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PROJECT CARLTON – INITIAL RESEARCH FOR PUBLIC CIRCULATION

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A BALANCE SHEET OF THE ACHIEVEMENTS OF THE PAYMENT SYSTEMS REGULATOR AND THE PAYMENT STRATEGY FORUM 2014-2018…

…AND OF THEIR ASSISTANTS IN THEIR ENTERPRISE TO REFORM PAYMENTS IN THE UK: HMTREASURY, THE BANK OF ENGLAND, PAYMENT SYSTEM OPERATORS DELIVERY GROUP, OPEN BANKING IMPLEMENTATION ENTITY, NEW PAYMENT SYSTEM OPERATOR/PAY.UK, AND PAYMENTS UK/UK FINANCE

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Preface

The re-vamping of UK payments is well on the way towards repeating the experience of other notable UK projects – smart meters, NHS Connecting for Health, the DVLA's abolition of paper tax discs and many, many more.

Expensive, multi-year fiascos costing many millions of pounds.

The question is not whether the direction of travel portends disaster, the direction having been set by the combined ministrations of HMTreasury, the Bank of England, the Financial Conduct Authority, the Payment Systems Regulator, the Payment System Operators Delivery Group, Payments UK and their successors New Payment System Operator and UK Finance, not forgetting the cast of thousands who acted as unpaid extras within the Payment Strategy Forum.

The question is what to do.

About the author

Bob Lyddon is an experienced management consultant both privately and with PwC in the fields of international banking, payments and cash management. Between 2003 and 2017 he was engaged as General Secretary of the IBOS international banking club. With PwC between 1997 and 2000 Bob managed several programmes at the time of the initial introduction of the Euro, and while at BankBoston between 1994 and 1997 Bob designed and brought to market the Connector international banking club. Bob's earlier career was spent at Chemical Bank/Manufacturers Hanover and Lloyds Bank International in international capital markets, big-ticket export finance, and aircraft finance.

Bob has written a series of online courses on Cash Management, Trade Finance and Corporate Treasury, as well as delivering such courses in person. Bob has acted an expert witness in connection with cross-border payments, and is a retained consultant to trade bodies in this same field.

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Executive Summary

The ministrations over the past 5 years of HMTreasury, the Bank of England, the Financial Conduct Authority, the Payment Systems Regulator, the Payment System Operators Delivery Group, Payments UK and their successors New Payment System Operator and UK Finance, and of the many people within the Payment Strategy Forum add up to a huge weight of effort.

The results have been on the very low side of expectations, out of all proportion to the investment so far, but worse is to come. In the name of innovation, choice and competition we have an agglomeration of market power into two actors – New Payment System Operator and Mastercard.

We also have a roadmap under New Payment System Operator to make all "retail" payment types interdependent within the New Payments Architecture ("NPA") project, and to elevate the Faster Payments system in importance over the other payment systems, Faster Payments being the seedbed for the most rapidly increasing type of payment fraud – Authorised Push Payment Fraud enacted on the back of eBanking channels, be that mobile banking, remote banking or the new Open Banking.

The direction of travel is towards "push payments" (like BACS Credit, CHAPS and Faster Payments) and away from "pull payments" (like BACS Direct Debit, cheque and card), the latter having better consumer protection measures around them.

"Pull payments" are likely to be starved of investment going forward, and made to conform to the NPA model, hindering their ability to develop new feature and function, even were there investment funds available.

A core mechanism for bringing all of this about is the adoption of the ISO20022 XML data standard, despite its questionable track record in the Single Euro Payments Area as a platform for enabling innovation and spurring competition – on any other measure than price.

Without revenues there can be no re-investment in resilience, or in new measures to combat emerging fraud threats.

This is the direction of travel, though, and it does not bode well for the UK economy or for the achievements of the benefits that these changes are supposed to bring about.

The projects have built up a head of steam and have strong support from the authorities. It is highly questionable whether the supertanker can be turned from within, which leaves two options – firstly to do nothing, which seems quite irresponsible. Secondly to build something either separately on a greenfield basis, or to try and wrest control of the UK's "pull payment" systems away from NPSO and to develop those as a competitor to NPA.

Rationale and Set-up of the Payment Systems Regulator ("PSR")

The PSR has ambitious objectives but in its first four years it has cost far more than expected, done much busywork, caused a huge amount of work for others, but achieved very little

- PSR established to resolve innovation and competition issues
- Its scope was "payment systems": CHAPS, Faster Payments, BACS, Cheque&Credit Clearing, LINK, Visa and Mastercard
- Supposed to cost £2.5 million per annum: actually costing over £10 million
- Has issued a series of "Directions"
- Has taken on two roles as "competent authority" pursuant to EU legislation
- Has carried out two Market Reviews
- Has become involved in ATM charges and payments fraud
- But to what avail?

The PSR was established in 2014 pursuant to an "HM Treasury Impact Assessment – The Regulation of Payment Networks" of 20/8/2103, authored by a Mr Dan Turnbull.

The salient issues were that the then-current arrangements were deemed not conducive to competition and innovation:

What is the problem under consideration? Why is government intervention necessary?
The regulation and governance of payment networks does not enable them to respond to current and future challenges in the most effective way. Given the fundamental importance of the money transmission system to the economy, any inefficiency has a significant impact on economic welfare. The Government has accepted the recommendations of the Treasury Select Committee to extend regulation in this area, in order to tackle the multiple competition issues inherent in the payments market. This will have the knock-on effect of creating a more consumer-focused, innovative payments industry

What are the policy objectives and the intended effects?
The main policy objective is to ensure that the operation of the payment systems is not a barrier to competition in the provision of payment services, and in the wider UK financial services market. By tackling anti-competitive elements in this market, It will also ensure that decisions about the operation and development of UK payment systems are made with the views of all stakeholders, including end-users, being properly taken into account, and that adequate investment is made to act on the results of these decisions. The intended effect is that the UK has reliable, efficient and innovative payments networks, that support competition in UK financial services

The net annual cost to business was stated, at 2009 prices, as being £2.49 million and the Net Present Value benefit was stated as -£24.74 million. The costs have turned out to be far higher than this. The PSR annual report and accounts for 2017/18 show annual costs running at £10.9 million – four times the estimate.

Against this quadrupling of annual costs we will need to measure the PSR's achievements. At appropriate points in this paper we will be looking into its efforts vis a vis:

- Acting as competent authority for the EU Interchange Fee Regulation;
- Acting as competent authority for Article 105 of the 2017 Payment Services Regulations under which non-bank payment service providers (such as eMoney Institutions and Payment Institutions) should enjoy ready access to banking services;
- Intervening in the matter of the proposed reduction from 25p to 20p the interchange fee paid on each cash withdrawal at a LINK-connected ATM, paid by the card issuer to the owner of the ATM at which the withdrawal was made;
- Withdrawal of free-to-use ATMs;
- Authorised Push Payment Fraud;
- Fraud on contactless payments.

Some of the above came more recently so we will start by focusing on the four main early initiatives of the PSR:

1. Direct Access to Payment Systems;
2. Market Review on Indirect Access to Payment Systems;
3. Market Review on Infrastructure Provision behind Faster Payments, BACS and LINK;
4. Establishment of the Payment Strategy Forum.

The contents of the PSR's work demonstrate that it has focused its efforts on the payment systems and services that it has come to classify as "retail" i.e. used by consumers and businesses. It appears to have come to an understanding with the Bank of England that the latter will have charge of all matters to do with "wholesale" payments.

This was an error of great import. By naming CHAPS but not the other elements in the UK's "wholesale" payment system, it has let arrangements and policies to slip through the net that have at best slowed, and even completely undermined, the achievement of its objectives.

The Bank of England and its account and payment services

The Bank of England's account and payment services have largely escaped the attentions of the PSR – why?

- The Bank of England runs many account and payment services that aggregate to the UK "wholesale" payment system, but only CHAPS is a regulated payment system
- CHAPS has been taken in-house by the Bank of England and a renewal programme has been taken in hand that may deliver from 2021 onwards
- That leaves the other parts of the Bank of England's "Real-time Gross Settlement" payment system unregulated, such as…
- The payments module of CREST
- The interlinking between CHAPS and CREST
- The Settlement Account infrastructure
- The Reserve Account infrastructure
- There are numerous anomalies and practices that badly need reviewing

For some reason the PSR has chosen to regulate only the CHAPS payment system out of the complex of account and payment services that the Bank of England runs, and which have a huge effect on payment services in the UK as a whole and on the "retail" payment systems to which the PSR has devoted all of its attention.

This was a big mistake.

A prime opportunity has been missed to do a root-and-branch transformation of the anomalies and Spanish practices within the Bank of England's account and payment services.

CHAPS is only one element in what the BoE terms the UK's Real-Time Gross Settlement payment system.

What the other elements are and why the RTGS is not synonymous with CHAPS is quite difficult to pin down.

For one thing there is the payment module of the CREST system. CREST is for stocks, shares and bonds. Trades in these securities settle on a Delivery-versus-Payment basis in CREST. For this purpose an institution entering into such a trade must either be a CREST member or have a relationship with one. The cash leg of the trade will settle over the cash account of the CREST member in CREST – not over a CHAPS account or over a Settlement Account at the BoE.

If an institution has money in its CHAPS account that it needs to settle a purchase or borrowing of securities in CREST, it must make a transfer through the interlinking between CHAPS and CREST to get its money onto the right account in CREST in order for the trade to settle.

This is important in the payment business because, although the BoE talks about creating liquidity on a CHAPS account if an institution does not have a credit balance, its descriptions tend to obfuscate that the BoE does not allow accounts to go overdrawn.

The permitted way to create liquidity on a CHAPS account is to enter into a repurchase agreement with the BoE by selling eligible securities to the BoE and buying them back later for a slightly higher amount.

This repurchase trade has to be settled in CREST and the institution involved receives proceeds on an account in CREST, and then has to transfer them to its CHAPS account. It then has to do all this again in the opposite direction to settle the reverse leg of the repurchase agreement.

CHAPS thus differs in an important – and negative – respect from TARGET2 and the US Fedwire system: in those systems the eligible securities can be placed directly at the central bank under a pledge agreement, and the institution requiring liquidity can overdraw its account to the value of the eligible securities less a haircut.

Then we have the issue of Settlement Accounts. The BoE requires that any institution that is a direct member of a UK payment system (but not a cards system) have a Settlement Account, but having one does not automatically mean the holder is a CHAPS member.

Up until recently Settlement Accounts were only for institutions that had a Reserve Account, and the Reserve Account was only for institutions that were part of the Sterling Monetary Framework.

The concept behind the Sterling Monetary Framework was that banks in it were large providers of current account and overdraft facilities to the UK – consumers and businesses. These providers were obliged to hold a significant amount in their Reserve Accounts as collateral in favour of the BoE in the event of their own failure.

The interest rate on the Reserve Account is the BoE Base Rate such that, when the BoE altered its Base Rate, the Reserve Account would serve as the transmission mechanism whereby the BoE's action caused the Reserve Account holders to alter the interest terms on their current account and overdraft services in sympathy.

Thus the BoE's change of Base Rate was transmitted into the wider economy.

The problem with that is that the BoE has nullified its own policy by hardly ever altering its Base Rate over the last ten years. The Base Rate has throughout that time been well below the rate of inflation, destroying the time value of money (the purchasing power of money has reduced over time instead of increasing).

Only on the Saver side of the market do interest rates bear any resemblance to the Base Rate: savers receive either a paltry rate of interest or none at all.

On the Borrower side the rates paid on loans, overdrafts and mortgages bear no resemblance to the Base Rate – they are far higher - and do not move in sympathy with it.

We noted above that the Reserve Account balances of institutions were placed as collateral in favour of the BoE in the event of their own failure. However, on an intraday basis, institutions can use their Reserve Account balance as their Settlement Account balance – to settle their payments.

This nullifies the value of the Reserve Account balances as collateral, except if the institution involved has the good grace to go down at midnight, instead of during the business day.

A major opportunity has been missed to unravel these matters and at least ensure that:

- Having a Bank of England Settlement Account becomes synonymous with membership of CHAPS;
- CREST dealings settle over CHAPS accounts and not through a separate complex of cash accounts in CREST;
- The Bank of England create a securities pledging mechanism in CREST whereby CHAPS members can earmark eligible securities and then overdraw their CHAPS accounts up to the value of the securities less a haircut;
- "CHAPS" and the UK's RTGS system become synonyms;
- The Reserve Accounts complex and the Sterling Monetary Framework are separated from CHAPS/Settlement Accounts by Reserve Account balances not being usable as intraday liquidity in CHAPS.

As it is, the PSR has failed to identify the anomalies existing at the base of the UK's payment systems, by first allowing itself to be appointed as regulator for CHAPS alone, and secondly (and inexplicably) by failing to identify how the policies and IT shortcomings of the BoE have inhibited the PSR from realizing its objectives.

The Bank of England's antiquated policy framework and IT complex

The Bank of England's antiquated policies and IT have been the major blockers to Direct Access to the UK's payment systems – and caused other detriments as well

- The Bank of England's policy framework is antiquated and has inhibited market development
- The PSR should look here for the prime reasons why so little progress has been made on Direct and Indirect Access to payment systems
- The policy to drive "non-systemically important" payments off CHAPS has been damaging and has led to the widespread Authorised Push Payments Fraud through Faster Payments
- The BoE's IT complex is antiquated: it could not have opened more accounts even if its policies had permitted it to

Account opening policies
We have noted that, until recently, the BoE would not permit a Settlement Account to an institution that did not have a Reserve Account and was therefore not part of the Sterling Monetary Framework.

Similarly the BoE would not, until recently, allow a Non-bank financial institution to have an account.

These policies severely hindered the achievement of the PSR's objectives on Direct Access to payment systems, although the PSR has taken the view that the Direct Access sits within the gift of the payment system operators.

Account opening capability
Loosening the policies is one thing, actually opening the accounts is another. For the BoE, opening a Settlement Account is an IT change that needs to go through a full testing cycle. One IT change can be done per week. As there are IT freezes over the summer and over Christmas/New Year, and as there are 13 meetings of the Monetary Policy Committee that might result in a Base Rate change (also an IT change), this leaves only a small number of slots available for new accounts.

Priority in the queue has gone to the five largest UK banks, if they needed a slot to service the separation of their bank into a Ringfenced and a Non-ringfenced bank. Likewise a TSB would enjoy the next level of priority so as to establish its separate identity from Lloyds, in line with commitments made to the EU.

The result has been, in 2018, 13 slots, diminished by ones needed for priority purposes. All are taken. There are 19 slots in 2019 and most are taken.

Right of objection to rules of "retail" payment systems
The Bank of England also has its right of objection to changes in payment systems, and it has only just given its non-objection to the status of Directly Connected Non-Settling Participant under Faster Payments "New Access Model".

This has been a serious blocker to the realization of opening up the UK's payment systems to banks and non-bank financial institutions alike. This "DCNSP" is the only method of indirect access to clearing systems that is new and which did not exist in production at the time of the PSR's Market Review into Indirect Access to Payment Systems.

The Faster Payments whitepaper on its "New Access Model" was published in 2014 – 4 years ago – and "DCNSP" was the main new item in it, but thanks to the BoE its current realization is limited to one institution – eBury – and based on a policy exception: a specific non-objection from the BoE to this one implementation.

Reversal of policy to exclude payments the Bank of England regards as unimportant
On top of that we have a policy of exclusion which may in part have been driven by IT constraints, but which has no logical reason to exist after an IT renewal – unless its continuation is baked into the renewal specification.

This is the BoE's policy to drive non-systemically important payments off CHAPS – which has led to the raising of the Faster Payments system limit and indirectly to the increase in Authorised Push Payment Fraud.

More directly it led to many payments, for which the order party has paid a CHAPS-level fee, not being treated as RTGS payments. This came to light during the 2014 CHAPS outage and is gone into in more detail below.

The BoE's policy is the cause for its non-objection to the successive raisings of the Faster Payments system limit up to its current level of £250,000. That permits many payments to go through FPS which are of high importance to the payer, even if the BoE regards them as unimportant.

Where FPS might now ask for its limit to go up into the £millions, it starts to become a "wholesale" system and not a "retail" one. Its limit would have to be increased to these levels if it is to be the universal settlement layer, as is proposed under New Payments Architecture.

This is fundamentally wrong. If CHAPS is the RTGS is the "wholesale" system, it should be accessible to all who want to use it, for the value proposition it offers, and for any amount, as long as the payer is willing to pay a reasonable fee (in the range of £5-10). It should not be policed like Cerberus by the Bank of England where only payments they deem systemically important are allowed through.

Faster Payments is open to Authorised Push Payments Fraud, and is a flawed system as is explained in detail later. As such it should not be the recipient of new volumes:

- As a result of BoE's policies regarding CHAPS;
- As the universal settlement layer underneath all other non-card, "retail" payment systems.

FPS future role and the gap in the array of UK payment services
FPS's future role should be the one it had at the outset: small payments, amongst consumers and businesses, initiated on mobile/PC or as standing orders.

Because they are small payments, the risk of loss is limited and consumer protection can be water-tight. It was a great mistake to expand its usage so that the losses are large, as a result of which the consumer protection is inadequate.

FPS need not be closed as long as the system limit is cut back to the same kind of spending limit as exists for Cards, perhaps £1,000.

There remains the gap for the non-urgent payments of consumers and small and medium businesses:

- Who do not have the volume to justify installing a BACS process;
- Whose counterparts do not have a card payment terminal or the ability to take "cardholder not present" payments;
- Whose payment is not of the importance to justify a £5-10 CHAPS fee.

This is the unfulfilled need, and not to expand either the usage of the insecure FPS system in and of itself, or to make it the universal settlement layer behind all retail payments, those visions sitting at the core of New Payments Architecture.

CHAPS outage in 2014 and lessons (not) learned

The CHAPS outage showed up the BoE's antiquated IT complex

- CHAPS had an embarrassing outage in 2014
- The new demands deriving from public policy were known from 2010/11 onwards
- The BoE had its own de-layering policy that would put increased demands on the system
- But nothing was done to refresh the BoE's IT complex
- Now there is a renewal programme that may deliver from 2021 onwards
- But further lessons should have been learned that bear on the BoE's policy to get non-systemically important payments off CHAPS…
- …and the UK has been left vulnerable for several years

CHAPS and its renewal programme
The BoE has recently tightened its tentacles around CHAPS by dissolving the CHAPS Clearing Company Ltd and taking management of CHAPS in-house. The PSR appears, as a result, to have stopped making any regulatory efforts towards CHAPS.

CHAPS now has 32 members, many more than any of the other regulated payment systems (as opposed to the regulated card systems – Visa, Mastercard and LINK). This is the result of the Bank of England's de-layering policy, to give it the oversight over the flows in GBP of banks with large wholesale dealing volumes (such as JPMorgan Chase) and with major securities settlement volumes (such as State Street). These institutions had to become direct CHAPS members and their flows could not be mixed in with – and disguised by – the flows of the CHAPS member they are using as their agent

The BoE – and not before time - has undertaken a so-called "RTGS Renewal Programme", ostensibly to prepare CHAPS for new entrants, innovation and so on, but also to belatedly cope with the impacts of its de-layering policy, and to counteract the shortcomings that have led to the inability to open more than a handful of Settlement Accounts and that resulted in the outage of the system in October 2014.

Whether it goes further than this and resolves the anomalies referred to above is uncertain, but resolving anomalies involves admitting first that they are anomalies.

Naturally the RTGS Renewal Programme proposes to adopt ISO20022 XML, because it is supposedly modern and global, and to use a single ISO20022 layout with FPS and BACS, a so-called "UK Credit Transfer Message".

The Bank of England launched a consultation on its proposed adoption of ISO20022 in June 2018 as "BoE iso-20022-consultation-paper june18", although it prefaced its issuance with a press release stating that the decision to adopt ISO20022 had already been made, so this ranks as another sham consultation.

CHAPS outage in 2014
The CHAPS outage was caused by the failure of a look-up routine regarding a table, allegedly. We must remember that the Bank of England's IT systems are extremely antiquated. A new participant was introduced, namely Danske Bank, separately from Northern Bank that it had acquired, although now only Danske Bank is a CHAPS participant.

Danske's name was added to a table, at which point the bank at the bottom – UBS AG (London branch) – fell off and all traffic to and from UBS failed and then the whole system failed.

This incident is part of the background to why all changes to the bank's IT have to go through rigorous testing. The CHAPS system in its current form is dependent upon the BoE's antiquated internal IT infrastructure, and is only resilient if changes are put through rigorous testing that can be carried out in any normal commercial bank with no testing at all.

Lessons from the CHAPS outage not learned
We can go further and note that after the 2014 CHAPS outage it was little remarked upon that CHAPS contained two processes:

- A genuine RTGS process for systemically-important payments;
- A Net Settlement process for non-systemically-important payments;

All of the former were processed during the day of outage, but the latter were not, and were sometimes for mortgage completions, leading to consumers spending the night in their cars after they had vacated the property they were selling, but had to wait overnight to complete on the property they were buying.

This aspect has not been explored enough – consumers, through their solicitors, paid £30-50 for a CHAPS payment and it was sold to them as an RTGS, first-class-post payment. Then the Bank of England processed it as a net settlement, second-class-post payment.

This was really nothing more than a deception: at least the Bank of England should have reimbursed the customers their £30-50 fee.

The splitting of the market's CHAPS volumes into two flows – full RTGS mode and Net Settlement – smacks of another possible limitation imposed by the Bank of England's archaic technology: that the system was simply not capable of processing the number of CHAPS payments submitted by the market in full RTGS mode.

It also smacks of a partial implementation of the policy referred to above – to drive non-systemically important payments off CHAPS. In other words, to the extent that the BoE was not at the time able to completely expel them from CHAPS, it had created a secret non-RTGS process in CHAPS and expelled them onto it from the full RTGS CHAPS process – the fee for the usage of which the payer had paid.

Extra demands on CHAPS obvious since 2010
The extra demands that would be placed on the CHAPS infrastructure – deriving both from this policy of delayering and from the encouragement of Challenger Banks and of non-bank PSPs – must have been obvious since 2010 but it took the outage in 2014 for any notice to be taken.

Now, in 2018, we are looking at programme that may deliver a new RTGS by 2021, and the result may be greater resilience if the Bank's internal IT infrastructure is upgraded at the same time.

A major disconnect has occurred, though, between the formulation of policies in response to the financial crisis in the timeframe 2009-2011 and drawing out the consequences in terms of the pressures that would fall on the IT infrastructure of the central bank, and then taking action in response.

The resulting systemic vulnerability should have been identified around 2011-12 and resolved by 2014-15, not 2021. The dilatoriness of officialdom has thus resulted in a period of vulnerability 6 or 7 years longer than should have been the case.

Direct Access to Payment Systems

The PSR's ministrations around Direct Access to the UK's payment systems has benefitted 1% of the UK's Payment Service Provider organisations

- The PSR made the issue of Direct Access to the UK's payment systems a priority issue when it was established
- It issued a series of directions to the operators of the payment systems, but unfortunately not to the Bank of England, the gatekeeper and shadow Managing Director of UK payments
- The operators of the payment systems have appeared to comply, and there has been some uptick in the membership of the systems
- But the uptick is far too small to be regarded as significant

In this section we will be limiting ourselves to one of the PSR's early interventions, which correlates to a main role of the PSR as articulated in the HM Treasury Impact Assessment – direct membership of one of the regulated payment systems, also known as "Access" and "Direct Access".

Access to Payment Systems
This stream was about becoming a direct member of one of the UK's regulated payment systems, also known as a "settlement member" or a "participant" or a "direct participant".

The premises behind the stream were that very few new banks had joined any of the regulated payment schemes in the recent past, the terms and requirements for access were all different, and that a few major UK banks were members of all of them.

The PSR issued an Access and Governance report in December 2015 on this topic, having earlier issued "Directions" to Payment System Operators to:

- Be clearer about the terms and conditions for direct access, and make sure access is available on objective and non-discriminatory terms
- Improve their governance by:
  - Eliminating conflicts of interest on their Boards
  - Publishing Board Minutes
  - Showing processes whereby the voice of the user is heard, meaning not just the member of the system but the intermediate and end-users

The Payment System Operators in questions were CHAPS, BACS, Faster Payments ("FPS"), Cheque&Credit Clearing, LINK, Visa and Mastercard.

Progress on direct membership of payment systems
The PSR's 2015 report attested to encouraging progress so far:

- All Operators had issued clearer documentation about direct access
- All Operators had eliminated conflicts of interest on their Boards and started to publish Board Minutes
- All Operators had processes in place or planned for better user dialogue

However, the PSR wanted to see that the clearer documentation about access really represented an objective and non-discriminatory deal, and translated into more joiners, and to see that the onboarding process described in the documents translated into an acceptable onboarding time/cost/complexity in practice.

In the intervening period sixteen new institutions have joined a regulated "retail" payment system:

Nr	PSP name	Faster Payments	BACS	Cheque&Credit Image Clearing
1	Turkish Bank UK	✓	✓	✓
2	TSB	✗	✓	✓
3	Virgin Money	✗	✓	✓
4	Clear.bank	✓	✓	✗
5	ipagoo	✓	✓	✗
6	Starling Bank	✓	✓	✗
7	Atom Bank	✓	✗	✗
8	BFC Bank	✓	✗	✗
9	Metro Bank	✓	✗	✗
10	Monzo	✓	✗	✗
11	Transferwise	✓	✗	✗
12	Allied Irish Banks	✗	✗	✓
13	Bank of Ireland	✗	✗	✓
14	Barclays International	✗	✗	✓
15	Habib Bank Zurich	✗	✗	✓
16	Northern Bank/Danske	✗	✗	✓
	Total	9	6	8

As regards Cheque&Credit we have listed all the PSPs who joined the Image Clearing that were not in the Paper Clearing. No new PSPs joined the Paper Clearing and, of the 11 members of the Paper Clearing, two - Bank of Scotland and the Bank of England - have not joined the Image Clearing. Due to ringfencing, Barclays Non-ringfenced bank has joined the Image Clearing, but it did not join the Paper Clearing: Barclays' ringfenced bank is a member of both.

The trajectory of the CHAPS system has been somewhat different in that it has been taken in-house by the Bank of England, as explained above.

The PSR issued its annual Access and Governance Report for 2017 in March 2018 ("PSR Access and Governance Report-March-2018") and it suitably upbeat about progress made and the PSR's contribution to it.

Appendix 2 contains complete listings of the direct members of CHAPS, BACS, Faster Payments, Cheque&Credit Image Clearing and Cheque&Credit Paper Clearing.

Access to Settlement Accounts – a prerequisite of direct membership
Direct membership of any of CHAPS, BACS, Faster Payments or Cheque&Credit requires a Settlement Account at the Bank of England, and this has been the main pinchpoint in expanding Direct Access:

- 13 slots were available in 2018, and all are taken;
- 19 slots are available in 2019 and most are taken.

In the same vein it was a long discussion with the Bank of England about allowing new types of Payment Service Provider ("PSP") to have Settlement Accounts, and in 2017 it was finally agreed that it would be possible for non-banks to have them, not also have a Reserve Account and not be part of the Sterling Monetary Framework.

So far this has enabled one Payment Institution – Transferwise – and one eMoney Institution – ipagoo – to have one, out of a total universe of 400 eMoney Institutions and Authorised Payment Institutions, and 750 Small Payment Institutions.

The ability of non-banks to have a Settlement Account has so far benefitted 2 out of a universe of 1,150 non-bank PSPs. That is 0.17%.

The widening of Direct Access has so far benefitted 16 institutions of all types – banks and non-banks – out of a total of 1,590 that were not already a direct member of one of the systems. That is just on 1%.

Role of FPS "New Access Model"
Even this level of take-up is arguably not even attributable to the PSR: Faster Payments issued their "Vision for a New Access Model" in December 2014, under which a new member would be able to establish their technical connection to the Faster Payments infrastructure using a hosted IT service through an accredited partner.

The new-joiner would no longer be compelled to construct this gateway themselves and maintain it on their own premises. The majority of new members of Faster Payments have opted for this model and fall into the FPS membership category called "Directly Connected Settling Participant": they are "Settling" because they have their own Settlement Account at the Bank of England.

By contrast the completely new status described in the Faster Payments whitepaper – called "Directly Connected Non-Settling Participant" – has not materialized as hoped. It has only just passed the Bank of England non-objection process, although one institution – called eBury – has been allowed to implement it with a specific non-objection.

We can add eBury to the list of institutions that have benefitted from the PSR's efforts on Access, making 17 beneficiaries out of 1,590, now just over 1%.

PSR's achievements under Direct Access

In sum the achievements of the PSR under their mandate to open up the payment systems to new direct members can be assessed as being at the very lowest end of effectiveness, that the main body of new members are joiners of Faster Payments under a scheme that pre-dated the PSR, and that the biggest blockers to new joiners were not recognized by either HM Treasury in Mr Turnbull's paper nor by the PSR: the antiquated technology of the Bank of England and the consequent shortage of slots for the opening of Settlement Accounts in the first place, and in second place the policies of the Bank of England to refuse Settlement Accounts both to non-banks, and to banks with no Reserve Account.

We will now proceed to look at three of the other early initiatives of the PSR:

1. Market Review on Indirect Access to Payment Systems;
2. Market Review on Infrastructure Provision behind Faster Payments, BACS and LINK;
3. Establishment of the Payment Strategy Forum.

We dwell on the first one at greater length than the others, because we use the Market Review into Indirect Access as an example of the PSR's methodology, timeline and documentation, a pattern repeated in its other exercises, whether Market Reviews or interventions such as on the LINK interchange fee.

PSR Market Review on Indirect Access to Payment Systems: substance

The Market Review achieved nothing for the class of PSP needing indirect access but not getting it

- This Market Review promised far more than it delivered
- It was mis-scoped such that it appeared to include – but then did not solve for – the situations where PSPs accessed a payment system through the IT complex of a sponsor bank
- Such PSPs need a bank account, not access to a payment system as such
- The only real "indirect access" option that did not exist in 2014 was scoped out under the FPS New Access Model and is now called "Directly Connected Non-Settling Participant"
- Unfortunately it still does not exist as a product in real life: the Bank of England has only just issued its non-objection to it

Market Review on Indirect Access to Payment Systems
This Market Review was set up in May 2015 under a Terms of Reference, and applies to the situation where an institution wants to make and receive the payments contemplated under a payment scheme but is not a direct member of it. It thus requires a direct member to undertake one or more tasks to facilitate access.

The PSR did not delineate clearly enough at the outset what the difference was between Indirect Access to a scheme like BACS and just having a bank account with an institution that could make and receive BACS payments on one's behalf, even where that institution was itself not a scheme member.

Indirect Access is where:

- An institution makes a direct technical connection to a payment scheme's infrastructure; and
- The institution is directly addressable in that payment scheme – it has its own unique identifier codes so that its counterpart institutions can send payments into the infrastructure and they are directly routed to the subject institution, and in the other direction the subject institution sends its payments to the infrastructure: they do not travel through the technical IT complex of an intermediary PSP, who would be acting as the subject institution's sponsor.

In the UK an institution can obtain unique identifier codes either by obtaining its own in the 04- series from BACS as the registrar, or from its sponsor bank out of the range of sort codes that has been allocated to the sponsor. For example, a Lloyds will have a large number of sort codes allocated to it in the range 3[ ]-[ ]-[ ], but most will be used for its own branches and departments, and it will be a business decision as to whether to allocate one (and possible squander it in doing so) to a PSP customer.

Key roles in Indirect Access
The key roles in Indirect Access are:

1. The sponsor bank that is a scheme member and introduces the Indirect Access institution to the scheme. Such banks are known as Indirect Access Providers or "IAPs";
2. IT vendors that establish the technical connection between the institution and the scheme infrastructure.

The usage by the subject institution of an IT vendor either to construct its technical gateway and/or to carry its traffic to and from the infrastructure is not relevant to the fact of there being a direct technical connection or not. “Direct” in this sense means there is no sponsor bank in between that takes the subject’s institutions traffic and relays it to the infrastructure and vice versa.

Vendor ecosystem
When the Terms of Reference for the Market Review were issued, BACS responded that there was a well developed ecosystem of vendors involved in connecting originators of BACS payments to the BACS infrastructure – this is true but somewhat missed the point. BACS originators – of credit transfers and direct debits – are either themselves financial institutions or are major public sector entities or corporates. The same ecosystem did not exist at the time for Faster Payments, although New Access Model promised to solve this problem.

Muddied distinction between Indirect Access and just having a bank account
The New Access Model whitepaper and the way in which FPS’ onboarding team still today describes the access options muddy the waters in their description of the Indirect Agency status, which is described such that it can read (even if it is not meant to be read) as embracing all of:

a) An institution with its own identifier code but still sending its traffic through its sponsor bank – also called an Agency Payment Service Provider;
b) An institution without its own identifier code whose only option is sending its traffic through its sponsor bank - also called a Non-Agency Payment Service Provider;
c) An ordinary consumer or business customer who sends and receives payments, has its account number and the sort code of its branch, and has no knowledge of or connection to any particular payment scheme.

Even now FPS’ literature refers to a status of Indirect Agency, inferring there must be a status of Direct Agency as well, when there is not. Nor does its literature distinguish between Indirect Agency participants who do and do not have their own unique sort code.

By not describing the scope of Indirect Access to exclude both (b) and (c) above, the PSR left certain issues on the cusp of being in-scope, but then without solving for them. The main one of these is the lack of access to UK bank accounts of eMoney Institutions and Payment Institutions. These are Payment Service Providers currently without a unique sort code, who would count as Non-Agency Payment Service Providers, or Indirect Agency participants, depending upon what parlance one uses.

Non-emergence of FPS Directly Connected Non-Settling Participant status
The key missing piece has not emerged during this period: a genuine Indirect Access to Faster Payments, with direct technical access but no need for a Settlement Account. This is the status now known by the name “Directly Connected Non-Settling Participant” – and which has only just passed the Bank of England non-objection process.

What we do have is a Code of Conduct for Indirect Access Providers towards Indirect PSPs (“Payment Service Providers”) and a lengthy report (“MR1513-indirect-access-market-review-final-report”).

PSR final report on Market Review into Indirect Access

The report is quoted here at some length not primarily because the material is interesting in and of itself but because of how it exemplifies the PSR's style:

- Long;
- Many streams and actions;
- Volume predominating over insight;
- Out-of-focus:
    - Lack of contexting of the problem in the wider marketplace;
    - No instances of lateral thinking;
- High reliance placed on initiatives or other workstreams materialising to which an industry expert would have a assigned a much lower probability;
- Ultimately a lack of remedies that would go to the heart of the problem and have a good chance of moving the market.

The report's findings were emollient:

- large Indirect PSPs had a number of options to access payment systems
- there was a reasonable level of overall satisfaction with the quality of the indirect access offering that IPSPs receive
- the overall feedback did not indicate a widespread level of concern with price
- investment and innovation in new and improved service offerings were occurring, which should improve quality and choice outcomes for all IPSPs

Limitations identified in supply of Indirect Access

However, the PSR identified specific concerns that limited competition and innovation in the provision of payment services, and the interests of service-users such as people and businesses that used them:

- large IPSPs tended to have a wider choice of access options, and many were exercising that choice (for example, through options such as direct access or aggregators), but many small "non-agency" IPSPs had a limited choice of IAPs ("Indirect Access Providers"). This limited choice constrained the ability of these smaller non-agency IPSPs to negotiate on price, or to find an alternative provider if they were not satisfied with the services they receive;
- IPSPs in all categories were experiencing a number of specific quality-related issues with indirect access. Large agency and medium agency IPSPs, particularly banks and building societies, had concerns about the quality of technical access to FPS and its availability. Small non-agency IPSPs raised concerns about notice periods for the termination of indirect access agreements and the relationship management provided by IAPs. These issues limited some IPSPs' ability to compete in related markets, such as retail banking;
- IPSPs in all categories faced barriers to switching IAPs, which reduced the competitive pressure on IAPs and prevented IPSPs from securing the best possible price and quality outcomes;
- The nature and extent of the PSR's specific concerns differed among small, medium and large IPSPs.

Causes of limitations in supply
The PSR considered these concerns to be primarily a result of three market characteristics:

- Industry responses to financial crime regulations: the perceived risk of compliance failures under financial crime regulations influenced the behaviour of IAPs. These responses could be limiting the provision of indirect access for some IPSPs in the PSR's view (too right!);
- Lack of entry of IAPs: the historic rate of entry of new suppliers of indirect access had been low, which limited the competitive pressure on IAPs to improve their indirect access proposition and limited the choice available to IPSPs wanting to find an alternative provider;
- Increase in demand for real-time payments: when FPS was launched, IAPs primarily supplied FPS services to IPSPs based on the SWIFT messaging service, since they considered it was the most cost-effective and convenient option for IPSPs at that time. The growing demand for real-time services had since brought into question whether the technical solutions provided to IPSPs still meet customer needs.

Considerations and possible developments that might improve Indirect Access supply
The PSR's considerations in improving supply included:

- Current or anticipated developments that might improve outcomes for service-users;
- Remedial options if current and anticipated developments did not sufficiently address their concerns.

Against the current or anticipated developments that might improve outcomes for service-users are, the PSR cited the following:

- Their own programme of work on direct access: various measures to improve PSPs' ability to become DPSPs of interbank payment systems, which could also increase the number of IAPs;
- Market entry and expansion: the potential entry of four new IAPs, and existing IAPs expanding their current offering, should lead to greater choice for IPSPs and more competitive pressure on IAPs;
- Improved IAP FPS access offerings: two of the four main IAPs were making or had made investments which should offer agency IPSPs options for an improved quality of technical access to FPS (including 24/7 availability);
- Improved direct technical access for IPSPs: emerging direct technical access models and BACSs' and FPS' reviews of their access models should provide improved technical functionality and choice for IPSPs;
- Development of the Image Clearing System: the Image Clearing System for cheques was aiming to make sort codes fully transferrable, which should improve the ability of agency IPSPs to switch IAP;
- The Bank of England's strategic review of its real-time gross settlement (RTGS) infrastructure;
- The Indirect Access Provider Code of Conduct;
- Information-related initiatives: the PSR's Sponsor Bank Information Direction and the industry information hub should help switching by increasing transparency and reducing the search costs for IPSPs when considering and choosing between different IAP offerings;

- Reviews of financial crime regulation: the PSR stated that it was aware of at least six reviews underway or recently concluded which were aimed at improving the transparency, clarity and effectiveness of the UK's anti-money laundering and counter terrorist financing framework;
- The Payments Strategy Forum (the Forum): the Forum's examining whether and how payment systems could be developed to simplify access*,* consider commonality of messaging standards and consider centralised functions aimed at preventing financial crime and ways to reduce the costs of compliance;
- The CMA's proposed measures to improve switching as part of its Retail Banking Market Investigation: the CMA's proposed measures could help some smaller IPSPs who receive indirect access primarily through a business bank account to switch IAPs;
- Current Account Switch Service (CASS): a number of small, non-agency IPSPs who get indirect access through a business bank account were likely to be eligible for CASS, which could help to address their concerns about business continuity when switching.

Remedial options if supply did not improve
The remedial options if current and anticipated developments did not sufficiently address the PSR's concerns were described in the PSR's proposed approach from there:

- Indirect access remaining a priority area in the PSR's ongoing work programme. They considered effective competition in the provision of indirect access to be an important means of delivering good outcomes to service-users. They proposed to support the developments outlined above rather than take immediate regulatory action, which might affect the incentives for such developments to take place. They expected these developments to improve choice, quality and price outcomes for service-users;
- They would monitor these developments over the succeeding 12 months and would consider taking further regulatory action either as part of this review, or if their concerns were not sufficiently addressed. They would intervene only where they had clear evidence that they needed to do so and where they expected the benefits of their intervention would outweigh any costs or unintended consequences;
- They recognised that switching IAP could be important in driving competition. Some developments should, in their view, make switching easier for some IPSPs: CASS could help address smaller IPSPs' concerns about business continuity when switching, the CMA's proposed measures could help smaller IPSPs to switch IAP, and the Forum's work could make it easier for larger IPSPs in particular to get access and switch IAPs. They were also seeking input now about whether there was anything more they could do to assist in making switching easier as part of this review;
- The PSR also had powers under the Financial Services (Banking Reform) Act 2013 (FSBRA) and UK and EU competition law to further address or investigate individual cases relating to the supply of indirect access. They were developing a framework for how they would handle applications under sections 56 and 57 of FSBRA to take specific regulatory action regarding granting of new access or varying existing agreements in relation to payment systems. They intended to consult on this framework either as part of or alongside their final report for this market review;

Actual outcomes
And where are we, several years later?

The PSR has taken no further remedial action. It has contented itself with issuing its annual reports on Access and Governance which are upbeat in their claims as to how much supply has improved and how much of that is due to what the PSR did so far.

Cheque imaging has been introduced and three new PSPs have joined it, along with all the participants in the parallel paper clearing.

Direct access to Faster Payments has resulted in nine new members. There have been six new members of BACS.

Faster Payments "Directly Connected Non-Settling Participant" has not materialized as yet. The Payment Strategy Forum streams dealing with "Simplifying Access to Markets" have delivered no tangible results as yet.

The financial crime regime has tightened further not loosened: whatever six streams of work the PSR was referring to as ongoing have not resulted in an improvement.

Non-bank payment service providers remain effectively shut out due to lack of access to bank accounts – what the PSR refers to as Non-Agency PSPs, whose status is virtually identical to ordinary consumer or business customers.

By allowing this constituency to be given the name "Non-Agency PSP", the PSR created an expectation that this Market Review would do something for them, but because their requirement was access to banks accounts first, and through that to get access to payment systems second, their situation actually fell outside the general remit of the PSR. It has since specifically come into its remit due to its being appointed as the competent authority for Article 105 of the 2017 Payments Services Regulations, with results that will be discussed further below.

PSR methodology as exemplified by the Market Review on Indirect Access

The PSR's methodology causes much work to others, is modelled on the EU approach, but delivers disappointing results

- The PSR's methodology is a multi-year approach
- It always follows the same pattern, and one much tried by the EU
- There are numerous consultative exercises along the way but these fail to alter the direction of travel
- After a suitable period the PSR reviews the results of its actions – with a consultative exercise – and then the whole merry-go-round starts afresh

PSR methodology as exemplified by Market Review into Indirect Access
The PSR's methodology, project organization and timeline are exemplified by this stream.

1. The triggers for the Market Review were concerns identified:
    a. during the Financial Conduct Authority's (FCA) "Payment Systems Regulation - Call for Inputs" of March 2014;
    b. through the PSR's evidence gathering process that led to its first Consultation Paper PSR CP14/1 "A new regulatory framework for payment systems in the UK" of November 2014;
2. Issuance of a draft Terms of Reference as PSR MR15/1 in March 2015;
3. Publication in May 2015 of the responses received to the draft Terms of Reference;
4. Final Terms of Reference PSR MR15/1.1 published in May 2015;
5. Review process June to December 2015;
6. Interim Report published as PSR MR15/1.2 in March 2016;
7. Consultation on interim report April and May 2016;
8. Final Report published as PSR MR15/1.3 in July 2016;
9. Annual Access and Governance reports;
10. Review of PSR Directions made in 2015 as a consultation in March 2018 as CP18/1.

While this final document is not a full review of the outcome of the Market Review on Indirect Access, there is a review of the PSR's Special Direction #1, which requires the large sponsor banks to publish information on their sponsor bank services and indirect access offerings. The PSR is considering whether to revise the scope of SD1 and whether to broaden its application to other indirect access providers.

Otherwise the review, insofar as it deals with access at all, addresses Direct Access:

- The PSR's General Direction 2 to the payment systems to give better information about membership;
- Replacing General Direction 3 with a new wording that is in compliance with Article 103 of the 2017 Payment Services Regulations (i.e. with EU Payment Services Directive 2) and which prohibits on restrictive rules on access to payment systems.

As it is, the PSR's documentation of its Market Review is voluminous as well as being highly repetitive: the same material is carried through from start to finish with minor increments as the process unfolds. A prime proof quoted for progress is the PSR's previous document and its self-assigned work done in the meantime. This is just setting oneself the homework one knows one can manage, and then marking it oneself. It does not beguile that the "progress" made has had any effect on the problem outside in the real world.

The PSR's methodology can be summed up as follows:

- Linear;
- Thorough;
- Impervious to suggested change of process;
- Interim and final documents little changed despite the consultations with the marketplace – on both the Terms of Reference and the Report;
- Highly consuming of the time, attention and resources of other market actors;
- Impervious to suggested changes of substance, pointing out where the remedies will not solve the problem, where the scope and/or definitions fall short and so on;
- Monumental arrogance that the PSR understands the workings of the market better than the market actors who constitute the market;
- Progress reports always positive: every box has a tick in it;
- The problems the PSR was addressing may not have changed, or if they have changed they have done so for reasons other than the PSR's interventions;
- More problems have emerged in different areas.

PSR methodology compares with EU methodology in their interventions in the payments market

The manner and timing of the PSR's interventions bear a strong likeness to those of the EU, for example via their Payment Services Directives.

This is important because the EU's interventions have occurred while the so-called "layered model" has been in place, the market model that the UK will introduce through New Payments Architecture.

We will cover off later how the "layered model" in the way it has been introduced in Single Euro Payments Area has stifled any Value-Added Services.

Were any Value-Added Services - constructed by individual market actors – to have survived the ministrations of the European Payments Council and its usage of ISO20022 XML, then EU legislation - like Payment Services Directive – has cut the ground from under them:

- Passed in 2007
- Implemented by 2009 latest
- EU-level review of impact kicked off in 2012, 5 years after it was passed but only 3 years after implementation
- Results of review published in 2013
- First draft of PSD2 published in 2014
- PSD2 passed in 2015
- PSD2 to be implemented by end of 2017 latest…
- …but with many mandates issued to the European Banking Authority to issue Regulatory Technical Standards or Guidelines…
- …which have been mainly finalised in late 2017 and early 2018, most notably the Standards for Strong Customer Authentication and Common and Secure Communication which is a key influencer of the shape of "Access to Accounts"
- EBA RTS on SCA and CSC was passed in March 2018 and will come into full force and effect in September 2019, a few months before…
- The EU-level review of PSD2 that is scheduled for 2020 with results of review in 2021 and new ideas for of PSD3 in 2022, and so on….

“So twas on the Monday morning that the gasman came to call…” (Flanders and Swann: The Gasman Cometh).

The ground is always shifting: if one invests in a Value-Added Service there is a good chance that what you have done will be enclosed in a future version of the SEPA Scheme that is open-to-all and mandatory-for-all, or else what you have done will be legislated on. Then the version you invested in will not be the one that is mandatory. You did not just waste your investment money on your VAS, you have to pay to deconstruct it and build the mandatory version in its place, and migrate all your customers from your version onto the mandatory one. Once you launch your Value-Added Service you can rely on 1-3 years as a maximum period during which to obtain your return-on-investment.

The PSR has fallen into the same methodology as EU Regulators, with its constantly looking and re-looking at the same thing, and this will inhibit market emergence here in the UK as the same methodology has done in the EU.

Now we go on the PSR’s second Market Review initiated soon after its own establishment, into the infrastructure behind the Faster Payments, BACS and LINK systems, or, put another way, into Vocalink.

PSR Market Review on Infrastructure Provision

Vocalink has been sold to Mastercard – that creates a new nexus of power, just under a different label

- This second Market Review, undertaken shortly after the PSR was founded, looked at the implications of Vocalink providing the infrastructure behind all of LINK, BACS and Faster Payments
- The PSR duly found that there was a damaging nexus of power and prepared to issue its remedies
- But Vocalink had already been sold off to Mastercard, creating a new but different version of the same problem
- The PSR ordered that BACS and Faster Payments be moved onto ISO20022 XML within a stated period, and that LINK set up a separate scheme company

Market Review on Infrastructure Provision behind Faster Payments, BACS and LINK
The PSR set up a Market Review in parallel to the one on Indirect Access, and this was to review Vocalink, the single supplier of infrastructure behind three of the regulated payment systems.

Vocalink's shares belonged to the big banks. The big banks also controlled the scheme companies for BACS and Faster Payments, and LINK did not even have a separate scheme company.

The status of Vocalink thus acted as an incarnation of the perceived problem of lack of competition and innovation that was at the core of the PSR's rationale. The story would then go that the big banks were stifling new entrants – and thereby stifling competition and innovation – by controlling the payments market at several levels: as the main users of the product, by owning Vocalink, by owning the scheme companies that were Vocalink's customers, and by controlling the initiatives undertaken by the trade body Payments UK.

Under this interpretation the big banks had created a nexus of power with an overwhelming market share, a nexus consisting of seven or eight legal entities that did not operate autonomously due to the overlapping shareholdings, board members etc.. Third-parties were excluded from key decision-making fora, so that the voices of end-users and intermediate users were stifled.

That nexus needed breaking up, that is as long as you buy in to the original story.

The PSR had also bought off on a given market model for the payments business, as exemplified by the Single Euro Payments Area, in which the market was layered, with separation of the payment schemes from the data standards and from the infrastructure they use. We will see in more detail later how the SEPA market model is constructed and its flaws, but for the purposes of the PSR's view of Vocalink the current model did not fit.

The final report did not so much say that the current model did not work, but that it differed from generally accepted market models in which there was some element of monopoly supply:

a) LINK should have its own scheme company and be separated from the LINK infrastructure;
b) There should be separate layers for schemes, payment service providers, infrastructure providers, data model definition and so on;
c) The big banks should dispose of their shareholdings in Vocalink;
d) BACS, Faster Payments and LINK should put their infrastructure provision out to tender on a competitive and regular basis;
e) Connection of third-parties to these systems and the easing of the switching of provisions would be achieved by the adoption of the ISO20022 XML data standard – the SEPA standard – within the infrastructure and for the data exchanges between the infrastructure and Direct and Indirect Members;
f) ISO20022 XML should be adopted as part of the first tender for infrastructure provision, and this switchover should occur a given number of years in the future counted from 2016.

What the PSR did not perhaps anticipate - but took no action to block – was that the banks would sell Vocalink to Mastercard. Mastercard is both a regulated payment scheme of its own – in direct competition with BACS and Faster Payments – and one which has no separation of the scheme company from its infrastructure.

Mastercard and Visa have a dispensation from complying with the market model that LINK's structure conflicted with, and which LINK was compelled to migrate to. Allowing Vocalink to be bought by Mastercard has created a new nexus of power, with an even higher proportion of all UK payments using the same organization for infrastructure provision, as well as its having a dominant market position in card payments through Mastercard plus infrastructure provision behind LINK.

Status of remedies under PSR's Market Reviews

The remedies have either not yet occurred, or been patchy, or have had no effect

- The Infrastructure remedies have partially occurred in that Vocalink has gone to Mastercard, and LINK has been split from its infrastructure
- But BACS and Faster Payments have not moved onto ISO20022 XML
- A remedy on Mastercard and Visa to do what was demanded of LINK and split their scheme company from their infrastructure has not been issued
- The Indirect Access to Payment Systems remedies have been a washout

The status of the PSR remedies under their Market Review on Infrastructure Provision can be summed up as follows:

- LINK has set up a separate scheme company
- Mastercard acquired Vocalink and now has a dominant market position in two layers of the business model
- LINK has put its infrastructure provision out to tender including transitioning to ISO20022 XML
- There will be no tenders for FPS and BACS infrastructure provision to transition them to ISO20022 XML, as might have been inferred from the remedies
- Instead there should be a single tender to implement New Payments Architecture with ISO20022 XML embedded, and where the BACS and Faster Payments services are reconfigured as "overlay services" on top of the single clearing and settlement layer, that being via instant push payments

The status of the PSR remedies under their Market Review on Indirect Access to Payment Systems can be summed up as follows:

- The financial crime environment has become more, not less, difficult
- No new Indirect Access offering has been brought to market by any of the payment systems in the meanwhile, although cheque imaging has gone live and there is one institution in production with Faster Payments "Directly Connected Non-Settling Participant"
- The Payment Strategy Forum stream "Simplifying Access to Markets" took up several themes raised in the Market Reviews, addressed them for two years, and then passed work outputs ultimately into New Payments Architecture and into UK Finance, and they are still being worked on
- The issue of lack of access to bank accounts for non-bank PSPs has not been resolved under the heading of these remedies, nor by anything else

We get slightly ahead of ourselves by mentioning the Payment Strategy Forum two paragraphs above.

The "PSF" is the fourth major stream set off by the PSR at its initiation and is seen by the PSR as the forum where many issues raised inside and outside of the Market Reviews should be solved.

We start off by circumscribing the strategic context in which first the PSR was set up, and second the PSF was set up by the PSR.

The PSR's Payment Strategy Forum: establishment and strategic context

The PSF was set up to provide answers to the major problems in UK payments, and it sits firmly within the same strategic context in which the PSR was established

- The PSR established the PSF to analyse and eliminate the "detriments" bedevilling payments in the UK
- The strategic context was the same as for the PSR: the 2007/8 financial crisis
- Big banks were speculating with customers' money in investment and international banking, and they had the money because they controlled the payment systems
- Ring-fencing was one cure for this, and so was a series of measures to loosen the grip of the big banks on current accounts, overdrafts, and payments
- The diagnosis of the 2007/8 crisis was, however, tainted by political expediency
- Nevertheless the operation to cure the misdiagnosis is in train - and we already have the archetype of the new local bank doing local business for local people - TSB

Establishment of the Payment Strategy Forum
A complaint against the pre-existing structure of the UK payments business was that the voices of end users and intermediate users were being stifled, and therefore by implication that these users were not getting what they wanted out of UK payments. The Market Review into Indirect Access specifically referenced the Payment Strategy Forum ("PSF") as a venue in which the solutions to various access problems could be designed.

The PSF was a big enterprise, with its own secretariat inside the PSR and its own governance structure. It kicked off in September 2015 with a major "Community" offsite session to list up and partially qualify what the problems were with UK payments, albeit that it was constantly emphasized that the UK's payment systems were rated as world class on measures such as resilience.

The problems were given the name of "detriments" and a considerable laundry list of detriments was agreed upon as requiring solving.

The importance to the PSR of the PSF and the reliability of its outcomes cannot be overstated: the PSF's outcome is the undisputable future for payments in the UK as far as the PSR is concerned, with no safety valves for delay or disagreement, given the length of the PSF process, the number of people and organisations that were involved, and the unanimity of the wording behind the outputs.

The watchword is "You should have spoken when you had the chance – now forever hold your peace, and get on with implementing it".

It, in this case, is called New Payments Architecture, also known as The Blueprint for a new payments architecture for the UK.

The PSR and the PSF in the context of the official diagnosis of the 2007/8 financial crisis
The PSR and the PSF can be seen through the prism of the official diagnosis of the 2007/8 financial crisis.

Under this diagnosis – which is the central plank of the Vickers Report called "Changing Bank for Good" – major banks had become detached from the needs of the consumers and business customers that used them and were speculating with their money: that is directly speculating with the money deposited in their bank by the UK public as consumer and business customers.

The banks were speculating with the money of the UK public at a second level as well, due to the taxpayers underwriting – through the offices of HMTreasury – bank rescue operations undertaken by the Bank of Last Resort, the Bank of England.

Central banks are thinly capitalized themselves and call upon the resources of the finance ministry as whose agent their main activities are carried out.

In the event the governor of the Bank of England permitted Northern Rock to fail even though it was compliant with all the tests of solvency and liquidity that the Bank of England and its fellow regulators had set.

None of RBS, Lloyds or Northern Rock was directly bailed out by the Bank of England, but rather via HMTreasury by newly established special entities.

In the case of RBS, for example, HM Government became an indirect majority shareholder through UK Financial Investments Ltd and turned RBS' liabilities into a quasi-sovereign risk investment, in the process exposing the UK taxpayer to the liability for repaying the depositors in RBS' global network, which it had acquired through ABN-Amro.

Interconnection of high market shares of deposits with payments
The diagnosis continues that banks were speculating with the deposits of retail and business customers, putting the wider economy at risk without rendering equivalent economic benefits, and that the biggest banks were the biggest speculators, enabled by their high market share of retail and business deposits.

The speculation was carried out in the investment banking and trading divisions, and the nature of those business meant that there was a high correlation with international business.

This high market share of retail and business deposits that enabled this extent of speculation was enabled in turn by these banks' lock on the payments business, exercised through the nexus of power of the scheme companies, Vocalink and Payments UK.

Ring-fencing as a response to these problems
The objectives of Ring-fencing – the most high-profile measure emanating from the Vickers Report – are:

- To separate retail and business deposits into a UK-only, £sterling bank called the Ringfenced Bank, and use those funds solely for UK lending, as mortgages, car loans, credit card advances and so on
- To separate the investment, trading and international businesses into a separate bank called the Non-ringfenced bank

- To establish an IT and Operations unit with its own financial resources to support both banks and to ensure that basic banking services can be continued in the event of the downfall of either of the banks, without damage to the real UK economy
- To insulate the UK (depositors, taxpayers) from the risk of having to repay depositors in the bank's overseas branches, and from underwriting losses in speculative investment, trading and international businesses

Inevitable knock-on effects of the diagnosis are:

- The bank defines its core business more narrowly in terms of the kinds of customers it will entertain, in which geographies and with what services
- These combinations of customer/geography/service become known as the bank's "Home markets"
- Many combinations that the bank used to service are declared non-core, and are put up for sale, or wound down: they receive no new investment and no new business is taken on
- Markets other than the "home markets" are managed from Head Office or at most a regional centre, with an emphasis on:
    - Reducing the numbers of customers banked who are residents of those countries;
    - Reducing the number of non-resident relationships active in the "home markets" with residents of those countries;
    - Eliminating any relationships with Politically Exposed Persons of those countries;
    - Eliminating any relationships where the Ultimate Beneficial Owners, directors or principals of a customer – a body corporate, wherever it is established - are residents of those countries;
    - Eliminating correspondent banking relationships with banks in those countries, through which the bank could create country, credit, operational, market or AML/CFT risk;
    - Eliminating correspondent banking relationships with banks outside those countries who are acting as correspondent banks for banks within those countries, and who are thus acting in a "nesting" capacity by passing through at one step removed the risks that were eliminated when direct relationships were exited;
    - Eliminating relationships with non-bank PSPs who have any connection to those countries, be it physical presence, ownership or channelling of payments.

Authorities' actions in payments as seen through the prism of a Porter's Five Forces model
As regards the payments business in the UK, the actions undertaken by officialdom – be that the PSR, HMTreasury and government agencies like FinnovateUK – can be classified within a Porter's Five Forces analysis model as being an impressively comprehensive list of the measures quoted in that model that have the effect of:

- Reducing the power of suppliers (the big banks)
- Increasing the competition amongst existing suppliers
- Increasing the power of buyers (end users and intermediate users)
- Enabling new entrants
- Fostering substitute products

The universal aims are to increase the range of supply options for the user, reduce price, ease switching, so as to reduce the market power of existing suppliers.

Open Banking fits squarely into this framework: Open Banking encourages the establishment of New Entrants to sit between the big banks and the end user. The new entrant is an intermediate user. The existence of these intermediaries, using new technology to construct innovative and value-adding services, will increase choice for the end user, foster competition, enable new services, reduce prices and so on.

Significance of RBS in the diagnosis
The manner of RBS' demise was highly significant in the formulation of the diagnosis, in that it exemplified key planks in it:

- A bank that had indulged significantly in the sub-prime mortgage market, both as an underwriter of the bonds in the USA through its Greenwich Capital subsidiary, and then holding a portfolio of bonds through ABN-Amro;
- A bank that had used UK consumer and business deposits to fund its investment banking and international businesses, which were branded as speculative;
- A bank that had exposed UK taxpayers to the risk of having to pay out foreign depositors in the bank's international network.

It was the RBS case that caused "international banking" to become conflated with "investment banking" and identified as speculative and a source of high risk.

By contrast domestic banking and retail/SME banking became identified as being low-risk and of direct benefit to the UK economy.

RBS reached its pass due to a dash for globalization, and an attempt to "catch up" with HSBC, via a series of overseas acquisitions (such as a minority stake in Bank of China, and a trailer-park lender in the USA called Charter One) that culminated in a very bad deal to acquire the international branches of ABN-Amro Bank, and notably to not acquire:

- The valuable Lasalle Bank in the USA with its large retail deposit base: ABN-Amro sold off LaSalle off for US$20 billion in a form of "poison pill" operation aimed at deterring RBS' advances;
- Banco Real in Brasil, the third largest private bank, and Banco Antonveneto in Italy, which both went to Santander;
- The retail business in the Netherlands and Belgium which went to Fortis Bank;
- The SME business in the Netherlands which went to Deutsche Bank.

RBS surrendered up to its merger partners and to Deutsche all the parts of ABN-Amro with stable deposit bases, and with retail and SME revenue streams. In exchange it got the entire investment banking business with its stock of sub-prime bonds, and its international branches and trade and payments businesses, which were marginally profitable.

RBS funded these acquisitions with debt and not equity. Its balance sheet was structurally illiquid with many loans and bonds of 5-10 year maturity, and a preponderance of funding of 1-3 months' maturity and taken from the interbank market.

It became highly leveraged itself and when its access to interbank funding markets dried up, it did not have a retail and SME deposit base to tide it over, and it became insolvent: unable to meet its obligations as they fell due.

RBS became illiquid because it did not have sufficient UK retail and business deposits to "speculate" with.

Politicians and regulators, though, could point to the investment banking operations in London, Conneticut, New York and so on, and the far-flung ABN-Amro branch network, and lay the blame for the financial crisis squarely at the door of international and investment bankers.

Unfortunately this was a case of an exception which did not prove the rules that were formulated in its wake.

Flaws in original diagnosis
Apart from Lehman Brothers, which investment banks actually went down? And which left the taxpayer with an unpaid bill? Lehman Brothers did not. The creditors of Lehman Brothers were paid out in full, and there was even something left for the shareholders after the trustee's fees (the trustee being KPMG).

The numerical majority of financial failures in the UK were not examples of speculative international and investment banking but of failed UK domestic business models, and ones that were encouraged by a political administration that laid down the seedbed for the disaster and pretended ignorance when things went wrong.

That Lloyds required taxpayer support in 2007/8 obscured the fact that Lloyds was induced to act as a white knight for Halifax-Bank of Scotland, and that it was the losses in HBOS' UK retail and commercial property lending that firstly brought HBOS down and then Lloyds in turn.

If we retain in our minds the names Halifax and Bank of Scotland, and of Royal Bank of Scotland, we can then add the names of the other organisations that went down: Northern Rock, Bradford&Bingley, Alliance&Leicester, and Britannia (based in Leek in Staffordshire).

Then a different story emerges: reckless domestic mortgage lending, either by recently converted building societies, or by banks run from the North or Scotland, or both.

Soft regulation and political patronage
These were in the main institutions that had benefited from "soft-touch" regulation because of their status as former building societies, and/or because of their physical distance from the financial regulator, and/or because the "tripartite" regulatory model introduced by the then Chancellor of the Exchequer Gordon Brown left many fissures of activity that eluded the purview of HMTreasury, the Bank of England, and the Financial Services Authority.

Given the business focus of these lenders and the areas of the UK in which they were undertaking it, they had benefited from political patronage in the run-up to 2007/8: their focus was on Labour Party areas and ones that had had the greatest run-down of industry in the Thatcher era. Blairite Labour lionised these emerging unicorns as they invested in the reclamation of the UK's rust belt, but then pretended never to have heard of them when things went wrong, preferring to blame the "boys in braces" at (foreign) investment banks based in London.

This alternative diagnosis has been submerged under the one more popular with those who were still in positions of power in 2009/10 when the official diagnosis had to be written. Naturally they could only choose a diagnosis that exonerated themselves from blame.

The diagnosis that has led to the PSR and the PSF is the one that has triumphed and is held as an article of faith: the resultant agenda is to reduce the market power of the big banks, and foster the Challengers.

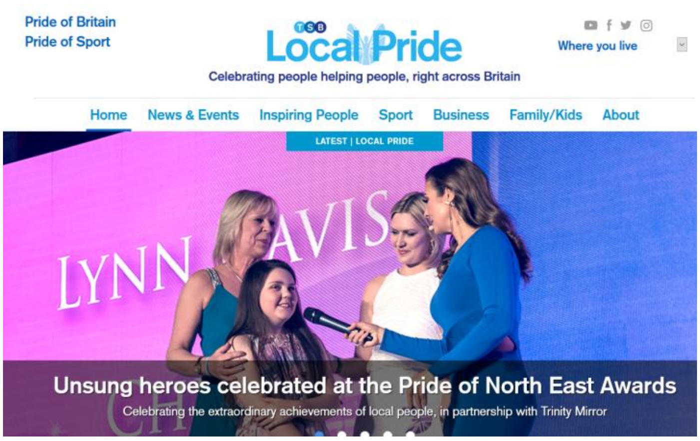
It is not so long ago that Northern Rock was the chief challenger, with Britannia following closely in its wake. Now we have Atom Bank, a challenger bank based in County Durham who specialization is mortgages, and whose Finance Director was Britannia's Finance Director in 2008/9.

The other aspect that seems to have gone by the board is that there was some quid-pro-quo from the big banks for their holding this supposed overwhelming market power over payments: they paid for everything. Now they are paying for the PSR, an action reminiscent of the tradition on the scaffold whereby one gave a coin to one's executioner prior to having one's head removed.

Nevertheless, the existing diagnosis stands unchallenged and the PSR's role is to drive it through into reality.

TSB is one of the challengers to come out of this diagnosis, representing the penalty that Lloyds had to pay to placate the EU, and expiate its sin in blundering into acting as a "white knight" for HBOS.

Initially TSB was carved out as a separate brand on Lloyds' IT complex, and then the entity was sold to Banco Sabadell. Its branding is fully in line with its value proposition as being UK domestic only, all business being in £stg, and eschewing foreign speculation: a local bank for local business with local people:



We can be gratified that from now on any problems at TSB will be entirely home-made, and so far what enormous problems they have been – World Class problems, made right here in the UK.

Payment Strategy Forum – the venue in which market detriments should have been remedied

The PSF formulated its list of "detriments" and a cast of experts has spent two years crafting them into a grand strategy and into a few projects on the side to deal with financial crime

- The PSR was established in mid-2015 and formulated its list of "detriments" at a "community offsite"
- These were then sorted into three Working Groups, supported by an advisory, supporting stream, and the "Strategy Setting" phase began
- A cast of hundreds were involved either as PSF members, members of individual Working Groups, at roundtables, community events and so on
- Two major disconnects crept in
- Firstly, that a major portion of the "detriments" could be solved by projects already scoped by Payments UK in its World Class Payments project, a clear case of "here's one I made earlier"
- Secondly, that "an overwhelming high number of detriments could be solved with a mix of..technologies and concepts", a rash claim made by the supporting, advisory stream
- As a result we have a plan spearheaded by the supporting, advisory stream but featuring many pre-baked cakes from World Class payments…
- …and a plan out-of-alignment with the matters that the supporting, advisory stream was meant to be tracking

The PSR established the Payment Strategy Forum ("PSF") in mid-2015 as the venue in which a broad representation of market actors would address and draw up a strategy to resolve the market detriments.

The representation of the PSF should ensure that a wider audience was heard than had been the case within the supposed nexus of Payments UK and the scheme companies.

Indeed the representation was impressive on the face of it. There was an independent chair and a list of about 25 members of the PSF, plus many further people being associated with the workstreams. The PSR supplied secretariat services. Each workstream was chaired by a member of the PSF to ensure coherence.

The main kick-off was the Community event in September 2015 at which the list of detriments was compiled.

Strategy Setting phase
The first phase of the PSF was called Strategy Setting and lasted from October 2015 until November 2016. The output was a draft strategy document supported by a given level of detail about the individual projects in each stream which would in aggregate deliver the strategy.

The initial, long list of detriments that emerged from the initial offsite meeting was sorted into three workstreams:

1. Meeting End User Needs
2. Simplifying Access to Markets
3. Financial Crime, Data and Security

There was a further stream called Horizon Scanning, whose supposed role was to research developments of a regulatory, geographical and technological nature where they overlapped with or impinged upon the scope of the three main workstreams, and to bring them to the attention of the respective workstream.

Its role was laid down in the PSR Payment Strategy Forum draft Work Programme of October 2015 as:

- Horizon Scanning work stream - to research and present a regular horizon scanning report to the Forum. The report will identify key developments and suggest how these might be relevant to the Forum's work.

Each workstream developed its Terms of Reference and had its agreed subset of the detriments to work on, and each one then went about putting together a set of projects that would solve for the detriments allocated to them. This can all be followed through the PSF website: https://paymentsforum.uk/

The PSF work in this phase reached a key milestone when the draft strategy was issued in July 2016 as the document entitled "Being Responsive To User Needs - Draft Strategy For Consultation". This was put out to consultation but the working groups did not pause their work while the consultation was in process: they pressed ahead, on the assumption of support.

Thus when the final strategy was issued in December 2016 as "A Payments Strategy for the 21st Century - Putting the needs of users first", it was little changed from the draft, other than to the degree that the working groups had developed their outputs in the intervening period. The strategy was duly declared adopted, and the PSF closed down the "Strategy Setting" phase. It at once set up the "Design & Implementation" phase, implementing what were known as "New working structures" for the new phase.

Disconnects in draft strategy
Two major disconnects became embedded in the draft strategy and, because work on the strategy and then on New Payments Architecture continued during the consultations on both of them, they emerged unaltered in the final outcome of the PSF.

The first disconnect was the degree to which the outcome of the PSF correlates to the preceding project called “World Class Payments”, run by Payments UK in 2014-15. The interim report infographic pages 10-11 from World Class Payments includes all three of the projects that the PSF determined were going to “Meet End User Needs”:

1. Confirmation of Payee
2. Request to Pay
3. Enhanced Data Related to payments

Further elements in the infographic also found their way into the draft strategy:

- Common standards i.e. adoption of ISO20022 XML
- Real-time payments 24x7
- Cross-industry sharing of identity and fraud information

That so much of the PSF's outputs should have been drawn from prior work by Payments UK is either a testimony to the political and persuasive powers of the individuals at Payments UK, who fought their corner through the PSF phases to make sure their ideas came out on top, or else it is proof that one of the premises of the PSR in establishing the PSF was incorrect: that an industry trade body controlled by the big banks was not capable of coming up with proposals that met end user needs or fostered competition and innovation.

The second disconnect concerns the Horizon Scanning working group ("HSWG"). It did not carry out its mandate.

It issued what was known as its Triage document ("04 - PSF25022016 - (5h) Horizon Scanning WG - Triage and Prioritisation Analysis") and made an important claim on page 4 about all the detriments that had been allocated into the three main working groups:

> While the Geographic and Regulatory Horizon sub-groups are meant to bring to the attention of the Forum, the future developments and initiatives and business models in other countries so that this is taken into account in the UK, the Technology Horizon is focused in identifying what technologies could be adopted to address the detriments of the current payments systems and experienced by service users.
>
> In this sense the Technology Horizon sub-group has found that an overwhelming high number of detriments could be solved with a mix of these technologies and concepts:
>
> - Blockchain
> - Distributed ledger
> - APIs
> - Layer Modelling
> - Identity Management

In effect this statement justified that little or no further attention be paid to the Geographic and Regulatory dimensions.

All of HSWG's efforts were invested into the Technology aspect, putting flesh onto the bones of these statements and generating NPA out of them, paying little or no attention either to subsequent developments in Technology that might have had an impact on the NPA design.

No further Horizon Scanning reports were issued.

No new developments in Technology were captured, qualified and input to the three other streams, and Geographic and Regulatory were similarly left to look after themselves.

The main proponent of NPA at this stage was the chair of HSWG, who later recused himself as chair but remained intimately involved.

The main supporter was a delegate from Lloyds Bank who is now the CTO at the eMoney Institution of which the recused chair of HSWG is CEO.

The results of this deviation from the allotted mandate of HSWG can be summed up both as the current and emerging aspects that HSWG then failed to follow, and the shortcomings of their rash claims to be able to solve "an overwhelming high number of detriments" through technology:

Relevant items that needed consistent tracking	**New items that were not tracked**
• EBA RTS on SCA and CSC and implications for Open Banking • Ringfencing • FCA/PSR approach to PSD2 especially PSRegs Arts 103, 104 & 105 • BoE RTGS renewal and BoE accounts for non-credit institutions • Vocalink sell-off the Mastercard/remedies from "Infrastructure" MR • Remedies from "Indirect Access" MR • Impact of implementation of Interchange Fee Regulation and of revised Funds Transfer Regulation • 4AMLD and related legislation (e.g. Criminal Finances Act 2017) • Instant payments implementations • ISO20022 implementations • SEPA adoption	• GDPR • Which? supercomplaint on Authorised Push Payment fraud • SWIFT GPI • Wolfsberg Group guidance on SWIFT non-customer RMA • Wolfsberg Group revised Correspondent Banking questionnaire • FATF designations of "high-risk" categories of Financial Institutions • ATM interchange through LINK
New detriments	**SEPA issues with layered model**
• Closure of branches, withdrawal of ATMs and costs of cash withdrawals • Reallocation of card payment costs on the back of PSD2 and Interchange Fee Regulation • Failure to identify dependency of "Simplifying Access to Markets" on Liability under Indirect Access • Failure to identify impact of Ringfencing on "Simplifying Access to Markets" • 18-24 month gap between live date of PSD2/obligation on ASPSPs to open their books to Third-Party Providers and live date of EBA RTS, leaving ASPSPs with no binding measure of compliance as (i) Open Banking is only mandated upon the CMA9; (ii) FCA "expects" other ASPSPs will adopt the Open Banking standard from 13/1/18…but they cannot mandate it and actually most ASPSPs will not have a method of complying	• 20+ Clearing&Settlement Mechanisms ("CSMs") and no market integration to 5 or 6 pan-European ones. CSM structure introduced an extra leg for many payments which is CSM2CSM and "interoperability" • Absence of "Value Added Services" and overlay services, except ones that preserve the legacy environment (Italian overlay on SDD Core to preserve Debtor Mandate Flow) • General stagnation; services are free but at lowest common denominator of feature&function • With SEPA Inst it is free and also quick • Rules around standardisation have the effect of inhibiting innovation • Withdrawal of MIF on DD undermines investment case on that side • "Additional Optional Services" have been created, usually by one country, but rarely integrated into the core scheme • AOS is not shared CSM2CSM, so "interoperability" only covers the core&basic dataset

HSWG's contentions were inadequately challenged. This has left the PSF strategy at high risk of misalignment with the regulatory, geographic and technology developments that HSWG was established to track, and at high risk of not solving "an overwhelming high number of detriments".

Payment Strategy Forum Design & Implementation Phase

The PSF's second phase was dominated by the New Payments Architecture Design Hub: the streams around Financial Crime were a sideline

- Phase 2 of the PSF - "Design & Implementation Phase" – majored on New Payments Architecture
- However, nothing has been implemented
- A sham consultation on NPA was conducted
- The dilatoriness of the Horizon Scanning Working Group came to light both in the consultation and in the later efforts to start implementing NPA
- The Financial Crime streams were mainly farmed out to UK Finance when the PSF closed down in December 2017

Design & Implementation phase
After the acceptance of the final strategy, the PSF was reorganized under the phase entitled "Design and Implementation" into just two streams:

1. New Payments Architecture Design Hub
2. Financial Crime, Data and Security Working Group

Quite obviously the NPA Design Hub was by now the main event, with Financial Crime as an also-ran.

The Financial Crime stream contained 7 workstreams, and we have inserted the Terms of Reference for each stream against its name:

Workstream name	Deliverable
Guidelines for Identity Verification, Authentication and Risk Assessment	The WG will assist the Forum in moving the development of the solution forwards, and will seek to confirm ownership and proceed with a handover to a suitable body by 1st July 2017.
Payment Transaction Data Sharing & Data Analytics	The WG will assist the Forum in managing the delivery for this solution, including high-level design and delivery/procurement approach, and will propose an industry self-regulating body to be responsible for completing the design / specification and leading the delivery phase
Financial Crime Intelligence Sharing	The WG will assist the Forum in handing over the solution to an appropriate industry body. This will involve collaborating with existing bodies (e.g. Joint Fraud Taskforce, Financial Fraud Action UK and the Joint Money Laundering Intelligence Taskforce) to agree handover by 1st July 2017
Trusted KYC Data Sharing	The WG will assist the Forum in undertaking additional analysis to confirm the viability of the solution, including potential delivery by the competitive market.

Workstream name	Deliverable
Enhancement of Sanctions Data Quality	The WG will assist the Forum in engaging with HM Treasury and the Office of Financial Sanctions Implementation (OFSI) to understand how best to take forward this solution
Customer Awareness & Education	The WG will assist the Forum in identifying the appropriate industry body to take forward the solution. The working group will engage with potential candidates such as the Joint Fraud Taskforce and the new Financial Services Trade Association
Indirect Access Liability Models	The WG will liaise with stakeholders to understand concerns with the current Joint Money Laundering Steering Group (JMSLG) guidance. The WG will assist the Forum in clarifying specific concerns for consideration by the JMLSG, and subsequent approval of any changes needed by FCA and HM Treasury

Financial Crime was demoted as a theme by the way in which it was dealt with in the PSF Phase 2:

- The stream was not meant to design anything;
- Its outputs do not add up to a cohesive whole;
- Assigning the word “solution” to what had been created up until this ToR was written is stretching the meaning of the term;
- Its role was to liaise, analyse, package up the work done so far and get someone else to take it on – and in most cases that successor organisation did not yet exist.

Critically the issue of combatting fraud and financial crime was divorced from the core of designing the UK’s next-generation payment systems.

This is a very bad mistake.

These streams have now been duly farmed out to trade bodies. One has been passed to New Payment System Operator (“NPSO), but in the main they have been farmed out to UK Finance, the successor of Payments UK.

Several of them emanated from Payments UK under the heading “World Class Payments” in 2014/15 and they have been sent back there in 2017/18 under the new label of “UK Payment Strategy”. All that has gone between is much paperwork, governance, time and effort.

Belatedly it was realised that New Payment System Operator – the new organisation whose prime role is to implement NPA – ought to be committed to deliver something tangible in order to bring some of the Financial Crime solutions to life.

As a result UK Finance and NPSO have spent time and effort negotiating a series of Memoranda of Understanding about how they will work together on the delivery of the solutions (if indeed it turns out there is anything to deliver): how much easier would it have been not to divorce Financial Crime from NPA under the working structures for Phase 2 of PSF?

New Payments Architecture Design Hub - NPA
The main action in PSF Phase 2 was in designing NPA. This represented a triumph for the Horizon Scanning Working Group in transmuting their advisory role into leading the action, subsuming all of “Meeting End User Needs”, and also “Simplifying Access to Markets” bar the inconvenient “Indirect Access Liability Models”. This was deemed to be non-technical and therefore apt to be farmed out to Financial Crime and sub-farmed out to UK Finance in due course.

To find an example of the results of the dilatoriness of Horizon Scanning WG, one need only read the section in the NPSO Board Minutes of 2nd May 2018 about the Confirmation of Payee Service:

> **97. Confirmation of Payee**
> CB stated that NPSO had put together a working group including representatives from all key stakeholders which had met to try to reach a consensus on legal issues including disclosure of personal data, fraud, PSD2, privacy and consumer protection. The next steps for the taskforce were as set out in the paper circulated ahead of the meeting.

A laundry list of issues of a legal/regulatory nature stand in the way of Confirmation of Payee. These are the types of issue that the Horizon Scanning WG was established to identify, qualify and bring to the attention of the respective working groups whose tasks the particular issue might affect.

Now, when the implementation of streams of NPA is taken in hand, roadblocks are discovered.

Horizon Scanning WG issued one report, in effect stated that their technology ideas could solve everything and now, three years on, there is a high risk that elements of NPA could fall foul of regulatory, technological and geographic issues. We include “technological” because there can be no certainty that Horizon Scanning WG were even correct on the Technology aspects: it is disconcerting that their report named “Blockchain” and “Distributed Ledger” as being distinct from one another.

NPA Project Initiation Document
The first major deliverable of the NPA Design Hub stream in PSF Phase 2 was the NPA Project Initiation Document, dated 4th May 2017 and sponsored by Otto Benz (who took over as chair of Horizon Scanning WG when the previous chair recused himself) and Paul Horlock, who chaired the “Meeting End User Needs” WG and who has now moved on to become first CEO of New Payment System Operator.

NPA Blueprint Consultation
The next milestone was the issuance in July 2017 of the NPA Blueprint Consultation Document (the “Blueprint”), which was then put out to consultation in Q3 2017. A fairly small number of organisations responded, many responded to only a few questions, and many also responded in their own in-house format and not through the online questionnaire format.

It was already clear at the time the Blueprint was issued that there was a set timetable:

- A new body called the Payment System Operator Delivery Group has been set up to lay the foundations of the body that would be charged with implementing the Blueprint;
- This body was then established with the name “New Payment System Operator Ltd”;
- This body would bring about a merger of the three payment scheme companies whose scope was covered by NPA: BACS, Faster Payments and Cheque & Credit Clearing Company;
- UK Payments Administration and other services/schemes like the Current Account Switching Service, PayM, ISO20022 Registration Management Group would come under the new body;
- A report on the consultation would be issued on or around 8th December 2017, at which point the Blueprint would be handed over to the new body for implementation;
- A series of other papers – likely to be but not specifically listed as the same papers that supported the Blueprint consultation – would be published in their final form shortly after 8th December 2017 to enable smooth handover to successor bodies.

In other words there was no chance that the Blueprint would be dropped if the consultation responses were overwhelmingly negative.

Equally there was little chance that the Blueprint would be altered other than by the further work on it by the members of the Design Hub team who would push on with bottoming out the design in parallel to the consultation process.

That the consultation report was scheduled for issue on the same day that the final Blueprint would be handed over to NPSO demonstrated that there was no serious prospect that comments made by respondents to the consultation would be adequately considered and still less that they would give rise to any meaningful changes in the Blueprint.

This was another sham consultation.

Indeed the concern in the PSF, to judge from the Action Log of their meeting of 30th November 2017, was rather to undertake a preemptive PR campaign against negative feedback in the consultation, that is as opposed to addressing the points raised. Here is the relevant extract from PSF30112017 (1b) Forum Action Log 30th November 2017:

ID052	PSF Central Team, when analysing consultation responses, to clearly identify any areas where the majority of responses were negative and then agree messaging to address these. Where necessary this should happen prior to the final Report.	Hamish Thomas	29 Sept Forum	In progress	**06th November 2017** Draft consultation assessment report and messaging to be discussed at the November 13th meeting. Action to remain open until the Forum agrees the final report.

A positive report was duly issued on the consultation – see “171208 PSF Consultation Report draft v1.0” – and a letter of support for the Blueprint was duly issued by the PSR – see “Payments Strategy Forum - Letter of Support”.

The final Blueprint was handed over to NPSO, and the final documents supporting the Blueprint were published on the PSF website as part of the handover.

In parallel the PSF had exchanged a series of letters with UK Finance about their taking over individual Financial Crime workstreams, although one – Transaction Data Analytics – was handed over to NPSO. As stated above, UK Finance then had to negotiate a series of Memoranda of Understanding with NPSO about how the two organisations would work together on them.

Oh it all makes work for the working man to do! (Flanders and Swann – The Gas Man Cometh).

NPA Blueprint Consultation documentation
In addition to the main NPA Blueprint Consultation Document, there was a series of supporting documents for the NPA section of the consultation:

- Commercial Approach and Economic Models Blueprint
- Cost Benefit Analysis Blueprint
- End User Requirements and Rules Blueprint_0
- Fresh Eyes Risk Review
- Implementation Plan Blueprint

There was a further series of supporting documents for the Financial Crime section of the consultation:

- Customer Education and Awareness - Solution Paper
- Enhancement of Sanctions Data Quality
- Financial Crime Data and Information Sharing
- Guidelines for Identity Verification, Authentication and Risk Assessment - Executive Summary
- Guidelines for Identity Verification, Authentication and Risk Assessment - Guidelines Scope
- Liability Models for Indirect Access - Solution Paper
- Payments Transaction Data Sharing and Data Analytics Strategic Solution - Scope and Governance Oversight_0
- Payments Transaction Data Sharing and Data Analytics Strategic Solution - Solution Implementation_0
- Trusted KYC Data Sharing - Framework Implementation_0
- Trusted KYC Data Sharing - Standards Scope and Governance Oversight_0

NPA Blueprint Consultation responses
We took it upon ourselves to analyse 32 out of the 58 responses submitted to the consultation, as a piece of private enterprise, after these responses had been published on the PSF website and of course then at some delay compared to when the PSF had had first sight of them.

We created one compilation sheet for each of the 96 questions in the consultation, and plotted it into it every one of the responses verbatim where the respondent had answered fully and either in their in-house format or in the PSF's format. Our selection of the 32 respondents was based on their being major market actors of different types, whose views ought to carry considerable weight.

We cut-and-pasted the exact answer the respondent gave, thus producing 96 response documents.

We also analysed 5 covering letters sent by respondents, and 8 short responses.

Our high-level conclusions were:

- This is very few responses overall to a matter of such national importance;
- The diverse manner of responding (in-house format, short-form response, letter) is a clear indicator that the consultation questions did not give sufficient room for respondents to raise the issues that respondents felt were important;
- Many of questions that were in the consultation elicited only a handful of responses;
- Responses were lukewarm to the totality of the Blueprint and to individual aspects;
- Qu 2.1.b attracted 22/32 responses: that is very high as an average;
- A "straw poll" examination of the responses of only 32/58 respondents and to just the first three consultation questions revealed significant concerns about lack of alignment in areas where the Horizon Scanning SWG was meant to ensure alignment: how many more disconnects did the totality of respondents identify in their responses to these and the other 93 questions, and how many more disconnects did respondents not identify at all?
- These were just a sample of the disconnects – there were also many substantial objections to what was proposed.

Here are the examples of consultation responses drawing attention to where the NPA Blueprint has become out-of-synch with regulatory, geographical and technical trends – just from the responses of 31/58 respondents and to the first three questions in the consultation:

Qu	Respondent	Issue
1.2	Accenture Dovetail	Drawing attention to issues in the SEPA adoption of the Direct Debit and whether the mandate follows the Debtor Mandate Flow or the Creditor Mandate Flow
1.3	Experian	Need for GDPR compliance regarding "push" payments
1.3	Financing & Leasing Association	Questioning the divorcing of the solutions proposed under the Financial Crime stream from what is to be implemented under NPA
1.3	HSBC	ISO20022 potentialities not being exploited in NPA
1.3	HSBC	Request-to-Pay vulnerability to payment fraud (of the type the Which? supercomplaint deals with)
1.3	Lloyds	Lack of alignment of NPA with Open Banking
1.3	Nationwide HSBC	Lack of alignment of NPA with RTGS renewal
1.3	Nationwide	NPA should be embedding AML/CFT controls i.e. which puts into question why most of the solutions in the Financial Crime stream have become distanced from NPA
1.3	Accenture, RBS, Dovetail	Questions against the layered model proposed by NPA i.e. where a comparison against the EPC's market model for SEPA would have played an important role
1.3	Santander	Raises the need for assurance that NPA does not run up against regulatory or competition restrictions – this is what the HSWG should have been monitoring

Notwithstanding all of that, the PSF's own report on the consultation was upbeat – "171208 PSF Consultation Report draft v1.0".

PSF handover

The final Blueprint was handed over by the PSF at its event on 8th December 2017, and supporting documents were published on its website.

The final supporting documents for NPA were:

Draft Blueprint - Consultation Assessment Report

Forum Letter Of Support

The Payments Community received an update on our work at an event on the 11th December. Supporting papers and speeches can be found here

Blueprint for a New Payments Architecture

- Design and Transition Blueprint.pdf
- End User Requirements and Rules Blueprint.pdf
- Request To Pay - Technical Solution Blueprint.pdf
- Implementation Plan Blueprint.pdf
- Cost Benefit Analysis Blueprint.pdf
- Commercial Approach and Economic Models Blueprint.pdf
- Fresh Eyes Risk Review.pdf

The final supporting documents for Financial Crime were:

Financial Crime, Security and Data Solutions

- Payments Transaction Data Sharing and Data Analytics Strategic Solution - Scope and Governance Oversight.pdf
- Payments Transaction Data Sharing and Data Analytics Strategic Solution - Solution Implementation.pdf
- Trusted KYC Data Sharing - Standards Scope and Governance Oversight.pdf
- Trusted KYC Data Sharing - Framework Implementation.pdf
- Financial Crime Data and Information Sharing.pdf
- Guidelines for Identity Verification, Authentication and Risk Assessment - Executive Summary.pdf
- Guidelines for Identity Verification, Authentication and Risk Assessment - Guidelines Scope.pdf
- Liability Models for Indirect Access - Solution Paper.pdf
- Enhancement of Sanctions Data Quality.pdf
- Customer Education and Awareness - Solution Paper.pdf

The PSF then closed down.

Its work was taken up by NPSO as regards the entirety of NPA and the Transaction Data Analytics stream of Financial Crime.

Its work was taken up by UK Finance as regards the remaining 6 streams of Financial Crime.

Not paying well? Take ISO20022 XML – it cures all known payment ailments

ISO20022 XML has been grasped upon as a modern and global data standard that the UK should adopt

- If in doubt, say "ISO20022" (that's twenty-oh-two-two)
- From invisible communication tool to facilitate complex IT architectures to an industry of its own
- But it is an approach, not a standard, and there are hundreds of variations of it
- The main one is Single Euro Payments Area and its adoption there contains important lessons about the scope for innovation and competition
- ISO20022 has proven to be a straitjacket, albeit in size XXXML

One of the measures that runs, like "Blackpool" in a stick of rock, through the plans to upgrade UK payments is the adoption of a "modern and global" data standard called ISO20022 XML, in CHAPS, BACS, FPS and throughout the New Payments Architecture.

This "standard", which would be better termed an "approach", was formalized around 2005, to bring together a series of initiatives that had aimed at solving the same problem: standards proliferation and the resultant difficulties in building and maintaining interfaces between systems that used different data formats within them.

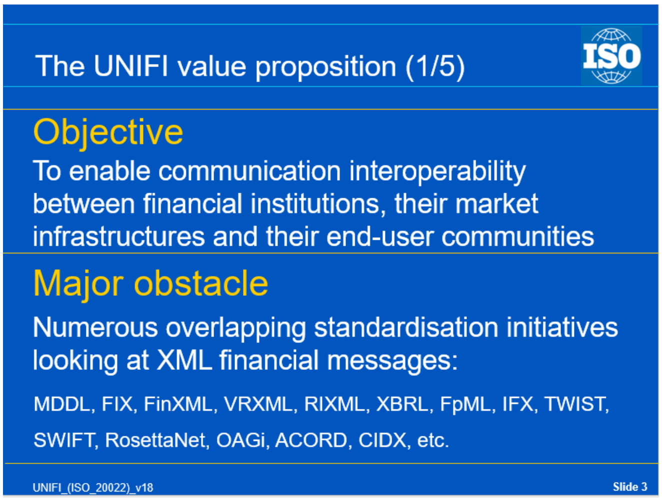
The project was given the name UNIFI, standing for **UNI**versal **F**inancial **I**ndustry message scheme.

Genesis of ISO20022
UNIFI was established in the timeframe 2003-04.

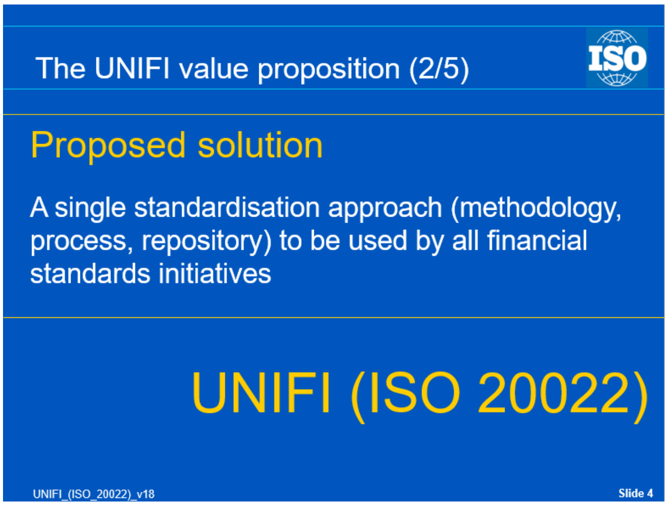
Once the approach and the organization has been put in place, ISO issued a pivotal presentation on UNIFI called "IST Scripted UNIFI (ISO 20022) presentation_v18 sep05", and the script on the title slide is as follows:

"UNIFI is the nickname of 'ISO 20022 – UNIversal Financial Industry message scheme', the platform proposed by ISO to develop all financial messages. UNIFI doesn't describe the messages themselves, it is a 'recipe' to develop message standards. The main ingredients of this recipe are a development methodology, a registration process and a central repository".

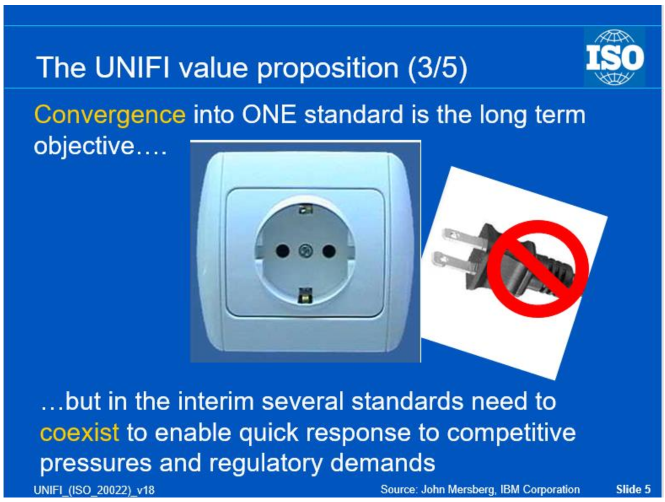
Here are the key slides in the deck about UNIFI's objectives:



- Clear aim to create a single approach to financial messaging – i.e. a monopoly;
- Private standardisation initiatives should only exist if they can be accommodated into the UNIFI framework:

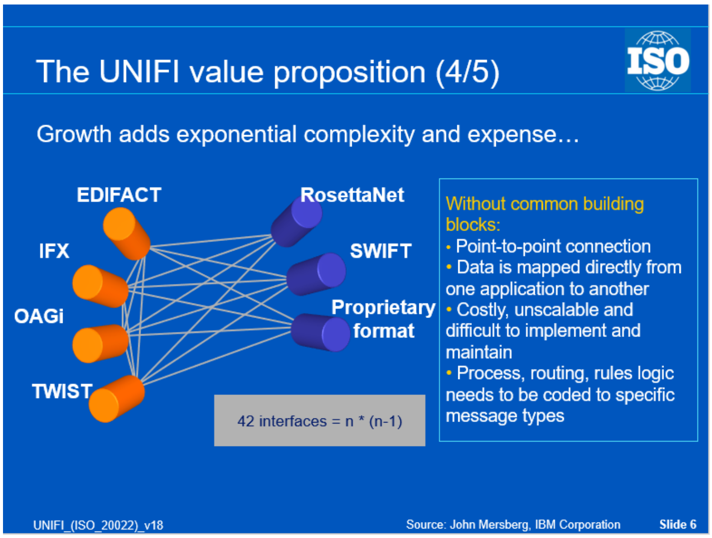


- A single standardisation approach: no private enterprise…

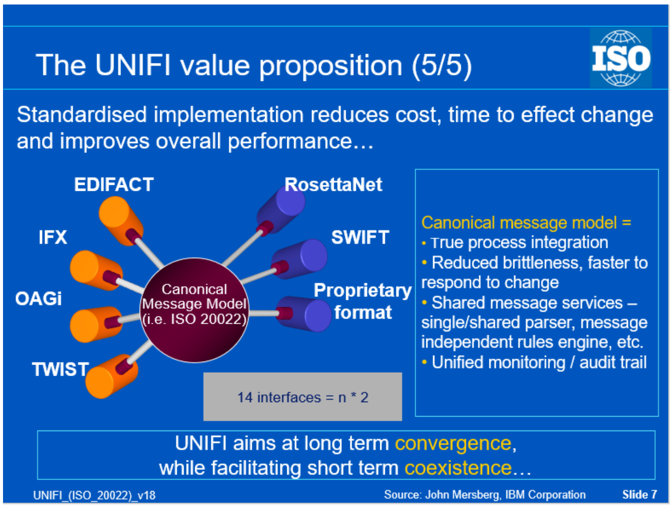


- Convergence onto a single standard over time;
- In the interim other standards will be allowed to co-exist to enable "quick response to competitive pressures and regulatory demands".

UNIFI architecture



- A key value driver was in the management and testing of interfaces;
- If one system had a change to it, consequential changes might be needed to interfaces and connected systems;
- Then it all needs to be tested (unit, integration, regression etc.).



- Instead, applications would be connected using ISO20022 messages;
- Applications would communicate with one another via a Universal Message Bus, not through point-to-point interfaces;
- Changes in one application can then be ringfenced within it, and not have knock-on effects on other applications;
- There is no sense in which applications would have to use ISO20022 themselves.

ISO20022 adoption – SWIFT migration off MT messages
ISO20022 became closely associated with SWIFT for a period and more recently less so. SWIFT at one point named the ISO20022 message set as “SWIFT MX” and was set on migrating all of its “MT” traffic from the “SWIFTNET FIN” network onto “InterAct” for single, instant messages and onto “FileAct” for non-urgent and bulk messaging.

However the so-called SWIFT MX migration stumbled at various points, particularly when plans became firm to retire the set of Enquiry and Investigation messages that existed in the MT world, these being the ones in each message series that had a ‘9’ in the second place, such as MT195, MT198, MT299 and so on.

The replacement offering – known as Exceptions and Investigations – was not just a series of messages but pre-defined processes for the type of response to each message sent, and with a restriction that the data populated into each such message had to be drawn from other IT systems: there were no Free Format options where an operator could either insert typed text into a structured message (MTn98) or type absolutely what they liked (MTn99).

Such typed text would not be processable and this was the point: the Enquiry and Investigation processes would become automated end-to-end.

When this was realized by the SWIFT Community as a whole, they decided to abort the migration, insisted that the MTn9n messages stay available on the network, and simply allowed that banks or communities that wished to adopt Exceptions and Investigations could go ahead autonomously.

This is the stance known as Standards Coalescence and has remained the status quo to date.

ISO20022 adoption – Single Euro Payments Area
The main adoption of ISO20022 XML was for SEPA, initially limited to the interbank space at the launch of the SEPA Credit Transfer in 2008 and subsequently at the launch of the SEPA Core Direct Debit in 2009.

Take-up was initially limited to cross-border traffic since the displacement of legacy, domestic-only schemes by the SEPA schemes was slow and at the time voluntary.

Legacy domestic-only schemes proved to be embedded, and to have value-adding features and functions that were not present in the launch versions of the SEPA schemes.

In many cases these were added to the versions of the SEPA schemes eventually adopted in different countries and were known as “Community Additional Option Services”. A longer explanation of this “AOS” is given later in this document.

Full adoption of SEPA only occurred in the 2014-16 timeframe and in response firstly to legislation (“the SEPA Migration End Date Regulation”) and then to the filling of feature/function gaps with AOS

Full adoption meant both in the interbank space and in the customer-to-bank space, although even then the obligation to adopt in the customer-to-bank space was limited:

- Customers did not have to supply payment orders in ISO20022 for single payments;
- Customers who sent bulk payments in files did have to send their files in ISO20022;
- Or rather the files had to reach their bank in ISO20022, leading to a number of work-arounds using translation services:
    - Customer sends file to an IT format translator, who relays the file now in ISO20022 to the bank;
    - Customer sends file to an IT format translator, who sends the file now in ISO20022 back to the customer, who relays it to the bank;
    - Customer buys the translation software themselves, runs their file through it and sends it to the bank;
- Some customers, but not many, adopted ISO20022 in a payments module at the application level, and interfaced it via a translation software package to their Treasury Management and/or Accounts Payable & Receivables applications, which continued not to use ISO20022;
- Almost no customers adopted ISO2002 into their Treasury Management and/or Accounts Payable & Receivables applications.

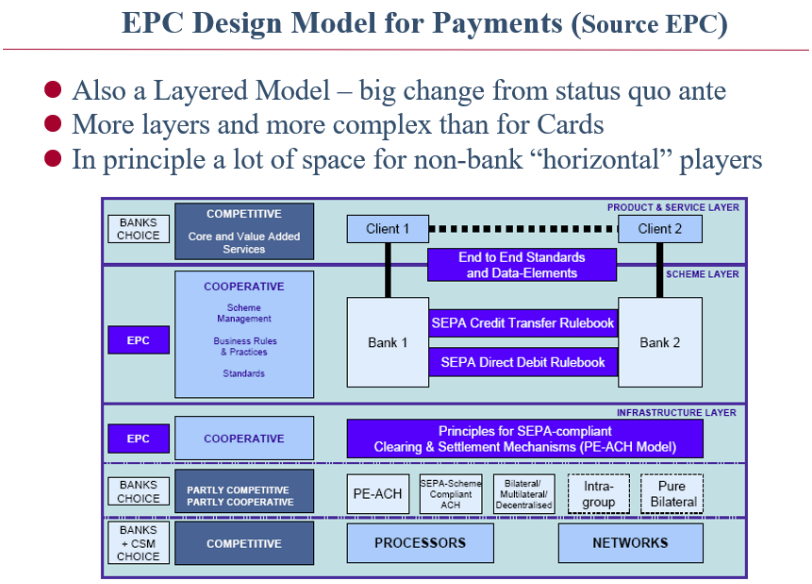
ISO20022 adoption – High-value or RTGS systems

Even though ISO20022 was implemented at the interbank layer for SEPA in 2008, high-value payment systems in Euro such as TARGET, the RTGS systems of the EU central banks that were connected to TARGET, and the high-value/net settlement system EBA EURO1 did not migrate onto ISO20022.

Several dates were outlines and then postponed.

SEPA market model and how ISO20022 XML is used to contribute to it

SEPA was constructed in line with the market model which NPA has been conceived as emulating. It is the layered market model:



The European Payments Council designed its schemes for "Core&Basic" credit transfer and direct debit services, and these have indeed been implemented throughout the SEPA Area and using the ISO20022 XML data format.

The layered market concept in SEPA is based on the accessibility to all market actors of the Core&Basic services and on every actor's ability to reach every other actor either through one clearing system – because PSPs both belong to the same one – or through a relay of clearing systems thanks to "interoperability".

For example, a payment from a Portuguese PSP to one in Belgium would be submitted to SIBS (a SEPA-compliant Clearing & Settlement Mechanism in Portugal) and then relayed via interoperability arrangements either to STET (which is a SEPA PEACH - Pan-European ACH - and which now runs the Belgium clearing) or to EBA STEP2, also a PEACH.

Most Belgian banks are STEP2 members for the purposes of cross-border transactions and they must be STET members for domestic flows.

The main dependency would be on whether SIBS had a bridge into STET or STEP2; it would certainly have a bridge into one if not into both.

Non-emergence of Value-Added Services
The issue for the EU was that, although SEPA existed since 2008, the hoped-for Value-Added Services did not emerge. Under the layered model it was imagined that market actors would base themselves on the identical "payment rails" – the Core&Basic services – and then would engage in competition based on:

a) Extra insertions in the scheme messages themselves that trigger an outcome and add value;
b) Building new services on top of the scheme messages, such as to aggregate data, enhance liquidity management or whatever: overlay services.

What is noticeable in the EPC's scheme documents, though, is that the possible emergence of the first of these two as "VAS" – Value-Added Services – is not catered for.

The EPC does categorise all of the different fields in the ISO20022 XML messages employed in transacting the Core&Basic SEPA services within their system, which is in this colour-coded diagramme in their Implementation Guidelines:

<table>
<tr><th colspan="4">Global ISO 20022 XML Message Standards</th></tr>
<tr><td>Message elements from the ISO messages corresponding to Rulebook requirements</td><td>Message elements that are mandatory in the ISO messages or needed for Interbank Processing</td><td>Message elements from the ISO messages available for use by AOS within an EPC Governance framework</td><td>Message elements from ISO messages not applicable to SEPA</td></tr>
<tr><td colspan="2">EPC Implementation Guidelines for SEPA Core Mandatory subset, identifying elements
- to be used as defined in ISO
- to be used with SEPA usage rules (from or completing the Rulebook)
Note: yellow fields can be used in a specific way for an AOS.</td><td>To be developed and documented by AOS Communities</td><td>Not available for use in SEPA payments</td></tr>
<tr><td colspan="3">SEPA Payments</td><td></td></tr>
</table>

The White Fields are open to be developed but as “AOS”, not as “VAS”, in the EPC’s lexicon, and by “Communities”, not by individual actors.

AOS initially emerged where a national community had decided to put something in that field which replicated a vital function of the national payment type that the SEPA payment was replacing. The usage of a field in this way is called “AOS” – Additional Optional Services.

Finland’s national community, for example, decided to define two pieces of AOS: a tax payment date and a corporate reference.

Incorporation of Community AOS into the core scheme
AOS had to be lodged for approval with the EPC, and the EPC would at its discretion propose that such an AOS be incorporated into the core schemes. Finland’s corporate reference was so adopted, but the tax payment date was not.

The problem is that it is the fields that could be used for AOS are the exact same White Fields that are available for VAS, against a backdrop where the usage of that field for the purpose defined by a “Community” becomes mandatory at two levels:

1. On all members of that Community once it is adopted by the Community;
2. On all users of the SEPA schemes when any nationally-defined AOS becomes incorporated into the core scheme.

For example if Pohjola Bank had wanted to use the field defined by its Community as the tax payment date for a piece of VAS of its own – like "Funds availability time" – it could only have done so until the live date of the Community usage of that field. Then it would have had to cancel its VAS, develop the AOS for that field, and try and find another White field for its VAS.

Similarly any bank in Italy that had wanted to use the field defined by the Finnish Community as the Corporate reference, say to insert a reference of its own devising, could only have done so until the live date of the Corporate reference in the core scheme. Then it would have had to cancel its VAS, develop the Corporate reference for that field, and try and find another White field for its VAS. The Corporate reference then no longer ranks as AOS, but as part of the core scheme.

The predicament for any actor that had defined VAS in the same field would then be a compulsion to decommission their VAS at the date this piece of AOS became mandatory on them, either because they were a member of the Community that had defined it as AOS, or because it had become incorporated into the core scheme.

The EPC has cut the concept of VAS out of its documents where VAS means usage of White fields. The EPC has a de facto veto on the usage of VAS. It would be de iure if market actors had to have their VAS proposals approved by the EPC. EPC's veto is de facto because they are the official scheme and can approve Community AOS notwithstanding any conflict with existing VAS, and they can similarly adopt Community AOS into the core scheme without regard for conflict with VAS.

ISO20022 adoption – facts
ISO20022 is now at least 14 years old and will be 17 years old or more by the time it is adopted in the UK.

Where it has been adopted by end users it has been by law.

Where it has been proposed for national adoption, considerable adaptation has been required to meet local needs. The "Community Additional Optional Services" built for SEPA means there is a slightly different version of the SEPA service in each country, which defies the objective of the SEPA project – to have identical payment services across the SEPA Area in euro.

Where it has been proposed for global adoption – as in SWIFT Enquiries and Investigations – it was rejected upon closer inspection due to its rigidity in terms of its forcing harmonized business processes and eliminating bank-specific or regional variations.

ISO20022 adoption – questions and lessons
In the UK we should examine very closely the claim in the UNIFI launch document that other standards may coexist with ISO2002 in the short term to enable "quick response to competitive pressures and regulatory demands".

Why just the short term? Has ISO20022 proven itself capable of enabling responses to regulation and competition, or has it brought about an environment where a low common denominator is established, and in a marketplace where revenues are already low? The common denominator is, however, an extensive effort to implement and maintain, with regular changes to it, thus reducing both the space in which new and competitive offerings can be developed, the time during which they can be guaranteed to remain proprietary, and the investment funds available beyond what has to be spent on compliance.

ISO20022 has become an industry in itself, and focused on what is known as the "Collaborative Space", and it can be seen as impinging on the "Competitive Space" because:

- Competition around data format is only possible in the UNIFI model to the extent that a different format is compatible with ISO20022;
- Otherwise it is non-compliant in UNIFI terms, and this is a barrier to private enterprise as it has been accepted that UNIFI is a "single standardisation approach" that all other data formats used in the financial industry should be compatible with;
- UNIFI imposes a given methodology of message development, registration and maintenance, which is based on compliance with UNIFI standards at every stage: that cannot fail but to limit the possible scope of services, as well as to:
    - Impose a given lead time;
    - Cause divulgence of a certain amount of what is planned to possible competitors;
    - Increase cost of entry.
- The messages themselves are not extensible, even if the field contents are: a requirement for a new field must go all the way through the ISO20022 process and be accommodated into the base definitions before any market actor can have a new field;
- Using existing fields for proprietary purposes is only viable to the extent that existing services that are widely used do not already use that same field.

Against this background, how is its introduction in the UK supposed to enhance competition? Yet this is one of the reasons that its introduction is proposed.

ISO20022 is a straitjacket, albeit in size XXXML.

Would it do anything more for the UK than resolve the limitations on field length in BACS Standard-18 for the names of the parties and the reference field, a limitation that is embedded in the Faster Payments messaging as well?

Be that as it may, we now have – from the PSR – the series of outcomes of their initial streams of action:

- Directions on Direct Access, measures so that non-bank PSPs can have Settlement Accounts, permission for FPS new joiners to have their gateway hosted and so on;
- Remedies from the Market Review on Indirect Access;
- Vocalink sold off to Mastercard, and BACS and FPS supposedly adopting ISO20022;
- New Payment Architecture from the NPA Design Hub stream of PSF Phase 2;
- A series of projects from the Financial Crime stream of PSF Phase 2.

And what has been going on in the intervening 3 years in the payments marketplace?

Status of payments market detriments in 2018

There are many, serious detriments in the payments market but they overlap very little with the focus of the PSR and PSF, and one may even be exacerbated by it

- The PSR has belatedly begun looking into high merchant fees, contactless fraud, and the issue of the reduction of the LINK interchange fee
- But detriments about high card charges abroad and lack of cash paying-in facilities are outside the PSR's scope
- Indeed, all of these matters have escaped the PSF's scope and are absent from the master list of "detriments"
- NPA will do nothing to alleviate them and may even exacerbated one of the most serious of them

To set against these major activities of the PSR and PSF surveyed above we have the actual status of major payments market detriments.

These are:

1. High fees for merchants levied by card acquirers (like PayPal and SumUp). These can run to 5% of the face value of the transaction because of the minimum fee, and the EU Interchange Fee Regulation has had no benefits whatsoever: it was meant to limit the deduction to 0.2% on debit card payments and 0.3% on credit card payments;
2. High fees for card usage abroad or for payments to foreign parties, where a "Non-STG Transaction fee" would be levied by a Lloyds Bank on all such payments, with an extra charge for cash withdrawal at a foreign ATM. These fees come in addition to the application of a foreign exchange rate between £sterling and the other currency that is a tourist rate at best. A news story on the BBC on 17th July 2018 quantified UK banks' revenues from the fees alone at £1,000,000,0000 per annum;
3. Lack of service providers to facilitate the pay-in of cash originating at a merchant's premises, and especially for small and medium-sized merchants for whom contracting with a security carrier is price-prohibitive;
4. Dwindling number of free ATMs for cash withdrawals, particularly in rural areas as major banks close the branches in which the ATMs reside, and they are replaced by non-bank ATMs upon which a charge is levied for cash withdrawals;
5. Fraud on Authorised Push Payments, or, put another way, the absence of the equivalent, in the Credit Transfer business (BACS and Faster Payments), of the crossing "Account Payee" on cheques - the beneficiary bank is not required to ensure that the party named as beneficiary in the payment is actually the holder of the account identified by the Sort Code and Account Number;
6. Fraud on contactless card payments, including that a payment can still be made after the card has been cancelled.

The PSR has nothing to say at all about (2), because Card payments outside the UK are outside its scope, and nothing to say about (3), because Cash is out-of-scope unless it is a cash withdrawal through LINK.

(4) is out-of-scope as regards branch closures although the regulation of LINK gives the PSR a partial lever into this issue.

So now we can look at the PSR's attempts to get to grips with:

- Deductions-from-face for merchants on card payments;
- Decline in density of ATM network and, within that, of free-to-use ATMs;
- Authorised Push Payment Fraud;
- Fraud on contactless payments.

The PSR and the Interchange Fee Regulation

The PSR is the competent authority for IFR but the IFR seems to have had no impact at all

- The IFR should have greatly reduced deductions-from-face for merchants on their card payment proceeds
- It hasn't, and now the PSR has launched a Market Review
- The IFR has been in full force and effect since 2016 and the Market Review will probably roll on for the standard two years until 2020
- The PSR will by then have been failing in its role as competent authority for IFR for four years
- The role means nothing unless the intentions of the IFR materialise in the real marketplace

The PSR as the competent authority for the EU Interchange Fee Regulation
The PSR has been the competent authority for the EU Interchange Fee Regulation 751 of 2015. This regulation – directly applicable in UK law without transposition – had an effective date of December 2015, although there was a phasing-in period where the Regulation applied first to cross-border payments and then to domestic payments as well.

Here is the PSR's announcement of their taking on the role, and there seemed at that point no doubt in their mind as to their ability to implement the Regulation and police compliance:

PSR sets out how it will regulate the new EU Interchange Fee Regulation in the UK

Published | 02 12 2015

The Payment Systems Regulator (PSR), the new economic regulator for the £75 trillion UK payment systems industry, has published draft guidance setting out how it plans to regulate new European legislation covering payment cards.

The Interchange Fee Regulation (IFR) takes effect from 9 December 2015 and will bring major changes to the way UK card payment systems operate, most notably by introducing a cap on interchange fees.

Interchange fees are paid between the bank of a merchant (such as a supermarket) and the bank of a card user (such as somebody doing a weekly shop) when a card payment is made. The European Commission's intention with the cap is to redistribute the revenue from card issuing banks to merchants and on to consumers.

HM Treasury confirmed the PSR as lead UK regulator for the IFR on 17 November 2015. Our draft guidance consultation includes:

- to whom the IFR applies
- interchange fee caps and how we will consider who may be exempt
- our approach to monitoring compliance with the IFR
- our powers and procedures under the IFR
- penalties under the IFR

The Regulation was understood as meaning that merchants would receive from their merchant acquirer:

- 99.8% of the face value of payments they accepted via a debit card;
- 99.7% of the face value of payments they accepted via a credit card.

But, according to the PSR's Managing Director, it was more than this and the PSR would be leading the way:

Hannah Nixon, Managing Director of the PSR, said:

> "It's the interchange fee caps that have captured the public's attention, but the IFR is more than that. The intention of the IFR, as well as providing savings to consumers by reducing fees, is to boost transparency and remove barriers so others can enter the market and compete. These are goals that tally closely with those of the PSR and our wider agenda for UK payment systems.
>
> "The PSR is amongst the first regulators in the EU to have been appointed as a competent authority, and we are the first to have publicly set out how we will oversee the new requirements. This is uncharted territory for any regulator, so I'm proud that we are leading the way and helping clarify how this significant piece of legislation works."

In fact the link in the chain upon which the fee was capped was the payment made by the merchant's acquirer in favour of the card issuer:

Interchange fee caps

Fee caps for the UK have been set by HM Treasury for credit and debit card transactions. In the UK there will be a cap of 0.3% for credit card transactions. For UK debit card transactions HM Treasury has chosen a weighted average of 0.2%, meaning the cap will be 0.2% of the average value of all UK debit card transactions from the previous year.

The level of the caps will be kept under review by HM Treasury, with support from the PSR and the other relevant UK regulators as required.

The prime expected knock-on result was that card issuers would charge cardholders for having the card, instead of in effect charging merchants when the card was used. This does not seem to have happened. Indeed anecdotal evidence is that the deduction-from-face experienced by merchants has not fallen to or even near to 0.2%/0.3%.

This is two and a half years after the PSR took the matter in hand. If the deductions really are as large as ever, this is presumably because the definitions in the Regulation were not watertight and/or covering every channel for payments to be deducted or paid between the different market actors other than the payer and the merchant.

At any rate the PSR has now announced a review into card acquiring services, and it includes looking into the concern that savings out of the Interchange Fee Regulation have not been passed on.

PSR Market Review on Card Acquiring Services

The PSR announced in late July 2018 that they were going to undertake a Market Review of Card Acquiring Services, and this is in relation to detriment (1) in the above list. A draft Terms of Reference has been issued for consultation as "Cards_terms_of_reference_July_2018_MR18_1.1.docx".

PSR MR18/1.1 - Draft Terms of Reference: Market review into the supply of card-acquiring services

Published | 24 07 2018

Download
215.27 KB

We are proposing to carry out a market review into the supply of card-acquiring services following concerns that this market may not be working well for merchants, and ultimately consumers.

Here we set out draft terms of reference (ToR) for the market review, which are open for consultation until 14 September 2018.

What are card-acquiring services?

Card payment systems enable people to make payments using debit and credit cards when purchasing goods or services from a merchant. To accept card payments, merchants need to buy card-acquiring services.

Providers of card-acquiring services accept and process card payments on behalf of a merchant resulting in a transfer of funds to the merchant. Merchants can contract with acquirers or merchant facilitators to obtain these services.

The costs merchants incur for such services may ultimately be reflected in the prices they charge and the services they provide to their customers.

The reasons for the review come largely down to the Interchange Fee Regulation, and perhaps a belated recognition by the PSR that its understanding of the fee flows within the Cards business was not at the level it should been when they became the competent authority for the Interchange Fee Regulation:

Why we are carrying out this market review

1.10 Various stakeholders have raised concerns with us about card payments.

1.11 A number of these concerns indicate that the supply of card-acquiring services may not be working well for merchants and ultimately consumers. This includes concerns that:

- acquirers have not passed on to smaller merchants the savings they made from the interchange fee caps introduced by the Interchange Fee Regulation (IFR)
- there is a lack of transparency around the fees merchants pay to accept card payments
- there are barriers making it hard for merchants to compare and switch acquirers, and they tend not to shop around
- there are barriers to offering services that would help merchants to compare and switch between acquirers
- the fees that card scheme operators charge to acquirers (called 'scheme fees'), and the rules they set, favour larger acquirers
- the scheme fee portion of the fees that merchants pay to acquirers is increasing significantly

This Market Review is itself belated. It should have been carried out before it became competent authority for the Interchange Fee Regulation. The PSR confidently assumed the role of competent authority without understanding the market structure. Now, three years later, they are playing catch-up.

As they will no doubt follow their normal methodology, we can expect a final report in July 2019 with remedies coming into force in 2020. That compared with the IFR live date of 2015. In other words there will have been a 5-year period of ineffectiveness of the IFR. That is unacceptable and its impact in money lost to merchants and consumers should be quantified.

The PSR and LINK

Free-to-use ATMs are disappearing as banks close branches and as service is taken up by non-bank operators, and now the main card issuers want to cut the LINK interchange fee that they pay

- The PSR has intervened and got LINK to agree to reduce the interchange fee gradually and starting now, but not to cancel the reduction
- It has agreed a plan with LINK to track where free-to-use ATMs are withdrawn and where there is not another one within 1 km, but whether that is 1 km as the crow flies and there is not a rugged massif in between, or an unbridged ford, is unclear…
- …as is whether the withdrawing ATM organisation has to provide information about where the alternative is, a GPS reference, a small map, or whatever
- The example below from NatWest's closed branch in Holt in Norfolk is the probable template

NatWest Holt branch (R.I.P.)	*NatWest Holt branch ATM (R.I.P.P.E.D. out)*
	

The PSR's intervention in the LINK interchange fee
LINK announced a reduction from 25p to 20p the interchange fee paid on each cash withdrawal at a LINK-connected ATM, paid by the card issuer to the owner of the ATM at which the withdrawal was made, and, by extension, into the withdrawal of free-to-use ATMs

When LINK made this announcement, the PSR intervened.

It was clear that the initiative had come from RBS and Lloyds who had:

- The largest number of cardholders;
- Reduced their own ATM estates as a result of branch closures or by disposing of packets of ATMs to independent ATM operators.

Lloyds and RBS wanted to pay less, which they are entitled to request to do, but the losers out of this in the first instance would be the independent ATM operators and in the second instance the consumers:

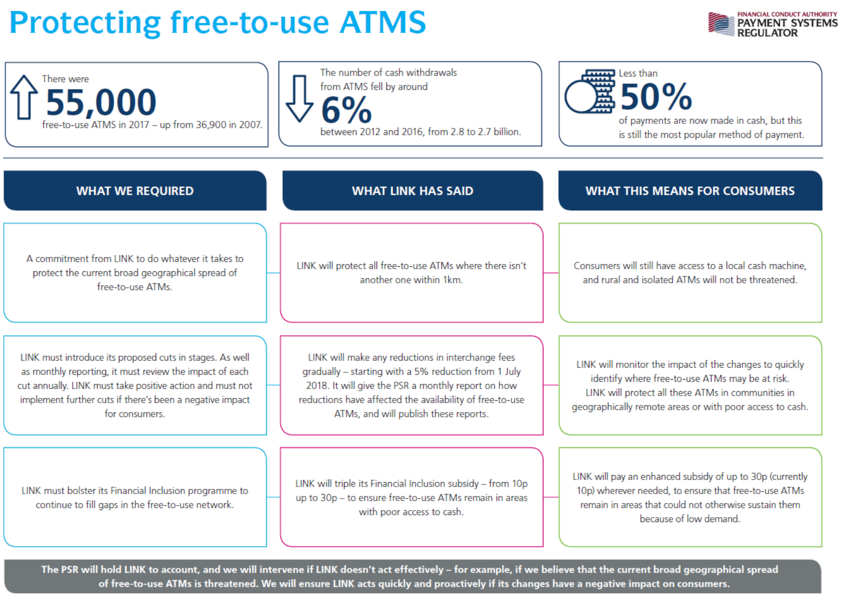
- Fewer ATMs overall;
- Disproportionate thinning-out of overall provision in rural areas and in places already affected by financial exclusion;
- Replacement of ATMs at which no fee was charged either for a balance enquiry or for withdrawal of cash, with ATMs where there were fees initially for cash withdrawal, then for both, and then the fees rise and so on, and disproportionately affecting the same rural and excluded areas.

The PSR's issue is that branch closures fall outside of its remit, but nevertheless it intervened and a process was gone through with LINK where there were measures agreed to delay the decrease and phase it in over time, and to ensure availability of free-to-use ATMs.

The LINK interchange fee has fallen by 5% as of July 2018, or by 1.25p to 23.75p.

The measure of acceptability of the withdrawal of a free-to-use ATM is that there is another within 1km. The facts that 1km might be a considerable distance for some users, or an inconvenient diversion, or that the user may not know of the existence of the free-to-use ATM, are left up in the air. Will the PSR be checking whether an ATM 750 metres from the first one is not actually either 7km away because it is the other side of a river, or a journey requiring two changes of bus, or inaccessible to certain types of user due to steps or whatever? These measures have the feel of the efficacy of remedies in previous PSR exercises: they sound impressive on paper but are so full of loopholes that all of them can be met but the underling problem is not resolved, or actually gets worse.

The measures were summarized in this PSR publication called "Protecting Free to use ATMs":



Protecting free-to-use ATMS

FINANCIAL CONDUCT AUTHORITY
PAYMENT SYSTEMS
REGULATOR

There were **55,000** free-to-use ATMS in 2017 – up from 36,900 in 2007.

The number of cash withdrawals from ATMS fell by around **6%** between 2012 and 2016, from 2.8 to 2.7 billion.

Less than **50%** of payments are now made in cash, but this is still the most popular method of payment.

WHAT WE REQUIRED	WHAT LINK HAS SAID	WHAT THIS MEANS FOR CONSUMERS
A commitment from LINK to do whatever it takes to protect the current broad geographical spread of free-to-use ATMs.	LINK will protect all free-to-use ATMs where there isn't another one within 1km.	Consumers will still have access to a local cash machine, and rural and isolated ATMs will not be threatened.
LINK must introduce its proposed cuts in stages. As well as monthly reporting, it must review the impact of each cut annually. LINK must take positive action and must not implement further cuts if there's been a negative impact for consumers.	LINK will make any reductions in interchange fees gradually – starting with a 5% reduction from 1 July 2018. It will give the PSR a monthly report on how reductions have affected the availability of free-to-use ATMs, and will publish these reports.	LINK will monitor the impact of the changes to quickly identify where free-to-use ATMs may be at risk. LINK will protect all these ATMs in communities in geographically remote areas or with poor access to cash.
LINK must bolster its Financial Inclusion programme to continue to fill gaps in the free-to-use network.	LINK will triple its Financial Inclusion subsidy – from 10p up to 30p – to ensure free-to-use ATMs remain in areas with poor access to cash.	LINK will pay an enhanced subsidy of up to 30p (currently 10p) wherever needed, to ensure that free-to-use ATMs remain in areas that could not otherwise sustain them because of low demand.

The PSR will hold LINK to account, and we will intervene if LINK doesn't act effectively – for example, if we believe that the current broad geographical spread of free-to-use ATMs is threatened. We will ensure LINK acts quickly and proactively if its changes have a negative impact on consumers.

The phase of activity was brought to a close with a public statement on the PSR's website:

PSR responds to LINK's announcement of changes to the UK's ATM network

Published | 31 01 2018

The Payment Systems Regulator has today welcomed the additional measures that LINK has said that it will introduce following its consultation.

The regulator had three key requirements of the operator's proposals to ensure consumers continued to have widespread free access to cash. These were:

- a commitment by LINK to do whatever it takes to protect the current broad geographical spread of free-to-use (FTU) ATMs;
- that any cuts in interchange must be incremental and accompanied by close monitoring by LINK to understand the impact on the overall ATM estate – with action taken by LINK where the impact is not as expected; and
- for a greater focus on the Financial Inclusion programme – to continue to fill gaps in the FTU network.

While LINK's announcement on its decision following its consultation has addressed these points, the regulator will continue to actively monitor developments. The PSR will require LINK to report to it monthly on the impact of its decision and on the action that LINK has taken to address any unexpected negative impact on the FTU network. If any protected ATM is due to close, the regulator is keen to ensure there is a quick transition to a new operator without any adverse effects on consumers.

This was followed by an open letter to LINK that the PSR published on its website as "PSR_2018_February_letter_to_LINK", which repeats the above but then goes on to be quite directive about the reporting requirements on LINK going forwards, including about any decisions it makes about the geographical extent of the network and financial inclusion.

It all sounds very impressive but previous experience of the PSR's effectiveness has been underwhelming.

The PSR and Authorised Push Payment Fraud

The PSR has made itself big on this issue but has not aborted the plan – its own – that threatens to make the problem far worse

- APP Fraud is the growth area in financial crime and is closely interlined with the Faster Payment systems
- The raising of the Faster Payments system limit has contributed to its growth
- The PSR has laid claim to doing much “work” on the problem and to leading the way
- It did not lead the way: it only acted when Which? lodged a super-complaint
- The PSR’s “work” consists mainly of a series of the streams of the PSF that pre-dated the complaint, another supreme example of “Here’s one I made earlier”
- Indeed it gets worse: the PSR is committed to NPA and to its essence, which is elevating Faster Payments to the main “retail” payment system and also to the universal settlement mechanism for other “retail” payment types
- This threatens to exacerbate Authorised Push Payments Fraud, not solve it

Fraud on Authorised Push Payments
Fraud on Authorised Push Payments is a problem closely associated with Faster Payments: a payment template can be set up and used very quickly, the payment is irrevocable once debited, and it can be used for one-off payments by consumers and businesses.

It is much less of a problem in BACS compared to Faster Payments, because of the need for the originator of BACS credit transfers to go through levels of bureaucracy, and because the service settles on D+2: a degree of revocability is built into the service from a practical and timeline point of view, if not a legal one. In addition most BACS credit transfers are made by a large organization, with its own internal processes for capturing the bank details of payees. BACS payments are not normally one-off payments.

Fraud on Authorised Push Payments is not common in CHAPS: this system is normally not open to retail and business customers through normal eBanking channels and has to be requested specifically of their bank, and with extra bureaucracy.

The normal profile of a fraud is to set up an account in whatever name and then send invoices to consumers and businesses using the sort code and account number of this account, but heading up the invoice with the name of a legitimate business that the target might well have traded with. Emails will be sent from a mailbox with a similar core URL wording to that of the legitimate business but controlled by the fraudster.

In some cases the email of the legitimate business will have been hacked and the emails really are sent from the URL of the legitimate business. The target is then induced to set up a payment template with the details as supplied by the fraudster and the legitimate business’ name, only to find later that they have not paid to the legitimate business but someone different. The actual beneficiary has cleared the amount out of their account by the time the fraud is discovered.

This is, however, not the only fraud profile using Faster Payments.

The recent debacle around the migration of TSB accounts onto a new platform was exacerbated by fraudsters who were able to intervene as bogus TSB Customer Service staff and cause account-holders to part company with their authorization data, enabling the fraudsters to make instant and irrevocable payments to themselves.

New Payments Architecture - and therefore NPSO - has classified five out of six of the major detriments as out-of-scope by eschewing cards and cash.

NPA threatens to make the other one more widespread by causing all payments - not just Faster Payments - to be completed via the payment scheme that is wide open to "Fraud on Authorised Push Payments".

PSR work on Fraud on Authorised Push Payments ("APP Fraud")
It is not that the PSR is unaware of APP Fraud. It has certainly done work on it. The question is over the effectiveness of that work and the unresolved issue around NPA: Faster Payments rises greatly in importance under NPA, while being the seedbed for APP Fraud.

The reasons why Faster Payments is so open to APP Fraud are gone into in greater detail in a later section. In this section we concentrate on the work done by the PSR on this matter and its effectiveness, noting though that its work has been done in parallel with its promotion of NPA.

The PSR did not decide to investigate the issue on its own. They reacted instead to a super-complaint submitted in September 2016 by the consumer body Which?, raising their concerns that victims did not have enough protection. The PSR investigated the issue and the concerns raised, and in December 2016 published their response:
https://www.psr.org.uk/psr-publications/news-announcements/which-super-complaint-our-response-Dec-2016

Their response was published as "PSR-Which-super-complaint-response-December-2016_0". They found that APP scams were indeed a growing issue that was causing significant harm to victims and that more needed to be done to address them. The PSR's press release of its findings was misleadingly titled, claiming it was the PSR that had kicked started the process:

PSR kick-starts industry-wide effort to tackle payment scams

Published | 16 12 2016

The Payment Systems Regulator (PSR), the economic regulator for the £75 trillion UK payment systems industry, has announced the start of a concerted and coordinated industry-wide effort to tackle payment scams.

The regulator today published its response to a super-complaint issued by consumer watchdog Which?, about protection for people making authorised 'push' payments. In the response the PSR outlines an approach that sees regulators and industry commit to working together to better protect people from scams.

In the super-complaint, lodged in September 2016, Which? raised concerns that there is not enough protection for people who are tricked into transferring money to a fraudster via an authorised push payment (APP) – when the consumer instructs their bank to send money.

The PSR has now examined Which?'s evidence and gathered its own to build a clearer understanding of the issue. As a result, the regulator is warning that APP scams are a growing concern, and more needs to be done to address the problem.

In February 2017 the PSR then published the draft Terms of Reference for its proposed work, as "APP-scams-PSO-draft-terms-ref", including a consultation process and a report on it, following its normal elephantine methodology.

PSR consultation and report on APP Fraud

The PSR carried out a consultation on APP Fraud, and issued its report in November 2017 as "PSR-APP-Scams-report-consultation_0", together with various annexes ("APP-scams-annexes") and also a report from a German consultancy called Lipis Advisors on fraud and fraud prevention measures in other countries ("Lipis-report-international-fraud-practices.msg_").

The issuance of these documents was accompanied by the normal press announcements giving the impression of material progress:
https://www.psr.org.uk/psr-publications/news-announcements/PSR-sets-out-progress-on-tackling-scams

Payment Systems Regulator sets out progress on work to tackle payment scams

Published | 07 11 2017

- PSR reports progress on key industry initiatives it has led that should boost consumer protection and reduce harm from APP scams
- PSR is now consulting on how to deliver a scheme that would see victims of scams reimbursed
- Vital that regulators, industry, and consumers work together to make a difference

The Payment Systems Regulator (PSR), the economic regulator for the £75 trillion UK payment systems industry, has today published a report on its work to protect consumers from authorised push payment (APP) scams – where people are tricked into sending money to a fraudster. The report shows that good progress is being made across a wide range of initiatives and areas.

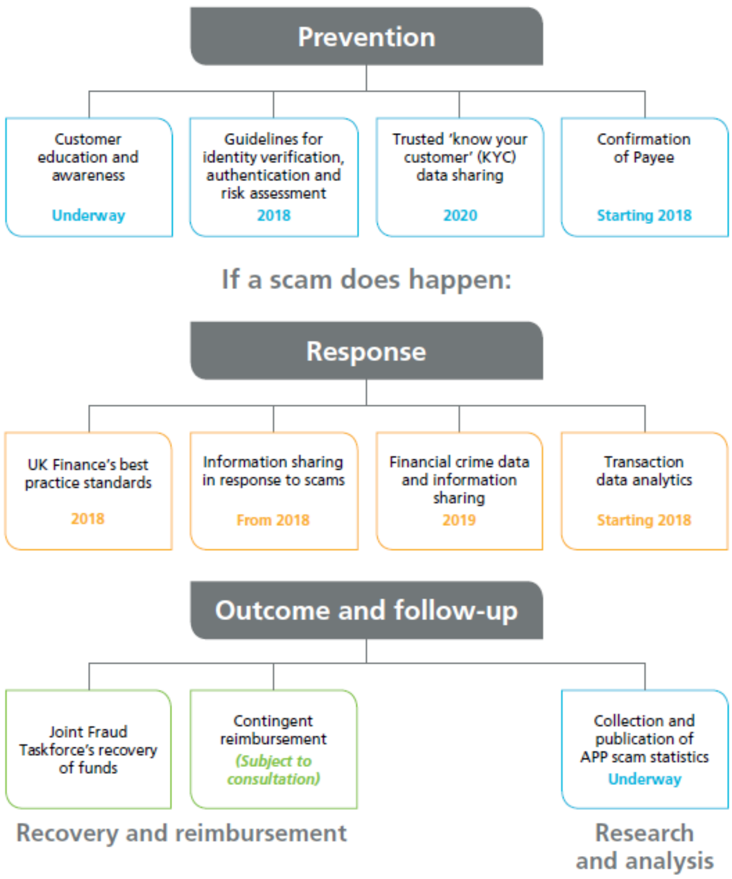
The report explains the work the PSR has led, working with the Financial Conduct Authority (FCA) and industry over the past year to reduce the harm from these scams. It highlights the range of industry measures it has overseen – some in place now, others to follow – which will deliver benefits to consumers. The PSR is also today launching a consultation on a 'contingent reimbursement model' it believes should be introduced to compensate victims in certain circumstances. All this work should, together, lead to better protection from scams and better support for victims.

This is "progress on work to tackle" not "progress on tackling". The uninitiated might be forgiven for reading this as meaning some material measures had been taken to increase their protection. Instead the title is carefully worded: the PSR has made progress against its inventory of busy-work, an inventory that it drew up itself and bolstered with impressive-sounding actions.

Substance of the PSR's report

The substance of the report can be found in this chart on page 5:

Figure 1: Measures to assist with APP scam prevention and response



The presentation of this list of actions infers these are both new actions and have been framed as a direct response to the Which? Supercomplaint.

They are nothing of the kind. They are a compendium of pre-existing work undertaken for different reasons, with just one or two actions specific to this stream. They are reminiscent of cookery on "Blue Peter": "Here's one I made earlier" and then "Here's another I made earlier", followed by another. We can identify the workstreams as follows:

Stream Name	Source
Customer Education & Awareness	PSF – Financial Crime stream
Guidelines for identity verification, authentication and risk assessment	PSF – Financial Crime stream
Trusted KYC Data Sharing	PSF – Financial Crime stream
Confirmation of Payee	PSF – Meeting End User Needs Stream
UK Finance's best practice standards	New
Information sharing in response to scams	See below
Financial crime data and information sharing	PSF – Financial Crime stream
Transaction Data Analytics	PSF – Financial Crime stream
Joint Fraud Taskforce's recovery of funds	See below
Contingent reimbursement	New
Collection and publication of APP scam statistics	New

It is disturbing that so many pre-existing streams of the PSF are held as components of the solution: 6 out of 11. These streams had been outlined in late 2015 and incorporated into the draft Strategy in July 2016, so it is disingenuous of the PSR to shoehorn them in here as solutions to a problem that they appeared unaware of until Which? Lodged their super-complaint.

It disturbing that solutions are listed as having definite substance when the detail indicates that they are at best on the drawing board.

Page 15 of the report gives more detail against "Information sharing in response to scams" and states:

Improved information sharing

3.19 The industry has made good progress in developing a common understanding of what information can be shared between PSPs under the current law, for the purposes of processing APP scam claims. This is on the basis of the provisions of the Data Protection Act 1998. This common understanding on information sharing underpins the best practice standards.

3.20 However, there is still work to be done on other aspects of information sharing and in relation to the recovery of victim's funds. Addressing these issues may require legislative change or developments.

3.21 UK Finance is seeking to ensure that PSPs can continue sharing relevant information under the best practice standards when the new Data Protection Bill becomes law. The new provisions are due to come into force by May 2018 and will replace the Data Protection Act 1998.

3.22 UK Finance has stated that, in the immediate future, it will be seeking to agree a privacy impact assessment and put in place a data-sharing agreement between its member PSPs (with the involvement of the Information Commissioner's Office (ICO) as appropriate). The data sharing agreement is intended to set out the basis upon which the PSPs will share information and the processes they will follow when doing so. UK Finance has also agreed to explore and progress any legal changes or developments that they believe are needed to continue to share relevant information when the Data Protection Bill becomes law.

In other words:

- This is still a work-in-progress;
- Progress could be reversed by GDPR;
- Legislative change may be needed;
- No certainty that this will materialise or when;
- No certainty that this will have an impact on APP Fraud when it was conceived with different objects in mind.

Page 15 of the report also gives more detail against "Joint Fraud Taskforce's recovery of funds", and states: "In relation to the recovery of victim's funds, the Joint Fraud Taskforce, and UK Finance as part of it, is developing a framework for a funds repatriation scheme – so that stolen money can be tracked across payment systems, frozen, then returned to the victim of the crime (see the box on page 25 regarding the recovery of victim's funds). This may require legislative change."

In other words:

- It is not the PSR doing this;
- It is at the development stage;
- It may require legal change;
- There can be no certainty that it will occur or when.

Timings and degree of certainty
We can lay out the streams against their timings and degrees of certainty:

Stream Name	Supposed Timing	Comments
Customer Education & Awareness	Underway	Big deal, and the education of customers may not strengthen the customer's legal protection but that of their PSP
Guidelines for identity verification, authentication and risk assessment	2018	Is this finishing the design or completing the implementation?
Trusted KYC Data Sharing	2020	Dependent upon NPA implementation which will not be before 2021
Confirmation of Payee	Starting 2018	Only the API specifications will be ready by then; the actual service is dependent upon NPA (and CoP is a nonsense anyway)
UK Finance's best practice standards	2018	Where are they then?
Information sharing in response to scams	From 2018	No certainty as to substance and timing – see above
Financial crime data and information sharing	2019	Subject to same uncertainties as the one above; no actual solution has been crafted by UK Finance so far, and it would have to be implemented through NPA, earliest 2021
Transaction Data Analytics	Starting 2018	Dependent upon NPA implementation which will not be before 2021
Joint Fraud Taskforce's recovery of funds	None	No certainty as to substance and timing – see above
Contingent reimbursement	Subject to consultation	The main follow-up by the PSR
Collection and publication of APP scam statistics	Underway	Big deal

One can sum this up as follows:

- Only "Customer education" and "Collection and publication of APP scam statistics" are already happening. Neither directly addresses the problem and, as further explained later, the measures PSPs have taken to as "education" can have the effect of weakening their customer's protection;
- Many streams are dependent upon the delivery of NPA, which will not be before 2021 itself, and so delivery of these "overlay services" on top of NPA will be even later;
- Several streams of the PSF are either much less impactful than they appear, come down to an educated implementation of ISO20022 XML, or are highly questionable as explained elsewhere in this document.

The PSR, as usual, overplays the work it is doing by:

- Including work already underway which may or may not be of relevance;
- Allocating delivery timings that are untrue or unrealistic;
- Preferring quantity of work streams over quality.

Above all the PSR does not get to the heart of the problem: APP Fraud exploits a design flaw in Faster Payments.

Follow-up to the consultation report
The main follow-up by the PSR was to make a “call for inputs” on PSPs in general regarding the role in APP Fraud of the Payments System Operators whose schemes included Push Payments. The “call for inputs” would thus diffuse the issue across CHAPS, BACS and Faster Payments and not focus it on Faster Payments.

This call was issued in May 2017 as “PSO-APPS-PSP-call-for-input” and the proposal at its centre was a Contingent Reimbursement scheme.

A report was issued on the consultation on the Contingent Reimbursement scheme in February 2018 as “Outcome_of_CRM_Consultation_Feb_2018”. This was by then 18 months after the Which? Supercomplaint.

It is hard not to be cynical. The customer right of reimbursement will be contingent, not absolute. The contingencies can be expected to invalidate a majority of claims, in whole or in part. Any reimbursement scheme is a de post facto event. There will be a timelag and a process to go through. This is another action on the periphery of the problem. The customer will by this time have suffered the fraud and the consequences of it: stress and upset at the very least, inability to meet other obligations like rent, utility bills, possible inability in the meantime to put bread on the table, consequential costs of failure to meet obligations like surcharges, extra financial costs in overdraft interest and overdraft penalty fees.

This problem needs to be solved at the centre of payment system design, not by peripheral and partially effective safety nets, accompanied by a good deal of busy-work to show willing.

Payments Fraud in the UK

Payments fraud is falling for Cards but rising for eBanking, and then there is APP Fraud and Open Banking

- The amount of fraud prevented on Cards is impressive, and overall losses are falling
- Losses on usage of eBanking channels are rising sharply, however, and the figures state only the channel through which the loss was made and not the payment systems involved
- Payments ordered via eBanking channels are normally done as Faster Payments
- Therefore there is a strong interconnection between eBanking and APP Fraud that is not brought out in the industry's reporting
- APP Fraud figures are given but with no comparison for previous years
- Open Banking, whose sole payment outlet is Faster Payments, needs to be added as a eBanking channel and the amount of APP Fraud deriving from Open Banking needs to be tracked
- The industry body compiling these figures is based at 2 Thomas More Square – the same as NPSO, FPS, Open Banking and so on

PSR self-assessment of success
As with both the Markets Reviews (on Indirect Access and on Infrastructure) the PSR is not shy of laying claim to success in tackling a problem once it has intervened.

Grist to their mill in this case have been the reports emanating from UK Finance and Financial Fraud Action UK:

1. "Fraud the Facts 2017 – the definitive overview of payment industry fraud" issued by Financial Fraud Action UK as "2017-Fraud-the-Facts-web-FINAL";
2. "2017 Annual Fraud Update: Payment cards, remote banking, cheque and authorised push payment scams" issued in March 2018 by UK Finance and Financial Fraud Action UK jointly as "UKFinance_2017-annual-fraud-update-FINAL".

Financial Fraud Action UK sounds like an independent charity but its membership is as follows:

Its address is 2 Thomas More Square, the same as NPSO, Open Banking, BACS, FPS, ISO20022 RMG and so on.

The essence is that, in 2017, losses due to unauthorised financial fraud on payment cards, remote banking and cheques fell by 5 per cent to £731.8 million.

One closer reading, though, fraud on payment cards and cheques fell, but fraud on payments initiated via eBanking channels rose.

Fraud losses on cards and cheques
Fraud losses on cards totalled £566.0 million in 2017, a decrease of 8 per cent on 2016.

There were 1,874,002 cases (i.e. more or less meaning the number of victims) of card fraud so the loss was £302 per case. The Prevented Value of card fraud was an impressive £985 million.

Within the overall figure for Cards…
- Losses due to remote purchase fraud fell by 5 per cent to £409.4 million in 2017;
- Losses due to lost and stolen fraud fell by 4 per cent in 2017 to £92.5 million, though the number of incidents increased by 51 per cent;
- Card not received fraud losses fell by 19 per cent to £10.1 million;
- Counterfeit card fraud losses fell by 35 per cent to £24.2 million;
- The loss value on Card ID theft fell by 25%;
- UK face-to-face card fraud fell by 2%;
- UK cash machine fraud fell by 14%;
- Losses on domestic and international card fraud fell by 2% in the UK (frauds in the UK using overseas cards) and by 21% overseas (frauds outside the UK using UK cards).

On cheques, Prevented Value rose by 8% but actual losses fell by 28%. There were 1,745 victims of cheque fraud and the total loss was £9.8 million, or £5,616 per victim.

So the Card and Cheque business appear to be making good progress, although the loss-per-case is quite high on cheques, but low on cards.

Fraud losses on eBanking channels
The progress is not shared across the Payment business, firstly in fraud through eBanking channels:
- The loss on remote banking fraud rose by 14%;
- The loss value on internet banking fraud rose by 19%;
- The loss value on telephone banking fraud fell by 4%;
- Mobile banking fraud rose by 10%.

The fraud statistics around eBanking channels were:

Channel	Prevented value	Total losses	Cases	Loss per case
Remote banking	£261 mil	£156 mil	34,743	£4,490
Internet banking	N/A	£121 mil	21,784	£5,554
Telephone banking	N/A	£28 mil	9,575	£2,924
Mobile banking	N/A	£6 mil	3,384	£1,773
Total	£261 mil	£311 mil	69,486	£4,475

What has gone a little missing is that the carrier for a fraud involving internet, telephone or mobile banking is a credit transfer, or more specifically a Faster Payment – an Authorised Push Payment - as this is the standard payment type available under these eBanking channels.

In other words there is an unrecognized overlap between these fraud figures and the ones for APP Fraud.

Fraud losses on APP
The figures given for APP Fraud are for 2017 only without any comparison with prior years:

Authorised push payment scams

2017	Personal	Non-Personal	Total
Total cases	38,596	5,279	43,875
Total victims	37,761	5,076	42,837
Total value	£107.5mn	£128.6mn	£236.0mn
Total returned to victim	£22.6mn	£38.2mn	£60.8mn

£175.2 million was not returned to victims. The average victim's loss was £4,090.

Comparison of fraud figures across payment types
We can compare eBanking channel fraud with other types:

Channel	Prevented value	Total losses	Cases	Loss per case
Total eBanking channels	£261 mil	£311 mil	69,486	£4,475
APP Fraud	£61 mi (returned)	£175 mil	42,837	£4,090
Card Fraud	£985	£566 mil	1,874,002	£302
Cheque Fraud	N/A	£10 mil	1,745	£5,616
Industry totals	£1,307 mil	£1,062 mil	1,988,070	£534

These should be very worrying statistics. 3% of the UK population (65 million) were victims of fraud in 2017.

We are also left to ask whether the fraud through eBanking channels and APP Fraud are one and the same or not. This is important because the default payment type used under eBanking is a Faster Payment, and Faster Payments is the seedbed for APP Fraud.

In addition the payment outcome under Open Banking is a Faster Payment, and Open Banking is yet another eBanking channel.

The point is that eBanking channels, Open Banking and Faster Payments are all held out as being the way of the future, and part of the NPA vision.

Cheque is definitely held out as a way of the past, and the vision in NPA is that it should capture volumes as credit transfers that might previously have been done as card transactions.

A model for this is the MyBank service, where a merchant's website would show the MyBank button alongside Visa, Paypal and other card-based services:
https://www.mybank.eu/

A click on MyBank takes the buyer into the eBanking service of their PSP, and they then pay by credit transfer. “Request to Pay” is a minor variation on the same thing: an invoice or similar demand has a button embedded in it, a click on which takes the user through to the eBanking facility to make a credit transfers.

If the fraud through eBanking channels and APP Fraud are cumulative, then this is the outcome in 2017 for “new payment methods”:

Channel	Prevented value	Total losses	Cases	Loss per case
Total eBanking channels	£261 mil	£311 mil	69,486	£4,475
APP Fraud	£61 mi (returned)	£175 mil	42,837	£4,090
“New methods” totals	£322 mil	£486 mil	112,323	£4,327

“Old methods” totals and comparison with “New methods” totals
We can then extract the “Old method” totals:

Channel	Prevented value	Total losses	Cases	Loss per case
Card Fraud	£985 mil	£566 mil	1,874,002	£302
Cheque Fraud	N/A	£10 mil	1,745	£5,616
“Old methods” totals	£985 mil	£567 mil	1,875,747	£302

And finally compare and contrast “Old” with “New” methods:

Channel	Prevented value	Total losses	Cases	Loss per case
“New methods” totals	£322 mil	£486 mil	112,323	£4,327
“Old methods” totals	£985 mil	£567 mil	1,875,747	£302
“New” less “Old”	(£663 mil)	(£81 mil)	(1,763,424)	£4,025

- The “Prevented value” under Old methods is almost three times as high as under New;
- The “Prevented value” under Old methods exceeds the losses, whereas under New it does not;
- There are many more cases under Old methods – under the heading of Cards – but the loss per case is 14 times higher under New methods.

And, as we have seen, the losses under eBanking channels are rising in all cases, from just 4% for telephone banking to 19% for internet banking.

It is to be hoped that Open Banking will be added for 2018 as one of the eBanking channels tracked, and that Financial Fraud Action UK will resolve the issue of possible duplication of figures.

As it is these figures should act as a brake on the rush towards the “New methods”, and as an imperative to build Fraud Prevention right into the centre of the re-design of UK retail payment systems – instead of having these streams farmed out to UK Finance and subject to Memoranda of Understanding between UK Finance and NPSO.

It is inevitable that the requirements of Fraud Prevention will rank as secondary in the NPA implementation: requirements that have been passed on by the PSF to NPSO via the direct handover of the NPA Blueprint will rank higher than requirements tabled indirectly by their been handed first to UK Finance and then secondly by UK Finance to NPSO.

This is just the way in which prioritization systems work and is the result of the mistake made in "New working structures" at the conclusion of PSF Phase 1: the divorce "Financial Crime" from "NPA Design Hub".

PSR response to Payments Fraud figures

The PSR trumpets the figures as a success – and it says fraud on contactless is falling when it isn't

- The PSR followed up on these figures to emphasize how much "work" it is doing, and to cite all the streams of the PSF coincidentally will/may impact on the subject
- The "Contingent Reimbursement Scheme" is cited in addition, but why it is accepted that it should be contingent and not absolute hangs in the air
- Figures on contactless fraud were given by PSR management to the Treasury Select Committee, and it was claimed fraud was falling when it is actually rising
- The data does not include who actually took the loss: the payment service user or their payment service provider?
- This is vital and needs to be added: one suspects that the predominant answer is the provider for Cards fraud and the user for Remote Banking/APP Fraud, which makes the picture a lot worse
- Open Banking is yet another channel – and a dubious one – into Faster Payments, the system that is the main enabler for APP Fraud
- The UK still does not have a modern, secure, fast and efficient payment system, accessible to consumers and businesses, for day-to-day payments
- Faster Payments is not this system

PSR response to 2017 fraud figures
It is quite worrying that the PSR has neither identified the possible overlap in the fraud statistics between APP Fraud and fraud through eBanking channels, nor has it flagged that fraud through Open Banking will be tracked from now on as a fraud through an eBanking channel.

As it is the PSR has grasped on these reports of a fall in fraud in its press release of the same day to issue a positive impression of progress against APP fraud:

PSR responds to UK Finance's annual fraud figures for 2017

Published | 15 03 2018

Today, UK Finance has published its annual fraud report for 2017 which includes information on authorised push payment (APP) scams.

Our work on payment scams showed that there simply wasn't good enough information about the size and nature of these scams. We asked the banks to change that and we are now getting a glimpse of the true extent of APP fraud. Better data is one of the pillars of our work to tackle payment scams so these statistics, and future statistics, will play a key role in helping banks, regulators and consumers better understand and prevent these crimes from taking place.

We're encouraged by these figures, but more can be done and we're working hard with the banks and consumer groups to deliver better protection and greater reassurance for those affected.

This was followed up by the publication in June 2018 of a progress report on its work on APP scams, as "2018_06_21_PSR_work on APP Scams".

The report repeats the list of five PSF streams under the title "Prevention" on page 4.

It then has three actions streams against "Response" on page 5:

1. Transaction data analytics – PSF stream;
2. Financial crime information and data sharing – PSF stream;
3. Best practice standards – these being what UK Finance has developed as a "best practice standard" that banks will follow when a victim reports an APP scam.

This last one "should improve consumers' experience and PSPs' response times.": how much better would it be for the consumer if they had not been scammed in the first place?

Then on page 6 it has its two streams against "Outcome, follow-up and reimbursement":

Outcome, follow-up and reimbursement

Initiative	Developed by	Impact on economic crime	Date
Contingent reimbursement model (CRM)	CRM steering group	This sets out the circumstances in which a victim of a scam would be reimbursed. The contingent reimbursement model should establish better incentives for PSPs to use measures that help prevent APP scams from happening in the first place, and for consumers to remain vigilant.	September 2018
Collection and publication of scam statistics	UK Finance	UK Finance published the first set of robust statistics on the volume, value and victims of APP scams in November 2017, and the second set in March 2018. The collection of APP scam statistics will help the industry in developing and improving APP scam prevention and response measures – and will help us monitor their effectiveness.	Underway

The Joint Fraud Taskforce is also developing a framework for a funds repatriation scheme – so that stolen money can be tracked across payment systems, frozen, then returned to the victim of the crime. This should also stop criminals from getting the money.

It remains a leap of imagination to accept that seven streams of the PSF - which were designed before the Which? Super-complaint - had actually pre-empted the super-complaint and solved the problem before Which? had raised it. That is a process which would do justice to Mystic Meg.

The more likely explanation is that the PSR felt itself bound to the draft Strategy and has barraged the super-complaint with examples of ongoing work that are quite impressive in sum, give an impression of considerable mobilization of effort, but add up to very little in reality, and to even less in 2018, 2019, 2020 and 2021.

Completely absent is any mention of the fact that the fall in overall fraud was entirely attributable to falls in card fraud, and that fraud through eBanking channels was rising, in some cases at a double-digit percentage.

Fraud on contactless cards
There was no specific section in these 2017 fraud reports on contactless payment card fraud, but the chair and managing director of the PSR were called to give testimony to the Treasury Select Committee ("TSC") in January 2018 on the subject of fraud on contactless cards. They stated in their written evidence that it was **falling**:

Year	Losses	% change	Spend	End-to-end change
2015	£2.8 million	--	£7.75 billion	+£10.4 million
2016	£6.9 million	+146%	£25.2 billion	+371%
2017 (annualized)	£13.2 million	+91%	£46.5 billion	

The losses are clearly rising. The amount of money lost in 2017 is indisputably a larger number than the equivalent figure for 2016. 91% higher in fact.

However in the PSR's world a positive spin can always be put onto such figures, in this case by construing them as losses per £100 of spend:

Year	Losses	% change	Loss per £100 of spend	% change	End-to-end change
2015	£2.8 million	+146%	3.6p	--	(1.2p)
2016	£6.9 million	+91%	2.7p	-25%	(33%)
2017 (annualized)	£13.2 million	--	2.4p	-12.5%	

Looked at from the start to the end of the three year period, the trajectory of the losses in terms of amount was in increase of 371%, whilst the trajectory of in terms of the loss per £100 of spend was a reduction of 33%.

The PSR's way of looking at it seems to have been accepted by the TSC.

£13.2 million is a meaningful amount to go missing to fraud when the maximum transaction amount is £30, and was lower in earlier years. It would be 440,000 cases in a year, assuming they were all made for £30, but would increase proportionally if the cases were for smaller amounts:

Total loss	Average payment amount	Number of fraud cases per annum	Number of fraud cases per day
£13.2 million	£30	440,000	1,205
£13.2 million	£20	660,000	1,808
£13.2 million	£15	880,000	2,410
£13.2 million	£10	1,320,000	3,616
£13.2 million	£5	2,640,000	7,233

The PSR's gloss on the figures was passed off towards the TSC by the chair and managing director of the PSR as meriting no concern, and this was accepted by the public guardians in the TSC.

The key figure, though, remains that fraud on contactless payments was 91% higher in 2017 than it was in 2016.

Who took the losses?
A further aspect that would merit greater discussion is which party ultimately took the losses on each type of payment fraud.

The UK Finance report's first paragraph is: "UK Finance publishes data on losses due to unauthorised fraudulent transactions made using payment cards, remote banking and cheques, and, as of 2017, authorised push payment scams (also known as APP or authorised bank transfer scams)".

But the report does not say who took the loss on each type of payment fraud. We are left to make assumptions.

Aside from the £985 mil of Prevented losses in the Cards world, we can assume that it was the PSPs themselves who had to swallow the lion's share of the total card losses of £566 million. Inconvenient as the matter was for the 1.9 million victims, they did not lose £302 each, their PSPs' did.

This protection is in a way the quid-pro-quo for the fees and interest the PSPs collect on Cards business, and should not be overlooked as a benefit of holding payment cards.

On the other hand, since a specific figure of £60.8 mil is quoted as "Total returned to victims" under APP Fraud, we can assume that the remainder of the loss was taken by the victims: £175 mil in total or an average of £4,090 per victim.

Regarding fraud related to eBanking channels, the documentation is quite unclear as to who took the loss.

Lessons from who took the losses
The PSR should require that UK Finance and Financial Fraud Action UK state who took the ultimate loss under each category of fraud. They should also resolve any overlap between APP Fraud and eBanking channel fraud.

The key lessons are:

- The customer is at a much lower risk of loss if they use payment cards:
    - Prevention measures are more advanced;
    - The PSPs generally take the loss;
    - The amount that can be lost is controlled by relatively low spending ceilings;
- A loss to APP Fraud of £4,090 on average can be a life-changing event for many people;
- There is a gap in the UK payments market between mass credit transfers through BACS for large payers, and large individual payments through CHAPS also for large payers;
- It is for a safe-to-use electronic payment of small size for small and medium payers;
- An FPS system limit of £10,000 was already too high, and the Bank of England's pressure to take non-systemic payments off CHAPS has made the FPS limit far too high, given its design flaw.

Correlation between cost of prevention measures/consumer reimbursement, and revenues
Under its Market Review into the supply of card-acquiring services, and in its role as competent authority for the EU Interchange Fee Regulation, the PSR will be presiding over the potential to cut the revenues of the Cards business.

That is all very well. The revenues pay for the Fraud Prevention measures that save £985 mil in 2017 and for the capacity to reimburse victims of fraud. As stated above it is taken as read that the cardholder is reimbursed the £302/case that they lose to card fraud.

Payments is a business with few revenue pockets in it. The Faster Payments system was built quickly, and on the cheap, as is explored in more detail below, re-using existing components where possible. The result is vulnerability and a seedbed for APP Fraud in which the victim loses the lion's share of the money.

If the PSR eliminates revenue pockets, fraud protection will be weakened over time and user losses to fraud will rise.

Take-away for the current retail payment system provision of the UK
The UK still does not have a modern, secure, fast and efficient payment system, accessible to consumers and businesses, for day-to-day payments.

FPS is not this system because it is insecure. The extent and trajectory of APP Fraud is unacceptable, but this is only half the story.

Not only is FPS insecure, but the main eBanking channels into it are also insecure and, for all we know, the insecurity in the one may be exacerbating the insecurity in the other, and vice versa.

Fraud through eBanking channels is rising at an unacceptable rate, and since the payments that result from the fraud are in most cases Faster Payments, the figures for eBanking channel fraud and APP Fraud should be aggregated so as to arrive at a true figure for the scale and trajectory of fraud through new methods, to which Open Banking has been added.

Then an exercise should be undertaken to examine the interplay between the two.

This is not, however, the trajectory that UK payments is currently on. The trajectory is to realise New Payments Architecture through the New Payments System Operator and make Faster Payments the default payment channel, with any other "legacy" payment types construed as "overlay services" on top of it within the layered market model.

Foundation and initial phases of New Payment System Operator ("NPSO")

NPSO was set up to merge several payment system operators and other bodies and to take NPA forward, but it has made an inauspicious start

- NPSO's Board is mainly composed of Non-Executive Directors with no experience of the subject
- Several are of the type where they hold numerous Non-Executive appointments in the most diverse fields
- NPSO's Board does not seem to be able to read its articles, and so it has natural legal persons as member-guarantors and not corporate bodies
- All member-guarantors are also Board Members
- One of them was a prime mover in a company that went bankrupt in 2012 and failed to pay over £44,000 to public creditors

NPSO was founded as a company limited by guarantee pursuant to the work of the Payment System Operators Delivery Group, a working group in which the scheme companies for BACS, Faster Payments and Cheque&Credit participated and which was chaired by a delegate from the Bank of England/Prudential Regulatory Authority called Robert Stansbury.

NPSO Regulation
NPSO's website - https://www.newpso.uk/ - shows that it has two regulators, the PSR as its economic regulator and the Bank of England as its prudential regulator.

NPSO statutes and governance
A company limited by guarantee has members rather than shareholders, and in this case their liability is limited to £1 each. Mr Stansbury was appointed as sole member-guarantor of NPSO from late 2017 until shortly after the scheme companies for BACS and Faster Payments became subsidiaries of NPSO. This appointment was meant to be for a very limited period. The Board Minutes of the meeting on 13th December 2017 state:

35. Interim guarantor member

- It was noted that NPSO's sole guarantor, David Rigney (DR), wished to resign from the role.
- RST has offered to fulfil the role for an interim period to bridge the gap until more guarantors join NPSO in early 2018. The Board considered possible conflicts of interest which could arise from this appointment, in light of RST's existing role in NPSO, and agreed that the appointment was appropriate on a short term, interim basis.

More guarantors did not join "in early 2018", though. Remaining sole member-guarantor until May 2018 does not count as being "on a short term, interim basis".

Mr Stansbury is also an Independent Non-Executive Director of NPSO and appears to have chaired its Risk and Audit committees until recently. The conflict of interest was identified, discussed and apparently found acceptable. That is a matter of opinion.

Having only one member-guarantor was not reviewed at any of the four Board Meetings in Q1 2018, even though the new member-guarantors had not materialised. This is an example of poor governance.

The Draft Guarantors Policy was discussed as item 71 in the Board Meeting on 4th April.

It was only in the Board Meeting on 27th April that there was a substantive discussion on the subject of the member-guarantor situation. The NPSO Board did not even raise the issue itself, but had to be nudged by the Bank of England into a belated realisation that it might not be appropriate for the operator of Faster Payments and BACS to be owned by a single private individual:

89. Guarantorship of NPSO

It was noted that currently NPSO has a sole Guarantor, Rob Stansbury (RST). The BoE raised a concern in relation to having a natural person as NPSO's sole Guarantor post 1st May and queried what contingency plans were in place if RST was incapacitated or otherwise unavailable to perform his role. CB said NPSO had explained to the BoE that there was flexibility in the Articles in respect of the appointment of a new Guarantor in such circumstances. To mitigate risk, it was proposed that

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NPSO
New Payment System Operator

the Board appoint an interim Corporate Guarantor (either a professional adviser or a nominee company) to replace RST for the period from 1st May until new Guarantors are on-boarded in the summer. Alternatively it was proposed that two more INEDs could be appointed in addition to RST ('the 3 INEDs option').

The Board noted that the advantage of the latter option was that the appointments could be made quickly and that the INEDs were familiar with the issues facing NPSO as it consolidated and embarked on the path to transformation. The Board was concerned about the cost and time involved in appointing a nominee company which would need to carry out due diligence on NPSO before it could accept instructions to act.

CB said *[Redacted - commercially sensitive]* had been approached, but they did not think it was appropriate for them to take on the role.

The Board considered other institutions that may be willing to act as interim Corporate Guarantor, noting the challenges in respect of the different options.

CB agreed to investigate the cost of appointing a nominee company as interim Corporate Guarantor and to raise both the interim Corporate Guarantor option and the 3 INEDs option with the BoE. CB also agreed to check with the Bank their requirements in terms of the timetable for the appointment.
ACTION: CB

It is appalling that this was left to the last minute. This discussion occurred only five days before NPSO became the operator of two of the UK's main retail payment systems.

It is appalling as well that the option of appointing a trustee-style body corporate as sole, interim member-guarantor was not considered until this very late stage. This testifies to ignorance amongst NPSO's Board of common practice in corporate finance. NPSO was taking on a nationally critical set of payment systems; its dismissal of the trustee idea on grounds of cost smacks of penny-wise, pound-foolish, or possibly just foolish.

This is the more disturbing as there is a question mark as to whether a member-guarantor of NPSO can be a natural legal person at all, or whether it must be a body corporate. NPSO has had a series of natural legal persons as sole member-guarantor, of which Mr Stansbury was not the first. Member-guarantors must comply with the "Eligibility Criteria" in NPSO's Articles:

"Eligibility Criteria" means the requirement that a guarantor must be a legal person, which for this purpose shall be construed so as to include any firm, company or any other body corporate or any joint venture, association or partnership (whether or not having separate legal personality), or as such criteria may be amended by the board from time to time;

Were this to be readable as meaning that a natural legal person be eligible, the definition could have ended after "legal person" on the second line. There would then have been no need for the Board to have the right to amend the criteria from time to time since any legal person – natural or body corporate – could have been a member-guarantor.

Instead the existence of the extra wording, the presence of the word "other" in the phrase "any other body corporate", and the right of the Board to amend the criteria point squarely at the understanding and intention that all NPSO member-guarantors be bodies corporate.

NPSO's CEO disagrees, as do the entire Board apparently. This question as to eligibility applies also the two further natural legal persons who were added as member-guarantors in the Board Meeting on 2nd May, after NPSO had taken over the operation of Faster Payments and BACS:

100. Guarantors

CB said that since the Board call on 27th April he followed up with FMID to ensure that they were comfortable with the proposal either to arrange for a professional adviser or a nominee company to be appointed as a Corporate Guarantor or to have a panel of three NPSO INEDs ('**the 3 INEDs option**') as interim Guarantors. The latter was the preferred option because of the time it would take to set up a nominee company and provide the necessary background to enable it to accept instructions to act. FMID was comfortable with the 3 INEDs option and requested confirmation of who the three interim Guarantors would be. RA and CA had volunteered to be appointed as interim Guarantors, together with RST who was already appointed as an interim Guarantor. VG said that it would be necessary for RA and CA to sign a letter confirming their appointment. RA and CA recused themselves from the discussion concerning their appointment as interim Guarantors. The Board noted that this was a temporary solution and that NPSO intended to on-board Guarantors over the summer in accordance with the Guarantor on-boarding policy uploaded onto the NPSO website at the beginning of May. After due and careful consideration:

IT WAS RESOLVED THAT the appointment of RA and CA as additional interim Guarantors is approved, subject to receipt of their signed letters confirming their appointment.

Currently the UK's main retail payment systems are owned by three private individuals:

1. The same Robert Stansbury;
2. Richard Anderson, another Independent Non-Executive Director;
3. Christine Ashton, another Independent Non-Executive Director

All are liable for £1 only, and all are Board Members – a conflict of interest.

NPSO's Board

The Board of NPSO consists of eleven:

- The three member-guarantors;
- An Independent Non-Executive chair
- Four more Independent Non-Executive Directors;
- A Non-Executive Director from Lloyds Bank, the one from Metro Bank having recently resigned;
- Two Executive Directors:
  - Paul Horlock CEO and former PSF "Meeting End User Needs" chair
  - Matthew Hunt COO and formerly an employee at the Bank of England

The Board is very weak indeed as regards retail payments experience: the COO and the Independent Non-Executive Directors have none. Relevant experience is limited to the CEO and possibly – but not certainly – to the Non-Executive Director from Lloyds Bank.

The Independent Non-Executive Directors can boast long lists of other non-executive appointments as trustees, board members and so on, and this is taken to be an example of generally accepted good governance in practice.

While the inventories of appointments of some of these "INEDs" just lack relevance, others are simply laughable for their length and diversity. Or in some respects not so laughable.

The appointment of one of the INEDs to the Care Quality Commission was questioned by the House of Commons Health Select Committee at the time on the grounds of conflict of interest as well as of lack of relevant experience. The Care Quality Commission featured in Private Eye issue 1475 (27th July to 9th August) in an article that questioned its inertia while Great Ormond Street Hospital had had a negative report from the Royal College of Paediatrics and Child Health about its gastroenterology department, in which it was found the service "was not being delivered to the standard we expected", with children "undergoing invasive procedures and treatments which could unnecessarily compromise their physical or psychological well-being".

The Private Eye articles concludes: "It was not until 2018 that the Care Quality Commission finally noted Great Ormond Street Hospital's 'defensive approach when challenged on performance and safety' and rated the leadership as 'Requires Improvement'. So, clearly does the Care Quality Commission".

Another INED has represented both suppliers (Zurich UK Life) and users (Healthwatch England, the Care Quality Commission, the General Optical Council) of medical services, though it cannot be seen whether this was exactly simultaneous or was simply a case of switching sides indiscriminately as opportunities for paid appointments arose.

Much more serious is the case of one INED who was chair, director, largest single shareholder, and signatory of the final set of filed accounts of a company called Quadrant Risk Management (International) Ltd which went into liquidation causing public creditors to write off £44,000:

Creditor	Amount owed	Loss at 94.75p/£	Loss for public creditors
HMRC	£6,218	£5,891	£44,106
HMRC	£26,547	£25,153	
Plymouth City Council	£1,969	£1,865	
Woking Borough Council	£11,816	£11,195	
Totals	£46,550	£44,106	

(Source: liquidator's final report S106 of 10th January 2012; Form 2.23B dated 25th August 2010 on meeting of creditors)

It appears to be that this same individual was the chair of NPSO's combined Risk and Audit Committee for a considerable period:

44. Risk and Audit Committee update

- It was noted that an interim Chief Risk/Operations Officer has started work as well as a new risk work stream coordinator and as such substantial progress on developing the risk framework is anticipated.
- The Chair of the Risk and Audit Committee will be meeting the Bank of England on the 19th December. He noted that his intended approach to chairing is to refrain from being an originator or material for the committee so that he is in a better and more impartial position to challenge it.

NPSO's Board might like to take a position on whether they verified the individual's credentials in risk management, and in accounting practices, given the questions raised by the liquidation of Quadrant in 2012:

1. What measures were taken to manage legal risks in the French subsidiary which, when they materialised, caused the parent company board to put the French subsidiary into liquidation and take a write-off of its entire value of ££970,840;
2. Why the US subsidiary was valued in the 2008 accounts at £788,166 when it was stated - in the notes on the "Basis of Preparation" of the accounts – that it was in "effective dormancy", and when it yielded nothing at all in the liquidation;
3. Why the minority stake in the Indian affiliate was valued at £376,727 when it yielded USD135,000 when it was sold off in July 2010;
4. Why the value of Intangible Assets were written up to £361,863 at the end of 2008 from £184,960 at the end of 2007, when they yielded only £158,408 (USD250,000) in a sale to Hewlett Packard during the liquidation;
5. Why the company failed to discharge its liabilities to public creditors.
   (Source: Quadrant Risk Management (International) Ltd – Directors' Report and Financial Statements for the years ended 31st December 2007 and 31st December 2008; liquidator's final report S106 of 10th January 2012)

Proceedings of NPSO Board of Directors and make-up of NPSO Advisory Councils

NPSO's governance includes several conflicts of interest as well as a general lack of expertise

- The Board Minutes contain little evidence of work done by or contributions from Board Members: they appear to sit there, soundless
- Most of the work is done by non-Board Members
- NPSO's governance is rife with conflicts of interest
- At least its Participant Advisory Council contains relevant expertise
- Its End User Advisory Council is a bizarre collection of self-styled representatives of groups in UK society, and is a sham representation of end users

NPSO Board Proceedings
NPSO has published the minutes of 13 board meetings as of 2nd August 2018. The most recent was on 16th May 2018.

Although every Board Member present is named in the minutes, and given an abbreviation, rarely are comments attributed to them. MJ – Melanie Johnson, the chair – is quoted as opening the meeting and establishing that a quorum is present. PH – Paul Horlock, the CEO – is noted as giving the CEO update. Otherwise the minutes are Delphic as to whether any other Board Members spoke, and the passive tense is preferred e.g. "It was noted that…".

It is noteworthy that the Minutes are far less Delphic when it comes to the contributions of the persons in attendance at the Board Meeting but who are not Board Members. For example, the Minutes of the meeting on 10th January show the following persons as "in attendance" and constituting "NPSO Support":

NPSO Support
Vanessa Graham (VG) UK Payments Administration Limited, Company Secretary
Chet Behl (CB) Legal Counsel
Beth Williams (BW) Secretariat

In terms they seem to have done most of the talking and to have had most of the work allocated to them. There is no evidence that the Non-Executive Directors spoke or, if they did speak, that their contributions were of value.

Conflict of interest in NPSO internal governance
The internal issues in NPSO's governance is characterised by conflict of interest:
- The three member-guarantors are also Board Members;
- Two Board Members are also chairs of the two councils that have been established to represent the views of end-users and intermediate users towards NPSO.

The two councils are the End User Advisory Council and the Participant Advisory Council. These councils are meant to represent the views of these constituencies towards NPSO. This will be frustrated by their spokesperson at NPSO being an NPSO director, whose prime role is the reverse: to represent NPSO towards outside constituencies.

It is uncertain whether the respective NPSO NED can be relied upon to carry the views of the council of which they are chair accurately into the NPSO Board, without mollifying the message, without accepting vacuous assurances and so on. It is feasible that it will work the other way around, that the respective NPSO NED will dominate their council and smother it with NPSO's point of view, thus strangling any difficult questions at source.

NPSO advisory councils
NPSO has formed two councils for listening to outside stakeholders:
- The Participant Advisory Council
- The End User Advisory Council

This has been done supposedly in line with generally accepted principles of good governance.

Participant Advisory Council
The Participant Advisory Council is made up predominantly of the major suppliers – the big banks, Mastercard, WorldPay – with a KMPG partner, a representative from IBM and a consultant thrown in for the purposes of balance. The idea is that this council represent the participants in the payment schemes that NPSO is running, although the representation from challenger banks is limited to Virgin Money and that from non-bank PSPs to Transferwise.

An NPSO INED chairs it.

Lloyds has an NPSO Board Member as well, so their voice will be adequately heard in that forum and they should not enjoy double representation by having a seat on this council as well. That kind of multiple representation was meant to be a thing of the past.

The full list of council members is:

The 12 members of the Participant Council are:

- Lana Abdullayeva : Director Open Banking, Lloyds
- Steven Cooper : CEO Personal Banking and Executive Director Europe, Barclays
- Simon Eacott : Head of Payments, Innovation and Business Development, RBS
- Eddie Keal: Client Executive Banking and Financial Markets UK, IBM
- Oliver Kirby-Johnson: Partner, KPMG
- Nick Middleton: Strategic Payments Director, Virgin Money
- Dave Allen: Managing Director UK, Equens
- Jana Mackintosh: Director Public Policy, Worldpay
- Lars Trunin: Product Manager UK Payments, Transferwise
- Nick Masterson-Jones: Consultant, Charteris
- Andrew Pearce: Global Head of Payments, HSBC
- Marcia Clay, Senior Vice President, MasterCard London

End User Advisory Council

The make-up of the End User Advisory Council is more diverse: twelve supposed advocates for different groupings in UK society and with one NPSO INED in the chair.

The make-up was predetermined in NPSO's Board meeting on 8th November 2017:

24. End User Council

- Terms of Reference for the End User Council were approved subject to the membership section being updated to specifically reference other users beyond SMEs, including Government Banking Services and large corporates (ACTION 11: BW to update accordingly.)
- The advantages and disadvantages of paying members of the End User Council were discussed. The Board agreed to offer remuneration of around £4,000 - £5,000 per annum, subject to a benchmarking exercise which is underway.
- A proposal was discussed that the Council should include 5 representatives of the end user community, 5 from the consumer community, and 2 additional payment service users otherwise unrepresented. It was also suggested that this should include a representative of young people,

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and possibly someone with experience in end-user engagement and research. Possible relationships with UK Finance, the Banking Standards Board, and a number of consumer organisations were also discussed.
- There was a discussion about the method for selecting members and it was agreed that the first stage would be a cover letter and CV, followed by an assessment event to generate a shortlist.

NPSO's Board minutes of 10th January 2018 inferred that NPSO Board Members might like to make their own nominations:

17. Any other business

- Board members and others were encouraged to put forward suggestions for potential candidates for the End-User Council, where NPSO is not taking a fully headhunted approach. Certain categories of member may be more difficult to recruit than others, for instance SMEs, fintechs, large corporates and young people.

What the outcome has been is firstly that each of the twelve members supposedly represents a given grouping in UK society, although one could be forgiven for doubting whether the grouping exists at all, and is not rather an amorphous and heterogenous set of people who may not, strictly speaking, either identify to the grouping, or have heard of their supposed advocate in this forum, or agree with the way the advocate represents them.

We have a self-styled "independent consumer consultant", an "age, disability and inclusion expert", a person who is supposedly "at the heart of the debate on Brexit, Childhood Obesity and the UK's Industrial Strategy", and the self-named "CEO – Europe" of a "world-leading marketing and technology company". There appears to be no legal entity with the name of the one this person claims to be CEO of, and the UK operation of the same root name had only 13 employees at 30th June 2017 and negative shareholder funds of £2,457,095 – a bit thin on both counts for a "world-leading" company.

One is left with the inescapable impression that no-one carried out proper due diligence on the council members to both verify their own claims and ensure there were no skeletons in the cupboard.

Of course none of the End User Advisory Council members has hands-on experience of retail payments in the UK but that was not a qualifying criterion. All that seems to have been achieved is that NPSO can lay claim to having an organ for listening to end users, but the correlation of these people to real end users is very approximate, and then you have the further cut-out whereby the views of this council can be dampened by the way in which the council chair brings its views into the NPSO Board.

NPSO's ineffective governance and lack of expertise

NPSO's governance is self-referencing and will fail, and it lacks a depth of expertise

- NPSO's governance structure is circular, enabling the Board to tell itself whatever it wants to hear
- The preponderance of NEDs means they will not know what they want to hear and so they will not know whether they are hearing it or not

Substance of NPOS's interlocking and overlapping organs of governance
The loops between the two Advisory Councils and the NPSO Board are circular and self-contained. The linking individual in each case is an NPSO Board Member and one with no subject-matter expertise, enabling any messages to be dampened down.

The loop between the NPSO Board and NPSO member-guarantors is a self-contained loop because all the member-guarantors are also Board Members.

NPSO, though looking on paper as if it has effective governance complying with generally accepted principles, in reality belongs to itself and need only refer to itself, because all of its pillars of good governance are actually circles.

Relevant subject-matter expertise
The amount of relevant subject-matter expertise in the various organs of NPSO can be summarized as follows:

Organ	Expertise
NPSO member-guarantors	• None
NPSO Board	• None in the case of 8 out of 11 • The CEO does have • One NED from Lloyds Bank may have • The COO most likely does not; indeed there is a risk that he may regard the Bank of England as comparable to other banks even when its IT complex is so antiquated that it can only open 20 new accounts per annum and every change in the UK Base Rate is a mainframe change
End User Advisory Council	• None
Participant Advisory Council	• The majority, but not its chair, who has none but will represent this council towards the NPSO Board, although he is conflicted by being a Board Member himself

NPSO workplan and interaction with other bodies

NPSO's initial workplan was to agree how it worked with other bodies and to acquire the payment systems operators

- NPSO made its arrangements to take over the operation of Faster Payments, BACS and Cheque&Credit
- It has also agglomerated other bodies like the ISO20022 Registration Management Group
- It has exchanged MoUs with UK Finance to cooperate to deliver the PSF streams that should not have been split off and farmed out to UK Finance in the first place
- As regards NPA there appear to be no money or resources, but there is a serious disagreement with the PSR as to the timing and substance of delivery

NPSO workplan for H1 2018
NPSO's work in the first half of 2018 has been focused on the run-up to NPSO taking over the operation of BACS and FPS (May), of Cheque&Credit (July), UK Payments Administration (unstated) and Open Banking Limited (by the end of 2018).

The assumption of the role of operator of FPS and BACS had to go through a Bank of England non-objection review. This was passed in time for the key first timegate on 1st May when NPSO became the operator of BACS and FPS. It has also taken over Cheque&Credit in the meanwhile, and UK Payments Administration.

The original member-guarantors of these schemes have now resigned, and do not appear to have received any compensation for doing so. These companies are now subsidiaries of NPSO, and NPSO remains with its three personal member-guarantors.

NPSO seems to be going to be funded solely by participant fees: the 2018 deficit will be covered by participant advance payments. The fee levels will be set such that NPSO has, as reserves, 6 months' worth of operating expenses by the end of 2021.

Status of ISO20022 Registration Management Group within the layered model
It is most interesting that the work of Payments UK in the area of Standards has been subsumed into NPSO and not into UK Finance. That the ISO20022 Registration Management Unit was housed within Thomas More Square was anomalous enough for a global standards operation, but at least it was not run within any of the scheme companies. That it has now become part of the UK's domestic payment schemes contradicts the layered model insofar as it is in operation within SEPA:

- Infrastructure separated from the schemes, with organisations like EBA, STET, Iberpay and so on acting as Clearing & Settlement Mechanisms whilst EPC manages the schemes;
- Data standard separated from the schemes, where EPC issues Message Usage Guidelines as adaptations of the ISO20022 messages, but ISO20022 has its own organisation.

The layered model is the one that the UK payments landscape is meant to be moving towards, but here is an example of further integration and concentration of control.

At least the ISO20022 RMG should have been moved into UK Finance and not NPSO; at best it should have been put into its own orbit separate from both. It is surprising that other user groups of ISO20022 have not made an issue of this.

Receipt of NPA and exchange of letters with PSR
NPSO received NPA from the PSF in December 2017 and has set up a programme for it within its organization.

NPSO embarked on making a validation study of the "Blueprint" for New Payments Architecture, and there is tension between NPSO and the PSR as to whether NPA comes about as one exercise or incrementally, and with deliveries in 2018 or not. The PSR is adamant on complete and near-term delivery as per the "Blueprint", and the governance structure of NPSO is crafted so as to reduce the ability of the NPSO CEO and of the schemes to influence NPA.

The NPSO workplan is most clearly set out in the open letter of the CEO to the PSR of the end of March.

The 18th January NPSO Board Meeting was attended by Hannah Nixon, MD of the PSR, and preceded the letter from the PSR that NPSO's Open Letter is a response to. The minutes of that meeting point to the key difference in positions:

- PSR: move quickly ahead with New Payments Architecture
- NPSO: initial block of work to validate New Payments Architecture

The validation on NPA has resolved the issue of whether there would be separate procurement exercises for:

- BACS and FPS to become compliant with the PSR's remedies on the Infrastructure market review and adopt ISO20022;
- NPA.

There will not be: Faster Payments set off a process through a "Request for Expressions of Interest" followed by a "Request for Information", but these are being run into the NPA procurement. There will be no BACS RFP to bring BACS onto ISO20022. The CEOs of both the Faster Payments and BACS scheme companies have left their positions. NPSO's issue is whether they can remain in control of the timing and decision-making or whether the PSR believes that both are its prerogative on the back of the market review remedies.

Fig 1 page of the Open Letter shows the organisation chart of NPSO and is instructive on the point of control. What is odd is that several functions report directly into the NPSO Board and the NPSO CEO has no oversight over them.

These include Managed Services, Finance and Risk, but also the NPA Programme Board.

As a result the chart seems to have been crafted to:

- Enhance the PSR's influence over decision-making
- Reduce the influence of the existing schemes over NPA-related decision-making

The NPSO CEO has stated at industry events that he believes that NPA will come into being gradually and piece-by-piece: this is not the PSR's view. The outcome of the PSR's directions regarding Direct Access and of its Indirect Access to Payment Systems Market Review have, with some difficulty, been packaged into a success. An expansion of the membership of FPS to 19 is moderately impressive until it is revealed that the initiative to expand and facilitate access had been taken in hand before the Market Review, albeit – arguably – in anticipation of what the PSR might conclude.

The PSR needs to be able to demonstrate that NPA is coming into being, as drafted, and quickly.

NPA status, timing and deliverables

Very little will come of NPA in 2018

- NPSO has issued a “logical specification” for “Confirmation of Payee” for consultation
- Whether any more will be delivered than that and a rendition of it in ISO20022 is unlikely
- NPSO has applied for multi-year delays in the PSR’s remedies to compel BACS and FPS to adopt ISO20022
- NPA will not exist until 2021 at the earliest, and any services based on NPA will come later than that

The NPSO Board Minutes of both 18th January and 7th February show the status of the NPA programme as “Red”. The 7th February minutes point 28 infer there is actually no money for the NPA programme. Staff are to be seconded from FPS and BACS to work on it. This is not the approach the PSR wants, and re-introduces a degree of influence by the scheme companies over NPA. The PSR wants to see “Confirmation of Payee” delivered in 2018, which NPSO has interpreted as meaning at least the design and the APIs that will enable it.

“Confirmation of Payee” is, from the PSR’s point of view, a key component of what has been held out to the Treasury Select Committee as being the PSR’s solution to fraud on Authorised Push Payments: nothing else that is in the pipeline represents an operational solution to the problem, as opposed to a customer education and awareness solution.

As we already have seen, thanks to the dilatoriness of the Horizon Scanning WG many regulatory obstacles stand in the way of “Confirmation of Payee”, and the best that can be hoped for by the end of 2018 is a complete set of documents for the service including APIs for developers – but not the service in live mode.

The acid test for the timeline for all of these things is to be found in the NPSO Board Minutes for 4th April 2018. The PSR’s Market Review on Infrastructure Provision laid down a number of remedies and put dates against them.

NPSO has applied for extensions to these dates:

- BACS – 3 years, and for BACS to have the option to roll the contract beyond its end date;
- Faster Payments – 2 years, with an option to extend by six or twelve months:

82. IMR Competitive Procurement Remedy - Extensions

The paper was taken as read. DM said the PSR sought implementation of a remedy for Bacs and FPS, to ensure that competitive procurement takes place. Bacs and FPS intend to seek extensions to the remedy by mid-April 2018. Bacs is seeking a three year extension and

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Bacs have the option to roll the contract beyond its end date. FPS is seeking a two year extension, with an option to extend by six or twelve months.

The Board was comfortable with the position regarding the extensions.

In effect this means that NPA will not exist for at least three years into the future as counted from April 2018, and that new services like “Confirmation of Payee” that are predicated on NPA’s existence will be rolled out some time after that.

NPA target date is thus no earlier than 2021, if the extensions are granted. It will be 2021, even if the extensions are blocked.

More components in the NPSO monolith

NPSO is agglomerating even more entities, to become a new nexus of power

- Open Banking is becoming part of NPSO
- It will have the ISO2002 RMG, three scheme companies and several utility organisations as well
- It thus becomes a greater nexus of power than the supposed nexus that the PSR was established to break up

Open Banking

The NPSO Board Minutes of 7th March show the intention of consolidating the Open Banking Implementation Entity into NPSO:

43. Open Banking

JW presented the paper relating to the proposal for the consolidation of Open Banking Limited (OBL) into NPSO by the end of 2018. The Board was broadly supportive of the intent behind the proposal, but it was agreed that further consideration and work was required to

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identify the risks involved in integration and how the work would be resourced. In particular, the Board needed to understand OBL's business model and which activities were in scope and which were out of scope for NPSO. MJ stated that additional resources would be necessary. After due and careful consideration, IT WAS AGREED THAT further due diligence would be carried out. (**ACTION: PH**)

Other NPSO subsidiaries and activities

NPSO's websites shows several other subsidiary companies:

Mobile Payments Service Company Limited
Joined the NPSO in May 2018

UK Payments Administration Limited
Joined the NPSO in July 2018

UTSP Limited (Universal Trust Service Provider)
Joined the NPSO in May 2018

Likewise NPSO has taken over all of the Payments UK utilities like the SEPA/IBAN directory, the Code of Conduct for Indirect Access, and the Sort Code Validation Accreditation Scheme, as well as the ISO20022 Registration Management Group.

NPSO – new nexus of power
Open Banking, as we have seen above, is also to become a component in the NPSO's market power. The Payment Systems Regulator was established to reduce the supposed nexus of power of the five big banks, exercised in the PSR's view through Payments UK, Vocalink and the four payment scheme companies (five from the point at which LINK had its own scheme company). In this scenario the payment scheme companies competed against each other to some degree. Open Banking and the ISO20022 Registration Management Group were autonomous or at least quasi-autonomous.

Five banks thus supposedly controlled UK payments at one step removed through seven entities, with some influence over ISO20022 RMG at one further step removed, but without control over Open Banking.

Now two entities exercise dominant market power over UK payments, and these are NPSO and Mastercard, and they control them at no steps removed.

BACS, Faster Payments, Cheque&Credit and UK Payments Administration, ISO20022 RMG and Open Banking are or will shortly become part of the NPSO nexus of power based at 2 Thomas More Square in London.

NPSO's plans involve all their payments clearing and settling in Faster Payments, thus reducing or eliminating any competition between the payment schemes. That NPSO belongs to three private individuals rather than the big banks looks like a slippage rather than progress, as the individuals are all NEDdies without any background in payments and are only liable for £1 each.

NPSO thus in substance belongs to itself and is an entity with dominant market power over UK payments, ripe for being broken up, except that it was only just created.

The other player with dominant market power that has emanated from the actions of the PSR is Mastercard: it is its own regulated payment system and one without a separation of the scheme from its infrastructure, and it runs the infrastructure for LINK, BACS and Faster Payments out of its Vocalink subsidiary.

The PSR's actions have converted a market supposedly controlled indirectly by five players (the big banks) into a market in which two participants have dominant and direct power. Visa is the only regulated payment system sitting outside this system, when one discounts CHAPS which is now run by its own prudential regulator, the Bank of England, and is not part of the market at all.

For a project that was meant to unravel a supposed nexus of power in the UK payments landscape, NPSO has agglomerated – or will in the rest of 2018 – a much greater number of levers of power than were in the hands of any single organisation before.

Open Banking – another still-born child

Open Banking has achieved near zero take-up within its target market so far

- No evidence of interest from target users
- Originated on the basis of analysis by authorities, in this case the CMA
- UK-only scope mandated on nine banks by CMA
- Aggregator role and issues around it are well known in the International Corporate Cash Management world
- But no heed was taken of that experience in Open Banking

The Open Banking Implementation Entity ("OBIE") is to be added to NPSO's empire by the end of 2018. OBIE was created in order to implement an order issued by the Competition & Markets Authority that followed their provisional findings ("CMA Provisional findings retail banking market investigation oct2015.pdf") and which came about in parallel to HM Treasury's consultation about data sharing and open banking ("HMT Outcome of consultation on data sharing and open data in banking mar2015.pdf"), both of which drew on a 2014 report from the Open Data Institute ("ODI and Fingleton report on data sharing and open data in banking sep2014.pdf").

Current status
The current status of Open Banking was summed up in a recent YouGov poll:
https://www.finextra.com/newsarticle/32471/brits-in-the-dark-on-open-banking

- 72% of respondents had never heard of it;
- 61% of over 55s had heard of it;
- The prime target market of "millennials" aged between 18 and 24 had an 86% "never heard of it" ratio.

Apparently, even when YouGov gave survey participants a clear description of Open Banking, 45% could not understand the ways they could use it, against 18% who could. Just 12% of respondents said they would be prepared to share their financial data in order to access new and innovative products or services.

Objectives of Open Banking
The CMA report was aimed at breaking down the high market power of the big UK banks in retail and SME banking, not by compelling them to sell off branches (like the carve-out of TSB) or by enabling direct acquisition of their clients by challenger banks (like Atom Bank or Starling Bank), but by breaking the linkage between usage of a bank's own eBanking channel and the usage of that bank for services.

The locking-in of customers and their account balances and overdrafts by their only being visible and mobilizable through that bank's eBanking channel were held to be barriers to switching and to the ability of challenger banks to enter the market. This was further held to be an enabler for the big banks to retain high shares of deposits, with which to speculate.

The remedy was to encourage a class of bank-neutral intermediaries whose applications would perform at least the same functions as banks' eBanking services, and then overlay new services on top.

This would undermine the lock-in because a customer would buy a bank-neutral service as their eBanking channel, and view all the accounts they owned through it, and mobilise their money to either make payments to third-parties or to optimize their balances – using credit balances to extinguish overdrafts and investing any remaining balance in deposit or investment products at those same banks or different ones.

The intermediaries would hold no accounts and hold no funds: the banks – Account Servicing Payment Service Providers ("ASPSPs") – would continue to do that.

But checking balances, viewing statements and initiating payments would all be done at the intermediary, with the following end user benefits:

- Single sign-on at the intermediary however many ASPSPs are used;
- The customer would no longer need to subscribe to a different eBanking channel for every bank they used, with multiple user names, passwords, tokens and so on;
- Aggregated view of all monies held in all ASPSPs;
- Easy and quick switching of funds between ASPSPs;
- Consolidated lists of regular payment beneficiaries, standing orders, direct debits.

The CMA9 order

To enable this the CMA made an order for which banks should act as ASPSPs, and what services needed to be available. These banks – the CMA 9 – were the same largest UK banks that are subject to ringfencing, plus Nationwide, plus Allied Irish, Bank of Ireland and Northern/Danske regarding Northern Ireland.

The OBIE was responsible for the design of the Application Programme Interfaces through which the intermediary could draw information from an ASPSP and send payment orders to one.

The CMA specified the range of services as those pertaining to consumer and business current accounts, including branch and ATM locations and terms for overdrafts.

Implementation by OBIE and the CMA 9

The OBIE duly delivered the APIs, some of which needed to be read-only, and some of which were read-write, and there were bound to be issues to be resolved when it was a question of data that had never been shared on a multibank basis before.

Multibank data exchange for corporate customers is an established business, mainly using the SWIFT MT940 and 942 messages, as well as MT900/910 debit and credit advices.

These are statements of account or advices of an individual entry on that statement. Lists of regular payment beneficiaries, standing orders, direct debits had not been shared via data exchange before, and nor had lists of branches and ATMs, or overdraft terms.

Nevertheless it was possible for the specifications of the APIs to be drawn up on time, but it was not possible for the entirety of these banking groups to be able to respond fully and on time, by January 2018. There was a process of tracking implementation and of applications for waivers for certain parts of bank groups.

Bank readiness
The CMA issued "direction" notices to all of Barclays, Bank of Ireland, HSBC, Nationwide, RBSG and Santander, triggered by these banks revealing to the CMA that they were not on track to deliver all the APIs on 13th January 2018, the target date for live operation.

The project plans attached to the "directions" show the degree and scope of lateness:
Barclays – 21st March
Bank of Ireland – September
HSBC:

- mid-February for HSBC retail and small business
- end of April in the case of First Direct and M&S Bank

Nationwide - end of February
RBSG – end of February
Santander:

- Own retail accounts – on time
- Own SME accounts – May
- Cater Allen accounts – January 2019

Lloyds, Allied Irish and Northern Bank were ready on time.

The vast majority of retail and SME accounts in the CMA9 were therefore accessible as of the end of February. Any failure of take-up could not then be laid at the door of the CMA9 or of the OBIE, other than regarding whether the basic concept was correct and whether the defined scope of services were the ones that would unlock the marketplace.

Barriers in the way of intermediaries
Important barriers will have slowed the progress of the intermediaries themselves towards production:

- FCA authorisation/registration process, and it has not helped that PSD2 mandated that the entire Payment Institution sector be re-authorised/re-registered in parallel and there are about 1,000 Payment Institutions in the UK;
- Nascent market in the required Professional Indemnity Insurance.

There could also be commercial reasons:

a) Customer service propositions of TPPs not being strong enough, for reasons within their control;
b) Customer service propositions of TPPs not being strong enough because of the functional limitations imposed by the scope of the Open Banking APIs;
c) Differences in data and process across ASPSPs notwithstanding their adherence to the standard;
d) Customer resistance to the concept of a TPP, notwithstanding the quality of the TPP's customer service proposition.

To point (c) above, the experience with SWIFT reporting – and this is with an embedded standard and many years of market practice experience around it – was that no two banks populate their messages in exactly the same way, even if the banks are reporting the same transaction (e.g. a UK CHAPS payment reported by two UK direct members of CHAPS) or are closely related (e.g. two subsidiaries of the same banking group running the same core applications and both crediting a SEPA Credit Transfer).

Banks aspire, as part of International Corporate Cash Management, to take the aggregator position to receive the customer's statements from their many ASPSPs and channel them to the customer, and to issue payment orders via MT101 to the customer's ASPSPs based on a single order layout presented to the customer. Such banks have to invest in complicated technology to dis-assemble messages received and re-assemble them for onward transmission, in order to be able to propose to their customer a "single process flow", based on (i) statements with all the data in the expected position and ready for the work of cash application and account reconciliation; (ii) a universal payment template.

It can be anticipated that Open Banking intermediaries will be faced with similar issues and, to re-state, even if all the ASPSPs are compliant with the Open Banking APIs.

There also has to be a concern that the Open Banking API concept itself may not be the panacea for opening up the market as the CMA had hoped, and/or that the range of services specified by the CMA represents the right toolkit for doing it.

In the corporate world the advent of SWIFT Corporate Access as a form of "single window" might have been expected to reduce the market power of the top 7 or 8 International Corporate Cash Management banks, except that these banks were early adopters of the concept, as well as being major users of SWIFT in other business lines, and appear even to have used SWIFT Corporate Access to cement their market position.

Open Banking and the EU's Access to Accounts, or XS2A

Open Banking mismatches the EU's initiative, which overrides it and is mandatory

- The EU's version of Open Banking – Access to Accounts – mandates a different functional scope but on all institutions that run payment accounts
- The EU's technical approach was delivered late and ensures that no market will emerge before Q3 2019
- The EU's approach will remain binding on the UK under the government's Brexit approach of continuity
- Role of ISO20022 in Open Banking and XS2A
- Overall result is no simple access to markets for Third-Party Providers
- Another example of botched interventions by official bodies

Conflict between the UK Open Banking Model and the EU Access-to-Accounts model
The CMA will have hoped that, by mandating Open Banking on the CMA 9, they were creating a standard in retail and SME banking that UK banks outside the CMA 9 would feel they had to emulate.

In other words the CMA will have hoped that adherence to Open Banking would become part of the table stakes for ASPSPs to participate in UK retail and SME banking at all.

This hope appears to be well-founded.

However, in parallel the EU was developing its European Payments Regulatory Package with the aim of facilitating online and mobile banking throughout the EU, and a key component within the package was the 2nd Payment Services Directive, and a key component in this "PSD2" was Access-to-Accounts, or "XS2A".

The EU's objective with XS2A has a different slant to the CMA's with Open Banking, in that it is not specifically aimed at a small number of big banks, but at the issue of how innovation should be brought about in payments within the Single Euro Payments Area ("SEPA").

Just to recap from the longer section above, under the layered SEPA market model it was imagined that market actors would base themselves on the identical "payment rails" – the Core&Basic services – and then would engage in competition based on Value-Added Services in one or both of two forms:

1. Extra insertions in the scheme messages themselves that trigger an outcome and add value;
2. Building new services on top of the scheme messages, such as to aggregate data, enhance liquidity management or whatever: overlay services.

The way in which the EPC has managed the Message Usage Guidelines, as explained earlier, has precluded "VAS" of the first type emerging.

Nor has enough VAS of the second type – overlay services on top of the core schemes - materialized, and this was the EU's third attempt at innovation, alongside the creation of eMoney Institutions and Payment Institutions.

XS2A is in a sense the EU's last-chance-saloon for making the layered model work, and see new entrants, substitutes, innovations, new competition and so on crowd into the market.

Scope and applicability of XS2A
The scope of XS2A is limited to "payment accounts" - as defined in PSD2 - that are already accessible online. Accounts at ASPSPs not currently accessible online do not have to be brought on line to comply with XS2A.

There is no limitation around the type of account holder under XS2A, in the way that the applicability of the CMA Order is limited to accounts held by consumers and SMEs.

The intermediaries – Third-Party Providers or TPPs for short – can receive statements on payment accounts and send payment orders to be made off them. Their counterparts in XS2A are the ASPSPs who run payment accounts, and that includes not just eMoney Institutions but even Payment Institutions, who may run payment accounts but only to hold an amount after a payment order has been received and prior to its being executed: there can be no lying balance.

ATM and branch locations, overdraft terms are out-of-scope of XS2A.

Lists of payment beneficiaries, standing orders and direct debits are in-scope to the extent that they form part of the ASPSP's proprietary eBanking service, under the principle of parity of functionality between the indirect service scope through a TPP and the direct service scope.

While Open Banking's live date was the same as the live date of PSD2 as a whole – January 2018 – the effective live date of XS2A under PSD2 is September 2019, for lack of harmonized technical approaches for TPPs and ASPSPs to exchange data.

EBA RTS
PSD2 deferred the definition of the technical approach to the exchanges between TPPs and ASPSPs to the European Banking Authority – the EBA – for them to issue Regulatory Technical Standards.

These were dictated as coming into force 18 months after their publication in the Official Journal of the EU. Publication occurred only in March 2018 and so the live date of the Regulatory Technical Standards is September 2019.

They have been much disputed. To give their full name they are the Regulatory Technical Standards on strong customer authentication and secure communication. It is not our intention here to critique them.

Applicability of the "acquis communautaire"
The point about the EBA RTS and PSD2 in general is that they form part of the "acquis communautaire" of EU law that the UK government has agreed to retain after Brexit. This means that all ASPSPs and TPPs in the UK will remain subject to PSD2 and the RTS, even if they were already subject to the CMA Order and/or had implemented Open Banking voluntarily.

What has happened as a result of all of this is that many UK banks, including the 330+ foreign banks, have not implemented a solution for XS2A yet at all, in the hope that their customers will not specifically ask for it, but will make a request that can be accommodated using existing services like MT940 for the time being.

Only 9 UK banks have Open Banking mandated upon them, but PSD2 compliance is mandatory for them all. If the banks outside the CMA 9 do not see Open Banking as table stakes for the business they are in, they will risk non-compliance with PSD2 XS2A for the period between now and the EBA RTS live date.

Since many foreign banks specialize in corporate business where SWIFT messaging is very common, or in wealth management where services may either not be provided online at all or are specialized and do not involve payment accounts, a reluctance to invest in a stop-gap service is understandable and well-founded.

Another swathe of banks outside the CMA 9, who do run payment accounts and for consumers and SMEs, are trying to get their long-term solution up and running as quickly as possible, well before the deadline of September 2019. The aim is to shorten the period between when a customer asks for a service and when they can have it, in the hope that they will be willing to wait, that they will not move their account, and that if they make a complaint to the FCA, it will take the FCA several months to process the complaint, by which time the bank will be able to say that the service is now live or just a month or two away. The FCA, these banks believe, will have bigger fish to fry than to pursue this bank on this matter under those circumstances.

Even the banks who see Open Banking as table stakes for the business they are in and are enthusiastic about it will see the barriers placed in front of the intermediary TPPs in the current phase – FCA authorization, technical readiness, finding the right Professional Liability Insurance – and conclude that there will be little real action in 2018.

Open Banking and ISO20022 XML
The first main implementation of ISO20022 XML was for Single Euro Payments Area in 2008, but only amongst PSPs and SEPA Clearing & Settlement Mechanisms, which is known as the "interbank space". It was then mandated upon end users that sent batch files by the SEPA Migration End Date Regulation, in the so-called "customer to bank space".

It could have been expected that the European Banking Authority would mandate usage of ISO20022 for exchanges between Account Servicing PSPs and Third-Party Providers for XS2A, and indeed initially it was in the drafts. The actual usage of ISO20022 was then watered down by EBA to read "usage of ISO20022-compatible elements", and in the final version all reference to ISO20022 was removed.

Had actual usage of ISO20022 been mandated by EBA, then the whole end-to-end flow would have been in a consistent data format, for SEPA payments at least, not requiring format translation along the way.

Open Banking never proposed to mandate ISO20022 but stuck with the version "use ISO20022-compatible elements" right up to implementation. Under NPA, if the outcome in the UK of a Payment Initiation Service Provider is a domestic credit transfer, that would be in ISO20022 as the UK Credit Transfer Message.

However, the rules for XS2A trump those for Open Banking, and as from September 2019 the EBA RTS with no mention of ISO20022 at all will prevail.

The result could be multiple versions of ISO20022 XML for TPP-to-ASPSP communication, or indeed usage of quite different standards, compatible with ISO20022 or not. There promises to be a large amount of work for format translators, and for the vendors of the types of application used by banks to major corporates, which assumes that every exchange with a new ASPSP will differ slightly from all previous ones and is built to accommodate that, and then offer one flow to their end user.

Simple access to markets for intermediary TPPs?
Does all of the above add up to simple access to markets for intermediary TPPs?

No it does not. Access to the accounts of consumers and SMEs under Open Banking, or access to the payment accounts of anyone under XS2A, is not a simple business and many doubts remain about the viability in practice of the EBA Regulatory Technical Standards, as well as about other provisions of PSD2 that impinge upon mobile, contactless and internet banking e.g. the low spending limit for contactless transactions in between when transactions are subject to full Strong Customer Authentication by making it a contact payment authenticated via CHIP and PIN.

It may prove to be the case that the wordings in the RTS and PSD2 around measures to protect the customer's money render any service practically or technologically unviable; the measures to protect the customer from losing their money block the service itself.

In that case the outcome will be simple: the customer's money is protected because the service must be withdrawn.

XS2A is a good example of EU rules being made to enable a new type of market actor, and the potential for that actor is eliminated or reduced by provisions in the same rules, in linked ones (other provisions of PSD2 or of RTS), or in ones enacted in the same field. For example the potential for Payment Institutions has been reduced by the provisions of AML legislation as we shall see.

In sum Open Banking and XS2A are good examples of official attempts to open markets up to new types of actor and to create simple access to them. There is giving with one hand and taking with the other, both at long delay, and resulting in a new market but with many complications and barriers within it.

Open Banking and the "Simplifying Access to Markets" working group of the PSF

Open Banking is one channel for simplifying access to markets, for Third-Party Providers, whilst the Phase 1 PSF stream should have benefitted several types of PSP

- Open Banking is a good example of official intervention into a market
- Can be compared to the quasi-official interventions of the PSF under the stream in Phase 1 called "Simplifying Access to Markets"
- This stream should have benefitted numerous types of Account-Servicing Payment Service Provider ("ASPSP") and enabled them to compete more effectively with incumbent banks, introduce innovations and so on

Open Banking and XS2A are good examples of official attempts to open markets up, in this case to a new type of actor – the Third-Party Provider – that needs simple access to the universe of ASPSPs.

We should now look at the pseudo-official attempt to create simple access to existing markets for existing and new types of ASPSPs.

This was the "Simplifying Access to Markets" working group of the PSF in Phase 1, and then a series of projects that either went into the NPA Design Hub or into Financial Crime in Phase 2.

"Simplifying Access to Markets" differs from Open Banking in that its beneficiaries would be market actors holding customer monies and using them to process payments – PSPs in the narrower sense before Open Banking/XS2A enclosed Third-Party Providers within the meaning of PSPs.

These PSPs could be:

- Existing competitors to incumbents, such as building societies, who generally access payment systems indirectly and are subject to possible deviations between:
    - The service level they receive from their sponsor system member;
    - The service level they would receive were they to be a direct system member themselves;
- New direct competitors to the incumbents, such as Challenger Banks;
- New entrants like Revolut as a Payment Institution or ipagoo as an eMoney Institution.

These PSPs should intensify the competition around existing business, and then also bring improvements to the competitive environment generally by introducing innovations and new services.

So simple access to markets for these new players is a pre-requisite for the emergence of the new market as foreseen in the Porter's Five Forces model.

The "Simplifying Access to Markets" working group of the PSF

This working group mainly consisted of endorsing what was already happening

- Meant to assist Challengers and New Entrants of all types take on the incumbents
- Based on the assumption that these institutions had impaired access to payment systems
- Lots of paperwork and plans
- The substance was a "here a bit, there a bit", shreds and snatches from World Class Payments, BACS, the Bank of England and the PSR
- Where it had a green field, it produced nothing

The "Simplifying Access to Markets" WG, or "SATM", can be seen as working in parallel with Open Banking and XS2A to similar ends, but under the aspect that big bank dominance of payment systems enabled them to hold on to customers and their deposits, in order to speculate with the deposits.

Thus the SATM WG scope aligns to the PSR's objective of opening up access to payment systems – both direct and indirect access – in order to loosen big banks' grip on them, on the payments that go through them, on the end users at either end of each payment, and on the deposits and overdrafts of the end users.

It was assumed that around a dozen big banks had perfect market access because they controlled the payment systems and were direct members of all them.

That left a universe of about 440 other "Credit Institutions" (of whom about 330 were the UK branches and subsidiaries of foreign banks), about 400 eMoney Institutions and Authorised Payment Institutions, and about 750 Small Payment Institutions, plus a further number of credit unions and other types. That adds up to 1,590 PSPs entitled to act as ASPSP outside the realm of the incumbents.

These PSPs were assumed to have impaired access, and that this impaired access blocked the achievement of the policy aims of the PSR. SATM was meant to identify the component detriments of this impairment, propose solutions to the component detriments and thus in sum solve the issue as a whole.

Challenger banks
It is important to note as well that of the 440 Credit Institutions there were about 20 who were in production and who would have been recognized as Challenger Banks (including Metro Bank, Handelsbanken UK, Shawbrook Bank, TSB Bank and Virgin Money) and that another 5 Challenger Banks were in foundation, to which have been added about another 10 in the meantime.

Challenger Banks were and are an important category to the authorities as their role is to take on the incumbent big banks head-on, and directly acquire their customers, thereby reducing the market shares of the big banks and in particular in retail and SME banking.

Workplan of this WG in PSF Phase 1

This WG was co-chaired by an executive from Metro Bank. The nominal chair was an executive from RBS but, judging from the minutes and actions, this executive has been sparse in their attendance and contribution, and the main burden fell upon the Metro Bank executive.

The WG's objective was stated in the PSR Payment Strategy Forum draft Work Programme of October 2015 as:

- Simpler access to markets working group - to examine whether and how payment systems can be developed in order to simplify access and participation in the market for PSPs;

Note that it is access for PSPs – Payment Service Providers – not for corporate, government, retail or business customers.

The stream's Terms of Reference (PSF15122015 - 6d Simplifying Access to Markets ToR) made reference to the Community Event on 17th September 2015.

This is the event where the list of detriments was agreed upon. The three areas of focus for this WG, within those detriments, were to be those listed under point 5 below:

5. Consensus was reached at the Community Event that the following should be a priority for the Forum:
   - New technical access solutions for payment systems
   - Common technical standards and rules for payment messages
   - A review of interbank scheme governance models
6. These three items have the potential to make access to markets simpler, in particular, gaining access and participating in the interbank payment systems (i.e. Faster Payments, Bacs, Cheque and Credit Clearing).

These focus areas were confirmed in the initial workplan (PSF15122015 - 6e Simplifying Access to Markets Work Plan):

STAGE 3 [Feb 2016 to April 2016]: Evaluation and prioritisation	
Activity	**Date**
Review the three priorities identified at the Community Event to ensure they are both relevant and complete	**23/02/16**
Identify any additional priorities that were not captured at the Community Event	**23/02/16**
Understand and define each of the priorities agreed	**01/03/16**
Issue findings / status update to the April 14th Forum	**01/04/16**

The key milestone was mid-2016 in order to feed in to the draft Strategy. A "work plan to drive the solutions forward" needed to be delivered by 3rd May, although at the stage at which this document was written it was unclear what form these "solutions" would take. Nevertheless the phrase "drive them forward" was suitably impressive.

All of this was re-expressed in the WG's report to the Forum (PSF15122015 - 6f Simplifying Access to Markets Forum Report) but which does not actually say what the solutions will be:

Simplifying Access to Markets: Forum update as at 16/11/2015
Working Group Chair: Marion King

Last Report	This Report
N/A	Amber

payments strategy forum

EXECUTIVE SUMMARY

The Simplifying Access to Markets (SAM) WG met on the 16th November 2015 for their first meeting. This was hosted by Marion King (RBS) at 250 Bishopsgate. All members of the SAM WG introduced themselves and stated what organisation they came from.

- Dora Guzeleva (PSR) attended and gave an update of the Strategy day held on the 13th November and then walked the working group through each of detriments that had been identified and aligned to the SAM WG.
- Mike Banyard (FPS) gave an update of how the FPS is looking to improve direct and indirect access to the Scheme. They are looking at ways to improve settlement and the new governance models. They are also looking at ways of finding the most effective solution for PKI cards, where members don't have to be part of the BACS scheme.
- Tim Yudin (Payments UK) gave an update on World Class Payments. In Q1 2015 Payments UK reached out to all of its stakeholders to find out how easy they found it to become either direct or indirect members of the different schemes. (Report can be found on the Payments UK website)

Challenges:

1) Simplifying the schemes and lack of willingness of members of the working group to discuss the different options
2) How to incorporate the work already completed by Payments UK, Capgemini UK etc. We need clear distinction between work underway and already in the payments domain, and work already completed.
3) Meeting was cut short due to unexpected evacuation alarm at 250 Bishopsgate building.

Next Steps/Actions

- **ACTION #1: Due 04/12/2015 (DG)**
  Dora Guzeleva to share the detriments being addressed in other groups with members of the SAM WG
- **ACTION #2: Due 04/12/2015 (TY)**
  Payments UK to seek agreement from members to share work in progress not yet in the public domain with the SAM WG
- **ACTION #3: Due 04/12/2015 (OB)**
  Otto Benz (Virgin Money) to share the Payments schemes overview deck with the group.
- **ACTION #4: Due 06/01/2016 (PK)**
  Phil Kenworthy (PS Consultancy) to prepare a learning on the role of the BoE and share with the working group
- **ACTION #5: Due 04/12/2015 (TY/MB)**
  Look at the work already completed by Faster Payments and Payments UK on improving access and identify how many detriments are being addressed.
- **ACTION #6: Due 06/01/2016 (MB/MC/TY)**
  Mike Banyard, Mike Chambers (BACS) and Tim Yudin to map the work being completed by Faster Payments, Payments UK and any other known industry body.
- **ACTION #7: Due 06/01/2016 (All)**
  Members of the working group to contribute bullet points to go into the PSF vision and send to Dominique Braganca (RBS) and Natalie Beasley (Metro Bank) for collation ahead of the next January meeting.
- **ACTION #8: Due 06/01/2016 (TBC)**
  Following on from action 5 and 6 - map the detriments ready to assign owners, track and ultimately remove.

Key Deliverables/Milestones (Products/Outputs)

Mile Stones

- 05/02: Understand and define the following three areas, including whether and how addressing these areas would make the market simpler:
  - New technical access solutions for payment systems
  - Common technical standards and rules for payment messages
  - A review of interbank scheme governance models
- 05/02: Undertake an initial qualitative (and where possible quantitative) assessment looking at the pros and cons of the different simplification scenarios
- 25/03: To examine whether and how payment systems can be developed in order to simplify access and participation in the markets for PSPs.
- 16/01: How many detriments can be ticked off between the schemes and Payments UK? (Sub Group)

Key Deliverables

- **Stage one: Definitions and Concepts**
  Agree Terms of Reference, scope of work & deliverables and high-level work plan for initial phases – **02/12/2015**
- **Stage two: Gathering insights and validation**
  Map the work already underway against each of the detriments to identify any gaps – **06/01/2016**
  Review all existing studies, reports and presentations across the industry that address in part or all of the problem statements agreed – **29/01/2016**
- **Stage three: Evaluation and prioritisation**
  Review the three priorities identified at the Community Event to ensure they are both relevant and complete – **23/02/2016**
  Identify any additional priorities that were not captured at the Community Event – **23/02/2016**
- **Stage four: Development of work plan**
  Working group to agree work plan to drive the solutions forward – **03/05/2016**

Key Risks & Issues

- Low Resource
- No Budget

Forum Actions / Decisions Required

- Forum to agree SAM WG Terms of Reference and workplan

What the WG's solutions are
Pages 25-27 of the draft Strategy ("Being Responsive To User Needs - Draft Strategy For Consultation"), issued in July 2016, list out what the solutions actually are.

They are a catalogue of the obvious, much of it already being in hand when the document was written.

There are 7 items listed as "our" solutions:

Solution Name	Substance	Comments
Access to Sort Codes	Sort codes should not only be available from sponsor banks and within their range and recognizable to them, but also direct to PSPs and unique to them	Solution was already in place through BACS as the registrar enabling PSPs to obtain an 04 sort code unique to themselves
Access to Bank of England settlement accounts	These should be made available to any PSP including non-banks	The BoE had already announced that it would allow non-bank PSPs to have an account, but only if they were direct members of a payment scheme, and neither they nor the PSF highlighted the pinchpoint around numbers of accounts that could be opened
Aggregator Access Models	PSPs should be able to join one or more of the schemes through an accredited aggregator, thus enabling them to run a unified process themselves and not multiple processes to join each scheme	An ecosystem of accredited aggregators was already in place around BACS, and was foreseen for Faster Payments in FPS' 2014 whitepaper for a New Access Model
Common Payment System Operator participation models and rules	Harmonisation of the legal, operational and technical matters pertaining to being a scheme member	Echoes the PSR's already-issued direction to the scheme companies to issue harmonized information about access
Establishing a single entity	Merge the payment scheme companies into one, reversing the splitting out of them from APACS	The impetus for the establishment of New Payment System Operator
Moving the UK to a modern payment message standard	Adoption if ISO20022 XML	Same recommendation as World Class Payments by Payments UK, in whose office the ISO20022 Registration Management Group resides
Indirect access liability models	Tackling the problem whereby Payment Institutions and eMoney Institutions have been de-risked and cannot get banking facilities in the UK	No solution was proposed in this stream. It was farmed out to UK Finance in December 2017 and a meeting was held there on 5th July 2018. No positive progress has been made.

One is left with the inescapable conclusion that the outputs of this WG fell far short of what might reasonably have been expected:

- Unoriginal – three of the solutions were already happening, and one more was lifted directly out of World Class Payments;
- Superficial – the pinchpoint around availability of Bank of England settlement accounts was not noted and nor was the absence of the Bank of England non-objection to the new status in the FPS New Access Model (Directly Connected Non-Settling Participant);
- No solution proposed where there was not already one in circulation – i.e. no solution to Indirect access liability models;
- One could argue that the solution “Establishing a single entity” had not been articulated in exactly the way in which this WG proposed it, but the combination of World Class Payments proposals of “Common Standards” and the “Foundation Capabiliites” below it of “Common Access to Payment Infrastructure” and “Efficient Governance” at least signpost the merger of the scheme companies BACS, FPS and Cheque&Credit;
- Having said that, the recommendations of SATM WG do not point out that, unless the schemes themselves were merged or made interconnected in some way, just merging the companies that ran them would not have any impact at all.

The proposal to merge these three scheme companies would have been music to the ears of the Horizon Scanning WG, though, as it chimed in precisely with their proposal for NPA. NPA interconnects the payment schemes onto a common clearing and settlement layer.

In other words the Simplifying Access to Markets WG was an example of “going with the flow” and then, when there was no flow (as for Indirect access liability models), doing nothing and passing it on.

Balance Sheet of "Simplifying Access to Markets" stream of the PSF

The balance sheet contains no assets of value that were attributable to this workstream

- This stream went with the prevailing flow and mood music
- It added no value to what had already been started by others
- It identified no barriers that had not been identified by others
- The current status of the marketplace is the same as if this stream had not existed

This is the status against the WG's proposed solutions:

Solution Name	Status
Access to Sort Codes	Solution in place but very few users due to non-availability of FPS Directly Connected Non-Settling Participant status, the model in which an 04 code would be the most use
Access to Bank of England settlement accounts	Only available to non-banks if they are direct members of a payment scheme, and major pinchpoint around numbers of accounts that can be opened, which may be resolved once the RTGS renewal has taken place i.e. from 2021 onwards
Aggregator Access Models	Most of the new direct members of FPS and the one new direct member of BACS have used an aggregator according to our information i.e. their gateway into the scheme infrastructure is hosted and is not established on their own premises. So the available market so far was 8-10 institutions out of universe of PSPs in the UK of about 1,590
Common Payment System Operator participation models and rules	May happen under NPA but has not happened so far
Establishing a single entity	New Payment System Operator has been established but this does not mean that the methods of accessing payment systems have been harmonised
Moving the UK to a modern payment message standard	The PSR's remedy is that BACS and FPS move on to ISO20022, and the Bank of England proposes that CHAPS also move onto it, such that all these three schemes use a "UK credit transfer message". By the time this has happened ISO20022 will be nearly 20 years old, which scarcely counts as modern
Indirect access liability models	No solution

The specific outcomes:

Solution Name	Status
BACS new joiners	https://www.bacs.co.uk/about/pages/bacsparticipants.aspx Clear.bank HSBC UK Bank plc (as part of HSBC's UK ringfencing implementation) ipagoo Starling Bank TSB (upon separation from Lloyds) Turkish Bank UK Virgin Money
FPS new joiners as DCSPs	http://www.fasterpayments.org.uk/directly-connected-participants Atom Bank BFC Bank Clear.bank ipagoo Metro Bank Monzo Starling Bank Transferwise Turkish Bank UK (Note Natwest and HSBC are stated as one in the FPS listing, whereas RBS, Coutts and Natwest, and HSBC UK Bank plc and HSBC Bank plc are listed separately for BACS)
Cheque&Credit Image Clearing System new joiners, over and above PSPs that were already members of the Paper Clearing	Allied Irish Barclays International, their non-ringfenced bank Bank of Ireland Habib Bank Zurich Northern/Danske Bank TSB Turkish Bank UK Virgin Money
Bank of England settlement accounts	The paucity of slots per se is exacerbated because the number of slots is an absolute applying to membership of all schemes together i.e. there are not 20 slots for BACS, 20 slots for FPS and so on. In addition priority had to be given to institutions needing a new account for ringfencing (e.g. HSBC) or a new one due to a spin-off (TSB)
Non-banks with Bank of England settlement accounts	Transferwise ipagoo
FPS New Access Model/Directly Connected Settling Participant	Most of the new direct members of FPS are having their gateway into the scheme infrastructure hosted by an accredited aggregator. Price tag is still £500,000+ and a 9-12 month project
FPS New Access Model/Directly Connected Non-Settling Participant	Has only just passed the BoE non-objection process but eBury was given a specific non-objection enabling this one Payment Institution to go into production

Solution Name	Status
FPS New Access Model/Indirect Agency with own Sort Code	Pre-existing status. Little incentive for a PSP to obtain their own sort code under Indirect Agency if they did not already have one in 2015. This model exposes the PSP to the differences between the full FPS 24x7 real-time service and their sponsor's diminished version of it. These PSPs would not have a business case for full scheme membership but might have one for DCNSP, now that it has finally become available
FPS New Access Model/Indirect Agency with Sort Code of the sponsor bank	Pre-existing status and the one in which many PSPs sit if they are lucky enough to find a bank that will take them on. Many PSPs have to bank in Cyprus, Latvia or the Baltics instead. 2017 PSRs Article 105 should mean that many more banks would offer services to PSPs but this has not happened, and for the reasons being explored in the stream "Indirect access liability models".
Indirect access liability models	This stream was effectively an examination of the FPS DCNSP model which now turns out not to have existed at the time. The problem has recently been reconstrued as simply a lack of access to bank accounts – meaning a lack of banks being willing even to offer the "Indirect Agency with Sort Code of the sponsor bank" model, and with regard to just FPS as a start point

Failing resilience of the UK's payment systems

Resilience has fallen to alarmingly low levels: Faster Payments does not have the resiliency to justify the elevation planned for it under NPA

- Outages at Visa, Faster Payments/infrastructure, PayPoint and at the Lloyds Group/Faster Payments complex indicate poor and falling resilience
- All of these outages were for longer than permissible under the "Five Nines" gold standard that should have prevailed
- Regulators, while regularly paying tribute to the resilience of UK payment systems, have been asleep on watch

Testimony to the resilience of the UK's payment systems
While all the great-and-the-good of the industry have been participating in these lengthy processes without meaningful outcome, the day-to-day experience of end-users is being degraded by a series of service outages.

The highest profile one was the outage at Visa on 1st June which lasted several hours, as reported in The Guardian:

1 Jun
2018
22:38

Summary

- Visa says the widespread outage which affected customers in the UK, Europe and abroad was caused by a "hardware failure" and was not the result of unauthorised access.
- Cardholders can now use their Visa cards, with services now operating at "close to normal levels".
- Chip and pin transactions were affected, but ATM withdrawals were not. American Express and Mastercard were running a normal service throughout.
- The outage is believed to have started at around 2:30pm
- Disgruntled customers at supermarkets, petrol stations and abroad vented their frustrations on social media when there was little information from the financial services firm. Bank transactions were also hit.
- Experts have advised consumers to carry backup payment options, while Which? warned consumers to be "extra wary" of calls and emails relating to the network failure.

Updated at 10.53pm BST

Then we had a partial outage of the Faster Payments service on 8th July:

Faster Payments outage delays thousands of transactions

10 July 2018 | 7706 views | 5

The UK's Faster Payments system has not been so fast for some customers this week thanks to a system failure on Sunday that has seen thousands of transactions take two days to process.

The Faster Payments Scheme, which is used by all the major UK banks, says that it experienced "intermittent issues with its central infrastructure" for four and a half hours on Sunday afternoon.

On 20th July it was failed processing of Faster Payments for customers of the Lloyds/HBOS group:

Faster Payments falls flat for Lloyds and Halifax

20 July 2018 | 13212 views | 2

Faster Payments has hit the buffers for the second time in as many weeks, but this time the problem appears to lie at the door of Lloyds Banking Group.

Customers of Lloyds and Halifax have reported receiving messages informing them that their transactions have failed to cross the network.

On 21st July the Paypoint service went down completely:

PayPoint: Energy payments fixed for customers

21 July 2018 Share

Customers were left without gas and electricity after PayPoint terminals across the country went down.

Users of the network, which lets people pre-pay for energy at some shops and supermarkets, complained about freezers thawing and having no electricity.

Complaints were made on social media on Saturday, before PayPoint later said the service was back to normal.

The company, which has terminals in more than 50,000 UK stores, had advised retailers to reset their devices.

PayPoint apologised for the inconvenience, saying it had been "working hard" to fix the problem.

The explanations given for these outages have been Delphic. For example Charlotte Hogg, CEO of Visa Europe, responded to a letter from the UK's Treasury Select Committee with the following:

The Incident and Visa's Response

At 14:35 on Friday 1 June, our UK data centre operations team became aware of a partial degradation in our processing system. We immediately took steps at our data centres to attempt to remedy the issue and initiated a response based on protocols we have in place for addressing any type of critical incident; the first step was a Technical Response Team assessment meeting. Soon thereafter, we escalated the matter in alignment with our crisis management protocol. Ninety minutes after our first indication of a systems issue, and having confirmed the underlying facts as part of our crisis management protocols, we provided a public statement to the media.

This amounts to saying that the system went down because of an IT problem. The explanation appears to have been accepted by the Treasury Select Committee, the inevitable suspicion surfacing that the TSC members know little about IT and nor does the CEO of Visa Europe. A nationally critical system like Visa – and a payment system regulated by the PSR – simply should not go down for that length of time. It should have Five Nines availability i.e. the system is available 99.99999% of the time. This is the Gold Standard of resilience that we are regularly told the UK's "World Class" payment systems demonstrate – except it is clear that they do not.

Five Nines availability

Five Nines availability means that the system is unavailable for 0.00001% of the 31,536,000 seconds in a year. That is three seconds a year.

Number of Nines	Uptime as percentage	Downtime as percentage	Downtime as seconds per annum	Downtime as minutes per annum	Downtime as hours per annum	Downtime as days per annum
5	99.99999%	0.00001%	3.15	--	--	--
4	99.9999%	0.0001%	31.54	--	--	--
3	99.999%	0.001%	315.36	5.26	--	--
2	99.99%	0.01%	3,153.60	52.56	--	--
1	99.9%	0.1%	31,536.00	525.60	8.76	--
0	99%	1%	315,360.00	5,256.00	87.60	3.65

Given that not all of these outages were total for any period, but that some of them went on for some time until the system was fully back on line at proper performance and the whole backlog of transactions had been cleared, we feel we are justified in putting a figure against each system for its actual resilience against the Gold Standard:

System	Number of Nines	Gold Standard	Shortfall
Visa	2	5	3
Faster Payments	2	5	3
Faster Payments/Lloyds-HBOS Group	1	5	4
Paypoint	2	5	3

In others words these systems and services fall a long way short of World Class resilience.

In addition those now at the head of the business do not appear to know why these outages are happening.

The scope of regulation by the PSR, similarly, does not appear to have gone as far as any checks on resilience.

NPA's threat to the resilience of the UK's payment systems

NPA would create a single point of failure

- NPA's vision would interconnect Faster Payments, BACS and Cheque&Credit at the settlement layer
- This creates a single point of failure where it does not exist today
- However the PSR should be much more aware than they are about the current interdependencies between the UK's payment systems behind the scenes

NPA and resilience
NPA's vision is to interconnect all the payments going through BACS, FPS and Cheque&Credit by having them clear and settle as Faster Payments.

This not only introduces a very obvious single-point-of-failure whereby if FPS goes down, all the main retail payment systems go down, but is also not well-founded if the underlying system is one that has been proven to be operating to just "Two Nines".

NPSO proposes a replacement of the FPS infrastructure with a new one based on ISO20022 XML and that is all well and good, but the rendering of the entirety of retail payments as dependent upon one single system should have been questioned more rigorously.

The UK's regulated payment systems are listed as separate systems, but there are connections between them behind the scenes whose impact may only become apparent during an outage.

Hidden interdependency of the UK's payment systems
For example, the Independent newspaper reported that some Mastercard transactions had failed during the Visa outage because Mastercard routed some of its business over the Visa network. This revealed a major departure from the policy of separation of regulated payment systems that sits at the heart of the avoidance of a single-point-of-failure.

There is also the lurking issue of the interconnection of BACS and FPS. FPS was built in a hurry and using a toolkit drawn from BACS and also from the debit card process (this latter fact is explored more below).

Where FPS is using, for example, look-up tables that are maintained by BACS, there is an obvious possibility of both systems going down because of a fault in the look-up routine.

The 2014 CHAPS outage was, as we have seen, caused by a failure in a routing around a look-up table.

Financial vulnerability of the NPA's layered model

The financial viability of the layered model is highly questionable when one looks at Single Euro Payments Area and retail banking within it

- NPSO has no funding or resources currently to build NPA
- The layered model in action has tended to reduce payment service functionality down to a low, "core&basic" level
- There is no money to be made from such services – this is the lesson from the layered model in Single Euro Payments Area
- This combines with the policy of central banks (like the Bank of England) to keep interest rates below inflation to threaten the very existence of retail banks
- Lack of funding threatens reinvestment in consumer protection and anti-fraud measures
- It also weakens the eco-system as regards IT and operational failure

Financial requirements of a payments market
It is important in the payments market that there be sufficient revenues available for market actors to make a return, having first ensured:

- The payment systems have Five Nines availability – which presupposes heavy ongoing investment;
- The payment services themselves and the payment systems they run through have fraud prevention baked into them to the greatest degree possible, so as the minimise the opportunities for fraud – which underscores a need for heavy ongoing investment as new threats emerge;
- There are funds available for reimbursement of customers due to fraud – the customers should not have to pay unless they are guilty of significant negligence; in fact this is the current legal bar set by Payment Services Directive 2;
- No market actors go bankrupt upon whom there is critical dependency.

It is quite worrying to read, then, to read the following about NPSO's financials in the Board Meeting minutes of 7th March 2018:

46. Funding

The Board noted the papers on the Funding Model that were circulated ahead of the meeting. KM explained the key assumptions on which the Funding Model was based. KM said the Funding Model was based primarily on transaction volumes per payment system. It was targeted to achieve reserves equal to six months of full operating expenses by 2021. *[Redacted – commercially sensitive]*

PH explained that it was proposed to fund the FY18 deficit through the request for participant advance payments. NPSO was requesting an advance payment for services to be provided at a future date which would be rebated over a period of four years. A meeting of participants was scheduled for 08/03/2018 to discuss the additional funding of NPSO. The Risk and Audit Committee was to consider the level of reserves that it is appropriate for NPSO to hold and how and over what time-frame they should be accumulated.

(EA and KM left)

NPSO currently has limited financial resources and no reserves. It has inherited no reserves through its acquisition without payment of the scheme companies, UK Payments Administration and so on.

This is worrying because it underlines a series of trends and ways of thinking in the industry that cannot answer how the ongoing investments in industry infrastructure are to be met, both to attain and retain Five Nines availability, to implement measures against current and future fraud threats, and to compensate all but the tiny minority of victims of fraud whose actions fall below the bar of responsibility set by PSD2.

Financial outcome of the layered model in action
We have discussed above how the layered model in action – in the Single Euro Payments Area schemes – has done the opposite of fostering innovation. It has rather led to stagnation and a race-to-the-bottom on the price of payment services, as opposed to there being competition on feature-and-function.

The existence of Additional Optional Services and the manner of its becoming obligatory at a Community and at a core scheme level has completely displaced Value-Added Services as a viable option when this VAS would include usage of fields in the ISO20022 message itself.

The core&basic service then becomes the only service in the market, albeit in a slightly different form in many Communities on account of their AOS.

In such a market where the product becomes commoditized and undifferentiated, price becomes the only variable in the Price + Performance = Value equation. With price falling, the investment case for market actors to do anything more than meet a level of compliance is undermined.

That can result in less spending on resilience and fraud protection measures.

New players entering the market adds capacity but payments is an activity in which demand is not elastic to supply: no-one makes more payments – i.e. buys more stuff – just because there are more PSPs available to pay through.

Instead new players generally either:
- Take business directly away from incumbent players, causing the scale economies of the incumbent to be undermined without the new entrant gaining scale economies itself;
- Enable switching from one payment service to another, with typical examples being a substitution of debit card payment for cash, and then of debit cards using CHIP+PIN with contactless.;
- Contest the small percentage of the market that is available to New Entrants with the many other New Entrants.

At the same time the infrastructure for cheque, cash and for card payment with CHIP+PIN remain in place with all the attendant costs, even if the volumes are being cannibalized by other payment methods.

New entrants will be entering the market, with whatever business case and hopes to capture volumes, but no incumbent ever leaves the market. Capacity is added but not withdrawn.

Plight of retail banks in the Eurozone
In the Eurozone this has led, for example in Germany, to extreme problems for retail banks to continue in business, a trend of course exacerbated by the negative real interest rate regime of the ECB: if inflation is now around 2%, the ECB rate should be 2.5%, not -0.40%.

Retail bank cost structures require a lending rate of about 4%, where they have a considerable block of current account money that is interest-free. The 4% interest turn on this block – which might be as much as 30% of total deposits – is what pays to keep the bank in business.

Those days are gone and will not return. Payment fees have been sharply reduced in line with PSD and SEPA-related regulations, and float has been all but eliminated. There is no FX any longer between currencies that are now part of the euro.

The idea that there could be money for investments in innovation or new services is far-fetched: money is found for minimum compliance with regulations and that is all.

The layered model has indeed fostered transparency and exposed – and then eliminated – the pockets where the banks were making revenues, and now they are not making revenues any longer.

The incumbent market actors are loss-making, and yet there is a phalanx of new entrants with funded business cases entering the market with innovations and new services, and a supposed method of generating revenues where the incumbents cannot.

The new entrants have investment funds available but the incumbents do not, yet the incumbents have the volumes and the new entrants do not.

Investment cases in a zombie market of this type and impact on systemic resilience
A market populated with loss-making incumbents who can invest in no more than minimum compliance is a market that is vulnerable in itself, especially where the market model is a “network model” - one where all the players in it are meant to be supporting the same set of Core&Basic schemes and to a given standard.

New entrant propositions are often predicated on the assumption of their ability to “reach” all incumbents in the network to a certain standard of performance (by the incumbent, that is) and to place their own services as “overlay services” on top of, and dependent upon, the Core&Basic services supported by incumbents.

That is the kind of market where the failure of the systems of an incumbent can have a substantial negative impact on the entire market.

If, under NPA, one major incumbent failed to perform and its failure caused FPS to go down, then it would bring down not just FPS but BACS and Cheque&Credit as well.

The layered market model in itself, plus the revenue/cost dynamics for incumbents, and the interconnection of all of the main retail payments systems through NPA, introduce a dimension of systemic risk into UK payments which has not existed before, and which the PSF Strategy and the NPA plans foster, as opposed to taking a balanced view in which advantages and drawbacks are identified, qualified, quantified, and synthesized.

NPA has been adopted without sufficient analysis of the systemic risks it will introduce. It was adopted into the draft PSF Strategy without adequate challenge. Other workstreams like "Simplifying Access to Markets" went with the flow, and a head of steam has been built up through the PSF process which has become irresistible.

Flawed financial business models of New Entrants and Challenger Banks

The new class of players in UK payments have in many cases a business model with a very weak revenue line

- New Entrants imagining they can survive on service fees alone, with no Net Interest Revenue even where they have a banking licence
- Clear.bank is a case in point
- New Entrants and other financial institutions they intend to support tend to overestimate the available market for their services: mostly they will be competing with one another for a small, moveable share of the market
- Estimates of volumes and of revenue-per-customer are exaggerated
- It is like the dot.com boom all over again

Bank business models with no Net Interest Revenue
This leads on to the cluster of theories that have had their effect on policy and direction, and the concept of what the payments business even is.

The cluster comes down to the contention that a PSP can act as a financial services player on a major scale without Net Interest Revenue, and with a focus on payments and closely related services. If market actors pretend that they can prosper without Net Interest Revenue, it can lead on to a belief that revenues just magic themselves into existence within the business model, without overt charging of interest and fees to users.

If there is no direct revenue in the model, the question has to be asked how investments will be made in system upgrades, in measures to combat fraud, and in the capacity to meet customer claims in the event of performance failure.

The license limitations on Payment Institutions and on eMoney Institutions means these players must live on services revenue alone. This should limit the scale that can be attained and the type of services offered, and it should be self-evident that, if the PSP wants to do more, it should apply to become a bank and raise its capital and resources accordingly. enough.

However, there is evidence that this logic chain is not accepted by certain players, and that they have a receptive audience amongst authorities. We now see eMoney Institutions who do not accept these limitations and have lobbied for the market structure to be changed in order to enable their operation on a larger scale.

This cluster of theories has been expounded at some length by the CEO of ipagoo: since ipagoo is an eMoney institution and cannot extend credit, the theory is in this case somewhat self-serving.

Further to that we have a new entrant bank whose model is to live off services revenue alone, with no Net Interest Revenue.

Business model of Clear.bank
It has also been expounded by the CEO of Clear.bank.

The basic vision is that Payments in future will be a business without the need for credit, and so there will be a payments world separate from the world of lending. An ipagoo is not permitted to participate in the world of lending, but Clear.bank is permitted to because it has a banking licence, but its model is to act as a payments enabler for other PSPs and it will not do lending.

The New Payments Architecture enables this vision by clearing and settling all payments as Faster Payments, where the remitting bank has the cash in hand to cover the payment and no credit line is needed. Clear.bank would take in from its PSP clients the amount of cash needed by Clear.bank to settle that PSP's payments, and would hold that money on its own Bank of England Settlement Account.

Clear.bank's Settlement Account balance would be the aggregate of the money needed from these PSPs to clear and settle their respective payments, and this balance would sit on their Settlement Account at the BoE during the day, and in their Reserve Account overnight – yielding 0.5%.

A world without credit is also a world without interest also. The FCA does not believe in this world, and has recently intervened, perhaps belatedly, to say that savers ought to be getting more credit interest on their money:
https://uk.reuters.com/article/us-britain-markets-regulator/uk-watchdog-proposes-minimum-rate-on-older-cash-accounts-idUKKBN1KF0LG

Clear.bank, though, assumes its PSP customers will be happy to receive 0% on their overnight balance, when the BoE rate is 0.5%. Presumably this is in part because these PSPs may not be allowed to pay interest on their customers' accounts themselves (never a valid reason to refuse remuneration on one's balance in the past), or because the portion of the customers' balances that has to be lodged with Clear.bank is insignificant and the remainder can be lent out a profit, enabling customer account balances to be remunerated at some level.

It would be a matter for speculation how the PSP's Net Interest Revenue will look if market interest rates rise but not entirely in synch with rises in the UK Base Rate, such that receiving 0% from Clear.bank is no longer viable, or it is no longer viable if the PSP receives Base Rate minus 0.5% when market rates have gone up more quickly than the Base Rate.

In such situations the current interest rate model of Clear.bank might come under a degree of pressure that is avoided when interest rates are near zero and customers do not expect to receive the Consumer Price Inflation rate plus a margin on their balances.

Systemic liquidity impact of Clear.bank model
Clear.bank may have a view of what percentage of the total balance sheet of these PSPs will be lodged with them at 0%: if it is a significant portion, then a given fraction of the UK Money Supply will be extracted from useful circulation and put into dead hands at the BoE. This could prove quite deflationary for the UK economy.

Economics of the Clear.bank business model
The Clear.bank model involves them onboarding perhaps 600-700 UK PSPs of various types, and they seem to want to major on building societies and credit unions.

Clear.bank believe they can be profitable without a Net Interest Revenue line in their P&L account since all revenue will come from fees, not deposit/lend. Clear.bank has claimed that:

- The business cases they had put together for potential customers were compelling for those customers;
- The fees that Clear.bank will charge for delivering those business cases will make Clear.bank profitable at an early stage.

This seems to be a re-run of the late 1990s: new banks who thought they could survive without deposit/lend and the resulting Net Interest Revenue, just because they had low costs and new technology. These are the likes of Egg and EvolveBank, and to some extent Earthport.

They had spoken to potential users, hundreds of them, all of whom stated that:

- They expected to retain 100% of their current customers and at current revenue-per-customer level
- They expected to gain ½% market share from other players thanks to their investments
- They expected the market as a whole to grow 2-3% year-on-year and at the current revenue-per-customer level

In other words this group expected to capture about 400% market share given current market size and without revenue-per-customer falling.

Instead it turned out that only a maximum of 10% of the current market was available to be moved to all these players combined, that there was some increase in the volume of some kinds of payments but mainly at the expense of other types, and that the propositions of these players were so similar that the main basis of competition was price.

Dot.com all over again
In other words the results of the Challenger Banks of the late 1990s on the UK market were the same as the introduction of layered market model for SEPA – and so they can be expected to be the same again once NPA and the layered market model have been introduced in the UK, and many new PSPs established.

In a Clear.bank context, the Clear.bank platform enables its users to intensify competition against one another, and not just against incumbents or other types of player. 600-700 UK PSPs is a numerical majority of the players in the market and, if they are all using in effect the same supplier for meaningful portions of functionality, their customer service propositions will converge, focusing the basis of competition on price.

In other words it is our belief that the C-Suite management of Clear.bank inhabit a dream world along with the CEOs of other notable new entrants, and, with backgrounds in the Cards world and not the Payments world, and still less the banking world, their management are unaware of the absence in the Payments world of the pockets of revenue that can still be harvested in the Cards business, and disguised towards cardholders and merchants (and regulators). Those revenue pockets have long since been squeezed out of the payments business.

Scenario modelling
Clear.bank will indeed onboard many PSPs but the volumes will be far less than the aggregate of all the business cases, because these PSPs will not capture the shares they predict from incumbents, and because what increases they experience will in large part be taken from other Clear.bank customers.

In turn the P&L accounts of the PSPs will not be as rosy as they project, and so whatever is the price of the Clear.bank service will come to seem expensive and not cheap.

At least the price of their proposition to Payment Institutions is clear: the PI must pay a monthly fee of £6,000 just to have an account, to pay for Clear.bank's supposed work in AML/CFT compliance, and that is before the service fees for making and receiving individual payments. Of course many PIs cannot get a bank account in any other UK bank (apart from possibly BFC if it ever goes live) but that does not mean that annual banking costs of £100,000+ are acceptable. They are unaffordable.

BFC's indication to the market about what they will charge a PI are a monthly fee of around £6,000 just to have an account, to pay for BFC's supposed work in AML/CFT compliance, and that is before the service fees for making and receiving individual payments. Does that sound familiar? BFC and Clear.bank may perceive themselves as being "the market" and that PIs will come to them because they cannot go anywhere else, but these fees are well beyond the pocket of this type of PSP and so this element in the business plans of both Clear.bank and BFC will not materialise.

Adam Smith would turn in his grave
As well as taking money out of circulation, Clear.bank's model is a typical "rent collection" in the Adam Smith sense: charging customers to use an asset. This is the lowest form of economic activity in Adam Smith's pantheon.

Many new entrants with weak financial business models introduces systemic risk
The FCA has licensed new bank entrants and new eMoney entrants on a series of criteria that are applied to each application individually.

These criteria will not include a sense-test as to whether the new institution's Value Proposition will attract the numbers of customers planned, or at the revenue-per-customer planned.

Nor will the criteria include a sense-test as to the likelihood of the materialization of the aggregate volumes and revenues aspired to by these New Entrants as a whole.

As a result there is no masterplan about the additions to overall capacity or the effect on expanded capacity on revenue-per-customer, across a market where payment volumes will be growing in line with GDP, but where the main growth is by one payment mechanism at the expense of the other.

The absence of a masterplan for the marketplace in turn precludes any study of the future source of monies for re-investment in resilience, fraud prevention measures and for the continuation of consumer protection.

Credit-free world is one without consumer protections

The consumer protections like the Direct Debit guarantee rest on credit lines

- Separation of "payments" from "credit" in banking can be done if the consumer protections are sacrificed that depend upon credit lines
- These are established by the PSP of the payee to take account of a reclaim of money from a payer under their consumer protection
- Such revocability is a prime feature of payment systems
- But it is absent from Faster Payments and it is absent from the NPA vision as a whole
- But it accords with a blueprint when an eMoney institution can offer the exact same payments services as a bank
- That's good for the eMoney institution but is it good for the end-user?

Consumer protection impact of PSPs with no license to extend credit
The other aspect of a world without credit is that there cannot be any services in the payment world that require a credit line to be installed behind them. The FPS model is that payments must be pre-funded in full, with cash, thereby tying up a lot of cash, but the payments are then irrevocable when made.

Consumer protections like the Direct Debit Guarantee have to be eliminated because they require a bank to have a "soft" credit line on the originator in case of future calls on the Direct Debit Guarantee. So, if you need a world without credit, you have to eradicate all the consumer benefits that involve credit lines.

The existence of a credit line implies that the payment type that the line backs up is revocable. Here is an interesting quotation from the evidence filed by the US authorities in their court case in 2013 against the Liberty Reserve money transfer network and which resulted in Liberty Reserve being shut down:

> use and a highly problematic one for any legitimate payment functions. Revocability
>
> protects merchants and users from fraud and is a common feature of legitimate payment
>
> systems. Despite the security precautions that make it secure for illicit use, funds

Let's dwell on that sentence: "Revocability protects merchants and users from fraud and is a common feature of legitimate payment systems".

Faster Payments lacks that feature and it does not protect merchants and users from fraud. But for that feature to exist, credit lines need to be established to account for the risk to a PSP that the right of revocability be exercised against its customer by parties from which its customer has received money.

Because the right of revocability will in the first place operate against the PSP under the rules of the payment scheme that the money was collected through, the PSP has to make good on the claim for repayment even if they cannot obtain reimbursement from their customer. This is the meaning of the Direct Debit guarantee.

This protection for the end user cannot be sustained in a world based solely on immediate and irrevocable credit transfers, which is the world of NPA and the world aspired to by those PSPs whose vision it is that the worlds of payments and credit should separate.

That may be good for those PSPs, but whether it is in the interests of end users is another matter entirely.

Prospects for investment in Cheque clearing and BACS Direct Debit

"Pull payment" types will be starved of investment and wither on the vine, to the detriment of the end user

- The Cheque and Bank Giro Credit systems will be starved of new investment under NPA
- BACS Direct Debit will be similarly starved
- New services will be in ISO20022 XML and ride on the back of the proposed "UK Credit Transfer message"
- There is no plan for a "UK Direct Debit message"
- "Pull payments" contain good consumer protection – that will all go as well

NPSO's plans foresee investment in Faster Payments both in and of itself, and as the universal settlement layer below all other types of payments.

There will be a "UK Credit Transfer message" in ISO20022 XML – but there will not be a "UK Direct Debit message".

There will be investment in "Confirmation of Payee", an add-on to Faster Payments.

There will be investment in "Request to Pay", a substitute for BACS Direct Debit.

Both the "Confirmation of Payee" and "Request to Pay" will be expressed in ISO20022 XML messages, with easy carry-through of the message field contends to the "UK Credit Transfer Message".

As BACS services and cheque services will be construed in future as "overlay service" above Faster Payments, they will settle as Faster Payments.

They will inevitably be put into sunset mode. It is generally accepted in the NPSO and PSR world that cheques are on the way out, along with any other type of "pull payment" like a Direct Debit.

The orthodoxy is that these types of "pull payments", as well as card payments, will give way to authorized push payments.

The absence of a plan to develop an ISO20022 "UK Direct Debit message" is conclusive proof of the direction of travel – to de-commission all "pull payment" types, these being the ones that:

- Frequently require credit lines to be installed by the PSP for the payee;
- Contain strong consumer protection, strong enough and long-lasting enough for the PSP for the payee to need to install a credit line to recognise it;
- Cannot be offered by eMoney institutions or Payment Institutions because they cannot grant credit;
- Require the PSP for the payee to undertake KYC Due Diligence in depth.

The future NPA model starves "pull payment" mechanisms of investment, which in turn undermines fraud protection, and causes these payment types to be stripped of attractiveness compared to the ones receiving investment money, notwithstanding their advantages for the end user.

Cheques and BACS Direct Debits will have to conform to NPA rules, reducing competition

Making cheques and Direct Debits settle in Faster Payments within NPA limits their scope for divergence

- The Cheque and Bank Giro Credit and BACS direct debits will have to settle instantly, individually, as “push payments”, through Faster Payments
- This will impose a level of conformity compared to now, where they can go their own way
- Conformity is bad for innovation
- Faster Payments should be competing with cheque, bank giro credit and direct debit, not set in authority over them
- That is bad for competition

The cheque clearing settles in bulk at the Bank of England now, and BACS Direct Debit flows are netted with BACS Credit flows and the net amount settles in bulk at the Bank of England.

This puts a given distance between the characteristics of the payment service and the manner of settlement. It is also key in ensuring that the services of the Cheque&Credit Clearing Company and those of the BACS Payment System Ltd compete with one another, as well as which these companies will want to ensure that their services compete with card-based payment services.

The establishment of the separate scheme companies to ensure greater competition between their services was a prime reason for the dissolution of APACS.

It is a great irony that NPSO reverses the dissolution and at the behest of a regulator established to increase innovation and competition.

The threat to competition from NPA is even larger, though, because NPA intends to settle each cheque and direct debit individually and as a Faster Payment.

This compels a greater alignment between the characteristics of a cheque and direct debit payment on the one hand and a Faster Payment on the other, than does the model where the activity under a payment services settles daily in bulk.

NPA – meaning Faster Payments – becomes the anchor system, and other services have to conform to it. The mode of conformity will be expressed as an API, in ISO20022 XML no doubt.

ISO20022 imposes a level of conformity, and a further conformity will be imposed by an API issued by Faster Payments and obligatory on all “overlay services” that settle through it. ISO20022 and the API will combine to curtail the space that the cheque and direct debit providers will have to go their own way.

This limits competition between the different payment services and gives Faster Payments and the “overlay services” designed as part of NPA (like “Request to Pay”) an unfair advantage.

This also circumscribes what innovation can occur as part of the cheque and direct debit services, because the innovation must be compatible with Faster Payments' settlement API and with ISO20022 generally.

As stated above, ISO20022 is a straitjacket, albeit in size XXXML.

This is all wrong. Cheque and Direct Debit, as pull payments, should not be forced to settle through a competitor system, according to rules dictated by that competitor system.

This inhibits competition and innovation.

NPA as an enabler for payment fraud

NPA elevates Faster Payments, the prime enabler of Authorised Push Payments Fraud

- NPA eliminates the need for credit by driving payments through services that ride on the back of a Faster Payment, and by making any other types settle as Faster Payments
- Faster Payments is the system of choice for APP fraudsters
- Why would NPA have any effect other than to increase APP fraud?

A world without credit in the payments business is of necessity a world without revocability, which in turn denies consumers right of redress that they are accorded through such mechanisms as the Direct Debit guarantee and the right of reclaim on card purchases in case of merchant non-performance.

Payments must be pre-funded and be irrevocable once authorized and debited. The Faster Payments business model accords to this, and so is the one:

- That will act as the universal settlement level underneath any other payments, which will be construed as “overlay services”;
- That will become the payment mechanism embedded in new services such as “Request to Pay”, which in turn will be introduced in order to replace the Direct Debit.

Faster Payments can be used by any type of bank customer once they have an account and an eBanking channel. Payment templates can be set up and used in a matter of minutes, and without the process and controls that exist around setting up a new payer for payments through the CHAPS or BACS schemes.

Faster Banks has thus become the seedbed for Authorised Push Payment Fraud, a major detriment to payment service users.

By establishing Faster Payments as the universal settlement layer, NPA for sure does nothing to limit and reduce Authorised Push Payment Fraud, in which case the only directions that Authorised Push Payment Fraud can take are to stay the same or increase.

The question is why Faster Payments is open to Authorised Push Payment Fraud.

Genesis of Faster Payments and the name check

Faster Payments is open to APP fraud because it was built in a hurry, on the cheap and on the back of an existing service where a name check on the payee was not needed

- Faster Payments was designed and built to a short timescale and low budget
- Vocalink, the infrastructure, re-used elements from BACS and LINK to build it
- The participating banks could not build a new process: they had to piggy-back on an existing one
- The only one that could receive a message and respond to it in real time was a "pull payment" process, namely the debit card process, and the default version was the "cardholder present" one
- This did not require the merchant to capture the cardholder's name into the Point-of-Sale terminal, or require it when cash was withdrawn at an ATM
- Faster Payments is a mongrel: a "push payment" service built on a "pull payment" chassis
- The payer's bank captures the payee's name in the payment order, but the order is subsequently processed on the Sort Code and Account Number alone
- This is the vulnerability that APP fraudsters have exploited
- At the same time it has become the accepted template for instant payments globally

Faster Payments was launched on Tuesday 27th May 2008 and in its first ten years of operation more than 9.1 billion payments worth over £7 trillion were sent through it. The UK was one of the first countries in the world to launch a 24/7 real-time payments system.

Now more than 230,000 Faster Payments are sent every hour, on average. By contrast, in its first five days of operation in May 2008, just 334,000 Faster Payments were processed – fewer than 3,000 per hour.
Source: http://www.fasterpayments.org.uk/press-release/faster-payments-celebrates-10th-anniversary

Faster Payments is a UK success story and the Faster Payments business model has been promulgated globally, with Vocalink – the infrastructure provider throughout Faster Payment's life - re-selling the model. The model has become the accepted way of constructing an instant, or real-time, credit transfer system, also known as instant or real-time push payments because the payer initiates the transfer and pushes the payment through its bank to the PSP of the payee.

Pull payments and who is liable when funds are paid to the wrong payee
This contrasts with pull payments where the payer issues the payee with an authority with which the payee goes to their PSP, and in turn the payee's PSP submits the authority to the payer's PSP through a clearing and settlement mechanism, and pulls the money in from the payer's PSP.

Examples of pull payments are:

- A direct debit, the authority being the mandate;
- A cheque, the authority being the cheque itself;
- A card when the payer is present: the payer inserts the card into the merchant's device, or else holds it against a merchant's contactless device, the device captures the card details and – whether CHIP+PIN are entered or not - the payer can be issued with a receipt to testify that their financial liability towards the payee has been discharged;
- A card when the payer is not present; the card details including the exact name on the card and the CVV code on the reverse of the card combine with the number, expiry date (and sometimes the issue date and the issue sequence number) to constitute the authority;
- A cash withdrawal at an ATM using a card, where the cardholder is by definition present and CHIP+PIN are used.

Direct debits are processed through BACS and there is a facility for the payee – known as the originator of the direct debit – to check the details put into the mandate by the payer, including the name of the payer. The mandate is valid for the payee to submit debits on that account held in that name and no other. The direct debit is a repeat transaction always using the same payer account details including the name, and always in favour of the same payee. There are numerous controls around allowing originator/payee access to the direct debit system. All of this amounts to a strong protection for the payer that their money is paid to the correct payee.

A cheque has the name of the payee inserted in the payee line and it is crossed "Account payee", meaning that the cheque can only be paid into an account belonging to that account holder. If the payee's bank allows it to be paid into a different account, the payee's bank is legally liable, not the payer or the payer's bank.

The card transaction when the payer is present results in a receipt to prove that the payer has discharged their financial liability towards the payee. If the funds are then not paid into the merchant's account by their acquirer, it can only be because of acquirer error, staff fraud and other reasons that fall on the merchant and their service providers, and have no impact on the payer.

The card transaction when the payer is not present also results in a receipt – sent electronically – that is a proof of discharge of the payer's financial liability towards the payee. The payer's major risk is merchant non-performance, not misapplication of funds. Once again, the reasons why funds may be misapplied are all to do with the merchant and their service providers and do not affect the payer.

In other words, under pull payments, the payer enjoys strong protection from suffering a loss in any cases where their money does not go into the account of the payee.

Different ways of making a card transaction when FPS was established

We should note that at the time FPS was designed, "contactless" did not exist, and "cardholder not present" was far less prevalent than "cardholder present". Under "cardholder present" the cardholder's name is not captured by the merchant terminal. The same applies to a cash withdrawal at an ATM. This is an important point to retain.

Faster Payment technical model
Faster Payments, true to its name, was developed in some haste, and to a deadline set by authorities. As a result it was not built de novo but out of existing processes and components.

We have referred above to its interconnection with BACS in matters like sharing of routing codes.

What is less known is that Faster Payments was constructed on top of the pre-existing processes in the banks for handling debit card payments. This is why it uses the ISO8583 messaging standard, which is the card payment standard. At the time, as we noted above, the predominant type of card transaction was still "cardholder" present, in which case the merchant terminal did not capture the cardholder's name. This was in a sense a step back from the usage of manual card imprinters and multiple part vouchers. The cardholder's name would come out on each part of the voucher, which the customer had to sign, and where the customer was given the top part along with the till receipt.

The functional specification for Faster Payments included the ability for the major UK banks to receive a message, act on it and make a response in real time. The processes for BACS and cheque processing were batch-based at enough of the major UK banks to discount using those processes as the chassis upon which to build Faster Payments. Even the processes for CHAPS were not advanced enough in enough banks to qualify them to be the chassis.

The analysis of the shortest distance to travel at the majority of in-scope banks was found to be the debit card process, the need to hit the external deadline weighing heavily in the scales.

The predominant debit card process at the time was cardholder present > card terminal used not imprinter > cardholder name not captured.

The debit card process is a pull payment process; Faster Payments is a push payment process.

Faster Payments was built on the pre-existing debit card process for "cardholder present", without capture of the cardholder name.

The fulcrum of this contradiction lay in the data captured by the banks and exchanged with one another. The name of the payer is not captured in a "cardholder present" transaction, as the CHIP+PIN serve in place of the payer name. Similarly the payee name, although present in the order given by the payer when requesting a Faster Payment, is not passed down to the beneficiary bank, in which case it cannot be checked whether the name on the account associated with the sort code and account number in the payment accords with the payee name given in the original payment order.

Faster Payments is a push payment service built on a pull payment chassis: it is a mongrel.

Faster Payments amount limit
Faster Payments was limited to payments initiated online and standing orders, and initially for a low amount: even when the system limit was £25,000, banks might impose a lower limit of £10,000 through certain channels. For example, a bank might permit business customers to pay £25,000 but personal customers to only pay £10,000.

Once the system limit was increased to £250,000, the banks' limits for their customers were increased accordingly.

Indeed the raising of the system limit has been part of the Bank of England's policy to drive "non-systemic" payments off CHAPS and onto Faster Payments.

Setting up a Faster Payments template
Making an individual Faster Payment requires a template to be set up, in which the beneficiary name, sort code and account number are captured.

When the payer has entered those details it is normal that a question comes back: is that an account at Santander or Barclays or whatever? This question emanates from a check by the payer's bank against the BACS-maintained routing tables, not with the payee's bank. The payer will always say "Yes" rather than "No", because their real reply is not catered for, which is "How should I know? That's your job, isn't it?"

The point is that the existence of this question implies to the customer that there has been a check between their bank and the bank of the payee that the account exists there and that the name on the account identified through the sort code and account number is the same name that the payer has put into the payment template.

It will come as a surprise to many when we have to tell you now, that no such check has been carried out.

Making a payment and lack of name check
When a payment is executed pursuant to a template – either at once if the amount is below a given threshold at certain banks, or once an hour or two hours have elapsed – the payment is processed through Faster Payments and the payee's bank without a validation of the name on the account identified through the sort code and account number. It is processed on the sort code and account number alone.

This is shortcoming in the Faster Payments process that has made it the system-of-choice for fraudsters. In the simplest version the fraudsters set up a bank account within a UK PSP that is reachable through Faster Payments, and then inform customers of other companies – who are regular suppliers to those companies – of a change in supplier bank details.

The payer alters the supplier details in their database and amends their Faster Payments template or sets up a new one. In the process their bank questions them as to whether it is right that the destination account is at Lloyds or Barclays or whatever, and the supplier wrongly understands that as a validation check.

When the next invoice from that supplier comes in, they use the template in which the supplier's name is in the payee line but where the sort code and account number are those of the fraudster.

They then send the payment order, and they may even get a response back to confirm: "Are you sure you want to make this payment and are the details correct?" Yes they are sure, because of the preceding process. They confirm the payment, which is carried out instantly and irrevocably – to the fraudster.

Banks have introduced the Confirmation step in response to pressure from the PSR about Authorised Push Payment Fraud, but all this extra step does is to strengthen the payer's bank's legal position against the payer. The bank can show an explicit confirmation of the payment order, which eliminates any financial claim that the payer can have on their bank. The payer's recourse is to the fraudster only, who has emptied the account and disappeared.

This is the fatal flaw in the Faster Payments model and the reason it has become the seedbed for Authorised Push Payment Fraud.

Faster Payments' exploitation for Authorised Push Payment Fraud has been exacerbated by the raising of the system limit, part of the Bank of England's policy to reserve CHAPS for what it terms systemically important payments.

It should be obvious, then, that it is not just the Faster Payments technology that requires complete replacement to bring it up to a Five Nines standard of resilience, but the business model needs to be altered to include a validation of the name in the payment line for the payee with the name on the account associated with the sort code and account number.

Alternatively a simpler path could be adopted: abandon NPA.

NPA new services and tie-in with Faster Payments

NPA's new services are not being demanded by end users, do not meet their needs, and should not go ahead in the current form

- It is too coincidental that all three NPA projects labelled as meeting end user needs from 2021 onwards derive from World Class Payments in 2014/15
- End users have been strangely silent about their need for them
- "Request to Pay" should at best be contained as a niche product, but it is the clear intention to use it to displace Direct Debit
- "Confirmation of Payee" is a nonsense when a payer states the payee in the payment order: it is up to the banks to execute on that order for a credit transfer as they would execute on a cheque payment - by paying into the correct account
- "Enhanced Data" is at most capturing the full names and extended reference data in payments, and those are core functions of ISO20022
- Even then this is of interest to only the largest payment users
- Stating "Enhanced Data" and "Adoption of ISO20022" as separate actions is tautologous, but imagining that adoption of ISO20022 is the only manner of achieving "Enhanced Data" is erroneous
- "Enhanced Data" can be achieved by many other means than ISO20022

The new services that are proposed to be delivered through NPA – and which all originated in the World Class Payments project in 2014/15 – can be dismissed without lengthy enquiry.

These are the three new services mentioned explicitly in the report of the World Class Payments project, and which were the outcomes of the "End User Needs" working group of the PSF Phase 1.

They have then been incorporated into the draft and final versions of the Payment Strategy, before being worked on further within NPA Design Hub in the PSF Phase 2, being consulted upon in the consultation on the draft NPA Blueprint, and finally being proceeded – notwithstanding the comments passed in the consultation – into the final NPA Blueprint for handover to NPSO.

This is a similar degree of circularity as the Financial Crime streams that emanated in World Class Payments being laundered through the PSF process and landing up back on the desk of UK Finance, the direct successor organization of Payments UK.

In this case they have landed back on the desk of a Mr Tim Yudin, erstwhile programme director of World Class Payments and now NPA Lead at NPSO.

There are three new services - "Request to Pay", "Confirmation of Payee", and "Enhanced Data". We can dispose of them summarily.

Request to Pay
Conceived to enable regular bill payments to be met via a Faster Payment and not direct debit. The payee sends an invoice electronically to the payer with a button embedded in it. A click on the button opens mobile banking or internet eBanking and enables easy settlement via a Faster Payment:

- Invoice payments that might have been paid by direct debit will now switch to Request to Pay and settlement via a Faster Payment;
- Godsend for fraudsters – a new and trusted (by the payer) channel for sending of false invoices in even greater profusion;
- Switching to settlement by Faster Payment makes the payment instant and irrevocable;
- Encourages Authorised Push Payment Fraud;
- Deprives the payer of the protection of the Direct Debit Guarantee;
- Relieves the payee's bank of the necessity of installing a credit line on the payee to account for reclaims under the Direct Debit Guarantee;
- Enables the payee's bank to apply a lower level of KYC Due Diligence to the payer because they are now a non-credit customer;
- Widens access to less creditworthy and less trustworthy payees, as well as to out-and-out fraudsters.

Confirmation of Payee
Conceived to close the gap in the Faster Payments services around the name-check of the payee. This will be an "overlay service" on top of Faster Payments in the NPA model. It will involve extra effort for the payee and possibly extra cost, over and above the payee simply stating the payee name in the payment order.

This is a nonsense: why should the payer have to confirm the payee when they already stated it?

It is for the banks to validate that data and not complete the payment if the payee name in the payment order does not match the account holder associated with the stated sort code and account number.

The name-check should always have been a core component of Faster Payments, but it was eliminated as a shortcut. That mistake should be remedied in the core of the design of Faster Payments, and not via some "overlay service" on the periphery which costs the payer more time, effort and probably money.

Enhanced Data
The adoption of ISO20022 XML provides adequate fields and of extensible length (the clue is in the name) to accommodate extra data.

The key problem here in payment systems is BACS Standard-18 with its limitations on the length of the account holder name and on the accompanying reference information. It is no coincidence that the same restrictions apply to Faster Payments: that is another instance of the usage of shared components.

The main data point that needs to be incorporated is the full name of the payee. This should be baked into the core of the payment system design and be validated for each payment.

The second is more reference data. The user that needs this is the one who has more than a few trading counterparties and has many regular receipts of approximately the same amount.

It is not obligatory to adopt ISO20022 to have "Enhanced Data"; it can be achieved through many means. However, in World Class Payments as in NPA, the fact that a particular facility can be achieved through ISO20022 is used as a justification for ISO20022 to be adopted.

"Request to Pay", "Confirmation of Payee" and "Enhanced Data" will be achieved in the NPA world through the means of ISO20022 messages, but this does prove that they are valid services, or that ISO20022 is the right or the best medium through which to realise them.

Allowing more data through the system is not enough unless the banks:

- Validate key processing data against their own records and return/hold payments which mismatch;
- Plot non-processed data into statements without making them many pages long, wasting enormous amounts of paper and breaching sustainability commitments.

In sum the three new services proposed under NPA require either cancellation or a complete reanalysis of the root of the problem, and whether it could and should not be better resolved by other means.

Balance Sheet of "End User Needs" stream of the PSF

End user needs projects are used to justify adoption of ISO20022

- Cause and effect have become confused
- End user needs projects have been become grist to the mill for adoption of ISO2002

The balance sheet of this stream is very thin as well, and all of it derives directly from the World Class Payments project in 2014/15. Strong personal interests are at play within NPSO for the adoption of ISO20022, and this has led to a reversal of logic: because ISO messages can be designed to realise these services, this is why the services should be brought to market.

However, end users have not been clamoring in numbers for these services since 2014/15.

"Enhanced Data" can be read as the adoption of some format that does not truncate the payee name and the reference field at 18 characters in BACS and Faster Payments, and even then it would not currently matter if the payee name was truncated at one character since the payer's bank performs no name check.

"Request to Pay" should at best be a minority offering but has been taken up with gusto because it is a way of displacing activity off the Direct Debit - which offers far better consumer protection - and on to a service that follows the new vogue:

- Data can be tracked through field-by-field from one ISO20022 to another;
- It settled as a credit transfer.

This is another example of the business case for a service resting is on its realisability through ISO20022, not on its merits.

"Confirmation of Payee" is a nonsense in itself but needed because of the vulnerability at the core of the Faster Payments service.

New facilities and measures to combat Financial Crime

The outcome of this stream is far less impressive than it appears

- Again, much of what is proposed is tautologous with the adoption of a data format that is not as restrictive as Standard-18
- The proposal for "Trusted KYC Data Sharing", however, is dangerous nonsense
- Two streams are not operational solutions
- One of them is for customer education, which should not be necessary if payment systems – like Faster Payments – were not so vulnerable
- The other one is "Indirect Access Liability Models"

As we saw earlier the Financial Crime stream of the PSF contained 7 workstreams and they have been handed off as follows:

Workstream name	Hand off to…
Guidelines for Identity Verification, Authentication and Risk Assessment	UK Finance
Payment Transaction Data Sharing & Data Analytics	NPSO
Financial Crime Intelligence Sharing	UK Finance
Trusted KYC Data Sharing	UK Finance
Enhancement of Sanctions Data Quality	UK Finance
Customer Awareness & Education	UK Finance
Indirect Access Liability Models	UK Finance

We can dismiss "Customer Awareness & Education" and "Indirect Access Liability Models" as operational solutions, which leaves five streams which might materialise as something tangible:

1. Guidelines for Identity Verification, Authentication and Risk Assessment
2. Payment Transaction Data Sharing & Data Analytics
3. Financial Crime Intelligence Sharing
4. Trusted KYC Data Sharing
5. Enhancement of Sanctions Data Quality

Impact of ISO20022 XML adoption
If one presupposes the existence of better payment messages thanks to ISO20022 XML or to some other more modern standard, payment messages will include complete payer and payee name and longer transaction reference data. By this action alone one surely achieves "Enhancement of Sanctions Data Quality" and the basis for the analytics element of "Payment Transaction Data Sharing & Data Analytics", the sharing element being dictated by GDPR unless there is an obligation to share with relevant authorities – which would in turn fulfil "Financial Crime Intelligence Sharing".

Looked at the other way around, if the adoption if ISO20022 XML does not either itself encapsulate or act as an enabler for solving the detriments that gave rise to these separate streams of work, then it should not be adopted.

As it is, we presume ISO20022 XML does perform these roles, in which case three of these five streams can be rolled into one stream to capitalise on the adoption of ISO20022 XML or another suitable data format. In turn that means that UK Finance must be intimately involved in the detail around its adoption, or that the respective streams should not have been farmed out to UK Finance to begin with.

Residual streams
That leaves two streams which are not to do with payments at all, but with KYC Due Diligence:
1. Guidelines for Identity Verification, Authentication and Risk Assessment;
2. Trusted KYC Data Sharing.

The first stream is about digital identification, presumably at the point of establishment of a relationship and then on an ongoing basis to authenticate transactions.

The second stream is about establishing a single database of all market actors in the UK that can be classed as business entities, and holding KYC data about them which will be available to all UK PSPs, both to refer to at the point of establishment of a relationship and then on an ongoing basis to use with relation to transactions, whether the PSP making an enquiry of the database is acting as the PSP to that business entity, or to the trading counterparties of that business entity, or as an intermediary PSP.

This concept falls firstly on GDPR: the business entity will not have given permission for its data to be shared with whatever PSP might be involved in handling its transactions other than its own PSP.

There is a further point of practicality: there are elements of KYC data that must be recent, like a phone bill, utility bill, bank statement, and these need to be provided by the business entity themselves and refreshed on a regular basis, probably every three months. This will not be done comprehensively and in a timely fashion, so a large proportion of the data records will show up as “Overdue” at any time and be unreliable, and therefore invalid as a point of reference.

Thirdly it is actually a very questionable imposition of the payments industry on its customers to require this. It is onerous. Customers will question its value to them. Customers will question whether it is a legal requirement for them to register their business entity on the database. Where indeed is the legal basis? Customers are already required to update their KYC data for their bank, as well as to comply with the updating requirements of Companies House if theirs is an incorporated entity. If it is not an incorporated entity, the KYC information is personal data, and in some cases sensitive personal data.

Adequate records on incorporated entities are already freely available to PSPs and to intermediaries like Credit Reference Agencies whose services PSPs subscribe to. A business entity that has fulfilled these requirements can go to a challenger bank, as long as they have their valid and recent “proof of address” personal documents, and they can have an account open and operational in one or two hours. What benefits is this database going to offer on top of that?

Unincorporated entities can do the same just with their personal documents.

The responsibilities for KYC at the point of establishment of a relationship and for AML/CFT compliance and sanctions screening on each transaction are very clear and are laid down in law. Each PSP has to fulfil them regarding its customers and it can do that for business entities and quite easily, whether they are incorporated entities or sole traders.

There is no need for this database to have that data shared to PSPs who are not the Account Servicing PSP of the customer in question. The data would never be reliable. It is disturbing that the concept should have proceeded so far without a sense-check. There are millions of business entities in the UK, and few would see value in this extra imposition whose beneficiaries are not their own PSP – with whom they have to lodge data anyway – but PSPs they have no direct relationship with, and to whom they would not for certain be willing to allow their data to be shared under GDPR.

What we do come down to is the need for PSPs to carry out their obligations in law properly. These come down firstly to initial onboarding, and the major loophole is where PSPs open accounts for fraudsters who go on to carry out Authorised Push Payment Fraud.

Secondly it is transaction screening for fraud, AML/CFT and sanctions, and this should be enabled by ISO20022 XML or else ISO20022 XML should not be adopted.

Thirdly there is the issue of authentication of customers, whether that be by signature on a cheque or other document, through a PSP's eBanking channels, via Third-Party Providers, between TPPs and PSPs and so on.

"Guidelines for Identity Verification, Authentication and Risk Assessment" should supply the solution to the matters in its title and relating to dematerialised data, and it should become an output of the British Standards Institute – or it is not doing what it is meant to do.

That is "job done" then: finalise and issue the "Guidelines for Identity Verification, Authentication and Risk Assessment", and implement ISO20022 XML in such a way that transaction screening for fraud, AML/CFT and sanctions can be carried out, and bake fraud prevention right into the centre of payment system design.

Customers will not need "Customer Awareness & Education" because the PSPs, the payment services and the payment systems they go through will be protecting them, without them needing to do any more than use the services put in front of them.

That only leaves "Indirect Access Liability Models".

Indirect Access Liability Models

No positive progress was made in this stream to date

- This is about de-risking
- The big UK banks and the foreign banks cannot be expected to solve the problem
- Nor can industry collaboration beyond issuing an opinion that it is up to each bank to make up its own mind within applicable law
- Under the 2017 Payment Services Regulations the banks have to offer services to non-banks on a basis that is Proportionate, Objective and Non-Discriminatory
- The PSR itself is the competent authority for that and so this workstream has no value to add beyond that

Indirect Access Liability Models
This stream deals with the lack of access of all but the biggest non-bank PSPs to payment systems and bank accounts. The classes of institution lacking access, and their trade bodies, are eMoney Institutions largely represented by the Emerging Payments Association (https://emergingpayments.org/) and Payments Institutions largely represented by the Association of UK Payment Institutions – the AUKPI for short - (http://www.ukmta.org/Home.aspx).

AUKPI's membership is concentrated on the Money Remittance type of PI, as opposed to the Foreign Exchange Bureau type, although the distinction between the two types is not absolute. The Foreign Exchange Bureau type tends to be larger and to therefore be an Authorised Payment Institution, as opposed to a Registered one. Registered PIs not large enough to require authorisation are commonly referred to as Small PIs.

Only the FCA has access to the accurate numbers of PSPs in these categories but AUKPI's most recent estimate is that the UK has 400 eMIs and Authorised PIs, and 750 Small PIs.

The type of PSP in question would in the main not be able to compile a business case to become a direct member of a payment system, so they are seeking indirect access, which could mean just having a bank account with a bank that can make and receive payments through payment systems.

The requirements, when described in this way, fell outside the scope of the PSR's Market Review on Indirect Access to Payment Systems, and indeed this whole subject has fallen between two or more stools.

How the sector used to be banked and de-risking
The sector was predominantly banked by one major UK bank until about 4 years ago, when there was a refocusing exercise onto the largest non-bank PSPs, with a few exceptions for example where the PSP or its staff or the staff of the PSP's IT vendor had strong historical connections with the bank, or where the PSP, whilst not being large, had interesting volumes of exotic foreign exchange to do, upon which the bank could make a margin adequate to pay the costs of the enhanced due diligence that their procedures dictated were necessary.

In the main the PSPs were told that the bank's risk appetite for their business had reduced, the due diligence work that the bank would have to do had risen and would involve a cost not justified by the revenues the bank would make.

The sector was thus “de-risked” and left with a very few options for continuing to trade:

- Find a bank elsewhere in the EU, which offered a safeguarding account service as well as operational accounts. PSPs set up accounts in Malta, Cyprus and the Baltics;
- Appeal through the PSR to the bank to keep services live until an alternative could be found. In some cases an extension was obtained but usually expired without the PSP being able to find an alternative bank in the UK;
- Rely on the PSR’s Code of Practice for Indirect Access to Payment Systems: not viable because the PSPs were not seeking an IAP but simply the lowest form of Indirect Agency – a bank account;
- Wait for new entrants to come onstream and hope that their service scope and pricing would be acceptable: two have come on at great delay and their service scope is reasonable but not the pricing;
- Wait for the implementation of the 2017 Payment Services Regulations and their policing by the PSR whereby all “Credit institutions” should offer banks accounts to PSPs on a Proportionate, Objective and Non-Discriminatory basis: the 2017 PSRs are now law but the policing regime is nascent at best.

What the PSF stream was meant to examine and resolve
The stream “Indirect Access Liability Models” was predicated on the existence of a way of a non-bank PSP accessing a payment system which, because the payment traffic did not pass through the IT complex of the bank, eliminated the bank’s AML/CFT risk on individual transactions.

If it could be shown that the bank was sponsoring the PSP for settlement only, and if this could be substantiated by how the payment messages flowed and whether the bank ever saw the detail of any payment message, then a model could be said to exist under which the bank sponsor – always a member of the respective payment system – could carry out KYC due diligence upon the PSP at the establishment of the relation and regularly thereafter to a given level, backed up reliable third-party reports on the AML/CFT/sanctions screening environment of the PSP.

What payment system the PSPs needed access to and what access model fulfilled the above requirements
It was Faster Payments that the PSPs needed access to above all other payment systems.

An analysis of the AML/KYC exposure of sponsor banks was compiled for AUKPI and shared with the PSF stream in November 2016: “Sponsor bank liability under FPS Direct Technical Access 04nov16”.

This was accompanied by a target solution document for PIs whereby they would first of all start to be banked by new entrants who had declared an interest in the sector, then bolt on other services, and then start to use the FPS New Access Model and specifically the status Directly Connected Non-Settling Participant. This was laid out in a presentation “AUKPI Lyddon Consulting - target solution for Access to Accounts nov16” which was also shared into the PSF stream.

Outcome and current status
Since for all this time the FPS status of Directly Connected Non-Settling Participant did not exist, almost all of that work and the discussions in this PSF stream were pointless and a waste of time and effort. Productive discussions may now start, as the BoE has issued its belated non-objection.

In addition there have been no new entrants whose Price + Performance equation equals Value. The price is far too high.

Lastly the PSR has not yet implemented a policing regime around Article 105 that marries up with the regime inside the banks for handling enquiries from non-bank PSPs. The PSR has said that its regime is complaints-driven, meaning the PSP must have written proof of denial of or withdrawal of services. Since so few banks offer services to non-bank PSPs as it is, there will be very few withdrawals, so it is unsurprising that the PSR has had a paucity of notifications from banks about withdrawal of services. That process may exist in banks, or it may not, and it will not be possible to say for sure until there is a flow of withdrawals – which is very unlikely from the current low base of existing provision.

Where the PSR's regime is failing is in policing the denial of new provision.

The complaints process has been frustrated by a lack of any response at all to enquiries and/or a long delay in responding and/or a response that says the bank is considering either the application or its policies and procedures as a whole, without a response date being stated. Any response of this type does not count as a denial as far as the bank is concerned, does not merit the sending by the bank of a notification to the PSR, and gives the PSP no lever to complain to the PSR.

The PSPs are no further forward. There is some provision by UK banks, but no evidence of why one bank takes on one PSP and not another, and no body of evidence about reasons for denial of service: as a result it is not possible to say whether the reasons are Proportionate, Objective and Non-Discriminatory.

The only possible way forward in the short term is for the PSR to upgrade its policing approach, and this was all laid out in a slide deck sent to UK Finance after the meeting of the successor stream on 5th July 2018, which was then shared with all stream participants (AUKPI Lyddon Consulting - access to banking services 17jul18).

The key points remain:

1. The PSF stream's work over a period of two years was predicated on the existence of the FPS status of Directly Connected Non-Settling Participant, which did not exist;
2. Little is known in detail about the costs of DCNSP, and the time and effort to establish and maintain it;
3. The answers may emerge in the coming months; DCNSP is conceived as a gradation down from DCSP, which has proven to be viable for only two non-bank PSPs so far;
4. It is conceivable that DCNSP may be viable for 20-30 non-bank PSPs, and PSPs of the larger size that are not currently affected by the problem;
5. This would still leave the other 1,120-1,130 non-bank PSPs, requiring a solution but not able to afford DCNSP, just as they cannot afford the solutions of BFC or Clear.bank;
6. The sole viable avenue is to pursue the problem through the PSR as the competent authority for Article 105;
7. That is applicable law and not optional;
8. This is and never was any reason for this issue to be made the subject of an industry collaboration stream, and it should be disbanded;
9. All the existence of this stream appears to have done is to distract attention from what the real issues were and delay addressing them head on.

Balance Sheet of Financial Crime, Data and Security Stream of the PSF

The stream has created no assets of its own

- The main new asset was created by someone else
- Much of the rest is tautologous with ISO20022 adoption – or with the adoption of any data standard with field lengths beyond 18 characters
- "Trusted KYC Data Sharing" should be aborted
- "Customer Education" is not the solution to the big issues: correct configuration of payment systems is
- "Indirect Access Liability Models" is now within the remit of the PSR

Final balance sheet of the Financial Crime, Data and Security Stream of the PSF Phase 1 and of the Financial Crime Stream of PSF Phase 2
The stream has created no assets.

"Guidelines for Identity Verification, Authentication and Risk Assessment" have apparently been drafted and are near to completion and adoption by the British Standards Institute, but that was not done through the PSF stream.

The manner of adoption of ISO20022 XML – or of another suitable data standard - must achieve several of the objectives of the various streams, or else the data standard in question should not be adopted. This stream as a whole has not done this work, it remains to be done, and suitably qualified people need to be assigned to that task.

This is all that needs to be done collaboratively against the streams:
1. Payment Transaction Data Sharing & Data Analytics
2. Financial Crime Intelligence Sharing
3. Enhancement of Sanctions Data Quality

"Trusted KYC Data Sharing" should be aborted.

If the adoption of ISO20022 XML or another suitable data standard is done properly and if there are British Standards Institute guidelines for Identity Verification, Authentication and Risk Assessment, all further tasks fall to PSPs individually, as part of their discharging of their allotted regulatory responsibilities.

That being the case, "Customer Awareness & Education" will be unnecessary: all the customers will need to do is to use the services that are put in front of them by their PSPs.

Finally "Indirect Access Liability Models" is now synonymous firstly with NPSO, IAPs and IT vendors articulating the cost, effort and time to adopt the FPS Directly Connected Non-Settling Participant model, allowing PPSPs to qualify themselves in or out of it.

In parallel to that and not made dependent upon it in any way, banks should just carry out their regulatory responsibility to offer banking services to non-bank PSPs on a POND basis and the PSR should police that.

The result offers no leeway for industry collaboration as, in a supposedly competitive market, banks should formulate their own policies and processes for banking non-bank PSPs and not look to any authority – and least of all to other banks – to work out what to do.

Thus one can conclude that the balance sheet of the Financial Crime, Data and Security Stream of the PSF Phase 1 and of the Financial Crime Stream of PSF Phase 2 has no assets at all on it. It has no work-in-progress that is of value: what is valuable is being done by someone else.

Much effort, time and money has been expended, but has been converted into no value. The stream is therefore bankrupt and should be put into liquidation. Luckily it will be a Members' Voluntary Liquidation (unlike the liquidation like Quadrant Risk Management International) and so no member will have to write off items that it is attributing a value to in its own balance sheet.

Conclusions on the PSF as a whole

PSF – a near-criminal waste of time, resources and opportunities

- Created almost nothing of value
- Laundered recommendations and projects emanating from World Class Payments and allowed them to appear to be endorsed by the wider community
- Scandalous dereliction of duty by Horizon Scanning Working Group has left all PSF work at high risk of being out of alignment with geographic, regulatory and technological developments – apart from the technological candidates favoured by Horizon Scanning at the time the issued their Triage Report

Conclusions regarding the streams of the PSF

Stream Name	Outcome
Meeting End User Needs	• Confirmation of Payee: should sit at the heart of the system, not be an overlay/extra service • Request to Pay: dangerous new channel for Authorised Push Payment Fraud • Enhanced Data: only interesting for big users and can be enabled by minor attention to how ISO20022 (or another suitable data standard) is adopted
Simplifying Access to Markets	• Bankrupt
Financial Crime	• Bankrupt
Horizon Scanning	• Dilatory failure to discharge on ToR • Has stored up problems for NPA, Confirmation of Payee and so on

Overall conclusions

UK payments is travelling in completely the wrong direction

- The industry has been re-organised to improve access, competition and innovation, but the result – NPA – is a concept without proof that it will either work or be beneficial
- Consumer protection is to be sacrificed on the altar of unproven concepts
- The main blocker to access, competition and innovation was and is the Bank of England
- The PSR has been expensive and has destroyed value, not added it
- Its efforts have been ineffective
- The PSF delivered little or nothing of value other than launder projects conceived in the World Class Payments project
- Now we have NPSO and NPA forging ahead, run by a group of people with little relevant experience

Next Steps

Three strategies suggest themselves, none completely convincing

Strategy 1 – lobby for change within the existing framework

- Lobby to turn around the new supertanker – NPSO
- NPA should be coolboxed, along with all of its End User Needs projects and other streams on the Financial Crime side upon which NPSO has an MoU with UK Finance
- The NPSO Board of Directors should be discharged and a holding Board put in
- The three member-guarantors of NPSO must resign and be replaced with a single trustee body corporate, such as the Law Debenture Corporation
- The End User and Participant Advisory Councils can be dissolved
- A root-and-branch survey of the technical and operational resilience of the UK's payment systems must be carried out
- There is no chance of this being agreed to by NPSO itself or by one of its regulators – the PSR – who are completely bought in to NPA going ahead as written, and as quickly as possible

Strategy 2 – do nothing

- Wait for the wheels to fall off, which they will
- The damage to the UK as a whole could be significant

Strategy 3 – launch an alternative to NPA and to NPSO

- NPSO is a monopoly and this is what the PSR was established to stop
- Pull payments should not settle individually as push payments – we end up with yet another mongrel
- Pull payment services – with their better consumer protection – should be broken back out of NPSO and conveyed into a new entity, and without charge, just as the existing scheme companies were gifted to NPSO without charge
- Cheque&Credit Clearing and BACS Direct Debit should be broken out of NPSO and put into a new competitor company, in which the value propositions of these services can be developed
- Connections should be sought to the other main pull payment type – card payments
- NPSO and NPA can then stand or fall on push payments, and this new organisation can stand or fall on pull payments

APPENDIX 1 – SOURCE DOCUMENTS

HM Treasury Impact Assessment – The Regulation of Payment Networks 20/8/2103
PSR-annual-report-and-accounts-2017-18
PSR access-and-governance-report-Dec-2015
PSR Access and Governance Report-March-2018
Faster Payments - A Vision for a New Access Model December 2014
Faster Payments - UK Finance presentation 050718
Code of Conduct for Indirect Access Providers (Interim) 2015
PSR MR15-1 - Indirect-access-mkt-rev-terms-ref_may2015
MR1513-indirect-access-market-review-final-report
MR1523-infrastructure-market-review-final-report
PSR-CP18-1-Review-of-Directions-March-2018
IST Scripted UNIFI (ISO 20022) presentation_v18 sep05
EU Interchange Fee Regulation 2015 751 FINAL
Cards_terms_of_reference_July_2018_MR18_1.1
PSR Protecting Free to use ATMs
PSR_2018_February_letter_to_LINK
PSR-Which-super-complaint-response-December-2016_0
APP-scams-PSO-draft-terms-ref
PSR-APP-Scams-report-consultation_0
APP-scams-annexes
Lipis-report-international-fraud-practices.msg_
2018_06_21_PSR_work on APP Scams
2017-Fraud-the-Facts-web-FINAL
UKFinance_2017-annual-fraud-update-FINAL
PSO-APPS-PSP-call-for-input
Outcome_of_CRM_Consultation_Feb_2018
FCA written evidence to the Treasury Select Committee January 2018
BoE iso-20022-consultation-paper june18
PSR Payment Strategy Forum Strategy Setting Principles and Priorities oct2015
A World Class Payments System for UK by UK PC aug2014
PSR Payment Strategy Forum draft Work Programme oct2015
Being Responsive To User Needs - Draft Strategy For Consultation
A Payments Strategy for the 21st Century - Putting the needs of users first_0
PSF25022016 - (5h) Horizon Scanning WG - Triage and Prioritisation Analysis
PSF Phase 2 - Financial Crime, Security and Data Working Group - Terms of Reference
NPSO Board Minutes of 2nd May 2018
Payments Strategy Forum - NPA Project Initiation Document FINAL
NPA Blueprint Consultation Document jul18
171208 PSF Consultation Report draft v1.0
Payments Strategy Forum - Letter of Support
PSF30112017 (1b) Forum Action Log 30th November 2017
NPSO NPSO-reply-to-PSR-open-letter.pdf
NPSO Board Meeting Minutes 18th January 2018, 7th February 2018, 4th April 2018
CMA Provisional findings retail banking market investigation oct2015.pdf
HMT Outcome of consultation on data sharing and open data in banking mar2015.pdf
ODI and Fingleton report on data sharing and open data in banking sep2014.pdf
OB CMA-directions-for-[CMA9 banks]-with-schedules January 2018

SOURCE DOCUMENTS (cont'd)

EU PSD2 2366 of 2015 – 2nd Payment Services Directive
EBA Regulatory Technical Standards on strong customer authentication and secure communication
SEPA Credit Transfer Scheme Implementation Guidelines v1.0 2017 EPC115-06
PSR Payment Strategy Forum draft Work Programme oct2015
PSF15122015 - 6d Simplifying Access to Markets ToR
PSF15122015 - 6e Simplifying Access to Markets Work Plan
PSF15122015 - 6f Simplifying Access to Markets Forum Report
Sponsor bank liability under FPS Direct Technical Access 04nov16
AUKPI Lyddon Consulting - target solution for Access to Accounts nov16
AUKPI Lyddon Consulting - access to banking services 17jul18

APPENDIX 2 – FULL LIST OF MEMBERS OF CHAPS, FASTER PAYMENTS, BACS, & CHEQUE&CREDIT CLEARING (IMAGE & PAPER) AS OF 31st JULY 2018

Nr	PSP name	CHAPS	Faster Payments	BACS	Cheque&Credit Image Clearing	Cheque&Credit Paper Clearing
1	Allied Irish Banks	×	×	✓	✓	×
2	Atom Bank	×	✓	×	×	×
3	Bank of America	✓	×	×	×	×
4	Bank of China	✓	×	×	×	×
5	Bank of England	✓	×	✓	×	✓
6	Bank of Ireland	×	×	×	✓	×
7	Bank NY Mellon	✓	×	×	×	×
8	Bank of Scotland	✓	×	✓	×	✓
9	Barclays Intl	✓	×	×	✓	×
10	Barclays UK	✓	✓	✓	✓	✓
11	BNP Paribas	✓	×	×	×	×
12	Citibank	✓	✓	✓	×	×
13	BFC Bank	×	✓	×	×	×
14	Clear.bank	✓	✓	✓	×	×
15	CLS Bank	✓	✓	×	×	×
16	Clydesdale Bank	✓	✓	✓	✓	✓
17	CoOperative Bank	×	×	✓	✓	✓
18	Coutts & Co	×	×	✓	×	×
19	Deutsche Bank	✓	×	×	×	×
20	Elavon	✓	×	×	×	×
21	Habib Bank Zurich	×	×	×	✓	×
22	HSBC Bank	✓	×	✓	×	×
23	HSBC UK Bank	✓	✓	✓	✓	✓
24	ING Bank	✓	×	×	×	×
25	ipagoo	×	✓	✓	×	×
26	JPMorgan Chase	✓	×	×	×	×
27	LCH Ltd	✓	×	×	×	×
28	Lloyds Bank	✓	✓	✓	✓	✓
29	Metro Bank	×	✓	×	×	×
30	Monzo	×	✓	×	×	×
31	Nationwide	×	✓	✓	✓	✓
32	NatWest	✓	✓	✓	✓	✓
33	Northern Bank/Danske	✓	✓	✓	✓	×
34	Northern Trust	✓	×	×	×	×
35	RBS	✓	×	✓	✓	✓
36	Santander UK	✓	✓	✓	✓	✓
37	Societe Generale	✓	×	×	×	×
38	Standard Chartered	✓	×	×	×	×
39	Starling Bank	×	✓	✓	×	×
40	State Street	✓	×	×	×	×
41	Svenska Handelsbk	✓	×	×	×	×
42	Transferwise	×	✓	×	×	×
43	Turkish Bank UK	×	✓	✓	✓	×
44	TSB	×	×	✓	✓	×
46	UBS	✓	×	×	×	×
47	Virgin Money	✓	×	✓	✓	×
	Totals	32	19	22	17	11

See Notes overleaf.

Notes:

- These are the direct participants, or members, or settlement members, as per each scheme's website;
- eBury is excluded because it is known to be a non-settling participant in Faster Payments;
- HSBC and Barclays quote two banks due to ringfencing. Where they are separately identified as members on the respective website, both are quoted as members. Where there is only one name, we have indicated that only the UK bank is a member;
- RBS is not quoted as a Faster Payments member; presumably it acts through NatWest;
- Many of the CHAPS members are the London branch of the foreign bank in question;
- These figures are out of a universe of PSPs in the UK of about 1,590:
    - 440 Credit Institutions;
    - 400 eMoney Institutions and Authorised Payment Institutions;
    - 750 Small Payment Institutions.

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