temporarily, a liquidity risk, or permanently, a credit risk). This creates a clear contagion risk. Recently, the schemes have agreed to move to a full "defaulter pays" model, where all obligations are fully collateralised in advance, in cash, segregated in each bank's account with us. The move from survivors to defaulter pays will take place in the next year or so.

Separately, but driven by the same philosophy, we have sought to reduce the operational risks that we ourselves run as the core infrastructure provider within the sterling system. The Bank of England currently runs the UK's RTGS infrastructure from twin operational sites so we can continue to provide RTGS settlement in the event of a problem at either. While this is a highly resilient arrangement, it would be vulnerable to a catastrophic failure which took out both sites simultaneously. To counter this risk SWIFT, the telecommunications firm, is developing a product - known as the Market Infrastructure Resiliency Service (MIRS) - that will act as virtual third site for the Bank on an independent IT platform. Moreover, because SWIFT would operate MIRS from one of its European operating centres, it would not be affected by IT failure affecting both of our locations, increasing the degree of latency that MIRS will offer compared to a traditional model for a third site. MIRS will be available from January 2014, and we are the first central bank to take advantage of it. The Bank's costs in relation to this project have been funded by the CHAPS member banks, who will benefit from the additional resilience MIRS will provide.

Turning to the lesson that 'liquidity matters', we introduced a Liquidity Saving Mechanism (LSM) in April this year. There are some technical similarities to the Canadian "Jumbo algorithm", which periodically looks to offset high-value ("Jumbo") payments in bilateral queues, speeding up their settlement and reducing collateral requirements. The LSM in our RTGS system is an offsetting mechanism that seeks to match groups of payments, regardless of size, via bilateral and multilateral algorithms that run in short cycles around 275 times each day. All the payments matched by the algorithms will settle individually and simultaneously at the conclusion of the matching cycle. Since the implementation of our LSM, participants' average peak intraday usage in CHAPS has fallen by around 20%, so this innovation has provided a technical means of saving liquidity, reducing incentives to otherwise adopt receipt-reactive behaviour.

On-going and future priorities

If the post-crisis initiatives I have discussed so far have been, or are, close to completion, one area of work where we have further to go is in ensuring continuity of access to payment services for banks that are in recovery or resolution. In the UK's case, a new resolution regime was introduced in the Banking Act of 2009 which gave the UK authorities tools to address the risks of discontinuity. Nevertheless there is a good case that the effective statutory framework could be usefully supported by private sector initiatives (whether contractual or otherwise) to enhance further the ability of central banks, supervisors and resolution authorities to maintain continuity in payment, clearing and settlement services in recovery and resolution.

For banks in recovery, that would involve avoiding "cliff-edges" in contracts that automatically exclude banks from payment schemes in the event of (say) a ratings downgrade. For banks entering resolution, we want to ensure that critical economic functions in the firm which rely on access to financial market infrastructure are not dislocated or denied. This is relevant not only for banks that are direct members of payment schemes, but also for indirect participants that rely on other banks for payment and other quasi-infrastructure services. And it applies to small and large banks alike, though for large banks there is not only the question of ensuring access in domestic systems but also ensuring that payment services that are provided on a cross-border basis or require access to financial market infrastructure in other jurisdictions can be maintained. The Bank is considering how best to address these issues both domestically and, alongside Canada and other countries, at an international level.

Looking forward, there are three issues around the core payments systems that the Bank is beginning to look at. One relating to risk, specifically cyber risk; one about infrastructure provision, in terms of reviewing the operating hours of the UK's RTGS system; and one in the field of regulation, which is focused on the changing regulatory landscape for payments in the United Kingdom.

Although cyber risks have long existed, over the past year or so in UK circles they have rapidly become a central issue, so much so that, in June the Bank's Financial Policy Committee made a formal recommendation to put in place a new program of work on cyber security for key UK financial infrastructure[1].
The Bank of England has set each scheme a specific priority regarding cyber risk and we and the payment schemes need to deepen our resilience to cyber risks. The prompt for this change is probably obvious: the evidence shows that cyber attacks on the financial sector have increased markedly in frequency and sophistication over the past two years or so. Although some key payment systems are probably less vulnerable to generic, non-bespoke attacks[2] than most financial firms, given their limited reliance on the internet, the consequences of a successful attack could be severe. Addressing this cyber threat will not be just about IT security and system enhancement, but also people, processes and culture, posing challenges to the managers of FMIs as well as their overseers. For systemically important systems, recovery arrangements are particularly important, and this is an area where alternative technology such as MIRS could come to the fore.

The next issue relates to the times at which the Bank's RTGS system can be accessed by settlement banks. Currently it operates for around ten hours each business day, with the most recent change occurring in 1999.

Since we made that change, a number of central banks have lengthened their RTGS operating hours quite considerably, most obviously driven by the demands of the internationally-harmonised CLS cash settlement window, and also by a more general desire to operate with a greater overlap with major markets in other time-zones. And in the UK the move to a cash pre-funded model for two of our largest retail systems may create a latent demand to access the RTGS system outside of its current operating hours. Faster Payments, which operates 24/7, often provides confirmation to customers almost instantly. In a cash pre-funding world, settlement banks will only be able to accept further payment instructions if they have sufficient funds in their account with us.

Given the changes coming to our retail systems, and recognising that a number of other central banks have moved away from a traditional daylight business day, we have recently decided to review the pros and cons of

[1] http://www.bankofengland.co.uk/publications/Documents/records/fpc/pdf/2013/record1307.pdf.
[2] Such as "distributed-denial-of-service" (DDoS) attacks – which affected some banks earlier this year.

extending the operating hours for the RTGS infrastructure in the UK. This is not a review with a preferred end in sight: it is entirely plausible we will conclude that no changes are warranted, but we do want to understand if a longer RTGS hours would permit beneficial change in the various wholesale and retail payments systems which connect into it, and so to the wider financial system operating in the UK. The review is a form of sensible housekeeping, being an issue that the core infrastructure provider should periodically address. My presumption is that we will draw our initial conclusions within a year, with a further implementation lag following that, were we to conclude that significant change were appropriate.

The final area of focus is country specific: last month, the UK government introduced draft legislation to create a new regulator for UK payments focused on competition, innovation, and the interests of end-users. This will replace the previous regime which had relied on a self-regulatory body, the Payments Council, to achieve these public policy goals.

The new regulator will be created under the UK's Financial Conduct Authority (FCA), and will have extensive powers over payment scheme companies, infrastructure providers and individual scheme members. The government has already asked it to undertake, as a priority, studies in relation to account portability and the ownership of payment systems – whether partial or full divestment by banks would address market failures in competition or innovation.

As with all situations where there are two regulators for a single activity, effective coordination will be required. This is recognised in the clauses put before Parliament which ensure "the Bank of England will retain effective rights of veto over anything the Regulator might do impacting upon [its stability objectives]"[3]. This recognises that the integrity of the payments system has to be the first priority, but, most of the time, integrity and the important competition and innovation objectives will align without difficulty. For example, increasing direct membership of CHAPS improves integrity in terms of mitigating liquidity, credit and operational risks, while also enabling greater competition in the market. And similarly pre-funding in retail systems improves integrity as members do not have to take on defaulters' liquidity obligations, and also removes a potential barrier to entry. But more fundamentally, to be successful, we and the new payments regulator will need to extend the cooperative working relationship we already enjoy in other areas to payment matters.

Let me stop at this point: I have tried to draw out some of the idiosyncrasies of the payments environment in the UK and the highlights of our recent and prospective work to protect the resilience of our core sterling payment systems. Hopefully there have been some relevant crossovers to the Canadian context, which are helpful for today's deliberations.

[3] Paragraph 2.22 of the HM Treasury response to the "opening up UK payments" consultation, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249085/PU1563_Opening_up_UK_payments_Government_response.pdf. This is clause 85 in the Financial Services (Banking Reform) Bill, http://www.publications.parliament.uk/pa/bills/lbill/2013-2014/0054/14054.pdf.