Market review into the ownership and competitiveness of infrastructure provision – Interim Report

Consultation Responses

April 2016

Contents

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20 April 2016

PSR MR15/2.2 /SGH/160420

Bacs Infrastructure market review response

Introduction

Bacs are pleased to respond to the Payment Systems Regulator's (PSR) interim report 'Market Review into the ownership and competitiveness of infrastructure provision' (MR15/2.2).

In our response, we have provided our comments without using the suggested consultation questions so that we can provide full and clear responses to the specific review remedies. We provide substantive comments on three of the four draft remedies. On the fourth remedy: 'Measures to separate common ownership of the functions of LINK form VocaLink and implement industry-led governance changes', we support the Regulator's approach to look for consistency between the relationships between regulated service operators and bring the ownership of LINK into line with the other PSOs designated by the PSR.

To summarise our responses to the draft remedies we have commented on:

- In a competitive market for infrastructure supply and where there is a clear reason to do so, we believe that PSOs should undertake competitive procurement exercises. In our response we summarise our contract renegotiations with VocaLink for infrastructure in 2014 which were done commercially and enabled enhanced opportunities for competitive tendering in the future. To provide background we have also offered some comments on the sequence of events in 2014 that led to the agreement we made with VocaLink.

- Adoption of a common messaging standard is a major part of our strategy and in our response we comment on the potential opportunities for interoperability that a common messaging service may offer. Within our response we have summarised our already-established approach to adopting ISO20022 and highlight some of the challenges to users of Bacs payment products that would need to be overcome with a full transition to a single messaging standard. We also comment that there should be strong alignment between the Payment Strategy Forum's Simplifying Access Working Group and the work that PSR is completing for its infrastructure Market Review.

- We acknowledge the regulatory desire to divest PSP interest in VocaLink and we comment in our response that any significant recommended change needs to be critically assessed and underpinned with appropriate evidence so that change does not bring unintended consequences to the UK payments industry or its users.

Overall, our view is that the next step would be to conduct full and comprehensive evaluation and analysis to support the infrastructure draft remedies. Full economic analysis would provide a level of analytical rigour that would benefit the proposals and the next stages of the work as it would provide reassurance that the draft remedies do not inadvertently negatively impact on the payments industry and end-users in the UK. Economic analysis would also provide the industry with an effective benchmark to judge any recommended change proposals.

Finally, in the Market Review the PSR also invites comments on whether the current gateway accreditation process for Bacstel-IP prevents other providers from entering the market. The Regulator states that their provisional finding is that competition in the provision of gateway services and solutions is effective however it is not clear if there is a lack of transparency on the costs of accreditation for Bacstel- IP. We are unaware of any issue in this area however; as with all the proposals, we would be delighted to work with the Regulator to identify any deficiencies and potential solutions, should any be required.

Bacs comments and responses to MR 15/2.2 Infrastructure Review Remedies

Competitive procurement exercises are undertaken before current contracts for central infrastructure services come up for renewal, or at the next break clause in a contract.

We agree that PSOs should undertake competitive procurement exercises for infrastructure services where there is clearly evidence to support that there are a number of competitors in the market who could deliver the service specifications that PSOs require. Bacs, in its most recent contract negotiations in 2014 specifically and explicitly agreed enhanced contract terms that would enable us to interrogate the market more effectively when our existing contract is up for renewal, [✂] and did not dilute or cede any existing provisions in our contract.

The Lipis Review highlights the current world-leading rich range and depth of payments services in the UK and makes a number of observations about the limited range of evidence of competitive tendering activities in other countries. We agree that competitive tendering for core infrastructure services in payments could lead to downward pressure on prices. However, as a systemically important payment system, cost is not the only or the most important factor to consider when securing infrastructure services. All PSOs need to ensure that the payment infrastructure provides faultless end to end integrity and security assurances and it is imperative that systemic payment systems consider these critically important factors during tendering exercises.

The Market Review makes note of the current overall satisfaction with the UK payment system from all quarters and it will be important to make sure the integrity of the payments system is protected and the risks and costs of any contractual change in infrastructure supply are identified, planned for and mitigated strategically.

In 2014 we applied clear strategic objectives to our procurement exercise with VocaLink to ensure both certainty of supply and to deliver readiness for change. We negotiated commercially with VocaLink ensuring we invested the commensurate time to ensure the final agreement was the best we could achieve for our customers then and for the future. We believe that the improved contract terms that we commercially negotiated enabled us to achieve our objectives and put in place a contract that would help us to more easily switch provider if we chose to do so at a future point.

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Our procurement approach will enable Bacs to interrogate the market effectively and help us become aware of any potential barriers to participation.

In the evidence we provided to the Regulator during its Market Review information gathering we explained that Bacs did not tender for infrastructure supply in 2014 but instead completed commercial contract negotiation with VocaLink. Despite challenging timelines and prior to undertaking the negotiations part of our approach in 2014 was to review the market place and this satisfied us that that there was no other supplier in the market who would be able to supply the rich functionality we required to continue to deliver the certainty of supply of our wide range of payments products. During our contracting programme in 2014 we noted that other existing providers (such as those operating in SEPA) offered a leaner set of services and operated on different messaging standards to the proprietary Standard 18 messaging standard format used in Bacs. We concluded that these alternative suppliers would not be capable of delivering the functionality we required at that point.

This position is supported in the Lipis report which corroborates our market analysis. Lipis also comments that where other countries have opened competitive tendering processes the incumbent always wins the bid among the systems in scope. The Lipis report also confirms that the UK's outsourced payment systems are typical across the globe in this sense.

We challenge the statement made that in the conclusions that Bacs and other PSOs lack an incentive to hold competitive procurement exercises due to our not-for-profit status. As with all other not-for-profit organisations Bacs has a clear responsibility to its Board to ensure that all our service users receive best value for money, based upon the systemically important payment system obligations that we are responsible for. FMI's must demonstrate that their operations are co-complementary to the system stability requirements and the CPMI-ISOCO principles that all PSOs must adhere to. It is the PSOs that drive innovation at the core of the UK payment systems whilst Infrastructure suppliers deliver the technological solutions and enablers. Bacs takes great care to ensure that the contracts we negotiate with our service suppliers reflect our regulatory and stability responsibilities and deliver innovation that delivers enhanced services to users and provide best value for money.

Finally the consultation asks for comments on whether PSOs should conduct their own procurement. Our view is that as the primary role of PSOs are to operate systemically important payment systems and are responsible for mitigating the systemic risks involved in their operation. PSOs are the only entities who should be responsible for procurement and for ensuring that the process they elect to use stands up to external scrutiny that it might be subject to so the interests of all users are considered.

Enhanced interoperability, including a common international message standard, for FPS Bacs and LINK

Bacs has a clear strategy regarding messaging formats. As part of our business strategy and as an established policy, we are committed to using ISO20022 for all 'greenfield' technical developments that we may develop. For example, when there was an opportunity during the introduction the Current Account Switch Service (CASS) and the Cash ISA Transfer Service, we adopted the ISO20022 standard.

We therefore are happy to confirm that we adopt ISO20022 whenever there is an appropriate trigger for change.
Bacs uses its proprietary ‘Standard 18’ for its two major products: Bacs Direct Credit and Direct Debit. Standard 18 is by no means a sub optimum standard; it is flexible and provides a rich messaging system that meets current PSO and PSP needs. Bacs regularly seeks and obtains positive feedback from end-users on whether Standard 18 is an inhibitor to delivery or development of services. Indeed, the use of Direct Debit is increasing as more people and businesses sign up to use it. For example, in the twelve months ending November 2015 we achieved 6% volume and 4% value growth.

Use of Bacs products (Bacs Direct Credit and Direct Debit) is ubiquitous across the UK economy; almost everyone’s salary, pension and welfare payment is paid by Bacs Direct Credit and virtually all electronic utility and other regularly paid payments utilise Direct Debit. Around six billion annual payments originate from over 130,000 Bacs service users ranging from small and micro businesses to multi-national companies. Therefore, a change in messaging standards would need to be scoped appropriately so that it could meet the established requirements of the end-to-end value chain in payments and be justified in terms of the complexity and costs required. We agree that it is the responsibility of the industry to develop a strategy for messaging standards that is flexible enough to anticipate future needs and expectations while ensuring stability for the UK economy.

It is worth highlighting that care should also be taken to note the differences between separate payment operations and how this leads to subtly different uses for ISO20022. Therefore, we agree with the Payments Strategy Forum Simplifying Access Working Group that there should initially be a focus on standards mapping. As part of this work we would in addition need assurances that the integrity of Bacs payments messages, for example, the chain of trust and the non-repudiation agreements would be maintained.

We also believe that there is a question to tackle with regards to timing for any change; any adoption would need to be handled carefully to plan migration and the costs to end to end users. A business proposal for change should also include an implementation timetable and an examination on how any change could be phased in, and assuming that a ‘big bang’ approach would not be feasible, owing to the complex challenges to the wide range of Bacs service customers that migration to a different standard would bring. Timing of change could also provide opportunities to provide a climate for innovations.

We note that the Payments Strategy Forum Simplifying Access Working Group is already leading on work to consider the future for payments messaging standards and we suggest that this might include an initial scoping exercise to identify what part of the end to end payments value chain would be optimum for a migration to a revised standard. The Forum working group would also seem to be the best place to understand the business case for change and the role translation software might play in the mapping of messaging standards, either as an interim measure or as a more flexible long term permanent solution.

The Market Review also suggests that there should be an independent standards body for the payments industry and this desire is also reflected in the Forum’s work. While we can see some attractions for a standards body we would like greater clarity on perceived benefits. Specifically, we would like to understand the role of an independent body and the added value it would provide over and above that already delivered by the PSOs, specifically how the proposed body would work with PSOs to engage and deliver change.

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An independent body would require its own infrastructure and constitution and we would also be interested to understand what the proposed funding model for such a body would be. Our view is if an independent standards body is pursued we believe that it should operate as a truly independent body and not as part of a representative organisation to ensure that its independence is not compromised.

Divestment by shareholder PSPs of their interest in VocaLink.

We acknowledge the Regulator's desire to stimulate dynamism in the market for infrastructure supply by divesting by shareholder PSP's of their interest in VocaLink. We note that the Lipis Report highlights the high level of service provided in the UK and, as a user of infrastructure provided by VocaLink we would expect these standards to be maintained.

The Regulator must ensure that there are no unintended consequences for users of VocaLink services, or the end to end payment chain and the security and integrity of the United Kingdom's payment systems is retained. New owners would need to continue to deliver technical requirements, including compliance with relevant legislation, including the new arrangements for safe harbour and interoperability in addition to adhering to the full scope of the current contractual obligations and the range of current provision.

We would expect VocaLink's new governance model to be appropriate, proportionate and representative of the shareholders in the post-disinvestment environment and do not add risk to systemic payment operators. This would extend to the governance arrangements for any specific user forums, operational governance committees or other arrangements involving non-shareholders, as this might defeat the disinvestment objective.

Yours sincerely,

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Faster Payments Scheme Limited Response to PSR Questions
Remedy 1: Competitive procurement processes

Question 1:	Would this remedy be effective in addressing the problems we have identified?	1.1.1 FPSL has always been clear that there would be a competitive procurement process at the end of the current contract with VocaLink which it would of course conduct in a robust, transparent, way, which is independent of potential or current suppliers, their shareholders, and not disproportionately influenced by any particular PSP or service user interest group. However, FPSL notes that the Lipis report suggests that in the limited cases when this approach has been used world-wide, there has been no replacement of an incumbent supplier. This reinforces that this is a complex and challenging task. 1.1.2 As a systemically important payment system, regulated and tightly directed by the Bank of England (via annual Priorities and Observations) to deliver compliance with the CPMI IOSCO principles for financial markets infrastructures, there is no evidence that FPSL places a disproportionate weight on avoiding risk and maintaining financial stability. 1.1.3 In FPSL's view it would be inconsistent with the stated objectives of this remedy if it unnecessarily tied the hands of the operator by being overly prescriptive, for example requiring early break clauses to be exercised if FPSL decided that a more considered approach would allow for the development of initiatives that would enable greater success (such as the separation of connectivity from central infrastructure provision), or deliver better value, and not put at risk other more directly pro-competition changes such as the successful introduction of FPSL's New Access Model and the introduction of many more direct participants. 1.1.4 As a regulated Financial Markets Infrastructure (FMI), acting in the public interest, which will have long term responsibility for the operation of the ultimate contract and delivering against the CPIM IOSCO principles for FMIs, FPSL cannot see any other body that would be in a position to execute this procurement other than FPSL, albeit supported by any expert procurement resources it would choose to bring in for the purpose. There is no evidence that FPSL places a disproportionate weight on avoiding risk and maintaining financial stability.

		1.1.5 FPSL's not-for-profit status does not in any way undermine our interest in innovation and good value. As can be evidenced by the approaches FPSL have taken in recent tenders under the Access programme, and our formal engagement of KPMG to undertake fair value analysis of our re-contract with VocaLink and specific negotiations for significant changes over the last three years (ASPM, SHA256 etc) 1.1.6 The report asserts that *operators lack an incentive to innovate or shop around for more innovative services.* No evidence is provided to support this point which seems at odds with FPSL projects for Paym, Automated Scheme Protection Measures, Scheme limit increase, Settlement prefunding, SHA migration and the current FPSL work on Payment Request as well as the extensive and world leading change being driven through the New Access Model and technical aggregation services which the PSR comments on very positively in the Indirect Access Market Review. All these projects demonstrate FPSL's desire to innovate, not just in new services, but often in order to improve the stability, reliability and eco-system wide costs of our service for end customers. In particular, our approach to our New Access Model has demonstrated the company's desire for competitive market based solutions wherever possible (through the multiple aggregator model), and the power of competitive procurement for technical accreditation services and PKI services which the company will be providing to meet the needs of aggregators and new PSP participants. 1.1.7 FPSL's members have never declined to change infrastructure. In 2006/7 the initial contract for design, build and operation of the FPS technology infrastructure was awarded to VocaLink following a full competitive tender – this contrasts with the norm globally where even these initial awards of infrastructure contracts are rarely placed on the basis of competitive tender (source: Lipis Review 2016 for PSR). The 2013/14 re-contracting was a principled, practical and transparent decision of the FPSL board overseen by a number of entirely independent directors, albeit partially constrained by the reasonable and transparent strategic objectives placed upon FPSL by The Payments Council, as part of its industry-wide roadmap project. 1.1.8 The Payments Council Roadmap project sought to identify a strategic direction for the industry infrastructures and while it undertook its work was seeking to align contract end points of the PSOs then under its remit to allow for a potentially coordinated future migration to a new end

		state, once it had identified that end state. FPSL was subject to a relationship agreement with Payments Council (terminated in 2014) that reserved the ultimate decision on infrastructure outsourcing to the Payments Council. Ultimately the roadmap project did not complete and was succeeded by the Payments Council/Payments UK World Class Payments project. 1.1.9 Concurrently with this, FPSL was implementing major changes at the heart of the Faster Payments system to allow for real time redirection of payments in the Faster Payments system that were related to accounts involved in a Current Account Switch. This capability was put in place to ensure that consumers switching current account could do so in the knowledge that any payments directed to their old account would automatically and instantly be redirected to their new account. The implementation of these major changes required significant FPSL resource and moved the baseline specification for the Faster Payments system. Given these time constraints, and the fact that the Payment Council's (PC) Roadmap required FPSL to contract for infrastructure to expire in line with PC's Roadmap in 2018/2020, it would not have been helpful or beneficial to FPSL or its service users (in its widest sense) to conduct an open tender; no resilient, secure, value for money and innovative deal could have been struck with a new provider, given the challenges of transition, and the limited period of the new contract that could be agreed. Payments Council (and FPSL) wished to ensure security of supply until at least 2020, and to have the option to move supply from as early as 2018 if a target architecture had been developed by this time. 1.1.10 The extensive benchmarking process FPSL went through as part of retendering ensured that the terms of the new Contract would not result in excessive profit taking by VocaLink. Given this analysis and the limited contract length imposed upon us by The Payments Council roadmap requirements, FPSL were absolutely confident that the overall cost to the eco-system vs, change, and therefore to service users, was minimised. 1.1.11 It is critical to be mindful of the complexity within the commercial and strategic space for this infrastructure. A PSO (provided its independence can be assured) is best placed to judge a competitive procurement exercise in the overall public interest because it has the deepest knowledge and expertise and should be given the time and space to explore and develop approaches that can maximise the potential benefits of competition (e.g. prior separation of

		connectivity/communications services, exploration of transition models with potential vendors), while minimising risk to the stable operation of the UK's financial system and by implication the economy. It is the PSO's job to ensure that the infrastructure supports the overall objectives and is hence the only organisation capable of running a full tender process. 1.1.12 Migrating a large scale batch ACH let alone a real time 24 x 7 payment system from one infrastructure to another, seamlessly, has never been done. It is almost certain that an extensive period of parallel running would be required before the operational and financial stability and integrity of a new system could be confirmed. This parallel running in itself adds significant industry-wide cost, especially in participants, and also introduces new operational risks. All of these considerations need careful thought and time to work through to result in a safe, secure and beneficial transfer. 1.1.13 The Lipis report for the PSR (2016) states that within the scope of their global analysis there are no cases where the provider has been changed for a legacy system, even when a competitive tender has been undertaken. This reinforces that achieving the cost and innovation effect normally promised by competitive tendering will be challenging, and certainly not a process to be rushed which could be the case if FPSL was required to tender earlier than previously intended. The consequences of such a rush would be clear – retention of the existing vendor, a lost opportunity to achieve real change, and more cost to the payment system and its users for no benefit.
Question 2:	What are the relevant potential costs and benefits that we should consider?	1.2.1 In FPSL's view, the business change costs need to be considered at a UK Plc level. It should not just consider the central infrastructure but should also consider the full ecosystem cost basis including the benefits for both PSPs and service users both large and small. 1.2.2 If the PSR decide to set a regulatory direction, this should not compromise FPSL's commercial freedoms and levers to extract the best value for service users in existing contracts. FPSL is best placed to undertake a competitive procurement exercise for the following reasons: • FPSL <u>is</u> appropriately incentivised to capture innovation and cost efficiency from tendering,

		• and has a broader view of the interconnected issues that might impact optimal timing and approach. Our Independent Non-Executive Directors input into, and can veto, our strategy to both ensure objectivity and that we act in the public interest. • as a world leading PSO, FPSL has the expertise and knowledge to determine what it and its service users need and will need, and what is and could be available, and that a formal Request For Information process is not the only, or necessarily appropriate, way of building this insight • the PSO is in a better position than any other party to run an effective competitive tender and that the PSO <u>must</u> consider the <u>eco-system wide</u> business case for change and broader impact on competition, e.g. through short or medium term impacts on access to payment systems. Subject to resolution of concerns about large bank influence over PSOs, the selection process is already fully independent and does not require further independent audit. 1.2.3 The PSR reports in point 4.43 that one direct PSP stated that VocaLink's prices for central infrastructure services were higher than prices for its other products and services where VocaLink faced more competition. While the direct PSP may consider this to be true, given that the services are not comparable, FPSL considers this is an irrelevant point to make because this is not based on true comparatives in terms of service, quality, cost etc. and cannot thus be fact based.
Question 3:	Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	1.3.1 At the heart of a competitive procurement process is the procurer having more freedom to manoeuvre than the tenderers. The process needs to be designed in a structured way that the procurer is in a position to exercise appropriate commercial freedom to deliver the appropriate answer. By removing the freedom of timing away from the PSOs by requiring exercise of the earliest break clause reduces the ability of the PSO to exercise influence and may unnecessarily constrain the procurement process. FPSL recognises the desired outcome, but consideration must be given to the PSO to have the freedom to manoeuvre in order to secure the best results for service users.

		1.3.2 The PSR notes in point 4.32 that it is not common in other countries to hold competitive re-procurement exercises. The report refers to the Lipis report finding that out of 12 countries, only one held competitive re-procurement exercises. The PSR report does not mention that even under those circumstances, the contracts were re-awarded to the incumbent infrastructure provider not to a new challenger. The reasons why no other country has ever replaced an incumbent infrastructure provider need fuller analysis – either every country has the same alleged anti-competitive incentives not to change, or there are real factors around the eco-system wide costs and risks of change that need to be more fully explored. FPSL recommends that these issues, as demonstrated by broad international experience, need to be much more fully considered, and mitigating actions taken (like decoupling of connectivity from central infrastructure) if the UK is not to simply replay the Japanese experience, and fail to introduce new innovative suppliers in competition for the market. 1.3.3 FPSL disagrees with point 4.80 of the report that *more competition can deliver benefits of higher service quality.* The areas identified in the report are as a result of deliberate decisions by FPSL. The PSR also acknowledge that *given the current high level of service, the benefits of higher service quality may be marginal.* From launch in 2008 to date, the FPS core central infrastructure has always been available to meet the needs of service users. It has had no downtime planned or otherwise. This demonstrates VocaLink's commitment in delivering on service quality against the contract and this is entirely consistent to their end-user focused attention to the quality of what they provide to FPSL as an operator. 1.3.4 The report refers to a direct PSP stating that in the recent Future Clearing Model procurement for cheques, VocaLink was not as competitive as other bidders (4.45). This raises a challenge for such procurement processes, namely it is not possible to determine whether the procurement has been effective until the service or development has actually been delivered successfully. It is only appropriate on implementation to look back at actual costs and ongoing costs to determine if best value was selected – it's not just cost but delivery of service quality and delivery to time that count in the final analysis. The FCM project is not yet delivered; therefore it would be premature to take it as a compelling benchmark.

		1.3.5 There may be a gap in the PSR's analysis of the benefits that can be achieved from competitive procurement concerning change requests, which per force are unknown at the point of procurement (4.55). The best a PSO can hope to achieve is to lock in an appropriate daily rate (based upon IT industry benchmarks), and appropriate inflator, and then review in detail the number of days proposed by The Central Infrastructure supplier for each piece of work. 1.3.6 The report states that operators have not carried out a comparison of VocaLink's pricing on change requests with alternate providers. If such a change could be undertaken by an alternate provider, e.g. providing a new PKI solution, or technical accreditation service, then this would be submitted to competitive tender (as we have done under all possible situations), if it cannot, because it is an integrated change to the core service, then it will be impossible to get a proposal for this change from a third party. FPSL has competitively tendered a number of elements (PKI provision, Accreditation software provision) and encouraged the development of a competitive aggregator market. The full benchmarking of daily rates and appropriate inflators was conducted by FPSL's consultants as part of the re-contracting exercise. The number of days for individual change requests continues to be the subject of in-depth review and validation by FPSL's technical and management teams for any Change Request agreed and there are examples of when this process has resulted in a material reduction in the cost. For more information on this process, please refer to the detail in our original information FPSL provided last year. 1.3.7 FPSL has, wherever possible, looked to facilitate market-driven competitive solutions. We look to always ensure that the scope of the Central Infrastructure is kept to an absolute minimum. This is at the heart of our New Access Model, and contrasts with other parties who had strongly suggested the development of a single access gateway. FPSL instead encouraged a number of FinTechs to develop propositions that has created a highly competitive, innovative market to support the aspirations of PSPs. In many respects this was the equivalent of a competitive procurement exercise and we expect it to result in greater innovation, extended services and beneficial pricing for the benefit of service users.

Faster Payments Scheme Limited Response to PSR Questions

Question 4:	Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?	1.4.1 The report states in point 4.33 that the experience for FPS, Australia, Singapore and Cheque Imaging shows that it is possible to run a competitive procurement exercise for core services. This is true, but not the issue – As stated amongst the examples in the report, FPS awarded its initial build-and-operate contract via such a process. Competitive procurement for <u>new</u> systems is not only possible, but highly desirable. The relevant issue is, *'is it possible to change infrastructure supplier for a <u>live</u> system using competitive tendering or otherwise*'. These quoted examples are for green-field deployments only, however this section implies that these examples demonstrate that changing supplier for a live system is possible. In FPSL's view this is not a logical conclusion of the points at the start of this section and not supported by the previous section as per point 4.32 of the report. FPSL considers there to be no evidence in the report or elsewhere of this happening, let alone for a large scale, 24/7, real time platform of systemic importance to the UK economy. This does not mean it is impossible, merely unproven. 1.4.2 FPSL sees re-procurement as an opportunity to market-test the availability of a broader set of capabilities, ensure the ability to maintain up to date technology, develop additional services and enhance security. We do not see "lower cost" as necessarily the overriding driver of this re-procurement.
Question 5:	What implementation issues do we need to consider, including (but not limited to): Are the operators best placed to undertake the procurement exercise? The timing of the proposed	1.5.1 As explained in question one and three above, FPSL has the necessary knowledge and experience to undertake the re-procurement work. Indeed this knowledge and experience is fundamental to our Purpose. We have detailed the transitional timing, setting out reasons why FPSL is best placed to undertake a competitive procurement exercise for its contracted infrastructure service. Significant benefit is gained in coordinating these approaches in a way that allows the restructuring of the service to separate the connectivity and central infrastructure suppliers. 1.5.2 FPSL's view is that real time FP capability is likely to be at the centre of any future architecture, therefore it would be appropriate to migrate to a second generation, higher capacity, real-time 24 x 7 capability first then allow services that could overlay, for example direct debits, cheques and corporate direct submission, if required, to be developed. FPS already delivers the bulk of

	procurement exercises. Would there be benefits and/or detriments if these processes were coordinated?	Standing Order Payments today. These were migrated from the Bacs platform in 2011. 1.5.3 A critical component (of the eco-system wide business case) for changing infrastructure supplier will be the costs of transition, in the centre, but more materially, for participant PSPs and aggregators. In point 4.135, the report asserts that a competitive procurement exercise would provide PSPs with this information. This suggests a misunderstanding of the purpose, scope and function of such procurement exercises. While the process might provide some insight into possible transition approaches and costs from a central supplier perspective, the broader eco-system transition approaches would have to be developed in coordination with all PSPs by the Operator.

Remedy 2: Interoperability – A common international messaging standard adopted for Bacs, FPS and LINK.

Question 1:	Would this remedy be effective in addressing the problems we have identified?	2.1.1 In FPSL's view, the report does not clearly evidence what specific problem the PSR is attempting to resolve by dropping ISO 8583 support from the next FPS tender and replacing it with ISO 20022. FPS already operates on a simple derivative of the most common payments messaging standard in the world, ISO 8583. It is based upon the most common international payments standard used globally, ISO 8583 and is not a barrier to entry for new infrastructure providers into the UK market. 2.1.2 ISO 8583 was developed in the cards space and supports the synchronous highly choreographed, near real time payments propositions at the heart of Faster Payments and centrally important to the end customers, giving them real-time certainty that their payments have been successfully delivered. 2.1.3 FPSL does not agree that complete migration to a Real Time version of ISO 20022 at the next re-procurement is required to ensure a wide variety of credible and potentially successful bidders for the next contract.

		2.1.4 FPSL does agree that there are significant long term benefits from ensuring that the next infrastructure fully supports the emerging Real Time ISO 20022 standard. ISO 20022 standard in live SEPA operation is not currently architected for Real-Time, synchronous processing, but is being developed to do so. Providing backward support for ISO 8583 to underpin PSP migration is an important requirement if a transition is to be safely enabled and the interests of service users are to be protected. Additionally, for clarity, even in this mixed environment, provided that there is support in PSP's own systems, the FPS ISO 8583 messaging standard already fully supports the enhanced data carrying capacity in SEPA ISO 20022, and has done so from launch in 2008. 2.1.5 An immediate move to just an ISO 20022 standard may impose significant costs on PSPs and other participants. Furthermore, it is not clear that this will be the only standard required. In the future, distributed ledger technology may play a part in the payments infrastructure and these standards are yet to be developed. 2.1.6 Multiple FPS aggregation vendors, operating on single £ million contracts with new PSPs have been willing and able to support our existing international standard as they have built their aggregation services into FPS. FPSL held conversations with credible vendors subsequent to the publication of the interim review who have confirmed there comfort in providing backward support for ISO 8583 as part of a future tender. A move towards a common standard requires reasonable time to assess the impact on the wider payment chain and the cost that will be incurred by PSPs and other service users. The aggregation vendors, through their translation services, insulate PSPs from concerns regarding specific PSO formatting requirements.
Question 2:	What are the relevant potential costs and benefits that we should consider?	2.2.1 The relevant costs and benefits have been discussed in remedy one, question two and three. 2.2.2 FPSL can see other benefits of moving to a version of ISO 20022 in the next tender, provided support of ISO 8583 is also included to meet the needs of service users and minimise transition risk. Additionally, SEPA ISO 20022 would need to be upgraded to the emerging RealTime ISO 20022 standard to meet FPSL's requirements for real-time, synchronous processing and in order to continue to meet the needs of the UK service users. The PSR should acknowledge that, there is no real evidence that backward support for ISO 8583 actually restricts competition for

		the market. 2.2.3 FPSL agrees with the PSR's comments in 4.133 that *message translation software could reduce the cost of switching providers for PSPs.* However, if as FPSL do, the PSR considers that it is cost effective approach for a PSP, then it should be equally, if not more, cost effective when applied to a potential new infrastructure vendor, undermining the argument that support, of FPSL's ISO 8583 standard, potentially in parallel with a new real time version of ISO 20022 is a barrier to new infrastructure vendors competing against VocaLink in the next competitive procurement exercises. 2.2.4 Points 4.163 and 4.166 of the report discuss the costs of message translation software making a potential competitor less competitive do not seem to align with the comments in 4.133. Both the incumbent and challenger suppliers would have to support both ISO 8583 and a new real time ISO 20022 standard. The incumbent would need to develop 20022 and the challenger would need to add in an essentially off-the-shelf translator between ISO 8583 and ISO 20022. The full two way mapping for FPS messages from ISO 8583 to ISO 20022 and ISO 20022 back to ISO 8583 was published on the FPSL website yesterday, 20th April.
Question 3:	Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	2.3.1 FPSL considers this remedy would give rise to unintended consequences as described in remedy two, questions two. In FPSL's view, the PSR should publically recognise that a real barrier to competition may exist in PSP connectivity which is currently bundled individually in with each Central Infrastructure supplier, or indeed system. 2.3.2 It is critical that any new owner does not introduce a different but potentially anti-competitive conflict of interest for example by operating in future competition with FPS in another layer in the payments value-chain.
Question 4:	Is there an alternative remedy that would be equally effective but that would be less costly and/or	2.4.1 FPSL proposes a **new remedy**. The new remedy would support relevant PSOs to lead a coordinated multi-PSO led solution to separate the provision of connectivity, as a minimum, from Central Infrastructure supply, replacing it with a competitive layer of multiple connectivity suppliers that would allow each PSP to connect physically to all relevant central infrastructures

	intrusive?	though a single connection. This should include: • Direction to VocaLink and other relevant infrastructure suppliers (e.g. CGI for cheque imaging) to cooperate fully with this structural change, including making available cost based transitionary arrangements if need be • Create competitive and easy to attach to multi-telecoms supplier connectivity layer that allows for a single PSP connection to all current and future systems (based upon each PSP choosing one or more suppliers from two or three competing telecoms suppliers) and fair and equitable assured connection for current and new central services to all telecoms suppliers. 2.4.2 This could and should cover all PSR regulated PSOs, not just Interbank. This position is further supported by comments in section 4.109 that describe how the lack of established connectivity to LINK participants might act as a barrier to new supplier entry. This is reinforced in the PSR comments in points 4.125 and 4.126. The proposed approach makes it simpler for other PSPs to join FPS and is less costly. 2.4.3 While the creation of a competitive connectivity layer would certainly help reduce switching barriers, the very optimistic and rather simplistic suggestions in 4.129 and 4.131 of the report do not reflect complications beyond connectivity, for example Settlement switching in a real time 24 x 7 system like FPS. 2.4.4 In the change to Prefunded Settlement delivered by FPSL in 2015, no changes to the central infrastructure were required at all. But, even under these circumstances a very significant project had to be established by FPSL across all direct PSPs and the Bank of England RTGS system to ensure that the change could be achieved without any risks to the integrity of settlement.
Question 5:	What implementation issues do we need to consider (including the length of a	2.5.1. FPSL has just completed the process of mapping ISO 8583 to ISO 20022 which is an important precursor to transition. As stated in remedy two, bullet point 2.1.6, FPSL has held conversations with participants and aggregators, and will continue to engage with its stakeholders on an

	transition period)?	ongoing basis. 2.5.2. FPSL would need to engage and consult with its stakeholders to understand what the transitional period means for each PSP individually against their competing priorities. This process should also help to identify the implementation issues each would face.
Question 6:	Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?	2.6.1 The Rules and Procedures for the Faster Payments Service are relatively new, and are regularly reviewed for their suitability and appropriateness. 2.6.2 The rules have negligible impact on the infrastructure vendor, and the procedures have very limited technical impact, although they do impose operational requirements on the outsourced technology provider needed to deliver the end-customer proposition, effective coordination between PSPs and the necessary operational risk management for a piece of critical national infrastructure. Other geographies embarking on the development and deployment of their own real time 24 x 7 services will be building their own rules and procedures and FPSL continues to discuss with them. There are no other comparable large scale operations in deployment at the moment, and in fact any credible vendor would be delighted to learn what it takes to support such a service ahead of the build phases in the US and Europe. They are not a barrier to infrastructure vendor entry.

Remedy 3: Ownership of VocaLink – potential divestment by banks of their interest in VocaLink

Question 1:	Would this remedy be effective in addressing the problems we have identified?	3.1.1 While changing ownership of VocaLink might deliver this remedy, a more effective remedy is to consider whether the PSO is independent of any suppliers or the supplier's owners. FPSL wants a market that offers a range of competent, secure providers who can support our business. What is important is that FPSL, as the procurer, is able to operate independently even when tendering for central infrastructure. The divestment of VocaLink bank shareholders may support this but may not be the strongest influencer.

		3.1.2 As detailed in point 1.1.7, the PSR must be aware that any new owner does not introduce a different but potentially more destructive long term conflict-of-interest. The divestment brings the possibility of significantly improving the scale and expertise of VocaLink as part of a larger international technology group. But, divestment of VocaLink by its bank shareholders does not fully address the detriment. The PSR state, that competition and innovation is also impacted by ownership or control of PSOs, such as FPSL, by large banks. 3.1.3 FPSL recognises there are some benefits in the owners of infrastructure having an interest in the safe and secure operation of the system. Whether through participant shareholding or more normally through a commercial desire to maintain their reputation as a supplier of critical national infrastructure.
Question 2:	What are the relevant potential costs and benefits that we should consider?	3.2.1 Despite any change of ownership, VocaLink is still expected to deliver the services it has agreed to contract out with the PSO. At one level this allows the PSO and, ultimately Participants to be insulated against change. VocaLink shareholders, as investors in VocaLink may be impacted; however we consider this to be outside the costs and is not relevant to this view/remedy. The benefits of this may mean VocaLink is a better supplier to FPSL because it holds a higher degree of expertise and knowledge from the change of ownership. FPSL would welcome this.
Question 3:	Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	3.3.1 If FPSL felt that the new owner of VocaLink failed to meet its supplier criteria and introduced an immediate risk to the operation of the service, FPSL would have to exercise its Change of Control rights. However, even if there were no concerns, regarding the safe operation, if a new owner introduced a significant conflict of interest, then it is possible that VocaLink, under its new ownership would fail to qualify as a long term tenderer without the introduction of some significant safeguards to assure pro-competitive behaviour in the broader market.
Question 4:	Is there an alternative remedy that would be equally effective but would	3.4.1 Any remedy the PSR proposes needs to confirm, unambiguously, FPSL as the customer in the infrastructure supply market, ultimately responsible for the services it delivers directly to its PSP

	be less costly and/or intrusive?	participants, and indirectly through those PSPs to all service users. 3.4.2 In section 6.70 of the report, the PSR seems to misunderstand FPSL's governance in suggesting the five largest PSPs have control (as defined in the Enterprise Act 2002) over FPSL's strategy and decision-making. If the regulator misunderstands this situation, this could suggest a need for a more significant change to FPSL's governance where the true independence of FPSL from its PSP users can be seen completely unambiguously. Throughout the report the PSR states multiple times that FPSL (as one of the PSOs) is controlled by the big five PSPs. This perception is something that FPSL is very aware of. In 2014 Our Independent Chairman led a governance review that resulted in a significant dilution of large PSP influence, and we are now conducting a further strategic review to ensure that our governance is appropriate to meet the Purpose and Objectives of FPSL as a PSO. In this work FPSL will seek to ensure that the perception of the "Big Bank influence" does not remain and this is an important principle underpinning the current development of our new governance model. 3.4.3 The speed of innovation in these network systems may well result from a disconnect between the legitimate private interests of participants, and the public good. This will therefore always require some direction and potentially compulsion from a regulator.
Question 5:	What implementation issues do we need to consider, including (but not limited to): (1) Who should be required to divest their shareholding? (2) Timing of the divestment	3.5.1 (1) (5) If the PSR's intent remains that there needs to be a change of ownership of VocaLink then FPSL's response is that all banks should divest their shareholding in VocaLink, otherwise there remains a natural incentive for them to maximise the value of their shareholdings, even if in the minority, by retaining current UK PSO customers. 3.5.2 (2) FPSL considers this should take place before re-tendering of PSO contracts. 3.5.3 (3) FPSL has included our proposed suitability criteria here [✂]. The criteria are currently going through our internal governance process.

	(3) What (if any) purchaser suitability criteria should be applied? – (4) What (if any) additional measures are required to ensure security and resilience? Shareholder needs to be backed and incentivised (5) Should the divestment be full or partial? -If partial, to what level should an individual PSP shareholding be reduced? -If partial, should the total shareholding held by PSPs	**Operational and Technical Capability** [✂] **Financial Position** [✂] **Business Culture, Incentives and Interests** [✂]

	also be limited? -(6) Should changes to Board composition also be stipulated?	3.5.4 (6) This should be defined by the new owner and should be consistent with corporate governance best practice.

Remedy 4: LINK

Question 1:	Would this remedy be effective in addressing the problems we have identified?	FPSL does not have any comments to add to this remedy.
Question 2:	What are the relevant potential costs and benefits that we should consider?	FPSL does not have any comments to add to this remedy.
Question 3:	Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	FPSL does not have any comments to add to this remedy.
Question 4:	Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?	FPSL does not have any comments to add to this remedy

Faster Payments Scheme Limited Response to PSR Questions

For the package of remedies as a whole

Question 1:	Would these remedies be effective in addressing the problems we have identified?	1. FPSL considers the package of remedies has to be considered holistically, and clearly linked back to the detriments that these remedies are designed to fix. The future competitive procurement of infrastructure is critical to the overall strategy of FPSL. Our concerns in this regard are not limited to just the direct cost of infrastructure and "who" owns the infrastructure, but "what" infrastructure we require and "how" we would migrate to it.
Question 2:	How effective would the package be if one or more of the remedies above were excluded?	2. FPSL has always said that it intends to competitively tender at the end of its contract with VocaLink therefore, remedy one is not required for FPSL to do so. We think the move to ISO 20022 will happen as discussed in our response above. FPSL also intends to support ISO 8583 and ISO 20022 at the next tender therefore there is no need to mandate this in remedy 2. FPSL considers remedy 3 may not be the most effective solution. FPSL is committed to ensuring that the perception of undue "Big Bank" influence does not remain and this is an important principle underpinning the current development of our new governance model.
Question 3:	Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?	3. FPSL's response is no. Other costs and benefits have been considered earlier in our response.

Faster Payments Scheme Limited Response to PSR Questions

Question 4:	Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?	4. FPSL has a concern that there may be unintended consequences by way of opportunity costs or "planning blight" that arise from any unnecessary regulatory constraint and/or an accelerated timescale. There is a risk that service user orientated developments are crowded out as a result.
Question 5:	Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?	5. FPSL's covering letter outlines our recommended approach.
Question 6:	What implementation issues do we need to consider (including timing)?	6. FPSL would suggest that both the timing and sequencing of remedies needs to consider the other regulatory and service user driven changes that are underway (FPSL Access Programme, FCM, Structural Reform), which may create logistical challenges to progress with all of these remedies if disruption to the important service user orientated programmes is to be avoided, both in the centre and in individual PSPs.

Gateways

Question 7	May the accreditation process for Bacstel-IP prevent other providers	FPSL has no comment as to the accreditation process for Bacstel-IP providers, where VocaLink perform accreditation on behalf of Bacs, other than to say that we see no current conflict of interest as VocaLink does not offer a Bacstel-IP software solution. FPSL did however conduct a competitive tender to source an independent provider of accreditation for FPS-based aggregator solutions, as we recognised the need

	from entering the market?	for an accreditation agent independent of VocaLink, as VocaLink would be competing in the aggregator space.

LINK Scheme Limited

To: The Payment Systems Regulator Infrastructure Review Response Team at infrastructurereview@psr.org.uk

From: Link Scheme Limited, on behalf of the LINK Scheme
21st April 2016

Dear Sirs,
LINK Response to Payment Systems Regulator - Review of Ownership and Competitiveness of Infrastructure Provision (PSR MR15/2.2)

LINK Scheme welcomes the proposed remedies set out in your Interim Report. We have made detailed comments and suggestions against each proposed remedy in this letter, which we hope will assist in constructive development of your proposals, particularly in the areas of Interoperability and VocaLink's ownership. For these two areas, we believe that a follow-up discussion would be useful to explain our analysis. We will contact Hannah Nixon's office directly to see if this is something that you would welcome.

LINK is also pleased to confirm that, since the publication of your Interim Report, the Scheme has implemented a number of the remedies, including a competitive procurement for infrastructure provision, and separation from VocaLink. We are, as you are aware, now engaged in a separate exercise with the Payment Systems Regulator to ensure that the details of how this has been achieved support your Objectives.

We look forward to continuing to work with you in developing these important remedies.
Yours faithfully,

[✂]

4 Greengate, Cardale Park, Beckwith Head Road, Harrogate, HG3 1GY
Telephone: 01423 356 297 | e-mail: linkinfo@link.co.uk www.link.co.uk

LINK Response to Payment Systems Regulator (PSR) - Review of Ownership and Competitiveness of Infrastructure Provision (PSR MR15/2.2)

Remedy 1: Competitive Procurement Exercises:

- LINK is pleased to confirm that the new contractual arrangement just agreed supports full contestability of the current supply contract. LINK believes that this meets the Payment Systems Regulator's Objectives, and is engaged in a separate exercise with the Regulator to allow it to assess and confirm this. LINK is committed to meeting the requirements of a fully contestable and competitive supply arrangement.
- In terms of the decision to re-compete at the next break point, LINK suggests that this is a decision best left to the Board of Link Scheme Limited and the Scheme's Members, in order to allow the Scheme to manage its competitive position, rather than have this mandated.
- LINK agrees that the Scheme's infrastructure procurement strategy needs careful development. We recommend that development of this infrastructure procurement strategy is part of the remit of Link Scheme Limited and the Scheme's Members. The detail of how this strategy development will work is part of the implementation of LINK's Independent Governance Review, and will be fully shared with the Regulator to ensure consistency with its Objectives, once in place. The infrastructure procurement strategy needs to address a number of issues, including how to reduce the costs of switching connection from an existing to a new supplier. This cost of switching connection is currently a barrier to a competitive procurement and this needs addressing.
- As Link Scheme Limited has an independent Board, it is well placed to develop the infrastructure procurement strategy and run the procurement for Members, with full transparency to the Regulator. LINK does not believe that this important responsibility can be safely delegated to a third party. The Operator and Scheme should be held directly accountable for demonstrating a competitive procurement strategy.
- LINK believes that, as a competitive scheme, the responsibility for LINK's competitive success lies with the Operator and the Members. This will ensure a level playing field with the other schemes with which LINK competes, including VISA and MasterCard. As the Payments Strategy Forum deals with collaborative matters and LINK is a competitive scheme, we assume that the Forum will not be involved in this procurement strategy. We are happy to share those element that are not commercially confidential with the Forum, if that would be useful to its broader work.

Remedy 2: Interoperability:

- LINK does have concerns with this remedy. This is because we are not clear that it addresses barriers to contestability for LINK. We also believe that, if implemented as suggested, it could potentially cause LINK to become less competitively attractive to Members versus VISA and MasterCard and risk LINK's competitive position.
- We are keen to work with the Payment Systems Regulator to explore its thinking further and to help refine the proposed remedy.
- LINK believes that, in terms of underlying issues that hinder competition, the high costs of switching connectivity is the important barrier to switching and not standards.

In terms of contestability of the VocaLink contract, connectivity is the issue that will be the primary focus of the LSL Board in this area, not standards.

- LINK is happy to work with the Payments Strategy Forum to help it explore this matter further, although as LINK is a competitive scheme it is important that the Operator's Board and Members are accountable for the development of the approach to standards and other infrastructure matters. This is the position with the schemes with which LINK competes such as VISA and MasterCard and ensures a level competitive playing field.
- Whilst we can see value in ISO20022 as a standard for interbank payment schemes, is not obviously a good solution for card schemes such as LINK (or VISA and MasterCard) that all work to variants of ISO8583 and operate on PANs and not account numbers/sort codes as BACS and FPS do.
- We would also be concerned that a mandated move of LINK alone to a common standard would set LINK at a disadvantage, as Members could elect not to change their LINK interfaces, and process instead via Visa/MasterCard.
- Moving all three card schemes to a common standard could also set LINK at a disadvantage as Members may elect to reduce costs and only change their Visa/MasterCard interfaces.
- Either way, there is a risk to LINK, as LINK could be deemed unattractive if the industry is faced with a significant cost of change in relation to card schemes.

Remedy 3: Ownership of VocaLink:

- LINK is pleased to report that it has put in place a contract that provides protection for the Scheme and its Members, even with a change of control. This proposal is therefore not a concern for LINK in relation to our current supply arrangements.
- However, we would be concerned about reduction in the competitiveness of our supplier marketplace for switching in the UK if VocaLink were to be taken over by an international card scheme such as VISA or MasterCard. Such a transaction would reduce the number of competitively available connected UK switch providers from 3 to 2. We have earlier explained our view that connectivity, rather than lack of common standards, is the major barrier to changing supplier. To mitigate against this, should VocaLink's takeover by an international card scheme be proposed, it should be accompanied by firm plans on how the number of competitively connected switches will be maintained, and/or how the barriers to changing connectivity will be removed

Remedy 4: LINK Separation:

- LINK is pleased to report that LINK and VocaLink have implemented the necessary changes to fully realise this remedy from 1st April 2016.
- The Operator, Link Scheme Limited, is now fully separate from VocaLink and is owned on behalf of its Members, with a majority independent board.
- A fully contestable contract with VocaLink is in place.
- LINK Scheme staff have been transferred from VocaLink to Link Scheme Limited.
- Commercial agreements have been reached between Link Scheme Limited and VocaLink on the use of brand and IPR that will underpin separation, contestability of the contract, and future transfer to another processor.

18 April 2016 [✂]

PSRconsultations@psr.org.uk

PARs consultation response team
Payment Systems Regulator
25 The North Colonnade
Canary Wharf
London E14 5HS

Dear Sirs

PSR INTERIM REPORT MR15/2.2: MARKET REVIEW INTO OWNERSHIP AND COMPETITIVENESS OF INFRASTRUCTURE PROVISIONS

The Cheque and Credit Clearing Company welcome the opportunity to respond to the Payment Systems Regulator's interim report on "Market review into the ownership and competitiveness of infrastructure provisions".

Background

The Cheque and Credit Clearing Company (C&CCC) was established in 1985 and from that time until the present day it is proud of its record in:

- providing members with the central payment system services for the exchange and settlement of cheques and credits;
- managing the operational processes of the central payment system services;
- delivering innovation, such as the current Future Clearing Model (FCM) programme, which will bring the cheque into the digital age via the implementation of an image-based cheque clearing process in the UK;
- determining the rules, standards, and procedures required to maintain the integrity of the clearings, including the criteria for joining the clearings and ensuring compliance with those rules;
- engaging with the full range of stakeholders which includes consumers and businesses that use cheques, banks that offer cheque clearing services, cheque processors, cheque printers and other suppliers, as well as regulators, trade associations and other payment schemes;
- managing the cheque printer accreditation scheme (CPAS).

A Company incorporated in England No 1962903.
Registered Office as opposite

Our Objectives are to:

- ensure that cheques and credits remain a viable, secure and efficient choice of payment for all users, so we will;
- promote innovation and competition in payment choice by driving improvements in processing, service and efficiency;
- provide a trusted centre of excellence for anyone with an interest in cheques or credits.

C&CCC Response

Despite the review being based on infrastructure services, which are not used in C&CCC, we do feel the need to respond. C&CCC support the general direction of the PSR with this interim report and we believe the PSR has to act firmly in order to provide a level-playing field in the industry. However, there is particular concern that the PSR's objective of ***"to promote the development of and innovation in payment systems, in particular the infrastructure used to operate those systems"*** may not be met with the reported MasterCard's attempt to purchase VocaLink from PSPs. Although no banks sit on the board of directors for MasterCard, the PSR should ensure that a fair procurement process takes place before such a transaction is confirmed, and such a takeover should not result in similar shortcomings in ownership (i.e. member banks owning a separate company that bids to takeover VocaLink).

Another concern from a C&CCC point of view is that a full procurement process has been run in the scheme, of which no case study or mention has been made in relation to procuring new infrastructure providers.

Yours faithfully

[✂]

Belfast Bankers' Clearing Co Ltd

Thank you for sending us a copy of your interim report on infrastructure provision. As this has no impact on Belfast Bankers' Clearing Co Ltd we do not feel it is relevant for us to respond to this particular consultation. It may be that some of our individual member banks may respond on their own behalf.

Regards

[✂]

Payment schemes, industry & innovation
Barclays Personal & Corporate
1 Churchill Place
London
E14 5HP

Author: [✂]
Date issued: 21 April 2016

Barclays response

PSR market review into the ownership and competitiveness of infrastructure provision

April 2016

Table of Contents

1. Executive summary

1.1. Barclays welcomes the opportunity to comment on the issues that the Payment Systems Regulator (PSR) has raised in its interim report in relation to the ownership and competitiveness of infrastructure provision.

1.2. In Barclays' view, the UK's and its financial system's interests are best served when its payments infrastructure services have a high level of performance ("always on"), are resilient and secure; Barclays also notes the research published alongside the PSR's interim report stating that:

> *"UK payment system infrastructures exhibit rich features in comparison with the other payment systems in scope* [12 countries including the Eurozone] *and high product diversity."*[1]

1.3. Overall, the UK's payments services are innovative, resilient, high performing and perceived to be good value for money;[2] and we want to ensure that this position is maintained.

1.4. Barclays supports many areas of the PSR's interim report. However, there are certain aspects of the interim report that Barclays regards as incorrect and request the PSR to revisit before reaching its final decision:

- The findings seem to be predicated on the view that UK payments infrastructure is not innovative and therefore only radical solutions are necessary to promote innovation. However, the research produced for the PSR suggests that the UK is a world leader in payments innovation.

- The interim report focuses on competitive procurement processes and does not appear to take into account adequately other competitive pressures that exist and that ensure not only best value, but also quality and innovation. We believe

[1] Lipis Advisors (December 2015), *Payment system ownership and access models: comparative analysis of 13 countries*, Research report for PSR, <https://www.psr.org.uk/psr-publications/market-reviews/MR1522-lipis-report> [accessed April 2016]

[2] Page 5, paragraph 1.12, PSR (February 2016), *Market review into the ownership and competitiveness of infrastructure provision: Interim report,* MR15/2.2, < https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-ownership-competitiveness-infrastructure-interim-report-1.1.pdf > [accessed April 2016]

that competitive pressure can be exerted through mechanisms other than "full" tendering.

– Barclays does not accept that it controls VocaLink, and believes that the PSR has provided no evidence to substantiate a finding relating to control.

1.5. In relation to the PSR's proposed remedies, Barclays is broadly supportive. However, in Barclays' view, a number of remedies are disproportionate in light of the evidence identified to support their imposition or, given the lack of evidence in respect of the underlying issue, not appropriate.

– Barclays supports tendering by schemes to provide validation that the infrastructure services that they are procuring remain world class and good value for money. However, as currently contemplated, we regard the proposed remedy as overly prescriptive. This is because it appears to be dictating the timing and requiring, costly and what we believe to be unnecessary, independent oversight. Barclays proposes an alternative process that we regard as and more proportionate. This requires operators to produce infrastructure strategies that include details of future procurement plans. This can then form part of the PSR's supervisory approach.

– In relation to interoperability, Barclays recommends that the PSR await the conclusions of the Payment Strategy Forum (PSF), which are due in the autumn, before making any remedy decision. This is because it is important to understand the wider impacts of a change in standards, before wholesale changes are contemplated. Alternatively, Barclays proposes a remedy where the PSR sets the required functional capabilities to be delivered by the UK's payments systems. The PSR would then oblige the payment systems to upgrade over time to deliver these capabilities.

– In our view disposal of any interests in VocaLink is not a proportionate remedy based on the evidence provided. The harm described by the PSR to justify this remedy is based on the view that certain Payment Service Providers (PSPs) control VocaLink – for the reasons set out in this response, Barclays disagrees with this view. Whilst not justified and for completeness purposes only, if the PSR decides to proceed with this remedy, such disposal should take place over a reasonable time period, to allow an orderly transfer of ownership while maintaining the payment systems' stability and resilience.

– The LINK remedy is no longer necessary because the LINK board has already made the requisite changes.

1.6. In general, the PSR should rely on actual evidence of harm before imposing significant and potentially costly remedies. Further, Barclays believes the PSR needs to be confident that it has had sufficient regard to the importance of maintaining the stability of, and confidence in, the UK financial system, when balancing its regulatory duties and considering the appropriateness of remedies .[3]

[3] Section 49 (3) (a) Financial Services (Banking Reform) Act 2013, <http://www.legislation.gov.uk/ukpga/2013/33/part/5/enacted>

2. Competition for the provision of central infrastructure services

Competition "for" the market

2.1. In Barclays' view, the public is best served by competition "*for*" the market of payments infrastructure, rather than competition "*in*" the market. The PSR's assessment of the different potential models in the interim report's annex demonstrates that alternative models, such as those based on bilateral exchange, or multiple competing infrastructures, have many disadvantages. Other alternatives will either lack "reachability" and/or disadvantage smaller providers.[4] The current market structure delivers the greatest benefits to the greatest number of users and providers.

2.2. Barclays accepts the PSR's view that one of the keys to successful competition "*for*" the market is by the procurer testing the market periodically.[5]

Assessment of Effective Competition

Shopping around

2.3. Barclays does not agree with a number of the conclusions in the PSR's interim report in respect of the amount of tendering and shopping around.

2.4. The report appears to assume that only a full procurement exercise can lead to a competitive outcome. Barclays submits that this places undue emphasis on this one type of procurement exercise without full and proper consideration of the alternatives when considering outcomes:

– First, the PSR's own evidence shows that only one of 12 jurisdictions (Japan) carry out "full" procurement exercises[6] and yet the PSR considers that some of

[4] Page 48-49, PSR (February 2016), *Interim report: Market review into the ownership and competitiveness of infrastructure provision annex,* MR15/2.2: Annexes, < https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-interim-report-annex.pdf> [accessed April 2016]

[5] Page 34, Paragraph 4.13, PSR (February 2016), *Market review into the ownership and competitiveness of infrastructure provision: Interim report,* MR15/2.2, < https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-ownership-competitiveness-infrastructure-interim-report-1.1.pdf > [accessed April 2016]

[6] Page 39, Paragraph 4.32, *Ibid*

these jurisdictions (without full procurement exercises) are producing innovative outcomes.[7]

- Second, the PSR has found that operators and PSPs consider that the outcomes that currently exist are similar to what could have been achieved with a competitive procurement.[8]

- Third, it appears that the PSR has not taken account of the significant competitive pressures that exist, which means a full procurement exercise is not required in each instance:

  - At each re-tender, schemes have secured better terms from their service providers by negotiating a reduction in costs and an increase in budget for development;[9]

  - Only three of the 10 potential competitors highlighted by the PSR consider they could offer prices that match current prices;[10]

  - Significant benchmarking processes have been carried out by payment systems to ensure they are getting value for money and the best competitive offer; and [11]

  - The PSR acknowledges significant potential competition[12] but has not assessed the impact of this in the renegotiation of VocaLink contracts – yet there is significant evidence of the impact of potential competition, as recognised by VocaLink and in its internal documents.[13]

- Fourth, the PSR considers that payment systems place an over-emphasis on stability or resilience and so miss benefits that "*significantly outweigh risks*."[14] The interim report does not include evidence to support this assertion and no

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[7] Page 49, Paragraph 4.100, *Ibid*
[8] Page 41, paragraph 4.41, *Ibid*
[9] Page 41, paragraph 4.42, *Ibid*
[10] Page 50, paragraph 4.111, *Ibid*
[11] Page 42, paragraph 4.45, *Ibid*
[12] Page 50, *Ibid*
[13] Page 52, paragraph 4.120, *Ibid*
[14] Page 40, paragraph 4.34, *Ibid*

analysis is provided of the relevant risks and benefits or how a full procurement exercise would alter this situation.

Value for money and quality of service

2.5. There is no evidence to suggest that VocaLink is either providing poor value for money or a sub-standard quality of service.[15]

2.6. On the contrary, the evidence shows that:

- VocaLink meets or exceeds SLAs;[16] and

- Only three of the 10 potential competitors highlighted by the PSR consider that they could offer prices that match current prices;[17] this shows the significant and competitive value for money offered by VocaLink.

2.7. The interim report concludes that, as payments systems are not for profit and all PSPs will incur the charges, there is no incentive for the payment system operators to keep costs down.[18] In reality, costs are a key focus for all PSPs and operators. Academic work in this area also concludes that PSPs are incentivised to drive down costs of payment infrastructure services.[19]

2.8. Barclays accepts that the payment system operators place a high value on "always on" performance and resilience; this does not mean that this should be at the cost of innovation. Payment system operators are acutely aware of the need to provide payment services that are innovative for end users and at a fair price for PSPs. Barclays suggests that the work conducted by Faster Payments, into the economics of aggregator services, demonstrates this awareness.[20]

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[15] The only potential area where there may be an issue is in respect of back-office support, but the PSR acknowledges that VocaLink is contractually limited in delivering any better outcome (see paragraph 4.78 of the interim report).

[16] Page 79, paragraph 6.54, *Ibid*

[17] Page 50, paragraph 4.111, *Ibid*

[18] Page 40, paragraph 4.34, *Ibid*

[19] Page 48, M. Bergman, M. A. (2003), "Payment system efficiency and pro-competitive regulation," *Sveriges riksbank Economic review,* 25-52, <https://www.researchgate.net/profile/Mats_Bergman2/publication/228595065_s_Payment_system_efficiency_and_pro-competitive_regulation/links/0deec533d87fbbdccd000000.pdf> [accessed April 2016]

[20] Accenture (May 2015), *Faster Payments new access model: Creating a competitive market in access services for real-time 24/7 payments,* An Accenture report for Faster Payments,

2.9. Furthermore, Barclays does not accept that direct PSPs are reluctant to change providers and emphasises that Barclays itself does not have this reluctance. However, any new supplier would be expected to able to offer the same or higher level of operational performance, resilience, financial stability and security, in line with the expectations of Barclays' customers and regulators.

Innovation

2.10. The interim report concludes that there is a lack of incentive to innovate, based upon the theory that innovation at the infrastructure level gives no PSP a market advantage.[21] Barclays does not accept that PSPs lack the ability to gain competitive advantage from improved services and /or lower costs from payment systems. Innovation at scheme level enables those that are willing to invest in technology to better serve customers and make market gains.

2.11. By way of example:

- The services offered by Faster Payments to PSPs have enabled Barclays to innovate and offer the Pingit service to customers (to both Barclays own and also customers of other financial institutions) looking for easier and quicker ways to make payments. Not all PSPs that access Faster Payments offer services similar to Pingit; and

- Direct agency access[22] by Faster Payments is only offered by a small number of PSPs.

2.12. This demonstrates that financial institutions have shown that they are incentivised to use and offer the different services offered by the payment systems to innovate and differentiate the services they offer from their competitors. There are a number of other examples of services offered by Bacs, Faster Payments and LINK that are

<http://www.fasterpayments.org.uk/sites/default/files/Faster%20Payments%20Access%20Programme%20Economics%20Report%20-%20Online%20Version.pdf> [accessed April 2014]

[21] Page 40, paragraph 4.35, PSR (February 2016), *Market review into the ownership and competitiveness of infrastructure provision: Interim report,* MR15/2.2, < https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-ownership-competitiveness-infrastructure-interim-report-1.1.pdf > [accessed April 2016

[22] Direct agency access is a service that enables individual PSPs to connect directly to the Faster Payments infrastructure and offer single immediate payments with the support of a direct PSP.

utilised and extended on by some PSPs, but not others. Security and integrity, however, rightly remain an important factor. But this has not been to the exclusion of innovation.

2.13. The Lipis research published alongside the interim report concludes that the UK, alongside Sweden and Denmark, has payment systems that offer the greatest level of functionality – on new and legacy payment systems.[23] This is evidence of a strong and innovative UK payments system, which is contrary to the PSR's findings.

2.14. Barclays does not agree with the interim report that major payment system changes in the UK have largely been Government driven.[24] We refer the PSR to the Richards review of Financial Services Trade Association Review, in the context of which a UK government official submitted that:

> *"[W]hen one major bank approached the government about cheque imaging they had a specific and detailed proposal of what was needed and how to do it. This helped the government to achieve one of its own policy goals …"*[25]

2.15. The need to maximise the benefits of the payment system for all, and amend or remove existing regulations and legislation, means that major central payment innovation is usually conducted in collaboration with others. Depending on the innovation, this may include collaboration between PSPs, operators, technology providers, the Bank of England, regulators and the Government. The Lipis research shows that in the UK, both commercial drivers and regulatory drivers have been involved as catalysts for change.[26] By way of example, , Barclays refers to the recent introduction of pre-funding by Bacs and Faster Payments, which relied on the support and actions of the Bank of England, but also required significant activity and support from the wider industry.

Conclusion

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[23] Page 34, Lipis Advisors (December 2015), *Ibid*

[24] See, for example in respect of cheque imaging, Page 48, paragraph 4.94. PSR (February 2016),.

[25] Page 26, paragraph 2.3.9, Richards (July 2015), *Financial Services trade associations review: Next steps,* <,http://media.wix.com/ugd/8fe067_59c83501d6b84d6989660cfab5164388.pdf,> [accessed April 2016]

[26] Page 14, Lipis Advisors (December 2015),

2.16. Barclays disagrees that the interim report provides sufficient evidence to support a finding that the current procurement processes have not produced competitive outcomes and that there is ineffective competitive pressure on VocaLink, as

- exercises to expose the current supplier to competitive pressure have improved terms; [27]

- the current supplier has delivered value for money (as only three out of ten potential competitors thought they could compete with the existing supplier)[28] and a quality service (as all service level agreements have been met or exceeded); and, [29]

- the research commissioned by the PSR states that the UK is world leading in its payments innovation.[30]

2.17. Based on this evidence, Barclays does not believe that requiring a full competitive tendering exercise at the earliest possible moment is a proportionate response.

2.18. Barclays is, however, not averse to competitive tendering and views the tendering exercise in relation to the future cheque clearing model – or FCM – as a good example of how competitive tendering for payment infrastructure services can be done effectively; in the interests of the users and the whole industry; and, with regulatory observation by the PSR.

2.19. Whilst Barclays has no principle objection to changing providers, where appropriate, any alternative would have to be suitably assured on the level of operational performance, resilience, financial stability and security, given the systemically important nature of the payment systems under discussion.

2.20. In light of this, Barclays submits comments on the proposed remedies, should the PSR consider any necessary in its final report.

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[27] Page 41, paragraph 4.41, PSR (February 2016),

[28] Page 50, paragraph 4.111, *Ibid*

[29] Page 44, paragraph 4.60, *Ibid*

[30] Page 34, Lipis Advisors (December 2015),

3. Remedy 1: Competitive Procurement Processes

3.1. Barclays is not convinced that mandating competitive tendering, in the way the interim report describes, would be necessary (for the reasons set out above).

3.2. Instead, payment system operators should be required to produce a strategy in relation to their central payment infrastructure needs. The strategy should make clear when they expect to conduct a full competitive tendering exercise (as a default position) and how they would do that. If they chose not to do so at the next opportunity, they would have to explain why not and how they would test the market to ensure that they are getting the most competitive and innovative services for end users.

3.3. In the same way that the PSR reviews the operators' annual reports on access and governance, it could appraise each of the strategies and suggest changes/improvements where necessary. The PSR could also promote best practice and coordination, where appropriate. It would be reasonable for operators to produce such strategies following the publication of the PSF's final strategy in autumn. This way they could reflect the strategy in how they propose to develop their payments infrastructure and the services they provide to PSPs. Barclays would also expect the PSR to observe any resulting tendering exercises.

3.4. Barclays believes it would be more appropriate and proportionate to issue a direction regarding tendering strategy as outlined above. This would also be in line with the evidence presented in the interim report by the PSR. The PSR, working together with the operators, can help ensure that the UK retains its world leading position for payments innovation.

4. Interoperability - messaging standards

4.1. Barclays supports moving to international payment messaging standards over time. In this respect it is important to understand the wider impacts that a change in standards may mean before wholesale change can be contemplated (to avoid unintended consequences).

4.2. The costs and benefits of standardisation are wider than just infrastructure competition. For instance, any change to ISO 20022 from the existing standards will have an impact on all UK corporates and small businesses as well as all PSPs. The introduction of real time information, which required only a small change to the payroll submissions using Bacs standard 18, is estimated to have had an implementation cost of £292m and an annual cost of £30m on UK firms.[31] A shift to entirely new standards will be much more significant than that change. Accordingly, it is Barclays' position that the PSF, which has a wider scope and remit than has been proposed for this review, is best placed to consider the desirability of changes in standards.

4.3. The PSR concludes that some infrastructure providers are deterred from entering the market due to the messaging standards used in the UK. Before assessing this conclusion, it is worth reflecting why the existing standards are used in the UK and the extent to which they are used across the UK economy.

4.4. The use of the different standards is to a certain extent a legacy issue. Bacs was launched in 1968 and was then known as the Inter-bank Computer Bureau. It was not until 2005 that the first set of messages that were deemed ISO 20022 compliant were approved.

4.5. Bacs is a popular means of transferring money and the underlying messaging standard is used by many actors. Around 90% of the UK workforce is paid via Bacs direct credit and 3.5 billion direct debit payments are processed every year. Bacs

[31] HMRC (December 2014), *Real Time Information (RTI): Improving the operation of Pay As You Earn,* <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/388103/RTI-TIIN.pdf> {accessed April 2016]

and the associated standards are hardwired into UK companies and the UK economy – any change to this system will have a significant impact.

4.6. This is why Bacs have adopted an approach where new developments should adopt ISO 20022. However, the scale of change and likely impact on the UK economy may make it disproportionate for existing services.

4.7. Faster Payments adopted the standards it did as there was no appropriate ISO 20022 standard for instant payments at the time of design. While such a standard could have been developed, it is likely that it would have made the project more costly and taken more time. Faster Payments launched in 2008 and it was not until 18 April 2016 that agreement on ISO 20022 message guidelines for real time payments were published.[32]

4.8. The use of different standards in the UK is not a significant deterrent to new entrants bidding to provide payments infrastructure services to payment systems operators. As the interim report states: "*message translation software is available that* [payments infrastructure] *providers can use to address the issue of operating on different messaging standards.*" [33]

4.9. It is also important to understand whether ISO 20022 is in fact the most appropriate standard to use in the UK. Barclays understands that the Open Banking Working Group considered recommending the use of ISO 20022 for the open banking standard, but ultimately preferred the use of JSON as the resource format, as this was considered to be "lighter weight" and more flexible than IS0 20022.

4.10. The case for migrating to ISO 20022 for each of the existing payment system operators should also be considered independently. In the case of Bacs, the value of migrating to ISO 20022 solely to cater for all Bacs services and functionality needs to be considered thoroughly. Payments UK estimates that there may be in excess of 40 ISO 20022 messages that would need to be developed to replicate

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[32] Payments UK (April 2016), *ISO 20022 real-time payment message guidelines are published following international approval*, <http://www.paymentsuk.org.uk/news-events/news/iso-20022-real-time-payment-message-guidelines-are-published-following> [accessed April 2016]

[33] Page 58, paragraph 4.160, PSR (February 2016),

current Bacs architecture. Barclays observes that there are currently only 75 ISO 20022 payments messages in totality.[34] Similarly the benefit of LINK moving to ISO 20022 is not clear. It is more closely linked to the card systems of VISA and MasterCard. These systems all operate on a variant of the ISO standards for card payments.

4.11. Barclays has extensive experience in using ISO 20222 and other standards such as JSON, and would happily discuss those experiences with the PSR.

[34] See <http://www.iso20022.org/payments_messages.page> [accessed April 2016]

5. Remedy 2: Interoperability

5.1. As noted above, Barclays suggests that, before deciding on the remedy on interoperability, the PSR await the conclusions of the PSF. The reason for this is that the costs and benefits of standardisation are wider than simply competition between payment infrastructure suppliers.

5.2. Barclays is not averse to the implementation of new standards over time and submits that a more appropriate approach would be for the PSR to specify the required functional capabilities to be delivered by the UK payment systems. These should be set with reference to the needs of the UK users of payments services and the wider economy. Barclays expects that the conclusions of the PSF will assist in framing these capabilities. The PSR will oblige the payment systems to upgrade over time to deliver these capabilities. Barclays also expects that wider consultation will be required.

5.3. If the PSR does decide to pursue the remedy on the adoption of a common international messaging standard for Bacs, Faster Payments and LINK, the remedy should seek to avoid:

- detrimental impact to the integrity of the payments infrastructure;
- introducing uncontrolled risks;
- detrimental customer/end-user impact, irrespective of the segment of customer; and,
- increasing barriers to entry for new market entrants (challenger banks, agency banks, and solution providers).

5.4. The remedy should also give sufficient time for an ordered and appropriate shift. The current standards are hardwired into the UK economy and any change will need to be managed carefully to avoid unnecessary cost, risk to financial stability and ensure maximum benefits to users of the UK payment systems.

6. Competition in the provision of other infrastructure services

6.1. Barclays supports the PSR's conclusion that there is competition in the provision of gateway solutions.

7. Ownership and control of payment systems

7.1. The interim report reaches a number of conclusions which Barclays disagrees with and requests the PSR to reconsider its interim findings before making a final determination.

7.2. Taking these in turn.

Barclays does not benefit from VocaLink ownership

7.3. Barclays gains no significant financial benefits from its (part) ownership of VocaLink. At paragraph 7.26, the interim report states that the PSR "*did not find any specific examples suggesting that VocaLink's shareholders* benefit *from current ownership arrangement or that these are detrimental to non-shareholders.*"[35]

Barclays does not control any payment system or VocaLink - PSR analysis on control of payment systems

7.4. The interim report makes several key findings based on the analysis that a number of PSPs own *and control* Bacs, Faster Payments LINK and VocaLink.

7.5. The PSR has found that:

- *"Potential infrastructure service providers perceive that they would be at a competitive disadvantage against VocaLink because its shareholders own and control the operators;"*[36]

- "[T]*he largest direct PSPs can exert control over both VocaLink and the operators and this impacts on competition in central service provision;"*[37] and,

- "C*ommon ownership between operator and infrastructure providers by direct PSPs reinforces the inertia"*[38] that reduces the likelihood of operators to seek alternative infrastructure service providers (emphasis added in each case).

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[35] Page 88, paragraph 7.26, PSR (February 2016), *Ibid*

[36] Page 87, paragraph 7.25, *Ibid*

[37] Page 88, paragraph 7.26, *Ibid*

[38] Page 88, paragraph 7.27, ibid

7.6. Section 6 of the interim report sets out the PSR's control analysis in respect of the payment systems and VocaLink:

- The PSR uses the Enterprise Act 2002 definition of control to carry out its assessment;[39]

- The PSR finds that the five largest shareholder PSPs (which includes Barclays in each case) collectively control each of Bacs, Faster Payments, LINK and VocaLink as they could vote together;[40] and

- The PSR did not find any evidence of collective voting.

Barclays comments on the PSR's analysis

7.7. Barclays disagrees that it controls (collectively or individually) Bacs, Faster Payments, LINK or VocaLink.

7.8. The Competition and Markets Authority ("CMA") guidance on jurisdiction and procedure (CMA2) ("Jurisdictional Notice") set out the three levels of control as defined in the Enterprise Act 2002, namely: "controlling interest"; "*de facto* control"; and "material influence".[41]

7.9. Under the Enterprise Act 2002, there are two ways in which a PSP can achieve one of the types of "control" set out above in each of VocaLink, Bacs, Faster Payments and LINK:

I. Sole control, due to its shareholding (and relevant rights); or

II. Collective control with others, where there is an agreed (either formal or informal) voting block giving rise to "control".[42]

[39] Page 72, paragraph 6.15, *Ibid*

[40] See paragraphs 6.22, 6.40, 6.45, 6.51 and 6.72,, *Ibid*

[41] CMA (January *2014), Mergers: Guidance on the CMA's jurisdiction and procedure,* <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/384055/CMA2__Mergers__Guidance.pdf> {accessed April 2016} and a*s* reflected on page 72, paragraph 6.15, PSR (February 2016), *Ibid*

[42] Please note that this is **not** the concept of joint control, as understood for example in the European Merger Regulation. "Joint control" is not a concept recognised under the Enterprise Act 2002. Rather, this relates to a voting block collectively acting together, by agreement, to exercise one of the types of "control" defined in the Enterprise Act 2002.

7.10. Taking these in turn in respect of Barclays.

Sole control: there is no evidence to suggest that Barclays controls, individually, Bacs, Faster Payments, LINK or VocaLink

7.11. As a preliminary point, the interim report does not contain an individual assessment of Barclays' "control" of any of these entities (or any other PSP). This would be required to conclude Barclays has control in each of Bacs, Faster Payments, LINK or VocaLink. In any event, the evidence shows that Barclays does not control any of these entities.

7.12. *First*, there is no suggestion that Barclays has a controlling interest in Bacs, Faster Payments, LINK or VocaLink as its shareholdings or voting positions in each are well below 50%.

7.13. *Second*, the PSR has provided no evidence to suggest that Barclays has *de facto* control in any of these entities:

Bacs

- Barclays is only one of 16 members of Bacs;
- The Bacs Board exercises all powers of the company;
- The Board is made up of 15 directors and Barclays has the right to nominate one director;
- A quorum for decisions is at least one independent director and other directors making up half of eligible votes;
- [✂]
- [✂]

Faster Payments

- Barclays is only one of 10 members of Faster Payments;
- The business of the company is managed by the Board;

- The Board is made up of 14 Directors and Barclays has the right to nominate one director;

- A quorum for decisions is where there are at least 75% of members present and who together account for at least 50% of total clearing volume and at least one independent director;

- Voting is carried out by a show of hands and a decision is deemed to have been made when 75% of members are in favour, provided that these members account for at least 50% of the clearing volume; and

- Regardless of Barclays' clearing volume, it cannot achieve *de facto* control of Faster Payments: a quorum requires at least 8 members present. This means that there will always be at least 8 voting members in any decision and Barclays' one vote will never achieve a majority of votes.

LINK

- Link Scheme Limited is currently in the process of implementing the recommendations from the Independent Governance Review - this is likely to result in a company structure which is limited by a guarantee provided by all 37 members;

- Barclays does not currently have a director on the Link Scheme Limited Board, has no influence over scheme company matters and no control over the commercial decisions of Link Scheme Limited;

- Votes at a members network level are allocated on a LINK transaction volume basis;

- [✂]

- Decisions in relation to any changes to interchange require an 80% majority; changes to the LINK operating rules require a 60% majority; and

- Regardless of Barclays' clearing volume, it cannot achieve *de facto* control of LINK members' network votes, because they are capped at 15% per any individual member.

VocaLink

- Barclays holds a 15.18% shareholding and has a director on its Board;
- The PSR's evidence shows that all decisions are made by majority vote, either at the Board or at shareholder meetings;
- There is no evidence to show that Barclays has *de facto* control at the shareholder level: voting patterns are not recorded[43]; and
- There is no evidence to show that Barclays has *de facto* control at Board level: the quorum required for Board meetings is five or more directors (three of which must be shareholder directors). Board decisions are almost always approved by quorum where the majority of directors present are those nominated by the largest shareholders.[44] This means that Board decisions are almost always made by at least three shareholder directors and at least two other directors (the minimum required for a quorum). Given that Barclays has only one nominated director, it cannot achieve *de facto* control of Board meetings with only one vote out of, a minimum total of, five.

7.14. *Third*, the interim report provides no evidence to suggest that Barclays has material influence in each of Bacs, Faster Payments, Link or VocaLink. The Jurisdictional Notice states that there is *no presumption* of material influence below 25% and, further, only *exceptionally* do shareholdings of 15% or less give rise to material influence. [45]

7.15. [✂] the PSR needs to demonstrate that material influence exists in each particular case (given the lack of presumption). No analysis has been provided in the interim report to demonstrate this.

[43] Page 75, paragraph 6.27, PSR (February 2016), *Ibid*

[44] Page 75, paragraph 6.27, *Ibid*

[45] Paragraph 4.20 , CMA (January *2014), Mergers: Guidance on the CMA's jurisdiction and procedure,* <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/384055/CMA2__Mergers__Guidance.pdf> {accessed April 2014}

7.16. The Jurisdictional Notice sets out the factors that can give rise to material influence at levels under 25% of the relevant votes.[46]

7.17. *None* appear to apply to Barclays in respect of any of VocaLink, Bacs, Faster Payments and LINK:

- [✂]
- [✂]
- There are no special rights or veto rights attached to Barclays' interests in these entities;
- Barclays has no special right to influence materially the policy of any of these companies (for instance for Bacs to comply with the new statutory register of people with significant control over a company; Bacs concluded that there are none);
- Barclays has no special status or expertise that would give rise to material influence in any of these companies: it is only one of at least five large shareholder/member PSPs;
- Whilst Barclays has a single Board representative in each of Bacs, Faster Payments Link and VocaLink this is not sufficient to influence materially any decision of these companies given the large and diverse Board memberships (see details above); and
- None of the other sources of material influence in the Jurisdictional Notice (such as the provision of consultancy services or financial arrangements) apply.

[46] Paragraphs 4.21 to 4.27, *Ibid*

Collective control: There is no evidence to suggest any collective voting on the part of shareholder PSPs, including Barclays, in any of Bacs, Faster Payments, LINK or VocaLink,

7.18. *First*, the interim report infers that collective voting could give rise to control. But it makes no finding that such action has taken place or that there is any agreement between any PSP to vote collectively. This is insufficient evidence to conclude "control" exists. Evidence of collective voting between independent shareholders needs to be produced to support the finding.

7.19. *Second*, the only evidence included in the interim report shows that *no* collective *voting* has taken place: *"We have no evidence that* [consensus amongst shareholders] *has happened in practice".*[47]

7.20. The fact that the largest PSPs could vote collectively on matters is not sufficient to find control (in theory any set of shareholders could vote collectively and therefore on the logic in the interim report all shareholders in any entity would control that company; this is patently not correct).

7.21. Accordingly, there is no evidence that there is any collective voting in any relevant entity, either involving Barclays or at all. As a result, Barclays disagrees with the interim report's conclusion that it controls any of Bacs, Faster Payment, LINK or VocaLink on the basis of collective voting.

Conclusions on PSR analysis of control of payment systems

7.22. In the absence of any evidence of control by any PSP shareholder or member in any of Bacs, Faster Payments, LINK and VocaLink, the PSR must be cautious in reaching conclusions based on this analysis which Barclays regards as incorrect.

7.23. Specifically the "effects" analysis set out in the interim report in paragraphs 6.73 to 6.82 and 7.25 to 7.29, where the conclusions appear to rely on large PSPs "controlling" each of Bacs, Faster Payments. LINK and VocaLink, (and any remedies

[47] Page 74, paragraph 6.22, PSR (February 2016),

that are being considered to deal with these findings). Barclays requests that the PSR reconsider its findings and proposed remedies in this regard.

8. Remedy 3: Ownership of VocaLink

8.1. While Barclays submits that no remedies are required in respect of the ownership of VocaLink, Barclays requests the PSR to consider the specific points detailed below in any final report, especially in connection with the assertion that Barclays must dispose of all or part of its interest in VocaLink.

8.2. *First*, any purchaser must be able to guarantee that same stability and integrity.

8.3. *Second*, any new owner must be subject to appropriate oversight by the PSR and able to deliver on Barclays' priorities at a fair price.

8.4. *Third*, the PSR should allow sufficient time for a controlled disposal to occur.

8.5. *Fourth*, given the crucial role of the payment systems in scope, Barclays submits that the Bank of England should have a key role in assessing the appropriateness of the disposal arrangements the PSR imposes. There are significant dangers in relation to financial stability, should the PSR's proposed disposal remedies fail to adequately assess the associated execution risks related to specific approaches and counterparties. Not only would the vast majority of salary payments in the UK be jeopardised, but the ATM network and the main system used for person to person payments would be at risk.

9. Remedy 4: LINK

9.1. This remedy is no longer necessary as LINK has made the expected changes to its governance arrangements. Barclays has always supported such changes.

LLOYDS BANKING GROUP PLC

PSR Infrastructure Market Review

Response to Interim Report

28 April 2016

Executive Summary

1.1 Payments infrastructure is of critical importance to the UK economy. In 2014 Bacs, FPS and LINK processed around 10 billion transactions, valued at c.£5.5trillion, for individuals, businesses and government. While VocaLink plays a vital role in delivering these transactions safely and securely, it is only a small part of the overall payments infrastructure. To place it in context, LBG will invest approximately [✂] in 2016 on [✂]. The Link ATM network alone costs [✂] per annum to run and LBG currently pays [✂] into the scheme. VocaLink's revenues of [✂] are a very small proportion of total payment scheme costs paid by providers (and ultimately customers) to use the schemes. VocaLink is also not involved in important payment schemes such as Real Time Gross Settlements and the card schemes that account for c.13bn transactions with an annual value of c.£150bn. The costs and benefits of any PSR- led changes should therefore be rigorously assessed.

1.2 Given the central importance of payment systems to customers and the economy their resilience, security and integrity are paramount. VocaLink's business of core infrastructure provision for some payment schemes is characterised by relatively low revenues, relatively large periodic capital investment requirements and significant volume risk from existing (or new) competing payment systems that VocaLink does not provide core infrastructure for. Currently, this is overlaid with significant technical, regulatory and market-driven change.

1.3 Any proposed changes should be assessed against the PSR's three statutory objectives:

(a) To ensure **payment systems are operated in users' interests:** Customers want efficient and flexible payments services, with transparent and predictable costs, and with minimal exposure to operational risks.

(b) To promote **effective competition**, requiring multiple credible competitors

(c) To promote **innovation**, requiring market structures and incentives that encourage both competitive or collaborative change

1.4 LBG supports the PSR's overall aims. However, the Interim Report suffers from a number of weaknesses. The Final Report should be strengthened by:

(a) addressing important additional issues affecting outcomes in the infrastructure market;

(b) providing a stronger evidence base for its findings;

(c) providing a robust and complete analysis of the potential costs, benefits, risks and impact on providers of payment services and customers (retail and business) of any proposals; and

(d) taking into account known changes in the market driven by competition between payment schemes, technological developments and regulatory change.

The PSR should address additional issues

1.5 The Interim Report does not address three important areas that are crucial to maintaining continuity of supply, providing a framework for competition in the provision of payments infrastructure, and to the PSR's objectives:

(a) how to ensure that payment systems continue to operate with no disruption to service if any infrastructure provider gets into financial difficulty

(b) how the costs of providing existing services are charged to users of the infrastructure

(c) how changes to the services provided are agreed and how the costs of providing new services are charged to users.

1.6 These issues need addressing regardless of ownership structure. However, they are particularly important in the context of the PSR's proposals on divestment and standards.

1.7 **How the core payments systems should be protected in the event that the infrastructure provider gets into financial difficulty**. For example, higher risk non-core investments (either in the UK or overseas), significant shifts in customer volumes away from existing schemes to new or existing schemes, or unexpected core investment requirements could all cause financial difficulty. This could threaten both the operation of the core and any investment in innovation. Regardless of ownership, rules and procedures to protect the infrastructure are critical – stability and continuity of supply are the major concern of customers.

1.8 Such rules and procedures are common in other sectors with core networks that must provide continuity of supply (such as energy and water networks). In such networks, special administration regimes and supporting regulatory rules ensure continuity in the event that the network owner is in financial stress.

1.9 [✂]

1.10 **How the costs of existing payment services should be allocated between users.** There is no clear mechanism to fund ongoing costs. Currently, costs are allocated per transaction so all users pay the same per unit. Other mechanisms are possible – for example, SEPA's approach allows for volume discounts for larger users. Cost allocation affects investment decisions, equity, and competition – thus touching on all three PSR objectives. Again, this is not an academic concern. [✂]

1.11 **How changes to payment services should be agreed, and their costs allocated.** There is no clear mechanism or governance framework to fund new investments in core infrastructure. Different mechanisms will have different impact on service users and on competition. If some users disagree with the proposed new service or the allocation of costs, there is no process for appeal, nor clarity on who should adjudicate. Given the number and scale of imminent changes in payment systems, developing a robust cost allocation process is extremely important.

1.12 The Interim Report and its proposed remedies do not address these important issues. If anything, some of the remedies could exacerbate the situation. For example, how should the (very substantial) costs of the proposed standards remedy be allocated? Or, in the event of divestment, how would the core infrastructure be protected in the event of the acquirer running into financial difficulties? The PSR should address these issues in the next round of its thinking, both as a standalone exercise and as an input into its decisions on remedies.

The PSR should provide stronger evidence

1.13 The Interim Report's basis for its adverse conclusions about the workings of the current arrangements will need to be strengthened prior to any Final Report. The Interim Report often ignores or downplays evidence that current arrangements are working well. In other areas – such as the finding that there are or could be effective competitors for

VocaLink – the evidence to support the Interim Report's conclusions is limited or incomplete.

(a) **Current good outcomes are not sufficiently recognised in the Interim Report.** The Interim Report finds that on performance standards/reliability, value for money, service quality and innovation most payment services providers (PSPs) are satisfied. The PSR's own international comparison report (by LIPIS) also regards the UK's payments infrastructure as world-leading, particularly with respect to Faster Payments and CASS. There is always room for improvement but the successes of the current structure must be recognised if there is to be rigorous impact assessment of the PSR's proposals.

(b) **Evidence that effective competitors to VocaLink exist today, or will emerge in the future, is limited.** The PSR's proposals rely on the existence of effective competitors to VocaLink. If VocaLink does not face effective competitors for future tenders, then the mandatory retendering and divestment remedies will be at best ineffective and, most likely, counterproductive. The Interim Report presents only high-level expressions of interest by unnamed rivals. Given the relatively small revenues associated with the services VocaLink currently provides and the inevitable costs and complexities of holding periodic tenders for provision of these services the PSR needs to consider the implications if credible competitors do not emerge in any tendering process.

The PSR should provide a thorough impact assessment and analysis

1.14 LBG recognises that the Interim Report asks questions about the potential costs and benefits of the PSR's proposed remedies. The costs and benefits will need to be addressed in detail prior to any Final Report.

1.15 There is little assessment of the potential costs and benefits of the proposals in the Interim Report, even at the highest level. VocaLink's revenue is approximately [✂] annually, of which Bacs and FPS account for [✂] and LINK accounts for [✂]. Any plausible level of benefit in terms of reduced cost or improved service from greater competition for a scheme would appear to be comparatively small, with a risk of costs increasing due to higher tender and possibly switching costs. The implementation costs of the proposed remedies appear extremely large by comparison. The effectiveness and proportionality of the remedies package should therefore be considered, in line with one of the main principles guiding the PSR, namely "*the principle that a burden or restriction which is imposed on a person, or on the carrying on of an activity, should be proportionate to the benefits, considered in general terms, which are expected to result from the imposition of that burden or restriction*".[1]

1.16 In considering whether opening the provision of these schemes to periodic competition from tendering will lead to more innovation, the PSR needs to assess the scope for innovation given the current scope and level of service provided. FPS is a world-leading payment scheme offering highly reliable, near real-time payments at very low cost. The PSR should also consider the scope for such innovation to come from existing payment schemes or from competing payment schemes where VocaLink does not provide any infrastructure.

1.17 For example:

[1] Financial Services (Banking Reform) Act, paragraph 53(b).

(a) **Interoperability**. LBG estimates the industry costs of migrating to a new standard to be in the range of £500–£700m.[2] It is not clear that the plausible benefits would outweigh these costs. LBG recognises that a change in standards may have other benefits, which the Payments Strategy Forum (PSF) is best placed to assess.

(b) [**REDACTED**][3]

(c) **Procurement**. The report does not consider the cost of running a competitive tendering process. Competitive tendering exercises can be expensive to run and participate. While admittedly more complex, estimates for participating in recent rail franchising contracts are in the order of £10m per bidder, and bidders would need to factor these costs into their pricing. Moreover, any change to the infrastructure provider will incur additional risks and switching costs. Even if the new infrastructure was identical the switch to that infrastructure would require careful planning and significant testing. These costs and risks should be factored into the cost-benefit analysis.

1.18 Each of the remedies involves material and non-routine changes, which risk disruption to the payments infrastructure as shown by the CHAPS outage in October 2014. The significant costs of potential disruption should be taken into account in the cost- benefit analysis.[4]

The PSR should take future changes into account

1.19 Several changes in customer demand, regulation and technology are happening or are likely to occur in the near future. All may affect the economics of infrastructure provision, further emphasising the need for a degree of caution in proceeding with the proposed remedies. The PSR should address these changes and their implications for the infrastructure market. They include:

(a) **Demand changes**. Substitution by customers and businesses between different payment methods affects payment scheme volumes, and therefore scheme economics over time. This could negatively affect the VocaLink business model. For example, payments with a total value of over £7.5bn are now made each year through Continuous Payment Authorities (CPAs) based on existing cards infrastructure, where previously these would likely have been made through Direct Debits on the Bacs infrastructure. Moreover, half of Bacs credit volume is from government payments. Any government measure such as the proposed introduction of Universal Credit or paying the DVLA by Direct Debit would result in significant volume change for Bacs.

(b) **Regulatory changes.** Regulatory changes include the introduction of the revised Payment Services Directive (PSD2) and Open Banking, providing API access to bank infrastructure. This in turn may change how retailers, such as Amazon, undertake transactions, with the potential for further volume shifts between payment types and infrastructure (as well as in themselves being major change programmes for the industry). The Interim Report also needs to take account of the Bank of England strategic review of the Real Time Gross Settlement (RTGS) system that will, along with other elements, also look at the international standard best suited to underpin its future operation.

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[2] This is an initial estimate based on internal discussions within LBG. In the time available to submit this response, LBG has not been able to undertake the more detailed analysis that would be necessary to validate this estimate.

[3] [**REDACTED**]

[4] http://www.bankofengland.co.uk/publications/Documents/news/2015/rtgsdeloitte.pdf

(c) **Technological changes.** The use of cryptographically-enabled distributed ledger technology is currently small, but gaining widespread traction in a variety of applications worldwide. Bitcoin-type models – which remove the need for trusted third parties in value transactions – may begin to find an increasing role in a variety of payment system-related applications. This could have a dramatic effect on the nature and demand for centralised infrastructure provision.

1.20 The PSR's Indirect Access review has examined the significant pace of evolution in that market. It has also flagged the importance of assessing the costs and benefits of proposed changes. The interim proposal of that review is that further regulatory change should not be imposed until the on-going and expected market and regulatory changes have played out. LBG suggests that the Infrastructure Review adopts a similarly measured and cautious approach on its proposals, whilst also recognising that action may be required in some areas.

Summary of LBG views on remedies

1.21 In summary, therefore, taking each of the PSR's specific remedy proposals in turn:

(a) **Remedy 1. LBG is neutral on the introduction of mandatory competitive procurement processes.** The Interim Report's assessment that other operators are or could be viable competitors in terms of capability, capacity and compatibility requires much more detailed consideration. At this stage it is unclear whether there will be effective competitors for future tenders.

Preliminary market testing should therefore take place. [**REDACTED**]

If the PSR proceeds with this proposal, LBG recommends appropriate consultation with scheme operators on the tender procedure. This will ensure that tender costs are proportionate to the relatively low value of contracts concerned, and that processes are sufficiently flexible during the tender process. [**REDACTED**]

(b) **Remedy 2. LBG recommends the PSF continues to assess the best approach to common international standards.** A move to common standards could potentially deliver wider benefits (beyond competition) to service-users and the UK as a whole. Whether such a major change is appropriate depends on the costs and risks involved. The adoption of international standards for existing infrastructure would need to be carefully planned and executed as a cross-industry programme, requiring significant testing and a change freeze for a period before and after implementation. International comparators (e.g. Canada) suggest this could be at least a 7-year programme if not more.

The PSF is currently exploring the costs and benefits of different approaches. LBG therefore recommends that the PSR requires the PSF to consider, and report by a specified date, on:

(i) whether common standards should be adopted, and if so:

(ii) which standards, for which schemes, and whether they should be applied to legacy or new infrastructure;

(iii) the approach to implementation;

(iv) timing for the migration;

(v) the costs and benefits of such migration; and

(vi) the effect on competition.

(c) **Remedy 3.** [**REDACTED**]

(d) **Remedy 4. LBG supports the LINK structural remedies**, most of which are already being realised. These will help to clarify LINK's legal and governance structure, and will position it more effectively for any future switch of infrastructure provider.

1.22 The remainder of this response provides further evidence of LBG's views on the Interim Response. We are happy to discuss any aspect of this response with the PSR.

2. KEY MARKET FEATURES

2.1 As the Interim Report recognises, payment systems form an important part of the UK's national economic infrastructure. Payment systems are used by every consumer and business in the UK to pay for goods and services. The robustness and sustainability of the UK's payment systems are critical to the economic wellbeing of the UK. In 2014 alone, Bacs, FPS and LINK were responsible for about 10 billion transactions involving approximately £5.5 trillion.[5]

2.2 The following table summarises the functions of the main UK payment systems.

Figure 1: Features of the main UK payments systems

	Payment Scheme	Payment Type Purpose	Predominant User Group	Average Value	Max Trans Value	Speed of receipt for customer	Central Hours of Service	Customer Perception
Push Payment	Faster Payments	Instant Consumer and Business transactions. Accessible via telephone, mobile and online banking. Supports the new industry-wide Mobile Payments Service (PAYM).	Retail	c. £400	£100k*	normally seconds (SLA 2 hours)	24 * 7	Fast Online Payments Pay a Friend One Off
Push Payment	CHAPS	Settles both systemically important and time dependent high-value payments. The UK's Real Time Gross Settlement (RTGS) system.	Commercial	c.£2,000,000	None	Same day	06.00 – 16.00**	High Value Mortgages Fast Guaranteed
Push Payment	Bacs CT	Customer Recurring transactions that clear over 3 days. Provides the services that enable the Current Account Switching Service (CASS) to function.	Retail & Commercial	c. £700	£20m	3 days (debit and credit applied day 3)	7.00 – 22.30	Direct Debits Paying Bills Regularly Salary Benefits
Pull Payment	Bacs DD							
Pull Payment	Cheques	Cheque and credit paper transaction clearing.***	Retail & Commercial	c. £1,000	None currently	Day 2 – interest paid on value Day 4 – funds may be drawn upon Day 6 – final day for returns	n/a	Slow One Off Pay in Branch Pay for clubs/societies
Pull Payment	MasterCard	Facilitates electronic funds transfers through MasterCard branded Cards.	Retail	c. £50	None	2 days	07.00 – 22.00	Fast Online / In Store One off Purchases
Pull Payment	VISA	Facilitates electronic funds transfers through Visa branded Cards.	Retail	c. £50	None	2 days	07.00 – 22.00	Fast Online / In Store One off Purchases

* FPS limit will increase to £350k in Nov 2015 and then to £1m in 2016
** CHAPS central hours will be extended to 06:00 – 18:00 in June 2016
*** Cheque processing will be replaced with Image Clearing in March 2017

Source: LBG.[6]

2.3 UK consumers and businesses have a choice of payment methods and can choose the payment type most suited to their individual situation and underlying transaction. UK consumers' use of payment systems has evolved over time, as shown by the charts below. The volumes of credit and cheque inter-bank transactions and Bacs standing order volumes have been declining since 2010. CHAPS and Bacs direct debit volumes have slightly increased. FPS has the grown more quickly.[7]

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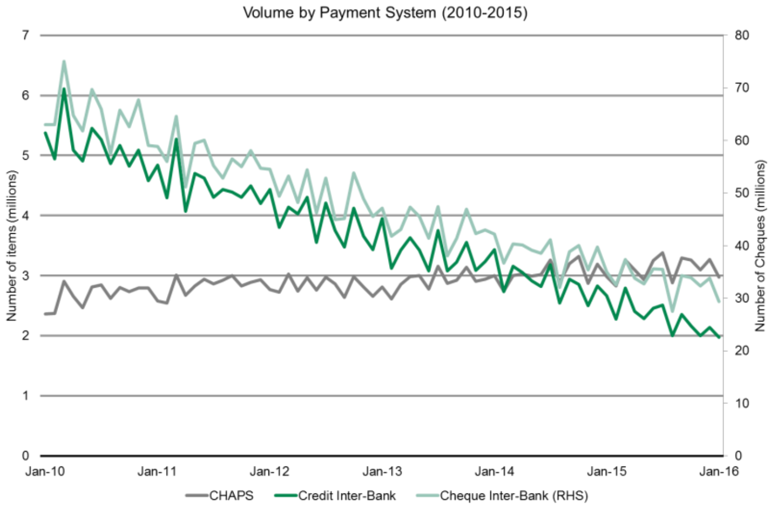
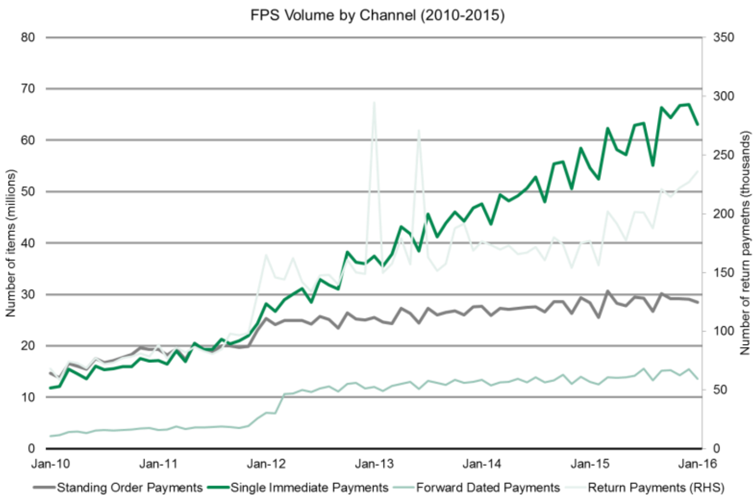
[5] Interim Report paragraph 3.11
[6] Note – excludes LINK given its different focus on consumers withdrawing cash from their own accounts.
[7] Monthly Payment Statistics 1990 to January 2016

Figure 2: Transaction volume by payment system, 2010-2015



Source: Monthly Payment Statistics 1990 to January 2016

Figure 3: Transaction volume by channel, Faster Payments System, 2010-2015



Source: Monthly Payment Statistics 1990 to January 2016

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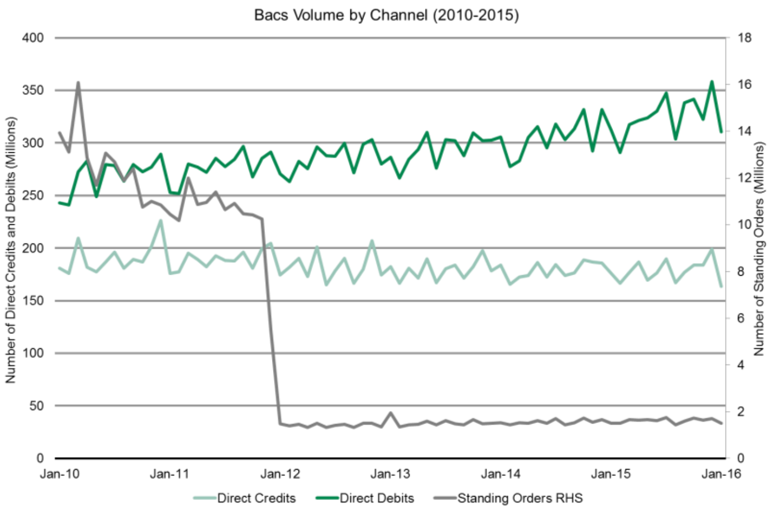
Figure 4: Transaction volume by channel, Bacs, 2010-2015



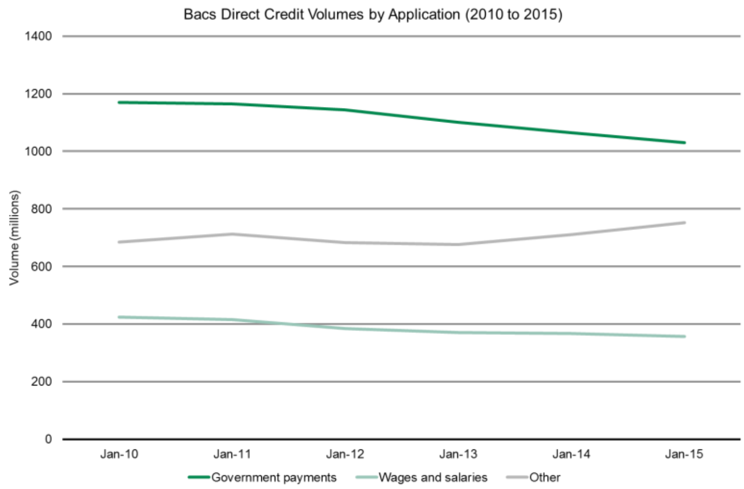
Source: Monthly Payment Statistics 1990 to January 2016

2.4 The charts show that there has been competition between payment schemes. There are multiple up and coming innovative payment methods, such as ApplePay and PayM, that have the potential to lead to further significant migrations across payment systems. This means infrastructure providers' investments in payment systems are risky, particularly if they are made in systems where volumes are declining or may do so in future.

2.5 Volume risk is enhanced by the concentration of the customer base. Half of Bacs Direct Credit volume, for example, comes from government payments, as shown by the chart below.[8] If Universal Credit is introduced, these payments may be made monthly rather than weekly, and numerous different benefits may get rolled up into a single payment. If so, Bacs volumes would decline dramatically.

[8] Bacs Processing Statistics 2016

Figure 5: Transaction volume by application, Bacs, 2010-2015



Source: Bacs Processing Statistics 2016

2.6 There are two conclusions to be drawn from these observations. First, competition between schemes is an important dynamic that the Interim Report has not considered. Second, that infrastructure providers face significant potential risks to their future volumes and hence their business models. These features need to be taken into account when considering the Interim Report's findings and potential remedies.

2.7 These should also be reviewed in light of the wider developments occurring in the market and in the regulatory regimes.

(a) **PSD2:** PSD2 will allow for increased use of APIs between banks and third parties, opening up the payments market to new entrants. Banks must allow authorised third parties to access customer account information and/or initiate payments from customer accounts. For example, Amazon customers, instead of using credit cards as currently, will give authority to Amazon to transact direct with their account. This requires the development of open standard APIs for banks (this may or may not be ISO 20022 – it could be a newer standard). This would need to be taken into account in any discussion around the proposed standards remedy.

(b) **BoE Real Time Gross Settlement Strategic Review**: The Bank of England is currently undertaking a strategic review of the RTGS system, which includes CHAPS. The goal of the review is to explore the necessary functions of a high-value payment system, the accessibility of the system and the role of the BoE in service delivery. By 2017, the BoE hopes to begin developing new technology for a high-value settlement system for the years ahead. Given the uncertainty surrounding the direction of RTGS systems, it is critical that the PSR takes into account the BoE's final blueprint before implementing remedies, to ensure a co-ordinated payments investment programme.

(c) **Blockchain**: The use of cryptographically-enabled distributed ledger technology is currently small, but gaining widespread traction in a variety of applications worldwide. Bitcoin-type models, which remove the need for trusted third parties in value transactions, may begin to find an increasing role in a variety of payment system-related applications. If so, this could lead to significant migration of payment volumes. The proposed standards remedy could therefore become less relevant. For example, RSCoin was designed by University College London for the Bank of England as a distributed ledger approach to inter-bank settlement. We understand that BoE will consider the viability of RSCoin as part of its RTGS Strategic Review.

(d) **Cheque Imaging.** The imminent advent of cheque imaging could have significant effects on the behaviour of customers, especially small business users, which may then impact volumes of other schemes.

2.8 Finally, a unique market feature in the UK is the existence of the PSR itself – the first dedicated direct regulator of payment systems. LBG supports the PSR's three statutory objectives. These are:

(a) to ensure that payment systems are operated and developed in a way that considers and promotes the interests of all the businesses and consumers that use them;

(b) to promote <u>effective</u> competition in the markets for payment systems and services - between operators, PSPs and infrastructure providers (emphasis added); and

(c) to promote the development of and innovation in payment systems, in particular the infrastructure used to operate those systems.

2.9 The Interim Report's findings and recommendations need to be judged against these statutory objectives. In addition, other aspects of good regulatory practice are important. These include: clear processes; findings supported by robust evidence; objective weighing of the evidence; and robust cost-benefit analysis, including of unintended consequences.

2.10 In the next three sections, we explore whether these statutory and wider objectives are met. We examine:

(a) important issues *not* addressed in the Interim Report;

(b) the Interim Report's reasoning and evidence for its concerns in relation to the current market and ownership structure;

(c) the Interim Report's reasoning and evidence for its conclusion that VocaLink is not a natural monopoly and that competition for (or even in) the market is possible.

3. IMPORTANT ISSUES NOT EXPLORED IN THE INTERIM REPORT

3.1 There are three important issues not addressed in the Interim Report, but which affect outcomes for customers today, and will continue to do so in the future.

(a) First, how to ensure that payment systems continue to operate with no disruption to service if any infrastructure provider gets into financial difficulty;

(b) Second, how the costs of providing existing services are charged to users of the infrastructure; and

(c) Third, how changes to the services provided are agreed and how the costs of providing new services are charged to users.

3.2 These issues address directly the first and third of the PSR's statutory objectives - promoting the interests of all users and promoting innovation - regardless of the ownership structure and whether the proposed remedies are introduced.

How to ensure that payment systems continue to operate with no disruption to service if any infrastructure provider gets into financial difficulty

3.3 A major concern for all users of payments systems is ensuring that the core infrastructure does not stop working. A threat to this is the financial stability of the infrastructure provider and the risk of them exiting the market (see examples below). Rules and procedures to deal with this eventuality do not currently exist and remedying this situation should be a priority for the PSR.

3.4 An operator of core infrastructure could get into financial difficulties for a variety of reasons. For instance:

(a) as a result of risky investments in non-core activities that did not pay off;

(b) if changing use across payments systems led to a reduction in payment volumes and hence revenues;

(c) if the payment system lost a contract which accounted for a substantial proportion of its revenues; or

(d) if additional unexpected needs for core investment challenged overall finances.

3.5 Any of these circumstances potentially puts the core infrastructure at risk. This is true both from an ongoing perspective and in relation to future investments.

3.6 Under the current mutual ownership structure, the banks, as users and shareholders, have had both the incentive and ability to maintain VocaLink as a going concern. [✂]

3.7 [✂]

3.8 [✂]

3.9 In practice, fully anticipating and perfectly controlling for all future events in a contract is extremely difficult. There are many recent examples which demonstrate this point, particularly in network infrastructure industries. For instance:

(a) **Metronet Rail:** From 2003 to 2008 Metronet was responsible for maintenance, renewal and upgrade to the infrastructure of 9 London Underground lines. In 2007, after failing to receive the money needed to cover cost over-runs, Metronet went into administration. To ensure services continued to run, Metronet was bailed out by the government at a cost of £2 billion. It was then transferred back into public ownership under the authority of Transport for London.[9]

(b) **National Express and the East Coast Rail Line:** In 2007, the InterCity East Coast franchise was awarded to National Express. National Express committed to paying £1.4 billion to the Department of Transport by 2015. However, by the end of 2009, National Express faced increasing financial pressure from passenger volume reductions following the economic downturn. National Express preferred to incur a loss of £73 million from default rather than continuing to meet its contractual and operational commitments.[10] To maintain service provision, the government was subsequently forced to nationalise the rail franchise.[11]

(c) **National Air Traffic Services:** In 2001, the National Air Traffic Services (NATS) was privatised with the government selling 47% of the company to a consortium of seven airlines. However, the 9/11 attacks months later led to a substantial reduction in transatlantic flights. NATS became financially unstable, anticipating estimated losses of £190 million between 2001 and 2005.[12] In a bid to keep the company solvent and encourage banks to restructure the debt, the government and airport operator BAA agreed to equally provide £130 million of new capital to NATS.[13]

3.10 These examples demonstrate that contractual protections alone may not be sufficient to ensure continuous service provision, which is the key interest of service users and consumers and the PSR's first objective. Regulatory safeguards may be required.

3.11 The PSR should consider which contractual and regulatory mechanisms could best be deployed to mitigate these potential concerns. This is relevant irrespective of the ownership situation.

How the costs of providing existing services should be allocated between users

3.12 **Operating costs.** The nature of payment systems is that their *operating costs* are to some extent fixed irrespective of the volume of transactions. This means that rules are required as to how best those costs should be allocated across users.

(a) Currently the scheme operators (FPS, Bacs, LINK) contract with VocaLink and direct participants sign a participation agreement with each operator. This includes the obligation to pay infrastructure transaction costs via the methodology set by the operator. Under this regime, all participants pay the same per transaction cost. This approach also includes a transparent methodology to deal with situations of over- or under-recovery of costs in a given year.

(b) The SEPA approach is different, as prices are set through bilateral negotiations between SEPA infrastructure providers and users. This means higher volume

[9] http://uk.reuters.com/article/uk-metronet-bailout-idUKMOL66953720080207
[10] http://news.bbc.co.uk/1/hi/business/8127851.stm
[11] http://news.bbc.co.uk/1/hi/business/8127851.stm
[12] http://www.politics.co.uk/reference/national-air-traffic-services
[13] http://researchbriefings.files.parliament.uk/documents/SN01309/SN01309.pdf

users can benefit from volume discounts. Arguably, the UK approach might provide a more level playing field for new entrant banks, while the SEPA approach might provide less equal outcomes.

3.13 [**REDACTED**]

3.14 [**REDACTED**]. However, if participants consider that a proposed cost allocation is inappropriate, it is currently not clear how any renegotiation would take place, or if there is any scope for appeal against a system that certain users feel strongly is against their interests.

How changes to the services provided are agreed and how the costs of providing new services are charged to users.

3.15 **New investment costs.** All users benefit from major investments in the core, but there is there is no clear and agreed allocation process for the associated costs. If some users disagree with the proposed allocation of costs, appeal mechanisms are not obvious, nor who should judge the merits of the case. Given the number and scale of imminent future changes in payment systems (including but not limited to the PSR's potential proposals), developing a robust process for allocating the relevant costs is extremely important.

3.16 Currently, VocaLink provides a proposal to the shareholders/industry covering the cost to build and run the service. Different governance processes have been used to assess these proposals in different situations:

(a) In the case of Faster Payments, a proposal was made by VocaLink to APACS (the predecessor of Payments Council) under the governance of the FPS Senior Sponsors Group (made up of representatives from the founding member banks).

(b) In the case of CASS, VocaLink's proposal was made to the Payments Council under the governance of CASS Programme Board (made up of representatives of day 1 and future CASS participants).

(c) In the case of PayM, the proposal was made to the Payments Council under the governance of the Mobile Payment Scheme Programme Board (made up of representatives of PayM day 1 members).

3.17 **In conclusion, resolving financial difficulty and cost allocation issues is critical for delivery of the PSR's statutory objectives, whether or not there is a change of ownership.**

4. THE INTERIM REPORT'S CONCERNS ABOUT THE EXISTING STRUCTURE AND OUTCOMES

4.1 The Interim Report provisionally finds that there are concerns arising from the market and ownership structure as a matter of principle and/or economic theory, and that the evidence on market outcomes is also indicative of concerns. LBG acknowledges that there is always room for improvement in any market.

4.2 However, both the Interim Report and the commissioned LIPIS study contain clear evidence that participants are largely satisfied on price, quality and innovation, and on the reliability and integrity of the infrastructure. These good outcomes are downplayed by the Interim Report, while some of the Interim Report's findings are based on limited evidence.

Market structure and ownership

4.3 The Interim Report argues that the current vertically integrated market and ownership structure results in the following five detrimental outcomes.

(a) A lack of competitive tendering for core infrastructure contracts;[14]

(b) Deterrence of the entry of rival infrastructure providers, as potential rivals perceive that VocaLink will always be the preferred bidder;[15]

(c) Excessive risk aversion by schemes, leading to unnecessarily high costs of provision;[16]

(d) The "control" of VocaLink by its larger shareholders;[17] and

(e) A disincentive to expose VocaLink to competition that may put the assets and profits of shareholders at risk.[18]

4.4 In relation to the **lack of competitive tendering**, the Interim Report argues that the recent competitive tendering process for the LINK contract was not "*a fully competitive procurement exercise*".[19] While LBG believes that any tender process can be improved in some respects, it believes that the LINK tender was a genuine attempt to encourage competition for the contract, legal advice was sought on best practice and the result was improved outcomes. The Interim Report's criticisms are overplayed.

4.5 More generally, in relation to competitive tendering exercises for the operation of ***existing*** core infrastructures:

(a) Given the costs and risks of potential changes (and of tendering processes themselves), the potential benefits of tendering would need to be material to make this a sensible commercial strategy. The Interim Report recognises that to a bank the cost of core services is low relative to overall payment services costs,[20]

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[14] Interim Report, paragraph 4.20-4.37 and 4.152-4.156
[15] Interim Report, paragraph 6.73, second bullet
[16] Interim Report, paragraph 1.10i.
[17] Interim Report, Section 6
[18] Interim Report, paragraph 6.73, third bullet
[19] Interim Report, paragraph 4.29
[20] Interim Report, paragraph 4.35

suggesting that any benefits are likely to be limited, while switching comes at a considerable cost to PSPs.[21]

(b) There may be incumbency advantages attributable to the current infrastructure provider, such as knowledge of the system, ownership of the relevant infrastructure and track record. If so, it would be understandable that procurement exercises are not carried out on existing infrastructures. The Interim Report ignores such advantages or assumes they do not exist.

(c) The Interim Report has found only one example where a competitive tender has been held to re-procure *existing* core infrastructure.[22] The LIPIS report, from which this is sourced, identifies that this occurred in Japan. However, only the incumbent has ever been awarded the contract to operate BOJ-Net or Zengin.[23] The Interim Report does not specify whether there are quantifiable benefits from this example.

4.6 These points suggest there may be good reasons why the legacy Bacs and FPS contracts were not retendered. For example, if there were no credible competitors to these existing infrastructures, engaging in a competitive tender exercise would likely have limited benefits.

4.7 ***New*** infrastructure projects have regularly been competitively tendered. Contracts have been awarded to firms other than VocaLink (CGI in the case of Cheque Imaging). The LIPIS report suggests the UK is one of only three countries analysed to have meaningful infrastructure tender processes.[24]

4.8 The Interim Report's views around the **deterrence of entry** of rivals due to the nature of VocaLink's ownership are not supported by evidence. As mentioned above, VocaLink has not been awarded the tender for certain new infrastructure contracts. There are also examples of scheme operators taking decisions against VocaLink's interest, such as awarding the future cheque model infrastructure to CGI, using alternative providers for European clearing services and negotiating discounts to VocaLink's prices on contract renewals.

4.9 On **risk aversion**, the Interim Report does not support the case that operators "*may also place a disproportionate weight on avoiding risk*".[25] The PSR's first statutory objective is to ensure that payments systems operate in the interests of all stakeholders, including customers. Avoiding operational failure is a critical interest of banks, of end customers, and the UK economy. It is therefore appropriate for scheme operators – and indeed LBG and other PSPs – to have a very low appetite for risks to payment systems. The 2014 outage in CHAPS – a by-product of a change in systems – had serious detrimental consequences.

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[21] Interim Report, paragraph 4.131
[22] Interim Report, paragraph 4.32 plus Box F.
[23] LIPIS p29
[24] LIPIS report p30 – 13 countries in total were analysed.
[25] Interim Report, paragraph 1.10i.

4.10 It is hard to imagine what a more appropriate risk appetite should be. The Interim Report does not analyse, let alone quantify, what the benefits of such an alternative risk appetite might be, compared to the additional risks involved.[26]

4.11 On the existence of **control** by large shareholders, the Interim Report's approach misunderstands the legal definition of control and the Report does not demonstrate that control is being exercised in the manner it envisages. This issue is further expanded in Annex 2. To the extent that shareholders do have influence, it is aligned with their interests as customers.

4.12 On the **desire to maintain shareholders' profits**, this finding implies that VocaLink's shareholders have derived or seek to derive a financial benefit from their ownership of VocaLink. This conclusion is inconsistent with the fact (noted at paragraph 2.16 of the Annexes to the Interim Report) that shareholders have never taken a dividend from VocaLink. When VocaLink has made a profit, this has been reinvested in VocaLink's services to benefit all service users. [✂] This suggests that VocaLink has been less profitable over the long run than implied by the Interim Report.

4.13 **LBG considers that the Interim Report has not sufficiently assessed the evidence on these issues, leading to its conclusions being poorly supported.**

Market outcomes

4.14 The Interim Report also argues that the current structure has resulted in poor outcomes in terms of value for money, quality of service and innovation.

4.15 In relation to **value for money (VFM)**, the Interim Report finds that operators and direct PSPs are not fully aware of what other providers could offer in terms of price, and whether VocaLink could offer a better price, because they have not carried out competitive procurement exercises.[27] The Interim Report argues that:

(a) attempts by operators and PSPs to compare VocaLink's VFM have not been
(b) adequate;[28]

(b) when operators did compare providers through the Link RFI process, VocaLink offered a price discount to LINK, showing a competitive response;[29] and

(c) the Interim Report's profitability analysis implies persistent profitability for the core services provided by VocaLink, which suggests that operators might be able to receive better value for money.[30]

4.16 LBG finds it difficult to agree with the Interim Report's conclusions on VFM. The Interim Report notes that the majority of operators and PSPs think VocaLink offers good value for money, although the Interim Report then discounts this evidence.[31] The providers that did attempt to compare VocaLink's prices found that its prices were broadly in line with those

[26] Given that VocaLink's customers would continue to be equally risk averse after the implementations of remedies and that VocaLink would continue to respond to its customers' needs, it is not clear how PSR's "concern" about risk appetite would be resolved.
[27] Interim Report paragraph 4.59
[28] Interim Report paragraph 4.52
[29] Interim Report paragraph 4.54
[30] Interim Report paragraph 4.56 and 4.57
[31] Interim Report paragraph 4.59

of other central infrastructure providers. Again, the Interim Report discounts this evidence.[32] The Interim Report has not provided direct evidence of value for money discrepancies, for example, through a thorough cost benchmarking exercise across providers.[33]

4.17 Finally, it is difficult to draw any firm conclusions from the Interim Report's profitability analysis of VocaLink because:

(a) Evidence from the profitability analysis is redacted. It is unclear why this information needs to be held confidential, or why ranged values could not be provided to support the Interim Report's conclusions;

(b) The profitability analysis failed to make any adjustments, despite the Interim Report recognising that *"profitability analysis often involves judgements and assumptions*";[34] and,

(c) [✂]

4.18 **As a result, LBG does not consider that the Interim Report has demonstrated that VocaLink does not offer value for money.**

4.19 In relation to **Quality of Service,** the Interim Report finds that more competition for the provision of infrastructure services can deliver higher service quality.[35] It argues that:

(a) VocaLink responded to competitive pressures in the LINK RFI process and offered tighter SLAs.[36]

(b) Alternative providers for other payment systems appear to offer a high quality service.[37]

(c) Competitive pressures would increase VocaLink's incentives to address service issues that have not previously been a priority for VocaLink.[38]

4.20 Again, it appears to LBG that the way in which the Interim Report reaches these conclusions does not reflect the balance of the evidence.

4.21 First, it is clear that VocaLink has a strong record of quality of service. The Bacs, FPS and LINK systems have been fully operational with no outages for several years (in contrast for instance to CHAPS). Moreover, over the last five years, VocaLink has met all its SLAs, except on four occasions in relation to back office services.[39] This is reflected in the fact that the majority of operators and PSPs had a positive view of VocaLink's service quality.[40] The levels of customer satisfaction from the annual internal survey show that customers

[32] Interim Report paragraph 4.45
[33] Interim Report paragraph 4.38
[34] Interim Report paragraph 4.56 and 4.57. Profitability analysis carried out by other competition regulators (e.g. the CMA) typically involves a detailed discussion of the adjustments necessary to derive accurate measures of economic profit from accounting data. These adjustments vary on a case by case basis depending on the nature of the entity under investigation.
[35] Interim Report paragraph 4.80
[36] Interim Report paragraph 4.76
[37] Interim Report paragraph 4.77
[38] Interim Report paragraph 4.68 and 4.78
[39] Interim Report paragraph 4.71
[40] Interim Report paragraph 4.61

are satisfied with VocaLink.[41] In addition, VocaLink provided high quality support to LBG to deliver successfully the largest banking integration ever achieved in Europe.

4.22 Second, LBG has no reason to doubt that overseas operators of payment systems infrastructure offer a high quality service in many cases. However, the Interim Report does not provide any adequate quality comparison among the systems to show that VocaLink's quality of service is any worse than those of overseas providers. The LIPIS report does not suggest that VocaLink's quality of service is inferior to international norms. Moreover, given the lack of competitive procurement exercises internationally, it seems unlikely that high service standards elsewhere are driven by competition.

4.23 Finally, in response to the observation that VocaLink's incentives to respond to service issues would be increased by competitive pressure, LBG notes that the evidence on which this is based reflects the views of a minority of participants.[42] It is also clear that these concerns are "around the edges", relating to less important items (e.g. "*some back office functions or related services needed to be upgraded or further developed*";[43] "*Some stakeholders raised a small number of issues related to VocaLink's back office functions and change request processes*").[44]

4.24 **The Interim Report's evidence does not support the alleged poor quality of service by VocaLink**. LBG suggests that the PSR compares VocaLink's quality of service performance with international infrastructure providers.

4.25 On **Innovation**, the Interim Report finds that there have been limited innovations in core infrastructure services in the UK, with major changes driven by regulatory intervention. The Interim Report suggests VocaLink's incentive to innovate in UK core services is reduced by lack of demand for innovation by operators, and a lack of competitive pressure because the operators, as current procurers, do not shop around.[45] In particular:

(a) Major innovation in core services has been largely government-driven. VocaLink has not driven much of this innovation compared with its innovation outside the UK;[46]

(b) Past reviews by governments and regulatory bodies have found that more could be done to encourage innovation in the UK payment system without regulatory action;[47]

(c) Innovation in core services is driven by operators on behalf of PSPs, but operators and PSPs lack an incentive to innovate or consider alternative providers;[48] and

(d) Innovations exist that have not been adopted in the UK.[49]

4.26 However, the Interim Report discounts considerable evidence that shows the UK is indeed innovative, both by international standards and in core services.

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[41] Interim Report paragraph 4.65
[42] Interim Report paragraph 4.68
[43] Interim Report paragraph 4.68
[44] Interim Report paragraph 4.73
[45] Interim Report paragraph 4.104
[46] Interim Report paragraph 4.94
[47] Interim Report paragraph 4.97
[48] Interim Report paragraph 4.98
[49] Interim Report paragraph 4.100

4.27 The UK is widely recognised to have a world leading payments system: "*Product offerings in the UK (both core services and overlay services) are richer than most other systems in scope for this project. The added functionality of the real-time system, as well as rich functionality on legacy systems, is the result of innovation*".[50] Large innovations in core services include services such as Paym, CASS, and FPS.[51] Most direct PSPs and operators consider VocaLink to be innovative.[52]

4.28 Given the need for coordination amongst a large number of parties when introducing changes in the core infrastructure, it is unsurprising that such innovations cannot be introduced by any individual party acting on its own. It does not therefore seem to be an appropriate criticism of VocaLink that it has not driven this innovation in the UK. The LIPIS report identifies that the UK is unusual in having innovations that are driven both by regulators and for commercial reasons: "[the] *UK is typical in having a mix of regulatory and commercial drivers, but unusual in having both an active regulator and commercial impulses feeding new developments*."[53]

4.29 The table below lists recent innovations in the UK payments market and demonstrates that they have been initiated by both regulatory and commercial entities.

Figure 6: Recent payments innovations

Innovation	Idea Initiated By
Faster Payments	Payments Council
CASS	LBG
PayM	Payments Council
Cash ISA Transfer Service	BBA
International Services (FAST, Bankgiro)	VocaLink
RTI	HMRC as a user of payments
Zapp	VocaLink
Using Data to support Lending Decisions	VocaLink
Mobile Phone Top Up service	VocaLink

Source: LBG, PSR Request for Information Infrastructure Response

4.30 Moreover, the examples of overseas innovation by VocaLink are also not solely the result of its own actions, but rather reflect the desire of regulators or payment system users to develop improved systems (and where VocaLink has been chosen to deliver those). For instance, the LIPIS report finds that "*MAS (Monetary Authority of Singapore) instigated the development of FAST, with a group of 8 commercial banks collaborating on the use cases, business requirements, and functionality specifications*".[54]

4.31 The Interim Report also relies on limited sources to conclude that the level of innovation is restricted. Two operators and four direct PSPs noted that the operators ultimately determine what developments are carried out within core services. However, only two of

[50] Lipis Report, p34
[51] Interim Report paragraph 4.84 and 4.86. As well as these high profile projects, VocaLink has also successfully innovated incremental change, such as the encryption enhancing Secure Hash Algorithm update. (Interim Report, paragraph 4.91)
[52] Interim Report paragraph 4.93
[53] Lipis Report page 12
[54] Lipis Report, p128.

these direct PSPs think this prevents VocaLink from making changes or innovating in core services beyond the operators' demands.[55] Evidence of those specific instances is not provided. In relation to incremental changes, VocaLink has not blocked any user change requests over the past five years.[56]

4.32 The Interim Report also identifies a handful of areas where there are innovations in Europe that have not been implemented in the UK. LBG considers that it would be unusual and probably inefficient for any business or geographic sector to have implemented every single example of innovation in the industry. Nevertheless, some of these are already being developed or under assessment:

(a) **Cloud-based flexible capacity.** LBG understands that the PSF may be considering this.

(b) **Enhanced user interfaces.** LBG understands that the PSF may be considering this.

(c) **Request to pay.** This is already under review as part of the PSF and Payment UK's World Class Payments programme, the remit of which is to assess potential improvements to the UK payments system. The approach and infrastructure to be deployed for Cheque Imaging in the UK is built on a request to pay model and this will have the capability to be expanded to other uses cases beyond cheque clearing.

(d) **E-Archiving.** This is also under review by the PSF. The introduction of Cheque Imaging in the UK will deliver E-Archiving in the first instance for cheque images.

4.33 Moreover, for these innovations to support the case against the existing ownership arrangements of VocaLink, they would need to have arisen from competitive procurement exercises involving independently-owned infrastructure providers. The Interim Report is silent on this issue. Given that it also finds that competitive re-procurement exercises only took place in one country out of the 12 identified[57] – and that this was Japan – it seems implausible that these European innovations are a result of competitive re-procurement of the core infrastructure.

4.34 Finally, there are several areas in which the UK has experienced more innovation than Europe. Real-time payments, 24 hour availability and direct submission for Bacs equivalent services are not present in most payments systems in Europe. There is also no equivalent to PayM and CASS services in Europe. LBG sees such innovations – which significantly improve the functionality for ultimate customers – as substantially more material than, for example, better user interfaces.

4.35 **LBG therefore does not consider that the evidence supports the PSR's position that VocaLink is insufficiently innovative, or that the PSR's proposed remedies would result in greater levels of innovation. In conclusion, as a user of VocaLink services LBG naturally welcomes improvements in value for money, quality of service and appropriate innovation. LBG also acknowledges that there is always room for improvement in any market. However, the evidence provided in the Interim Report provides a weak basis for its adverse findings.**

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[55] Interim Report paragraph 4.89
[56] Interim Report paragraph 4.96
[57] Interim Report, paragraph 4.32

5. COMPETITION FOR THE MARKET

5.1 There are essentially four types of market structure which can potentially deliver the PSR's objectives in respect of a core infrastructure market:

(a) **Vertical integration (status quo):** customers of the core infrastructure could vertically integrate to prevent "hold up" by a monopoly bottleneck service provider and to align interests of owner and user. This is the current situation.

(b) **Competition *in* the market:** between alternative current providers of core infrastructure.

(c) **Competition *for* the market:** between alternative future providers of the core infrastructure who would each competitively tender to operate that infrastructure for a period of time.

(d) **Regulatory intervention.** Finally, if none of these approaches is available, then there would need to be a regulatory solution to try to achieve reasonable second-best outcomes.

5.2 The Interim Report believes its objectives can be better delivered through competition either **in**- or **for**- the market rather than through the current vertically integrated structure. The focus of the Interim Report's attention is on competition for the market. However, it does point to the Single European Payments Area (SEPA) as a possible example of competition in the market for central infrastructure services.

What can be drawn from the example of SEPA?

5.3 The Interim Report's argument that competition **in** the market is possible relies heavily on the example of the Single European Payments Area (SEPA).[58] However, it is not clear that SEPA is a particularly good example to demonstrate this point.

5.4 SEPA is an initiative to establish an integrated European payments landscape. Prior to the introduction of SEPA, Euro payments between banks within different countries were treated as cross-border transactions, even though they were in the same currency. The primary motivations for the introduction of SEPA were: to further the Single Market agenda; to reduce transactions costs relating to cross-country payments within the Eurozone; and to facilitate cross-border competition in the banking sector and in the corporate world by reducing any barriers resulting from the payments system.

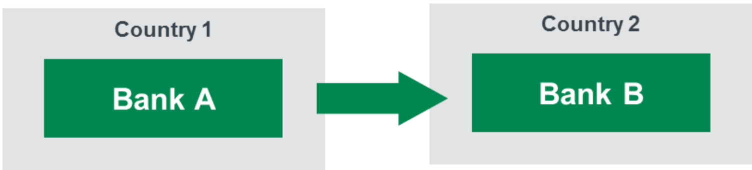
5.5 A by-product of the move to SEPA was an impact on the payments infrastructure sector. SEPA Regulation 260/12 mandated the migration of the existing Euro-based domestic Credit Transfer and Direct Debit Schemes to the equivalent SEPA Schemes. All needed to operate on a common (ISO 20022) standard and hence this required their infrastructures to be made compliant.

5.6 Prior to SEPA, each country had one or more Payment Clearing House (i.e. an equivalent to VocaLink). Since the implementation of SEPA, there has been consolidation in the number of domestic clearing houses, and the introduction of pan-European providers (such as EBA Clearing, which has 98% reach across Europe). All these infrastructure

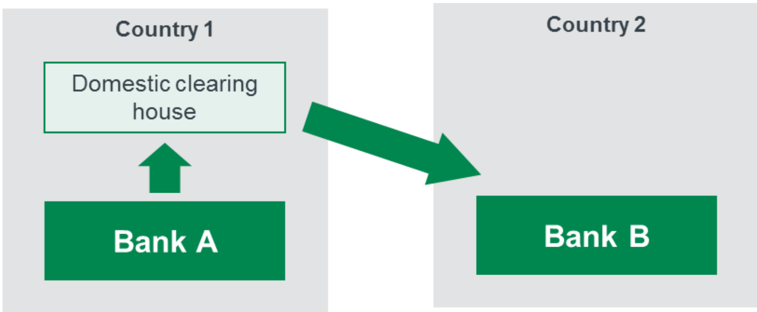
[58] Interim Report, paragraph 4.7 and 4.15

providers are now on the same standard, and hence there are now various options available for banks, providing the possibility of competition **in** the market:[59]

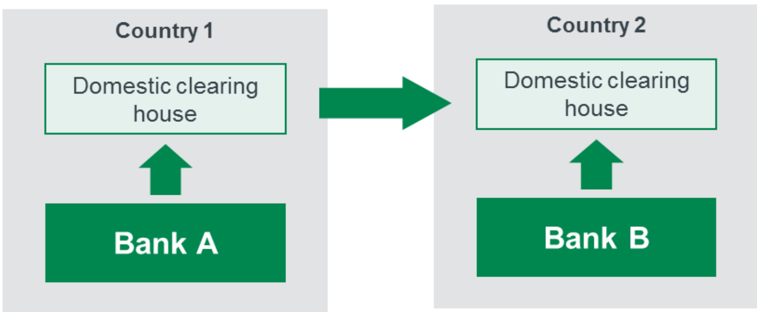
(a) Bank A in Country 1 could connect directly to Bank B in Country 2.



(b) Bank A in Country 1 could connect to its domestic clearing house, which would connect directly to Bank B in Country 2.

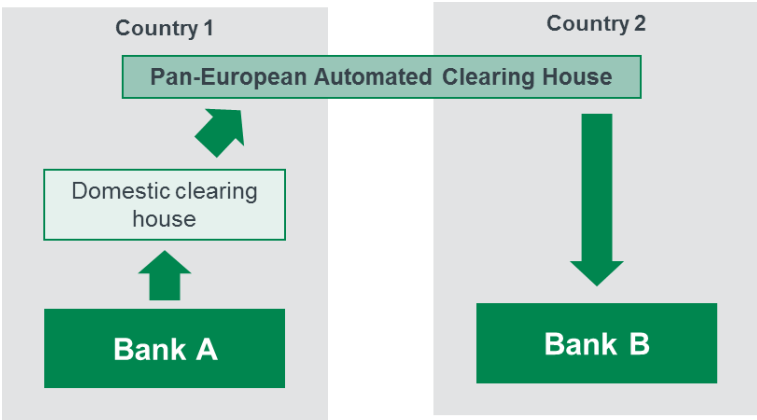


(c) Bank A in Country 1 could connect to its domestic clearing house, which would then connect to the domestic clearing house in Country 2, which in turn would then connect to Bank B in Country 2.

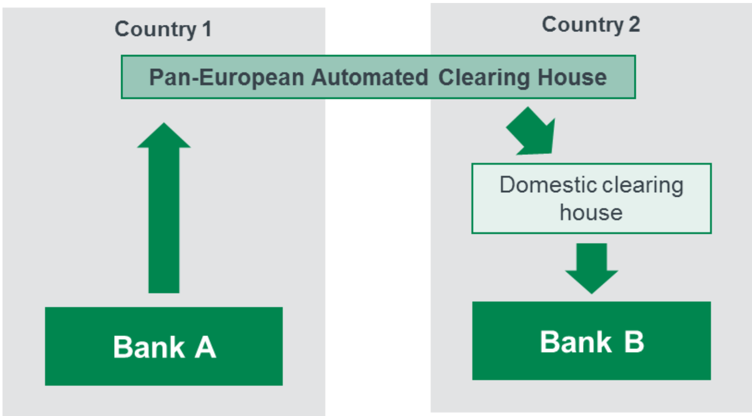


(d) Bank A in Country 1 could connect to its domestic clearing house, which would then connect to a pan-European clearing house such as the EBA, which would then connect to Bank B in Country 2.

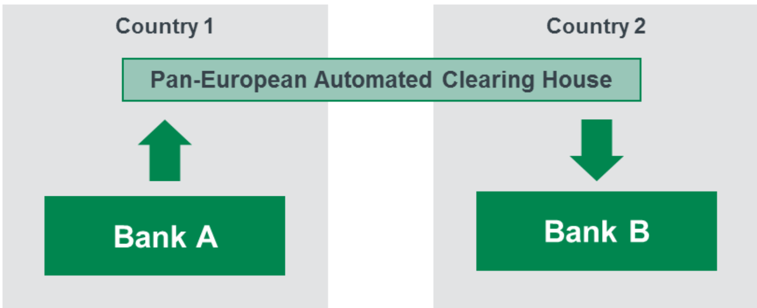
[59] Note that corporates cannot link directly to SEPA infrastructure, whereas they can do so for Bacs.



(e) Bank A in Country 1 could connect to a pan-European clearing house such as the EBA, which would then connect to the domestic clearing house in Country 2, which would then connect to Bank B in Country 2.



(f) Bank A in Country 1 could connect to a pan-European clearing house such as the EBA, which would then connect to Bank B in Country 2.[60]

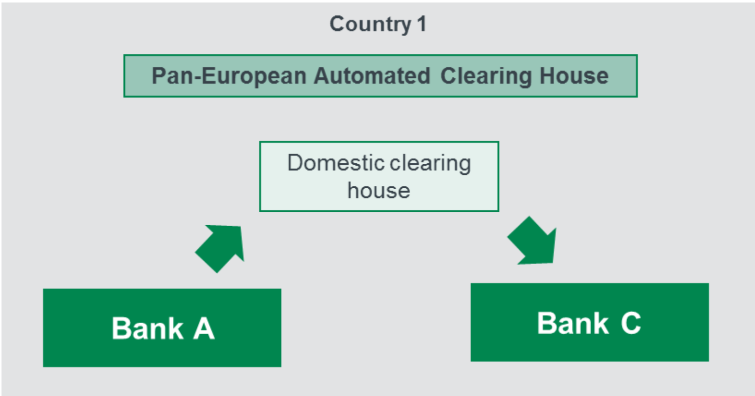


5.7 In relation to within-country payments, in principle there would be three options.

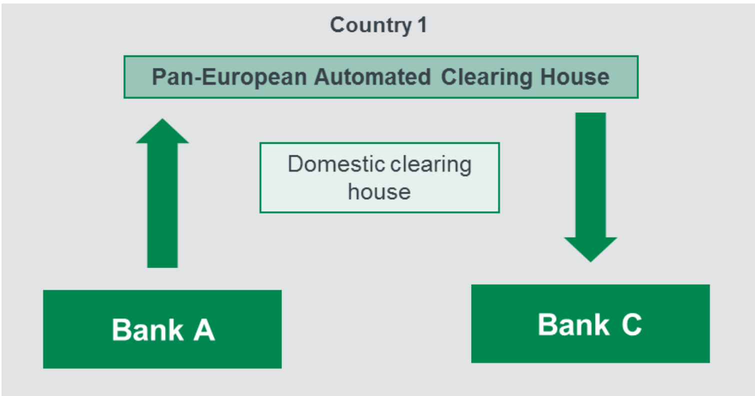
(a) Bank A in Country 1 could connect directly to Bank C in Country 1.

[60] Another theoretical possibility is that Bank A in Country 1 could connect to its domestic clearing house, which would then connect to a pan-European clearing house such as the EBA, which would then connect the domestic clearing house in Country 2, which would then connect to Bank B in Country 2, but this is not used in practice.

(b) Bank A in Country 1 could connect directly to the domestic clearing house in Country 1, which would then connect to Bank C in Country 1.



(c) Bank A in Country 1 could connect directly to a pan-European clearing house, which would then connect to Bank C in Country 1.



5.8 In practice, single jurisdiction banks have tended to use option b) above – to stick to their former national infrastructure provider (e.g. French banks generally continue to use STET, Italian banks continue to use SIA, Spanish banks continue to use Iberpay, and so on). The additional infrastructure competition generated by the move to SEPA therefore is primarily relevant to providing services for cross-border payments, and to banks which have a presence in multiple jurisdictions in the Euro area.[61]

5.9 While SEPA has resulted in the potential for competition between rival infrastructures, this does not mean that it is an appropriate model for the UK to follow.

(a) First, the costs of introducing SEPA have been significant. LBG estimates that the costs to it alone – a single bank located outside the Euro area – are in the order of

[61] In 2014 there were 18bn Euro credit transactions and the same number of direct debit transfers. In the same year the UK saw 4bn credit and 4bn debit transactions.

[**REDACTED**]. Considering the wider costs of SEPA to all participants the costs must surely be in the billions.

(b) Second, the major benefits of SEPA – reduced exchange-related transactions costs and the greater banking and corporate competition arising from a move to a single market in a common currency – would not arise in the UK. This is because there is already a "single UK £ payments area".

5.10 The potential benefits from greater infrastructure competition do not seem to have influenced the introduction of SEPA. At a high level, it does not seem sensible for the UK to incur the costs of a SEPA-style migration, without receiving any of the major sources of benefit. This issue should be evaluated fully by the PSR.

Competition for the market

5.11 The Interim Report examines whether "competition **for** the market" is feasible. In particular, it explores whether there are credible competitors to VocaLink either today or in the future, and whether such competitors face barriers to switching or entry.

5.12 **The evidence supporting the finding that effective competitors to VocaLink exist today or will emerge in future is weak.**

5.13 In terms of potential competitors, the Interim Report finds that:

(a) the market for the provision of central infrastructure is global;[62]

(b) there are at least ten other potential providers offering similar infrastructure services;[63]

(c) there have been several providers who registered interest in FCM, Cash ISA, and Singapore and Australia's Faster Payments Solutions;[64] and

(d) some are interested in competing for Bacs, FPS and LINK.[65]

5.14 The evidence and testing that the Interim Report has carried out in relation to assessing whether potential competitors exist appears to be extremely limited, relative to the substantial remedies that are proposed. These remedies rely on the existence of credible competitors.

5.15 In paragraph 4.111 the Interim Report says: "*We asked a number of domestic and non-domestic infrastructure providers if they would consider competing against VocaLink for the Bacs, FPS and/or LINK core services.*" Vague expressions of interest are not the same as credible bids against a proper specification. Although these entities may consider bidding against VocaLink, it is not clear that the possible competitors identified in the Interim Report would actually have the capability, capacity or compatibility to compete with VocaLink for Bacs or FPS as currently configured. Moreover, of those that said they would consider competing against VocaLink, only three believed they could do it at a competitive price.[66]

[62] Interim Report, 4.118
[63] Interim Report, 4.118
[64] Interim Report, 4.118
[65] Interim Report, 4.118
[66] It is unclear whether this means three for each scheme, but that seems unlikely.

5.16 The Interim Report also ignores the evidence that some participants do not consider there to be realistic effective competitors to VocaLink:

(a) "(…) *three PSPs believe that other providers may not be able to offer all the services required for Bacs*".[67]

(b) "*Seven direct PSPs did not think there were any credible alternative providers to VocaLink and, as for Bacs, none that are based in the UK and could provide the same quality of service and handle the transaction volumes. Three of these direct PSPs thought that the real-time functionality of FPS would be difficult for other providers to offer*".[68]

(c) "*Link Scheme and ten PSPs thought there were some potential competitors to provide LINK's central infrastructure services", "But half of these thought other providers may not be suitable because they have: incomplete functionality required for LINK central infrastructure services; conflict of interests in their business strategies; or no established connectivity with PSPs in LINK*".[69]

5.17 There are examples of competitive tenders for ***new*** infrastructure and rivals bidding for, and in some cases winning, those contracts. However, competing to build ***new*** systems, where there are no incumbent providers, is very different to being interested in building a rival infrastructure for an ***existing*** system where an incumbent is present.

5.18 **In conclusion, evidence for effective competitors to VocaLink existing today or emerging in the future is weak. Further evidence should be gathered to ensure there could be realistic competition for *existing* infrastructure.**

Barriers to switching

5.19 The Interim Report finds that:

(a) there are potential costs and risks of changing internal systems to connect to a new provider;[70] but,

(b) the example of SEPA shows it is possible to migrate PSP traffic;[71]

(c) translation software could reduce these costs;[72]

(d) risks could be mitigated with proper planning and testing;[73] and

(e) LINK's IPR and governance arrangements currently prevent a switch, although this is changing (IPR does not seem to be a problem for Bacs and FPS).[74]

5.20 The Interim Report largely dismisses the concerns expressed by users of the potential costs and risks associated with changing systems. However, these costs and risks could

[67] Interim Report, 4.107
[68] Interim Report, 4.108
[69] Interim Report, 4.109
[70] Interim Report 4.130
[71] Interim Report 4.132
[72] Interim Report 4.133
[73] Interim Report 4.134
[74] Interim Report 4.137-4.149

be significant, especially when the knock on effect of potential outages is considered. These must be reflected in the cost-benefit analysis of the PSR's proposed remedies.

5.21 Moreover, there is no proper cost-benefit analysis of transitional costs in the Interim Report. Instead, the Interim Report uses very rough estimates of £5m-£15m each from four large direct PSPs. It is far from clear that any anticipated benefits of competition will outweigh these transitional costs alone.

5.22 **In conclusion, the PSR provides little evidence one way or the other to determine the full costs, benefits and risks of switching to an alternative provider.**

Barriers to entry

5.23 The Interim Report identifies a number of potential barriers to entry which include (in addition to the issues of a lack of competitive tenders and the ownership arrangements that are dealt with in Section 3):

(a) messaging standards; and

(b) the location of data centres.[75]

5.24 In relation to **messaging standards**, the Interim Report identifies that different messaging standards in the UK make it more difficult for overseas rivals to compete with VocaLink for UK business. The Interim Report therefore proposes the adoption of a common message standard, such as ISO 20022, to allow rival producers to compete more effectively.

5.25 A move to common standards may deliver certain benefits to service-users and the UK as a whole, irrespective of infrastructure competition (such as the capacity to transmit more data with the payment message). However, the nature and quantum of these benefits will be determined by the method chosen to deploy the new standard. Like any other major change or development to the UK critical payments infrastructure, the adoption and timing of international standards will need to be carefully planned and executed as a cross-industry programme. It will also require significant testing and a change freeze for a period before and after implementation.

5.26 The PSF are currently considering the many issues around migration options to interoperable standards and this work should continue, as the Interim Report recognises. This includes addressing questions such as:

(a) **Which standard?** ISO20022 is an obvious candidate but will other standards or models (e.g. blockchain) be viable alternatives by the time the UK is ready to make the change?

(b) **Which transition model?** There are numerous adoption models for a common standard and each model has significant impacts on length of adoption, costs and benefits as well as future innovation. For example, Payments UK (previously The Payments Council) has identified three possible models:

[75] Interim Report, 4.158-4.172. The Interim Report notes in passing the issue of whether bundling core services with back office services forms a barrier to entry, but the Interim Report does not seem to place weight on this concern and we do not explore it further.

(i) Model A involves a gradual migration whereby the new and legacy standards operate in parallel during a period of co-existence;

(ii) Model B is a full migration with all UK electronic payments operating exclusively using the new standard; and

(iii) Model C uses a layered approach with the new standard creating a unified payment message layer irrespective of scheme.

(c) **Which scheme sequencing**? A key question is whether there should be concurrent or sequential deployments adopted by FPS and Bacs. FPS has a relatively simple architecture with few directly connecting parties and limited data set. Bacs, in contrast, has many more directly connected parties (tens of thousands), a richer message set and complex architecture. Transition to ISO20022 for Bacs might therefore be expected to cost more and take longer to implement than for FPS.

(d) **Whether to include LINK**? LINK already operates using a recognised international standard. Imposing standard migration on LINK will increase user costs. This may reduce competition by making LINK uneconomic relative to card-based payment alternatives.

(e) **What timing?** This needs to be carefully considered to avoid mishaps at the same time as other material changes in the UK (PSD2, Structural Reform, BoE RTGS Strategic Review, etc). Papers produced by Payments UK (Payments Council), the System Operators and VocaLink suggest this is a 5 year plus programme of work, with particular complexity in the Bacs infrastructure. It may therefore be more appropriate for any change to be introduced at the time of the next large-scale infrastructure renewal. The 7 year timetable for moving to an ISO20022 model in Canada is shown below.

Figure 7. The Canadian ISO20022 transition program

Source: Canadian Payments Association[76]

5.27 It is also not clear that the options being explored by Payments UK would necessarily result in the ability of rivals to VocaLink to bid to operate the core infrastructure contracts (contrary to the Interim Report's proposals). If compatibility with ISO 20022 is achieved via translation software at the level of the PSP rather than by upgrading the central infrastructure, rivals to VocaLink would not appear to be better placed to run the legacy infrastructure. However, using translation software may well be a much cheaper option than updating the legacy infrastructure.

5.28 Overall, therefore, interoperable standards could in principle lead to there being an increased number of firms that have sufficient technical expertise, experience and existing systems to meet the needs of UK customers, once the UK infrastructure has been altered to the requirements of the relevant standard. **However, it is far from clear that this would actually occur.**

5.29 In the case that the emergence of such firms does occur, the benefits that they can potentially bring to the market have not been assessed against the costs of migrating messaging standards. The cost of such an undertaking could be in the order of £500m-£700m across the industry and the Interim Report has not provided evidence that there will be sufficient benefits to justify this expenditure.

5.30 [**REDACTED**]

5.31 [**REDACTED**]

5.32 **In conclusion, having examined potential competitors and barriers to switching and entry, evidence for effective competitors to VocaLink existing today or**

[76] www.cdnpay.ca/imis15/pdf/pdfs_news/ISO20022_consultation.pdf

emerging in the future is not strong. Further evidence should be gathered to ensure that realistic competitors for current infrastructure do or will exist.

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6. REMEDY IMPLICATIONS

6.1 The Interim Report proposes four remedies. These are:

(a) Remedy 1: Introduce competitive procurement processes;

(b) Remedy 2: Introduce interoperable messaging standards for core infrastructure;

(c) Remedy 3: Divestment by direct PSPs of VocaLink ownership;

(d) Remedy 4: Continue with separation of ownership and governance of LINK.

6.2 LBG has no concerns about Remedy 4, which, as the Interim Report recognises, is already being realised.

6.3 LBG is concerned about the balance of costs and benefits of Remedy 1-3. The approach taken by the PSR to the Indirect Access review was: "*We will intervene only where we have clear evidence that we need to do so and where we expect the benefits of our intervention will outweigh any costs or unintended consequences.*"[77] In terms of benefits, VocaLink's UK revenue is approximately [✂]. Even if it were assumed that competition would lead to a theoretical 20% cost saving on a scheme contract – which may be highly unlikely in practice particularly given tender and possible switching costs – this translates to a small annual saving relative to the likely costs of the proposed remedies.

Issues relating to Remedy 1 – competitive procurement

6.4 LGB is supportive of competitive procurement processes where credible rival providers exist. The Interim Report's assessment that other operators are or could be viable competitors in terms of capability, capacity and compatibility requires much more detailed consideration. At this stage it is unclear whether or not there will be effective competitors for future tenders and so whether benefits may outweigh costs.

6.5 Preliminary market testing should therefore take place [✂].

6.6 If the PSR proceeds with this proposal, LBG recommends appropriate consultation with scheme operators on the tender procedure. This will ensure that tender costs are proportionate to the relatively low value of contracts concerned, and that processes are sufficiently flexible during the tender process. Early termination would also create significant costs, uncertainty and disruption for service users. Even if the new infrastructure was identical, the switch to that infrastructure would require careful planning and significant testing to minimise any service risks from the change of provider. These costs also need to be considered.

6.7 **The PSR should carry out preliminary market testing to determine whether credible competitors are likely to emerge. If the PSR were to proceed with this proposal, LBG would encourage PSR to consult extensively with scheme operators on the proposed tender procedure.**

[77] PSR, Indirect Access Interim Report, paragraph 11.

Issues relating to Remedy 2 – a move to common standards

6.8 **LBG recommends the PSF continues to assess the best approach to common international standards.** A move to common standards could potentially deliver wider benefits to service-users and the UK as a whole (over and above any effect on payments infrastructure competition). However, whether such a major change is appropriate depends on the costs and risks involved relative to the benefits that would result.

6.9 In this respect, the Interim Report's proposals are somewhat unclear. In particular, it is not clear from the Interim Report whether or to what extent the PSR intends to mandate a migration path and process, or proposes that options be reviewed. Certain comments in the Interim Report suggest that the PSR has already determined that this is a good idea.

(a) Paragraph 8.16 : "… *we propose that a common international message standard* *__is__* *adopted… the PSF… will be examining the type of message standard* *__to be adopted__*" (emphasis added)

(b) Paragraph 1.19 second bullet: "*the PSF will examine the type of message standard* *__to be adopted__* *and the simplification of rules*" (emphasis added)

6.10 These comments suggest that the PSR has already decided that a move to a common international standard is required but that the standard that should be adopted remains to be confirmed. However, the Interim Report also takes a less directive approach elsewhere in the document suggesting that a move to an international common standard is not yet a given.

(a) Paragraph 8.21: "*the PSF will analyse the business case of moving to a common standard such as ISO 20022*"

6.11 LBG considers that this latter approach is much more appropriate. LBG would be concerned if the PSR were to require a move to a common standard without having assessed the costs and benefits of such a move.[78] As a result, LBG recommends that before any such remedy is mandated, a detailed cost-benefit analysis should be carried out. At a high level, it is clear that any move to migrate the existing core infrastructure to a new standard will be expensive – LBG estimates that it will be in the order of £500m-£700m across the industry as a whole. This estimate is based on:

(a) comparison to the cost of other new developments such as CASS, Cheque Imaging and FPS;[79]

(b) the consideration that adoption of a new standard will impact (at least) two systems whereas the other changes referenced above were single system deployments; and

(c) LBG's cost of SEPA compliance as a proxy (as discussed in Section 5 above).

6.12 The adoption of international standards will need to be carefully planned and executed as a cross-industry programme and will require significant testing and a change freeze for a period before and after implementation. International examples such as Canada suggest

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[78] This would appear to run counter to the requirements of FS(BR)A Section 53(b), namely "*the principle that a burden or restriction which is imposed on a person, or on the carrying on of an activity, should be proportionate to the benefits, considered in general terms, which are expected to result from the imposition of that burden or restriction*"

[79] CASS is estimated to have cost ~£750m. Source: p17 in www.fca.org.uk/your-fca/documents/research/cass-report

this could be a 7 year plus programme. The PSR would therefore need to be extremely confident that its proposals would generate the competitive benefits that it anticipates before it would be appropriate for it to mandate a move in this direction, particularly given the rapid nature of change in other parts of the payments landscape.

6.13 The PSF is currently reviewing options for migration to common international standards. LBG recognises a move to common standards could potentially deliver benefits to service-users and the UK as a whole. The Payments Council's (now Payments UK) initial stakeholder analysis in April 2014 suggested there were (wider) benefits of ISO 20022 adoption.[80] These included the following:

(a) greater interoperability with a single messaging format that cuts across markets, banks and products;

(b) alignment and rationalisation of UK payment systems, leading to the simplification of back office systems and reduction in complexity, cost and associated documentation;

(c) reduction of data manipulation and increase of STP and automated reconciliation as well as reducing error; and

(d) exchange of more/better structured remittance data with payments.

6.14 The Payments Council (now Payments UK) also identified risks and disadvantages including the following:

(a) destabilisation to payments integrity if implementation timescales were too aggressive;

(b) high implementation costs, both human and technological, especially if timescales are too aggressive; and

(c) the diversion of resources that could be used for other collaborative projects.[81]

6.15 It concluded that "*The stakeholder analysis (Appendix B) when combined with the consensus views of Payments Council (now Payments UK) members and the payment schemes presents a compelling case that ISO 20022 is an important feature of any <u>future</u> change and investment in the UK payments infrastructure. It is therefore envisaged that ISO 20022 will enable all <u>future</u> collaborative change projects where <u>new investment is required</u>, unless there is a specific reason for doing otherwise. Through the governance arrangement proposed in this paper, ISO 20022 will be the default choice to enable progressive upgrades and future proofing of the UK payment clearing infrastructure.*"[82] (emphasis added).

6.16 LBG notes that not all of the options reviewed by the Payments Council (now Payments UK) would have achieved the PSR's objectives of increasing the number of potential effective competitors to VocaLink. Some options considered ways of achieving compatibility for users short of the upgrade of the core infrastructure (e.g. through users employing translation services). These are likely to be much cheaper to implement. LBG notes that the Payment Council (now Payments UK) did not find that there was sufficient

[80] Payment Council, Report to HM Treasury, ISO 20022, 6 April 2014.
[81] Payment Council, Report to HM Treasury, ISO 20022, 6 April 2014.
[82] Payment Council, Report to HM Treasury, ISO 20022, 6 April 2014.

benefit in standardisation of the existing infrastructure for its own sake: "*whilst there are benefits, there is currently no case identified to warrant replacing the UK payment clearing infrastructure for the sole purpose of standardisation alone".*[83] However, it is not clear that the Payments Council (now Payments UK) explicitly considered the potential benefits of greater competition for core infrastructure provision in this analysis.

6.17 The PSF is currently exploring the costs and benefits of different approaches. LBG therefore recommends that the PSR requires the PSF to consider, and report by a specified date, on:

(a) whether common standards should be adopted, and if so:

(b) which standards, for which schemes, and whether they should be applied to legacy or new infrastructure;

(c) the approach to implementation;

(d) timing for the migration;

(e) the costs and benefits of such migration; and

(f) the effect on competition.

6.18 **Given this, LBG recommends the PSR should ask the PSF to continue to assess the costs and benefits of different approaches to migrating to common international standards. The PSF should ensure that a potential increase in competitiveness of core infrastructure contracts is a relevant benefit to be incorporated into the analysis. However, LBG does not consider it appropriate for the PSR to mandate at this stage that a particular type of change (if any) should be introduced, without a more robust evidence base.**

Issues relating to Remedy 3 – divestment

6.19 [**REDACTED**]

6.20 [**REDACTED**]

6.21 [**REDACTED**]

[83] Payment Council, Report to HM Treasury, ISO 20022, 6 April 2014.

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Annex 1 – PSR Annex 8 questions

1. **REMEDY 1: COMPETITIVE PROCUREMENT PROCESSES**

(1) Would this remedy be effective in addressing the problems we have identified?

1. LBG's view is provided in paragraphs 6.4-6.7.

(2) What are the relevant potential costs and benefits that we should consider?

2. See paragraphs 6.4-6.7. The benefits depend on the existence of credible competitors. The costs and risks include additional procurement costs for scheme operators and bidders, and costs and risks of any transition.

(3) Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

3. If there are no effective competitors, then re-tendering may impose additional costs with no associated benefits.

(4) Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

4. None obvious.

(5) What implementation issues do we need to consider, including (but not limited to):

a. Are the operators best placed to undertake the procurement exercise?

b. The timing of the proposed procurement exercises.

c. Would there be benefits and/or detriments if these processes were coordinated?

5. Taking the points in turn:

   a. Yes, operators are currently best placed to undertake these procurement exercises.

   b. [**REDACTED**]

   c. There may or may not be advantages to co-ordinating these processes. A co-ordinated tendering process would allow comparable valuations to emerge as well as the possibility of single or multiple providers. However, it may be more complex and costly to implement. LBG suggests that the PSF may be best placed to consider this issue.

2. **REMEDY 2: INTEROPERABILITY**

(1) Would this remedy be effective in addressing the problems we have identified?

6. LBG's view is provided in paragraphs 6.8-6.18. Also see 5.27 to 5.32.

(2) What are the relevant potential costs and benefits that we should consider?

7. See the discussion in 6.11-6.16 and 6.3. The benefits rely on this remedy creating additional credible competitors. The costs relate to the significant costs and risks arising from changing the core infrastructure.

(3) Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

8. See LBG's view in paragraphs 5.27-5.32.

(4) Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

9. None obvious.

(5) What implementation issues do we need to consider (including the length of a transition period)?

10. See paragraphs 5.25-5.27 and 6.8-6.18.

(6) Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?

11. The PSF should be explicitly tasked with exploring this issue and reporting back by a set date (subject to a realistic timescale).

3. REMEDY 3: OWNERSHIP OF VOCALINK

(1) Would this remedy be effective in addressing the problems we have identified?

12. See 6.8-6.18.

(2) What are the relevant potential costs and benefits that we should consider?

13. These include the risks of creating an unchecked monopoly provider, if credible competition is not forthcoming (particularly when combined with the other proposed remedies). See paragraphs 6.8-6.18 and 3.3-311.

(3) Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

14. Unintended consequences and their mitigation are described in paragraphs 6.8-6.18 and 3.3-311.

(4) Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?

15. Some regulatory safeguards may be necessary regardless of divestment.

(5) What implementation issues do we need to consider, including (but not limited to):

a. Who should be required to divest their shareholding?

b. Timing of the divestment

c. What (if any) purchaser suitability criteria should be applied?

d. What (if any) additional measures are required to ensure security and resilience?

e. Should the divestment be full or partial?

f. If partial, to what level should an individual PSP shareholding be reduced?

g. If partial, should the total shareholding held by PSPs also be limited?

h. Should changes to Board composition also be stipulated?

16. [**REDACTED**]

4. REMEDY 4: LINK

(1) Would this remedy be effective in addressing the problems we have identified?

17. LBG's view is that this remedy will be effective and that it is already happening.

(2) What are the relevant potential costs and benefits that we should consider?

18. There are no additional costs and benefits that need to be considered.

(3) Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

19. LBG does not see any unintended consequences arising from this remedy.

(4) Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

20. LBG does not propose any alternative remedies.

5. FOR THE PACKAGE OF REMEDIES AS A WHOLE

(1) Would these remedies be effective in addressing the problems we have identified?

21. LBG has a particular concern about the balance of costs and benefits of the overall package. See paragraph 6.3

(2) How effective would the package be if one or more of the remedies above were excluded?

22. Remedy 4 is a standalone remedy. Remedies 1 to 3 are linked, in so far as the benefits are predicated on the emergence of effective competition for existing infrastructure.

(3) Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?

23. The proposals as a whole need a thorough cost-benefit analysis to determine their proportionality.

(4) Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?

24. It is not clear that the benefits of the package outweigh their costs. LBG has concerns about each of Remedies 1-3 as noted above. Taken together they represent a significant change programme for a critical infrastructure which can only present increased risk in terms of integrity and security of operation.

(5) Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?

25. Without clarity on the costs, benefits or efficacy of the proposed remedies package this question is difficult to answer. Irrespective of ownership LBG considers that the PSR should consider the need to regulatory safeguards.

26. What implementation issues do we need to consider (including timing)?

27. A variety of implementation issues are described in paragraphs 6.8-6.18. Setting aside LBG's substantive concerns, appropriate timing and sequencing of the remedies would be critical for achieving the benefits envisaged by the PSR while minimising the costs.

6. GATEWAYS

(1) May the accreditation process for Bacstel-IP prevent other providers from entering the market?

28. If the PSR is referring to the process for accreditation for Bacstel-IP providers, LBG considers that this is set at a proportionate level to ensure providers meet the necessary standards, and does not lead to any undue difficulties in entering the market.

Annex 2 – The PSR's analysis of "control"

Control over VocaLink and scheme operators

1. Contrary to the view presented in Chapter 6 of the Interim Report, LBG does not control VocaLink or the scheme operators, either solely or jointly with other large shareholders.

2. The Interim Report's conclusions are based on a view that large VocaLink shareholders collectively exercise control because, if they vote together, their aggregated governance rights would confer control over strategic decisions such as infrastructure procurement. This conclusion appears to equate to a finding of de facto joint control by the largest five VocaLink shareholders over VocaLink and the scheme operators.

3. This concept does not exist in UK merger control legislation (notwithstanding that this is the purported basis for the Interim Report's control analysis). It appears to be more closely related to the concept of joint control under the EU Merger Regulation. However, as the European Commission's Consolidated Jurisdictional Notice (the Notice) makes clear, this form of control can arise only in very exceptional circumstances, "*where strong common interests exist between the minority shareholders to the effect that they would not act against each other in exercising their rights*", and "*[in] the absence of strong common interests… the possibility of changing conditions between minority shareholders will normally exclude the possibility of joint control. Where there is no stable majority in the decision-making procedure and the majority can on each occasion be any of the various combinations possible amongst the minority shareholders, it cannot be assumed that the minority shareholders (or a certain group thereof) will jointly control the undertaking*".[84]

4. The Interim Report contains no analysis of whether these conditions are met in respect of VocaLink, Bacs, FPS or LINK. In fact, the Interim Report acknowledges that there is no evidence that shareholders have worked by consensus without taking into account the interests of other shareholders.[85] On this basis, there is no evidence for the Interim Report's findings on control.

5. Furthermore, LBG notes that one of the shareholders which the Interim Report considers jointly control VocaLink and the scheme operators voted against the award of the LINK infrastructure contract to VocaLink. The Interim Report takes no account of this fact (which is apparent from the minutes of LINK's Network Council Meeting of 19 March 2015, published in accordance with the PSR's General Direction 6), which would in itself preclude a finding of joint control according to the criteria set out by the Notice.[86]

6. The interim findings also contain no analysis of how scheme operators' Boards have made decisions on infrastructure procurement, or whether VocaLink shareholders have exercised their votes collectively in order to influence such decisions. This is an important omission – for example [**REDACTED**].

7. LBG is also concerned that the Interim Report places no weight on Directors' obligations to comply with their director's duties. These obligations are taken very seriously; breaching them puts a Director at risk of individual liability and regulatory sanctions. While briefly

[84] See paragraphs 76 and 80 of the Notice, emphasis added.
[85] Interim Report, paragraph 6.22.
[86] See http://www.link.co.uk/media/1081/nmc_19_03_15_minutes_redacted.pdf

noting the existence of these duties, the interim findings take no further account of them. They imply that the shareholder-appointed Directors are prepared to breach their duties by acting at the direction of the five largest shareholders.[87]

8. LBG does not, therefore, believe that the conclusion that the largest five VocaLink shareholders collectively have control over VocaLink and over decisions concerning the appointment of the central infrastructure provider for Bacs, FPS and LINK can be sustained.

9. Moreover, even if the largest five VocaLink shareholders were to exercise their governance rights jointly (which they do not), the Interim Report provides no coherent mechanism by which they would be able to impose their will against the interests of other service users. Any attempt to do so could be prevented by the governance rights afforded to other directors and shareholders.

10. In respect of FPS and Bacs, the Interim Report notes that independent directors have a power of veto over "public interest matters", with a particular emphasis on "customer needs, competition, innovation, reducing barriers to entry in the payments industry and limiting systemic risk".[88] However, the report takes no account of this important safeguard on the basis that the PSR is not aware of this veto right having been exercised in the past. In LBG's view, this suggests that the independent directors have been satisfied that infrastructure procurement decisions have not been made in the interests of certain shareholders rather than the wider public interest. It is not clear whether the PSR has sought evidence on this point; to the extent that the PSR has any residual concerns about the effectiveness of this safeguard or independent directors' rationale for their decisions, it has an opportunity to do so before issuing its final report.

11. The Interim Report's conclusion that the five largest VocaLink shareholders control FPS's decision making is based on a finding that "decisions on the Board can't be approved unless it has their backing".[89] However, the Interim Report's summary of FPS's governance structure suggests that Board decisions require the support of at least 75% of members. The five largest VocaLink shareholders could not impose a decision if the other directors did not believe that it was in the best interests of the scheme.

12. In respect of LINK, the Interim Report does not specify the governance requirements for the award of an infrastructure contract. However, to the extent that this would require an amendment to the Network Members Agreement, this would appear to require an 80% supermajority for approval, more than the "roughly 60%" of votes held by the larger banks.[90] As with the FPS scheme, this means that the five largest VocaLink shareholders could not impose a decision against the interests of the other LINK members.

13. The Interim Report has not provided any evidence that the theoretical mechanism by which the PSR considers shareholders exercise control over VocaLink has been exercised in practice. For example, the Interim Report does not refer to any examples of the Operational Oversight Committee referring a recommendation to a shareholder vote. Even if such matters were to be referred to shareholders, the Interim Report acknowledges that there is no evidence that the largest five shareholders have voted as a block without taking into account the views of other shareholders.[91]

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[87] See for example paragraphs 6.28, 6.27, 6.29, 6.40, 6.45, 6.80, 6.81, 6.83, 6.84 and 6.85 of the Interim Report
[88] See paragraph 6.71 of the Interim Report
[89] See paragraph 6.45 of the Interim Report
[90] See paragraphs 6.50 – 6.51 of the Interim Report
[91] Interim Report, paragraph 6.22

The alleged desire to maintain shareholders' profits

14. The PSR recognises in Annex 2 of the interim report that VocaLink's owners have not received a financial benefit from ownership. This is at odds with the finding that PSPs do not wish to put VocaLink's profits at risk.

15. This conclusion is also inconsistent with the conduct of recent infrastructure procurement processes. If VocaLink owners did control scheme operators' decisions concerning infrastructure procurement (which they cannot), and sought to benefit financially from their ownership of VocaLink, this would not explain why on several previous occasions the scheme operators have taken decisions against VocaLink's interests, such as:

    a. the award of the future cheque model infrastructure to CGI;

    b. negotiating discounts to VocaLink's prices, or higher investment levels, on each of the Bacs and FPS contract renewals;

    c. undertaking a competitive tender for the LINK contract leading to VocaLink agreeing lower prices and higher SLAs;

    d. using alternative providers for European clearing services [**REDACTED**]; and

    e. inviting other providers to bid for the Cash ISA service.

16. It is clear that this conclusion cannot be sustained. Unless corrected, it also risks perpetuating the misconception that VocaLink's shareholders would be unwilling to consider switching to rival infrastructure providers in future. LBG invites the PSR to help to dispel such misconceptions in its final report.

HSBC BANK PLC

MARKET REVIEW INTO THE OWNERSHIP AND COMPETITIVENESS OF INFRASTRUCTURE PROVISION

CONSULTATION QUESTIONS

RESPONSE TO INTERIM REPORT CONSULTATION

DATED FEBRUARY 2016

COVER SUBMISSION

HSBC is grateful for the opportunity to comment on the PSR's interim report.

The PSR's provisional findings do not indicate the existence of poor market outcomes

The PSR's interim report does not set out any empirical evidence of poor market outcomes for the end users of payment systems. When we refer to market outcomes, we mean value for money, quality of service, and innovation – which we think directly affect the end users of payment systems. The PSR's provisional findings are instead based on observations on the market dynamics. By market dynamics, we mean the procurement processes of Payment Scheme Operators, switching of infrastructure providers, and the incentives of Payment Scheme Operators and large PSPs: these are features of the market which do not directly affect the end users of payment systems.

Market outcomes

The best outcomes – as observed in the UK - are the result of a combination of commercial drivers, industry collaboration, and effective regulatory oversight.

The comparative research which the PSR has commissioned (the Lipis Report) [1] finds that the UK has some of the most advanced payments system infrastructure in the world. The UK is unusual in having commercial operators, as well as an active regulator, driving new developments. It exhibits rich features, and high levels of product diversity, which (according to the Lipis Report) outperform the SEPA region, the USA, Singapore, Germany, and Australia (among others). The only country which the report suggests outperforms the UK is Sweden.

The UK is a recognised global leader in payments innovation. The Lipis Report notes that the UK exhibits "rich core functionality that includes direct corporate access and A-services that enable automated management of recurring payments," and that "UK payment systems [also] feature uncommon overlay services [such as Current Account Switching Service (CASS), Paym, and Zapp]…" Both core services and overlay services are richer than those found in other countries.

This innovation has been the result of a combination of commercial and regulatory drivers. For example, Faster Payments, Current Account Switching Service (CASS) and the Cheque Imaging Future Clearing Model received varying degrees of regulatory encouragement, with

[1] Lipis Advisors – Payment system ownership and access models, slide 34

commercial actors willing and able to implement such changes. In contrast Paym and Zapp are the outcome of purely commercial drivers.

The PSR appears to view the degree of regulatory involvement in historic innovations as evidence of ineffective competition, which has suppressed innovation that would otherwise have occurred, and which needs to be corrected for. We consider this view to be misplaced. The Lipis Report shows that this kind of regulatory involvement is instead a natural feature of this type of market - and that in the UK commercial operators have in fact been playing a stronger role in delivering innovation than in many other countries.

Given the systemic importance of payment systems, strong regulatory oversight is a feature in all the countries featured in the Lipis Report. In nearly all countries, the key objective of the government entities (typically the central bank) responsible for regulation of payment systems infrastructure is the maintenance of stability and security. Given the need for stability and security, as well as the large number of participants involved in payment systems, regulatory or government bodies have been involved in facilitating innovation to enable faster and more flexible payment services in nearly all countries (irrespective of the ownership of the central infrastructure provider).

As regards value for money and quality of service, we welcome the PSR's acknowledgement that most operators and PSPs are satisfied, and that the benefits of higher service quality may be marginal (suggesting that any regulatory intervention to deliver marginal gains would need to be very low cost). The PSR notes that Payment System Operators have been able to negotiate discounts from VocaLink through competitive benchmarking exercises. The PSR hypothesises that Payment System Operators and PSPs may not be fully aware of what other providers could offer in terms of price. However the PSR does not provide any indication or evidence of what better value might be available.

Market dynamics

The PSR's adverse findings about the nature of competition in the provision of infrastructure services focus more on the nature of the market dynamics, in isolation from the positive market outcomes being observed. In doing so, we consider that the PSR fails to take account of the unique and natural features of payment systems, including the systemic importance of payment systems and the co-ordination challenges which arise when a single system is used by a large number of competing users. The UK payments infrastructure rightly provides a service which is common and equally available to all participants. This inevitably has an impact on the way in which that service is procured.

The primary focus of direct PSPs and Payment System Operators is on the maintenance of the stability and security of payments system infrastructure. They are all equally incentivised to ensure that payment systems infrastructure is effective and robust – this is one of the highest priorities any direct PSP can have. Notwithstanding the fact that the PSR does not have this as a primary objective, security and stability remain a key objective of the broader regulatory framework applicable to payment systems and we believe that this is the right priority.[2]

Procurement and the incentives of operators and direct PSPs

Direct PSPs and Payment System Operators will only initiate a procurement process to switch infrastructure provider if they consider that there is a reasonable prospect that any potential benefits might outweigh the inherent costs and risks (to stability). The risks and costs inherent in switching core infrastructure provider are significantly greater than the costs involved in switching non-core services (not least because direct PSPs can procure the latter unilaterally). These are inherently high switching costs. In assessing whether more procurement exercises would have led to better market outcomes than the actual outcomes observed today, it is necessary to ascertain what the benefits to be gained may have been, and to then set these against the likely costs and risks. It is also necessary to consider, on the supply side, the incentives of alternative providers to compete effectively with the incumbent.

Hypothetically the principal benefits are likely to fall into the categories of better value for money, better service quality, or more innovation. As set out above, the evidence indicates that the UK is a world leader in innovation, and there is little evidence that PSPs consider value for money or service quality to be anything other than good. Each of the operators has renegotiated its contract with VocaLink in recent years: Bacs in 2008 and 2014; Faster Payments in 2005 and 2014; LINK in 2007 and 2015. On many of these occasions, the Payment System Operators were able to obtain enhanced service levels and reduced prices, without incurring the very significant costs and accompanying risks of running a comprehensive procurement exercise and (potentially) switching infrastructure provider.

In theory, the fact that all PSPs benefit equally from any improvements to the payments system infrastructure may have an impact on the way direct PSPs assess potential benefits. It stands to reason that an improvement that benefits all or many PSPs will be of lesser commercial value to an individual PSP than one it can gain individual competitive advantage from - and that this will affect its investment decisions to some degree. There may therefore be a tendency for PSPs to focus relatively more on the costs and risks of any change, rather than on the benefits. This is an inherent characteristic of many payment systems around the world, and it is typically navigated effectively when government (or regulators) and industry work collaboratively together. In the UK, this collaboration has been very effective in terms of outcomes delivered (for example in relation to Faster

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2 We note that the PSR is required to take account of the importance of maintaining the stability of, and confidence in, the UK financial system and the Bank of England has the power to make a direction to the PSR where its actions threaten the stability of the UK financial system.

Payments, the Future Clearing Model for cheque imaging, and CASS). Inevitably in a system which provides a service which is common and equally available to all participants, effective coordination and alignment of interests takes time.

On the cost side, the PSR notes that the Payment System Operators and direct PSPs believed that there were high costs and risks involved in switching infrastructure provider. In our view, the costs of switching infrastructure provider are likely to be equivalent to the costs of maintaining the infrastructure for a period of two or three years. The risks inherent in switching are very difficult to quantify, but in a very worst case scenario they could be existential in nature (for example if payment systems cease to function for an extended period, and HSBC suffers a run on its deposits as a result). These costs and risks naturally represent a significant hurdle for any benefits assessment to overcome.

On the supply side, as we set out in our response to the PSR's Request for Information dated 24 July 2015, there are reasons why the UK market, in its current state, is not particularly attractive to alternative infrastructure providers. This is due to the relatively small scale of the market, combined with the lack of common technical standards. The PSR has considerable evidence that the lack of interoperability – technical standards and operating rules, including messaging standards - represents a barrier to entry. For example VocaLink's internal papers state that messaging standards may represent a barrier to entry, and that moving to ISO20022 standards would "level the playing field". Many providers have also noted this.

In HSBC's view, any future full-scale infrastructure procurement exercise undertaken before the issues around common technical standards are resolved would be expensive, time consuming and would probably achieve very little given the low likelihood of a new provider being incentivised or able to submit a winning bid. As we set out below, we do not consider that this has anything to do with the ownership of VocaLink.

In the current market structure, characterised by multiple payment systems, each with different technical standards, we consider that the costs of more comprehensive procurement exercises would have been significant and would not have been outweighed by the likely gains (in that it is very unlikely that an alternative provider would have been successful).

There is a notable absence of comprehensive procurement programmes across all the countries reviewed in the Lipis Report: only six examples of tendering were observed, only three of which were deemed competitive. All six tenders were undertaken at a time of significant systems change (for example the Future Clearing Model changes in respect of cheques in the UK). The PSR notes that in the SEPA area there has been some observed switching between payments infrastructure providers. These changes occurred during a period of structural change, and relate to individual procurement decisions by PSPs.

Further, switching in the SEPA area is more straightforward, as the service offering is much less rich than that provided in the UK. The Lipis Report notes that the lack of competitive procurement exercises is due to actual and perceived switching costs, a large proportion of which are inherent in the nature of the infrastructure in question.

Indeed, the general experience with complex IT systems across a range of industries is that a formal tender process is extremely difficult to run for an established system, as the incumbent will typically have the benefit of detailed knowledge of the system built up over many years. Instead, customers use a range of tools in order to ensure good outcomes, such as competitive benchmarking, audit rights, open book contracts and contractual re-negotiations without necessarily holding a formal tender process. In our view, the PSR dismisses these approaches without proper evaluation of the cost and benefits of each. This is inconsistent with procurement best practice and with the Procurement Directive, which allows for the use of the negotiated procedure and for public contracts to be amended without a new tender process in certain circumstances. Please see our responses to questions 5 and 6.

Ownership of VocaLink

The PSR considers that the largest PSPs are able to exert control over both the Payment System Operators and VocaLink, and that this is likely to reduce the level of competition in the market for the provision of central infrastructure services.

Ownership of VocaLink provides HSBC (and others) with a stake in the maintenance of the stability of payment systems infrastructure, beyond what we have through our membership of the Payment System Operators. Nonetheless, we agree with the PSR that ownership of VocaLink is not necessary to ensure stability. There are a number of potential alternative owners who would have the experience and incentive to ensure that stability is maintained.

However we fundamentally disagree with the PSR that the ownership of VocaLink has an impact on the nature of competition.

To the extent there has been a reticence to use formal procurement processes, we do not agree with the PSR that the ownership of VocaLink contributes to this reticence. We encourage the PSR to consider the counterfactual: if VocaLink was not controlled by the largest PSPs, we do not consider that the incentives of the members of each payment scheme would be any different. They would continue to perceive that a switch to an alternative provider would be expensive, and carry risk. In addition, they would continue to be receptive to opportunities to innovate in the provision of payments infrastructure, subject to the same need to align the positions of participants in the system and to ensure the overriding objectives of stability and security.

HSBC does not stand to gain financially (at an ongoing operational level) from VocaLink continuing to provide infrastructure services to the payment schemes. The investments which the largest PSPs have put into VocaLink are sunk costs which cannot be recovered, irrespective of whether it is VocaLink or a third party who provides infrastructure services in the UK; and the shareholders do not seek a dividend from VocaLink. We do, however, stand to lose out very considerably if something goes wrong, as we have effective unlimited liability.

The PSR asserts that VocaLink's ownership arrangements may discourage alternative infrastructure service providers from entering the UK market. The PSR does not identify any evidence to support this assertion.[3]

It is not uncommon for infrastructure providers to be owned by the largest PSPs in a particular market (for example, Equens (Germany / Holland), Stet (France) and Bankgirot (Sweden – the one country which the Lipis Report identifies as having payment systems which are on a par with those in the UK)), are majority owned by PSPs generating sizeable payment volumes), so this should not act as a particular source of discouragement to alternative providers. A more obvious explanation for why alternative providers have not competed in the market is the unique UK messaging standards.

Remedies

The remedies the PSR is provisionally considering are:

a) Competitive procurement exercises to be undertaken before current contracts for central infrastructure services come up for renewal, or at the next break clause in a contract.
b) Enhanced interoperability, including a common international message standard, for Faster Payments, Bacs and LINK.
c) Divestment by shareholder PSPs of their interest in VocaLink.
d) Measures that separate common ownership of the functions of LINK from VocaLink and implement industry-led governance changes.

For the reasons explained above, HSBC submits that the PSR is misguided in focusing on ownership of VocaLink as a factor that will materially affect outcomes for end users of payment systems. We encourage the PSR to provide VocaLink with the commercial space in which to negotiate with any prospective purchasers. Any perception of overly

[3] Paragraph 6.73, where the PSR makes this assertion, refers to paragraphs 4.151 and 4.152:

- Paragraph 4.151 groups the ownership arrangements together with a range of other explanations, including the lack of opportunity to compete, and the absence of common messaging standards.
- Paragraph 4.152 relates the comments on one potential provider, which states that the UK market is perceived to be a "closed market" – this statement appears to relate more to the lack of open tenders and the lack of appetite among scheme operators to switch providers – it does not relate specifically to the ownership of Vocalink.

Paragraphs 6.80 and 6.86 again make the assertion, but without any specific reference to the comments of an individual provider.

interventionist regulatory oversight of the sale process will likely reduce the attractiveness of VocaLink to potential purchasers. We set out our views on this remedy in a separate, highly confidential, submission.

As regards LINK, measures to separate common ownership of the functions of LINK from VocaLink and to introduce new industry led governance are well advanced. We set these measures out in detail in our response to the PSR's questions on this issue below (see paragraphs 17.1 to 17.5 inclusive).

Sequencing of remedies and interaction with the Payments Strategy Forum

We see a need to review and agree the future structure of the industry, in terms of the Payment System Operators and the UK's long-term payment infrastructure requirements, before considering the second-order question of procurement. We consider that a broader review is necessary to examine the role and structure of the payment schemes. Any such review should assess the costs and benefits of simplifying the payment schemes, for example by combining BACS, Faster Payments and Cheque and Credit Clearing Company into a single retail scheme. Other potential structures are also possible. Any proposed changes will need to align with the very substantial process of change already underway in relation to ring-fencing, which is due to complete in 2019. The PSF is looking at these issues as part of the Simplifying Access to Markets work stream.

It is important that this market review stays closely aligned to the work undertaken by the PSF, and the recommendations it makes. A number of strategic PSF work streams could have an impact on the nature of the remedies being considered by the PSR in this review. For example, the Simplifying Access to Markets Working Group might conclude that the UK payments industry should move to a more consolidated payment system operator model (e.g. with fewer payment scheme operators) for retail-based payments.

Any future procurement exercise should only take place once potential bidders know what they are bidding to provide. This means that the PSF should be provided with the necessary time to reach conclusions about what work streams to prioritise, and provided with the discretion (with appropriate oversight from the PSR) to determine the sequence to adopt when implementing change. For example, the question of whether to take action to enhance inter-operability and commonality of messaging standards will need to be addressed before the potential gains from running competitive procurement exercises can outweigh the considerable attendant costs for those procuring these services.

More generally, we encourage the PSR to recognise explicitly that the UK is a global leader in the quality of its payment systems infrastructure, and that this is a result of effective interaction between commercial and government/regulatory actors. There is clearly scope for the PSR to engage with industry in a process of continuous improvement to this infrastructure, building on the good work already done, to maintain its market leading status. But there is no evidence base on which more drastic or costly interventions could be justified on a cost/benefit analysis.

Remedy 1: Competitive procurement processes

1. **Question 1: Would this remedy be effective in addressing the problems we have identified?**

1.1 As we set out in our cover submission above, we disagree with the PSR that outcomes for end users are being compromised as a consequence of the market dynamics.

1.2 The PSR identifies three types of service offering (cloud-based flexible storage capacity, enhanced user interfaces for data management and queries, and a facility for users to track and trace individual payments) which are currently not available in the UK. It appears to rely on these three potential service offerings as an evidential basis on which to argue that competitive procurement exercises will generate better outcomes. [✂] Such enhancements can be achieved without going through a competitive procurement exercise.

1.3 The PSR does not appear to have considered whether countries in which these three types of service are available have better outcomes than the UK – the evidence from the Lipis Report indicates that this is unlikely. Indeed, the Lipis Report indicates that, with the exception of Sweden, the UK has the widest range of services of any country which the Lipis Report considered.

1.4 We disagree that competitive procurement processes will automatically generate better outcomes for end users. The PSR has not given sufficient consideration to the finding in the Lipis Report that competitive procurement processes for established core infrastructure systems are extremely rare. The Lipis Report concludes that this is not related to ownership. There are good reasons why competitive procurement processes for established core infrastructure are rare, and the PSR has not yet given any consideration to these reasons.

1.5 The general experience with complex IT systems across a range of industries is that a procurement process is extremely difficult to run for an established system, as the incumbent has the benefit of detailed knowledge of the system built up over many years. Instead, what many customers do in these situations is to have benchmarking provisions, audit rights, open book contracts and contractual re-negotiations without necessarily holding a formal competitive tender. As set out above, VocaLink has responded positively to reviews and re-negotiations initiated by each of the payment schemes, delivering constantly improving levels of service at decreasing levels of cost.

1.6 However, in our view, the PSR dismisses these alternative approaches to procurement, without proper evaluation of the cost and benefits of each. This is inconsistent with procurement best practice and with the Procurement Directive, which allows for the use of the negotiated procedure and for public contracts to be amended/extended without a new procurement process in certain circumstances.

1.7 We encourage the PSR to engage with the full range of potential approaches and to consider the costs and benefits of each approach, prior to imposing the highly prescriptive approach set out in the interim report. A prescriptive approach risks generating additional cost, without significant customer benefits or improvements in market outcomes

2. **Question 2: What are the relevant potential costs and benefits that we should consider?**

2.1 To avoid the risk that the PSR is seen to be pre-judging the outcome of its review, any cost and benefit study should consider the range of procurement approaches which are commonly used (as set out in response to question one above). Such a study should consider the direct and indirect costs, risks, and opportunity costs (in terms of the loss of capacity to implement other types of change) associated with each type of procurement process. It should also feed into the industry's long term strategic plan.

2.2 The relevant costs and benefits will only become clear once the scope of the procurement exercise has been settled. What is clear is that the costs of any procurement exercise for Payment System Operators will be substantial, as any exercise will likely be lengthy, complex, and require external consultant support.

3. **Question 3: Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?**

3.1 As we have seen from high profile government IT procurement exercises, there is a risk that if the procurement process is not managed effectively and professionally, innovation, investment and competition may be forestalled. It is highly likely that a change of supplier or the potential need to support multiple suppliers, will increase operational risk and introduce new risks into payments operations.

3.2 Making any changes to the payment systems during this procurement period will be very difficult, as the Payment Scheme Operators will need to lock down the specification in order to manage an effective procurement process. This would likely generate a 'planning blight,' until a new contract is agreed. This is likely to forestall innovation and competition throughout the procurement period.

3.3 Risks and unintended consequences could be partially mitigated by:

a Using best practice procurement processes, benchmarked against similar procurement exercises undertaken successfully in other jurisdictions, and covering all required services so as to avoid complexity, confusion and duplication, i.e. a similar process for each scheme, aligned to deliver the overall strategic goals.

b Involving and balancing the interests of all stakeholders, during the pre-procurement market testing as well as during formal procurement. The pre-procurement analysis and outcomes (assuming they produced a clear net benefit supported by a majority of stakeholders), should be continually revisited to ensure that the procurement process achieves the envisaged benefits.

c As set out in our cover submission, it is essential for any significant industry change, including competitive procurement of processing services, to take place within the context of a UK strategic payments plan, agreed to by all stakeholders. In this connection, the output of the Access to Markets Working Group of the Payments Strategy Forum reviewing potential payment scheme simplification is highly relevant, as is any decision to move the UK's payment services to ISO20022 international standards.

4. **Question 4: Is there an alternative remedy that would be equally effective but that would be less costly and / or intrusive?**

4.1 As we set out in our response to question one above, we consider that the PSR has not given sufficient consideration to the costs and benefits of other types of procurement process, which may achieve significant benefits, with far lower levels of cost, opportunity cost, and risk.

4.2 In general, we consider that, in the broader context of the future of payment systems and their infrastructure, choice of procurement process is a minor concern. As we set out in our cover submission, we encourage the PSR to focus on the overall structure of the industry, and in particular, issues around technical standards and inter-operability (which remedy two partially addresses), before it turns to considering what type of procurement model will deliver the best outcomes. We therefore encourage the PSR to approach the issue of procurement as part of a broader strategic plan put together by the PSF and the industry more widely.

4.3 It is, therefore, in the PSR's interests as well as the industry's to complete the work underway in the PSF first, as that will determine the relevant facts which the PSR needs to take into account in evaluating each of the options.

5. **Question 5: What implementation issues do we need to consider, including (but not limited) to:**

5.1 The PSR appears to be considering a highly prescriptive approach which is in many respects more onerous than the Procurement Directives (e.g. the PSR seems to be assuming that it will set selection criteria; see paragraph 8.13(ii) of the interim report). This raises potential proportionality issues. We would encourage the PSR to set broad high-level principles, which are then implemented by the Payment System Operators.

5.2 The ability of multiple regulatory authorities to intervene in the procurement process if they are not comfortable that the correct process has been followed (paragraph 8.13(iii) of the interim report) may deter potential bidders and creates a significant risk of the process failing. The ability of regulatory authorities to intervene after the event should be clearly defined, limited in scope and subject to appropriate judicial oversight.

a. **Are the operators best placed to undertake the procurement exercise?**

5.3 As representatives of the end users of payment systems, Payment System Operators have the incentives and the expertise necessary to run any procurement exercise. Within the scope of the current industry structure, it is inconceivable that any other body could manage an effective procurement exercise.

5.4 However, the Payment System Operators would require considerable additional resource to undertake the exercise satisfactorily and any exercise would dominate management and the board's time, to the detriment of other priorities.

5.5 The industry should be considering the potential to move to a direct contracting model, where PSPs are able to select the appropriate Payment System Operator-accredited infrastructure provided that meets their individual customers' needs.

b. **The timing of the proposed procurement exercises.**

5.6 Based on our own experience of complex procurement exercises, we anticipate that it would take a period of two years to run a full procurement process.

5.7 A rush to run a procurement exercise in time for contractual break points in 2018 would generate significant risks, and would not achieve the best outcomes. It would place significant financial and resource pressure on the Payment System Operators, who may not be able to deliver to such tight timescales (increasing the risk of ineffective management of the process). Again we would also recommend that a direct contracting model should be one future option.

5.8 We urge the PSR to enable the PSF to develop a holistic plan for the industry before any form of procurement exercise is undertaken. Any rush to operate a procurement exercise would undermine the work of the PSF, as it would require a change freeze period that could hamper the industry's ability to deliver strategic initiatives. It would generate such a degree of uncertainty for potential bidders that they may be discouraged from bidding. In particular, we consider it necessary for there to be a coherent plan in place around common message standards, along with a simplified rule-book and governance structure, before a procurement exercise is undertaken. We believe it is in the PSR's interests as well as the industry's to conclude the PSF work first.

5.9 Procurement should also be scheduled so as to minimise risk and cost (to customers as well as to banks and the industry), taking into account other major industry developments (notably ring-fencing and PSD2 implementation). Any ill-planned procurement exercise leading to a rapid need for change could threaten the operational and security resilience of HSBC's and other banks' systems and the payments system in general.

5.10 HSBC assumes that the PSR will coordinate its proposed remedies with those being implemented by other regulators, as required by section 98 of FSBRA 2013.

c. **Would there be benefits and / or detriments if these processes were coordinated?**

5.11 In our view it is essential that any procurement processes are run in parallel across all payment schemes, preferably after common message standards, a simplified rule-book and governance structure are agreed. This will be the most effective way in which to attract the highest number of quality potential providers.

5.12 It is unlikely that a potential infrastructure provider would make a bid without having clarity regarding the strategic direction of UK payments, including the implementation of ISO20022 across all electronic payments. Indeed, it is likely that a new provider will require a lengthy contract period (say 10 years+) in which to amortise the cost of the new service. Awarding the contract to such a provider is itself a strategic decision, as major change beyond that set out in the contract will not be possible.

Remedy 2: Interoperability

6. **Question 1: Would this remedy be effective in addressing the problems we have identified?**

6.1 As we set out in our response to the RFI on 10 September 2015, HSBC considers that there are high barriers to entry to be an infrastructure supplier in the UK payments ecosystem. The key fundamental barrier is the lack of common technical standards. Simplified and standardised sets of rules, procedures and governance, together with the relevant technical standards covering payment formatting and systems connectivity would make the UK more attractive to payments infrastructure providers currently operating in the EU and beyond. A move to ISO20022 would be a significant step in the right direction, although changes to standards and governance will also be required.

6.2 That said, a move to ISO20022 is of such strategic significance, and carries significant cost and risk in implementation, that it is important to see the initiative as a major strategic change for payments in the UK, which will need to align with the ring-fencing projects already underway and due to complete in 2019, and not just as a remedy for possible competition inefficiencies.

6.3 The Lipis ISO20022 Report commissioned by the PSR makes the point that it is difficult to create a positive business case for ISO20022. However, a strong case for implementation can be made where ISO20022 meets a payments community's strategic goals, and delivers net benefits for customers, albeit over the longer term.

6.4 Aligning Bacs, Faster Payments and LINK standards to a common interoperable standard, such as ISO20022 international standards could assist competition, and enhance resilience (through the provision of an alternative channel).

6.5 It is essential to recognise however, that there is far more to ISO 200022 implementation than just aligning payment standards. To gain the full benefits requires close co-operation with UK businesses to define re-usable business process ISO messages - this will take significant effort to achieve, as set out in the Lipis Report. If we fail to implement a migration to a new standard, such as ISO 20022, in the right way, then we will simply impose cost on corporates, without giving them much in the way of Straight Through Processing benefits.

6.6 As we highlighted in our response to the RFI on 10 September 2015, it is difficult to focus only on BACS, Faster Payments and LINK in isolation. Any decision to move to a common international standard is significant and it makes no sense to restrict implementation to just three of the UK's card and payment schemes without also considering the other Payment Scheme Operators. The creation of business process messages covering all card and payment types would enable corporates to achieve Straight Through Processing via any payment method.

6.7 Analysis of interoperability therefore needs to be looked at holistically across all payment schemes to ensure that its full potential can be realised. The Bank of England has commissioned a review of its Real Time Gross Settlement System and the review specifically includes questions on the potential for CHAPS to move to ISO 20022 standard. In Target 2, the ECB/EBA is also considering the potential to move to ISO 20022 standard. The new Image Clearing System to underpin the implementation of cheque imaging is also being designed and built as the first UK system on ISO 20022. We have no knowledge of MasterCard or Visa's plans in this space beyond the version of ISO8583 that they use today. Should the two largest Card Schemes not be able to or encouraged to move to ISO20022, this could restrict their ability to compete for future payment infrastructure contracts.

6.8 The report mentions SEPA and its ISO use. Alignment to SEPA ISO would indirectly delegate strategic direction of UK payments to the EPC, as we would probably have to adopt much of the SEPA DC and DD rulebooks in order to align to SEPA ISO. We certainly need the EU referendum decision before considering this further.

6.9 In line with what we say above in response to the questions on procurement, and in our cover submission, we urge the PSR to align its market review with the work streams being undertaken in the PSF in respect of ISO20022.

7. **Question 2: What are the relevant potential costs and benefits that we should consider?**

7.1 As we set out above, a move to ISO20022 standards would assist pan-EU competition for payments infrastructure, by lowering the barriers to entry to the UK market significantly.

7.2 A further potential benefit relates to the potential to transfer payment volumes from one system to another, in the event of system failure in any one system's infrastructure. However, this would require more than just alignment of messaging standards: redirection would need to take account of different business processes, cut-off times, clearing cycles and access channels.

7.3 The potential benefits of ISO 20022 to various customer groups vary.

a. Retail customers - benefits are not clear and are likely to be experienced indirectly through the services offered to them by their bank which would look to compete to bring innovations to the market which leverage the extended data capability of ISO 20022.

b. SMEs - the standard potentially offers a greater potential for future value added services as well as the provision of additional or enhanced structured remittance data with payments.

c. Large Corporates – ISO 20022 offers the potential for improved cash management due to enhanced transparency of timely and accurate account reporting, reducing the cash conversion cycle. The standard also affords increased choice on the assumption that a wider variety of propositions become available from Financial Institutions and other vendors.

d. Government (as a user of payments) – The benefits highlighted for Large Corporates apply equally to the Government as a user of UK payments. In addition, ISO 20022 could facilitate the Government's electronic payments to its suppliers of goods and services and offers the potential for easier access to payments systems that could lead to streamlined processes, for example in support of emergency payments made by the Department of Work and Pensions.

7.4 The costs to be considered are much wider than the Payment System Operator and infrastructure costs of change. All UK businesses that rely on streams of payments data into their systems would have to plan and implement migration to the new ISO20022 standards, as well as engage with the migration programme in the early stages to ensure that frequently re-used business process messages are included within the new standards. This is likely to be a large and complex programme of work, probably organised by industry sector, co-ordinated by an appropriate central UK body.

7.5 Given the above, and the sizeable impact on all areas of UK business, it is clearly essential to create a robust ISO 20022 cost and benefits business case for the UK. ISO 20022 is a payments infrastructure issue involving a complex set of stakeholders and constructing such a business case will require time and care.

7.6 Previous switchover processes, such as the digital television switchover or the introduction of a new area code for London can offer insight ahead of any ISO 20022 decision. Both were processes with long lead times and well developed communications strategies. In relation to the new area code for London, the telecoms regulator received substantial criticism from business groups due to the disruption caused. The PSR should not under-estimate the concerns which a switch to ISO 20022 may cause.

8. **Question 3: Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?**

8.1 As outlined above, and as set out in the Lipis Report, a move to ISO 20022 is a significant undertaking with the potential to generate multiple unforeseen consequences. Project management and planning disciplines should help to identify and mitigate previously unknown consequences.

8.2 One consequence that is very difficult to mitigate is that any investment in ISO 20022 will divert resources that could be used for other collaborative projects, reducing the industry's ability to innovate in other areas.

8.3 A central UK authority should be appointed to advise, communicate and maintain the ISO 20022 standard.

8.4 The potential direct costs for businesses, set out in paragraph 8.4 are a further potential unintended consequence, depending on the manner of implementation.

9. **Question 4: Is there an alternative remedy that would be equally effective but that would be less costly and / or intrusive?**

9.1 Payment message translation could conceivably be employed to create a common standard between payment systems to achieve the required remedy. This would also carry costs and risks however, and may not achieve the Straight Through Processing benefits that full ISO 20022 delivers (as outlined in the Lipis Report).

10. **Question 5: What implementation issues do we need to consider, including the length of a transition period?**

10.1 The issues of moving to ISO 20022 would be the same for BACS, Faster Payments and LINK, the PSPs that offer these payment types to their customers, and the end users of these systems.

10.2 PSPs would face significant changes to back office systems to cope with the new messaging standard and the cost and effort would be substantial.

10.3 As highlighted in paragraph 8.4, businesses that rely on payments data would likewise have to plan to accommodate the significant change.

10.4 If the implementation and transition period are too aggressive, this risks destabilising payments integrity. Significant work would be required to determine the length of a transition period and the eventual solution would drive the necessary time horizon.

10.5 The alternative to multi-member development would be for VocaLink (as the current supplier of infrastructure) or any future supplier(s) to use the new standard but then to translate to LIS5 for LINK institutions, BACS messaging standard 18 for BACS institutions and Faster Payments' implementation of the ISO8583 standard for Faster Payments institutions. This would save PSPs significant cost but negate the benefits of applying the new standard.

10.6 Alignment with the Bank of England's programme for technology refresh of its RTGS platform would be beneficial, particularly given the possibility that the Bank may adopt ISO 20022 as a standard for the RTGS system, and make other far-reaching changes, including a further extension of operating hours and days.

10.7 Implementation issues for ISO 20022 are well set out in the Lipis Report. Please see page 10 (Implementation Process) and page 29 (Recommendations).

11. **Question 6: Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?**

11.1 Yes, there are many other aspects to the technical standards and rules besides messaging standards: ISO20022 implementation on its own is not a panacea for interoperability and the removal of barriers to entry. Each of the Payment Scheme Operators has developed a rule-set and payments environment appropriate for that payment type. This is why we see an overriding need for a UK payments strategic plan and the re-shaping of the industry to deliver that plan as priorities, rather than the implementation of two remedies to address part of the perceived problem for a subset of the UK's payment types.

Remedy 3: Ownership of VocaLink

12. **Question 1: Would this remedy be effective in addressing the problems we have identified?**

12.1 Please see the highly confidential separate submission covering Remedy 3.

13. **Question 2: What are the relevant potential costs and benefits that we should consider?**

13.1 Please see the highly confidential separate submission covering Remedy 3.

14. **Question 3: Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?**

14.1 Please see the highly confidential separate submission covering Remedy 3.

15. **Question 4: Is there an alternative remedy that would be equally effective but that would be less costly and / or intrusive?**

15.1 Please see the highly confidential separate submission covering Remedy 3.

16. **Question 5: What implementation issues do we need to consider, including (but not limited) to:**

a. **Who should be required to divest their shareholding?**

b. **The timing of the divestment.**

c. **What (if any) purchaser suitability criteria should be applied?**

d. **What (if any) added measures are required to ensure security and resilience?**

e. **Should the divestment be full or partial?**

g. **If partial, should the total shareholding held by PSPs also be limited?**

h. **Should changes to Board composition also be stipulated?**

16.1 For question 16 (parts a-h inclusive), please see our opening remarks and the highly confidential separate submission covering Remedy 3.

Remedy 4: LINK

17. **Question 1: Would this remedy be effective in addressing the problems we have identified?**

17.1 As acknowledged in section 1.19 of the Interim Report, the actions required to separate the common ownership of the functions of LINK from VocaLink and to introduce new industry-led governance are well advanced. On 25 February 2016, the LINK Network Members Council (NMC) voted in favour of entering into a new

Switching and Settlement Agreement (SSA) which legally and commercially separates LINK and VocaLink, and the services provided to LINK and its members by VocaLink. Alongside that, the NMC also approved a new Members Agreement (MA) between the network members and the LINK Scheme Limited (LSL). The MA effectively becomes the constitution of the scheme and supports a new governance model as recommended by the LINK Independent Governance Review led by Lord Hunt of Wirral which reported in September 2015.

17.2 In terms of the relationship with VocaLink, the SSA provides a much strengthened contractual position which is more fitting for a separate scheme and supplier relationship than the arrangements previously in place. The SSA provides for improved stability, flexibility, and reliability of service, including enhanced disaster recovery and business continuity arrangements, Service Level Agreements, audit and step-in rights, termination and exit rights and revised IPR provisions.

17.3 With regard to governance, the current member board (37 members) has been replaced by a board of 8 directors compromising an independent chair, 3 independent non-executive directors, the CEO, and 3 member-nominated non-executive directors (one large bank, one small bank, one independent ATM deployer). The board has clear responsibilities to enhance the scheme and to make it efficient, accessible and sustainable, whilst developing an appropriate corporate structure to drive innovation and competition.

17.4 In addition, the voice of the end user will be more strongly represented by the LINK Consumer Council which will benefit from an enhanced role and greater independence from the Scheme. Scheme members will be excluded from the Council, which will no longer report directly to the Network Members. The Council will have direct access rights to the PSR, amongst other key external stakeholders.

17.5 HSBC is satisfied that the adoption of these agreements will satisfy the measures proposed under Remedy 4 and will fully address the concerns of the PSR.

18. **Question 2: What are the relevant potential costs and benefits that we should consider?**

18.1 Given that the work is already well advanced and will fulfil the remedy, the LINK scheme has already undertaken the work and it is more appropriate for LINK to present the potential costs.

18.2 In terms of benefits, please also see the points above in paragraphs 17.2, 17.3 and 17.4.

19. **Question 3: Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?**

19.1 No, as explained under Question 1, the actions required to implement the remedy are well advanced and have been very carefully considered by LINK and the Network Members Council.

20. **Question 4: Is there an alternative remedy that would be equally effective but that would be less costly and / or intrusive?**

20.1 No, the industry has already identified the need to develop and implement a new governance structure and the work is very advanced.

For the package of remedies as a whole

20.1 We have addressed these questions 1 to 6 already, either in responses to other questions or in the cover submission.

Gateways

21. **Question 7: May the accreditation process for Bacstel-IP prevent other providers from entering the market?**

21.1 Bacstel-IP comprises mechanisms and processes for signing and authenticating instructions, files and/or other communications transmitted to or by Bacs. The adoption of Bacstel-IP is intended to provide greater levels of protection, security and operational integrity for all individuals and organisations involved with the provision and use of electronic funds processing services. VocaLink has been appointed by Bacs to test and approve solution suppliers applications software intended for use in transmitting and receiving data via Bacstel-IP.

21.2 HSBC's customers rely on payments on a day to day basis and it is therefore essential that any new payments service is subject to some form of testing and accreditation to ensure the secure and efficient flow of payments is preserved. Bacs is Bank of England-designated Critical National Infrastructure, underlining the systemic importance of Bacs payments. It is important that any testing and accreditation regime is sufficiently robust to guarantee the security and stability of payments but the regime must not act as a barrier to entry. Striking this balance may not always be easy to achieve.

21.3 Having reviewed the Bacs accreditation process for the Bacstel-IP service and in particular, the 'Agreement for Participation in Bacs Approved Software Service (Bacstel-IP)', we are not clear how the accreditation process for Bacstel-IP is preventing other providers from entering the market. We understand that there are eighteen Bacstel-IP providers who have succeeded in securing accreditation and entered into the participation agreement, in order to offer their services in the marketplace.

21.4 HSBC has significant engagement with our customers and Bacs software providers. Through all this ongoing engagement, we have not been made aware of any issues or concerns with the accreditation process. Without understanding the specific issue(s) and perceived scale of the detriment, it is difficult for HSBC to comment further. We would be happy to engage further on this question, should additional information be available for our review.

PSR Interim Report – Market Review into the Ownership and Competitiveness of Infrastructure Provision.

This paper provides the RBS response to the 27 consultation questions posed in the PSR's Interim Report published on 25 February 2016.

We would be happy to meet with the PSR to discuss any element of our response.

We have highlighted, in yellow, those elements of the response which we consider to be confidential/sensitive, and which we would ask the PSR to redact in any published version of this response.

Remedy 1: Competitive procurement processes

1. Would this remedy be effective in addressing the problems we have identified?

RBS believes that a competitive procurement exercise, based on development and implementation of a procurement strategy along the lines of that proposed by the PSR, would be effective in addressing the issues highlighted.

2. What are the relevant potential costs and benefits that we should consider?

The cost of developing and implementing a procurement strategy are not regarded as significant in relation to the benefits that might be achieved.

The costs to a potential supplier of submitting a bid would not be a barrier to becoming involved, but prospective bidders would need to be convinced that they have a realistic chance of success (i.e. that they in participating in a fully competitive process).

Unless and until the UK infrastructure is seen to be operating to relevant global standards, or 'translation software' is widely available, the cost of running a 'non-standard' service would need to be considered very carefully by potential bidders.

To the extent that a prospective bidder would need to incur, for example, additional hardware/software costs, the period of the contract needs to be sufficiently long as to enable them to re-coup those costs over the life of the contract.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

If potential bidders were not convinced that the conditions (e.g. around global standards/competitive procurement) were yet in place to give them a fair chance of success, an early procurement exercise might not have the desired benefit.

In addition to the pricing elements of a competitive procurement process, all parties will need to consider the potential impact of such an exercise, both in terms of the costs involved in migrating to a new supplier, and the potential risks involved e.g. in terms of security and/or service continuity. It is not immediately clear how such a migration exercise would be undertaken, and this will need to be considered as a key element of the procurement strategy, and in assessing the bids received.

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

RBS believes that mandating a competitive procurement exercise is a reasonable and proportionate remedy for the PSR to introduce, and we have not been able to identify alternative proposals which would be less costly or intrusive.

As stated above, however, we would urge the PSR to satisfy themselves that the necessary market conditions (e.g. use of global standards) for a fully competitive process are in place before that process commences.

5. What implementation issues do we need to consider, including (but not limited to):

- Are the operators best placed to undertake the procurement exercise?
- The timing of the proposed procurement exercises.
- Would there be benefits and/or detriments if these processes were coordinated?

As indicated above, RBS believes that the timing of the proposed procurement exercise should allow for market conditions to evolve to the point where prospective bidders feel that they have an acceptable prospect of success without unreasonable investment costs (e.g. in operating to legacy standards etc).

We believe also that the contract terms should be sufficient to enable any necessary investment to be recouped.

We believe that these market conditions should be such that it is clear that Vocalink has no unfair advantage over potential rival bidders. Equally, however, we do not believe that Vocalink should be disadvantaged – they should be able to bid for any/all of the core contracts, with no barrier to succeeding with any or all of these if, on the basis of an agreed assessment process, their bid is the most competitive on the table.

On the question of who should undertake the procurement exercise, RBS suggests that this is considered fully in developing the procurement strategy. Whilst contract renewal has hitherto been managed by the relevant PSO, management of the competitive procurement exercise now envisaged clearly involves much greater complexity, and it may be that contracting the process to a suitably experienced third party would be appropriate.

Whilst PSPs should ideally be free to engage individually with any infrastructure supplier which can demonstrate the ability to meet the necessary service criteria (including operational performance/security safeguards etc), the PSR needs to be cognisant of the risk that participants with smaller volumes may end up paying higher prices than their larger rivals.

Given the different nature of the services provided, there is no reason that procurement of the three core contracts could not be undertaken concurrently – but timescales for preparing bids etc should reflect the potential workload on any bidder seeking to be considered for multiple contracts.

Remedy 2: Interoperability

1. Would this remedy be effective in addressing the problems we have identified?

Without pre-empting the work of the PSF, which we are supporting, RBS believes that employing common standards would be effective in addressing the problems identified. That said, we remain to be convinced that wholesale migration from existing systems to those based on new standards is necessary/cost effective – rather the PSR should consider the arguments for greater availability/use of 'translation software'. We believe that such software could bring benefits to a range of stakeholders (particularly in simplifying access to payment systems for challenger banks) without requiring all participants in the ecosystem (e.g. corporate payers) to amend existing processes which are satisfactory for their purpose.

2. What are the relevant potential costs and benefits that we should consider?

The PSF will address the business case rationale for any changes that are proposed, but we believe that the approach taken will be key. As indicated above, use of translation software to avoid, as far as possible, expensive systems/software upgrades (whether at infrastructure, PSP or end-user level) can be expected to be more cost effective, on a business case basis, that wholesale changes to existing IT.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

As above, this remedy, if applied via a 'wholesale change' approach, would be likely to result in substantial costs for stakeholders who would potentially question the benefit they are receiving as a result. This would be particularly true of a 'big bang' migration (recognising that the PSR is recommending a 'managed' approach).

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

As indicated, use of translation software will need to be considered by the PSF in preference to a wholesale migration.

5. What implementation issues do we need to consider (including the length of a transition period)?

RBS suggests that any transition period should reflect the timescale over which stakeholders (particularly corporates) will upgrade their internal systems/software – aiming for changes to standards being achieved as part of their software replacement cycle

6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?

None that are not already being addressed via the PSF (and specifically the Simplifying Access to Markets WG).

Remedy 3: Ownership of VocaLink

1. Would this remedy be effective in addressing the problems we have identified?

RBS does not believe that this remedy, of itself, would be effective in addressing the problems identified. We believe that potential bidders, particularly from outside the UK, may be discouraged by the use of bespoke standards, and by the lack hitherto of a fully transparent procurement process, than by concerns over common ownership. To the extent that the latter is a contributory factor in terms of some potential vendors being reluctant to bid, the PSR should seek to address the first two issues before contemplating the significant step of requiring the existing owners of Vocalink to sell an asset in which they have invested over many years.

2. What are the relevant potential costs and benefits that we should consider?

[✂] Should it decide to pursue this remedy, however, we would ask the PSR to consider the extent to which the nature of a 'forced sale' might be expected to result in a lower sale price than might be achieved via a "willing buyer, willing seller" process, and whether this is justified by the potentially marginal additional benefits achieved thereby.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

As above, a forced sale process is likely to result in a reduction in the proceeds of sale when compared to a "willing buyer, willing seller" scenario. Mandating such a sale whilst there is still uncertainty over other potential remedies (e.g. around length/commercial terms of the core contracts) is likely to depress the selling price further still.

4. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?

We would suggest that other remedies, e.g. addressing the standards issue, and undertaking an open procurement process are taken forward before resorting to a divestment remedy – it may be that the latter would be found to be unnecessary/unjustified if the first two remedies are effective.

5. What implementation issues do we need to consider, including (but not limited to):

- Who should be required to divest their shareholding?
- Timing of the divestment
- What (if any) purchaser suitability criteria should be applied?
- What (if any) additional measures are required to ensure security and resilience?
- Should the divestment be full or partial?
- If partial, to what level should an individual PSP shareholding be reduced?
- If partial, should the total shareholding held by PSPs also be limited?
- Should changes to Board composition also be stipulated?

[✂]

[✂]

In a full divestment scenario, it will be important to ensure that the purchaser understands the importance to the UK of managing a critical national infrastructure. The Bank of England will clearly wish to be apprised of negotiations to ensure that the purchaser is 'fit and proper', and will wish to ensure that the sale contract contains provisions around continuity, security, quality of service etc. The PSR will presumably have similar concerns.

Remedy 4: LINK

1. Would this remedy be effective in addressing the problems we have identified?

RBS believes that this remedy, implementation of which is expected to complete shortly, will be effective in addressing the issues raised.

2. What are the relevant potential costs and benefits that we should consider?

N/A (implementation is expected to complete shortly)

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

N/A (implementation is expected to complete shortly)

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

N/A (implementation is expected to complete shortly)

For the package of remedies as a whole

1. Would these remedies be effective in addressing the problems we have identified?

As set out above, RBS believes that LINK separation (which is almost complete), and the draft remedies around standards and open procurement, are likely to be effective without the need to pursue a divestment remedy.

Rather than dropping the latter at this stage, however, RBS recommends that the PSR should implement the remedies in a logical order, i.e.

- address the standards issue to enable potential bidders to deploy existing technical solutions; then
- undertake an open procurement process, making it clear that there will be a level playing field for potential bidders; and then
- consider potential divestment only if the first two remedies are seen to have failed, and that divestment is the only remaining option.

The timescales for the above will be driven by the PSF's work on the standards issue.

2. How effective would the package be if one or more of the remedies above were excluded?

RBS believes that the PSR's objectives can potentially be met without resorting to a divestment remedy – at the very least, there should be a sequencing of the remedies so that divestment is only contemplated once the results of the other three remedies have been assessed.

3. Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?

None that we wish to highlight

4. Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?

None that we wish to highlight

5. Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?

None that we wish to highlight

6. What implementation issues do we need to consider (including timing)?

None that are not covered by our earlier comments.

Gateways

7. May the accreditation process for Bacstel-IP prevent other providers from entering the market?

RBS has no evidence to suggest that the Bacstel-IP accreditation process has prevented other providers from entering the market.

Santander UK plc: Response to Interim Report on MR15/2.2 –
Market review into the ownership and competitiveness of infrastructure provision
April 2016

Executive Summary

1. Santander UK plc (Santander) welcomes the PSR's market review into the provision of UK payments infrastructure (the Market Review). In general, Santander supports the three core remedies (remedies 1, 2 and 3) suggested in the Interim Report (the Report), in addition to the recommendation to conclude the separation of Link and VocaLink (remedy 4).

2. We consider that the proposals fit together well, and, if executed effectively, will continue the good progress made to date in simplifying and enhancing the access model for users. Santander believe it is important that a clear and objective strategy is defined for the tasks set out to ensure that the expected benefits are delivered in a timely manner to meet the objectives of the PSR and the payments community.

3. Given the PSR's remit as an economic regulator, we look forward to working with you as you develop a robust economic benefits review, to ensure that proposals are clear and well evidenced, with supporting benchmarking to measure delivery against.

4. In terms of our high level summary on each remedy:

a) *Remedy 1: Competitive procurement exercises* - We agree that competitive and transparent procurement exercises should continue to be carried out, to ensure the decisions made are understood clearly by all interested parties. Timescales should be carefully managed to ensure sufficient time is allocated to a robust and detailed review, rather than at the earliest opportunity such as at a break-clause or expiry.

b) *Remedy 2: Interoperability* - A common technical message standard, internationally recognised, is certainly the most sensible technical proposal to enforce for all developments. Equally important will be the development of relevant business/operational requirements, and the associated changes to the PSO rulebooks. It is important to ensure that the rules are understood and can be adhered to by new market entrants with less experience of meeting industry rules. It is also important to also reflect what this will mean in the innovation space; whilst ensuring the sending of messages is simplified, the receipt (for example of additional data in a richer form) will only be effective when all can receive and deliver the new form to the end receiving customer. A clear end-strategy will bring comfort that the changes will be effective.

c) *Remedy 3: Ownership of Vocalink*: The divestment of VocaLink ownership by PSPs could encourage more competition in the service provision for the interbank services, but this in itself may not stimulate the outcomes of cheaper, faster and better service provision that some perceive will be the case. Security and integrity of the payments systems, and the underlying user experience, must be of paramount concern in any changes to the network.

d) *Remedy 4: LINK* – As the PSR is aware, the governance change to separate Link from VocaLink to instil a more disciplined approach is well underway. Santander has provided its support to the planned changes and continues to challenge for a timely and efficient delivery of the demands set within this potential remedy.

Remedy 1 - Competitive procurement exercises

5. Santander agrees with the need to ensure that there are no barriers to the procurement processes and to ensure that contractual arrangements are relevant, *delivering the need for wider access and innovation, whilst maintaining the security and integrity that payment services require*.

6. As a scale challenger, we welcome increased competition in the markets in which we operate, and fully support the need for change where it is necessary. Santander is a direct participant in each of the Payment System Operators (PSOs) referred to – Bacs, Faster Payments and Link – as well as a shareholder in VocaLink.

7. As reflected in our response to the Market Review, although the industry has been served well by the existing model, there is now a need to change and simplify the way the industry operates, both technically and operationally. The Scheme 'rulebooks' should be streamlined and made more relevant to users' experiences today, providing straight-forward and clear focus on the customer experience.

8. The longer term strategy of the payment architecture – a 'push and pull model' – should both lead and define the needs of the future rulebooks.

9. Santander agrees that the steps proposed under Remedy 1 will support a clear and transparent procurement process, namely:

- Development of a strategy for procuring infrastructure, with significant emphasis on the needs of all users. It should be reflected that the "latest developments in technology" may not be the most suitable tools for the next generation of payment systems – rather stability and resilience must remain a critical factor in the strategy.
- The running of a fair and open procurement exercise is essential, using best practice as a sound base. The specific needs of the payments community should be considered in the best practice approach to ensure that the perceived issues of the past do not drive a biased outlook.
- Independent monitoring of the procurement exercise would be a sensible control mechanism to ensure the delivery is accepted widely.

10. Further to this independent monitoring point, the Santander-appointed PSO board members are fully aware of their legal responsibilities when attending board meetings, and recognise the fiduciary responsibilities placed upon them. Santander does not believe that the dominance of the 'big four' has created any blocks or undue influence on decisions taken.

11. The addition of independent directors and chairs to the PSO Boards was welcomed by Santander, although we retain the view that it is the right calibre of person, with relevant experience, that is most essential to maintaining the meaningful

contributions required. Such appointments ensure that the openness and transparency of discussions and decisions continue.

Cost issues

12. Today, all direct participants benefit from the same variable unit cost per transaction and common core service costs.

13. In our opinion, there is a risk that the introduction of multiple suppliers into the market could actually create a different cost model, with unintended consequences. Particularly for the largest users, the strength of their buying power could result in a beneficial discount in the unit cost per transaction compared to today's collective pricing model. This could result in smaller players, including Santander as a scale challenger, potentially not benefitting to the same extent as the big four owing to their transaction volumes.

14. Despite this, we agree that competition in the provision of infrastructure is important and as such, would encourage that prices are not constrained or controlled in any way.

15. The additional services, referred to in chapter 5 of the Report, provided to support the payment services are often important features to the security and integrity of the central services.

16. As Santander noted in its initial response, and subsequent meeting, there are alternative suppliers and opportunities to develop services, so we agree this is not a barrier to competition. As an example, we have built our own Faster Payments gateways to give flexibility in change plans and cost; however the opportunity to purchase the services from third parties is understood and the migration to a new supplier/service is understood.

17. Santander agrees that greater transparency on services such as Bacstel-IP accreditation will help other solution providers better understand what they are being charged for and assessed against to ensure there is no conflict or competitive advantage. However, it should be noted that this accreditation is for the benefit of the whole payment service and is there to ensure the software and supplier are capable of delivering a service fit for users and the connections required. It should not be compromised merely in order that it appears more accessible. That said, we do not believe that the supplier has to be VocaLink, so the approach by Faster Payments to use an alternative supplier appears sensible in removing some of the perceptions referred to.

18. Taking CASS as an example, it is commonly felt in the industry that the cost of change for centrally run projects can be split simply:

    a. c. 10% of overall cost relates to the central build cost; and
    b. the remainder sits with the connected PSPs, and other relevant users of the service.

    So as part of the economic review of change, the onward impacts and costs must be fully considered to ensure the true value of change is recognised.

19. We also note with interest the PSR's position that the location of data centres is not restricted to within the UK and thus does not act as a barrier to entry.

20. This clarity is welcomed, however we feel a more detailed analysis and explanation of this should be provided to ensure that procurement processes do not create future unintended consequences, for example data leakage where this issue has not been fully understood by all providers.

Remedy 2: <u>Interoperability</u>

21. Santander welcomes the PSR's leadership on a strategic objective to bring conformity to message standards, utilising an internationally recognised standard. The benefits are relevant to the objectives we have as a community and will enable a more straightforward access approach for new and current users.

22. However, the technical standard is only one key component of this delivery. Whilst it is fairly straightforward to define what the message should look like, and translating an existing message format into something new should not present too many technical challenges, there will be some key deliverables, namely:

- adaption of the existing rulebooks to ensure all parties are clear which data information goes where in the messages;
- end-to-end delivery of messages;
- realisation of the benefits common standards can bring by enabling competition with the interoperability with other payment services.

23. We consider that the best way to deliver success via this potential remedy is through a clear long term strategic vision, ensuring a clear and objective outcome is articulated and understood by all PSPs and users. Santander has previously stated the case for consolidation of PSOs to encourage collaboration and long-term strategy focus within the UK payments model. We agree that the introduction of an internationally recognised message standard is a positive step in this direction.

24. However, the fact that multiple PSOs offer, in simpler terms, a 'push' or a 'pull' transaction, does not enhance the competitive nature of the landscape and, in fact, could still act as a barrier to access. This is because [where a new entrant PSPs wants to join multiple payment services, they have to join multiple PSOs – a more suitable model may be to join one consolidated PSO, who then gives the options to participate in multiple payment service options].

25. Rather, consolidation of Bacs, Cheques, Faster Payments and Link - coupled with the mandate to introduce a common message standard - will, we believe, enable a more robust approach for future direct participants. We are encouraged that this topic is being actively pursued by the Payment Strategy Forum.

26. Whilst a common message standard may encourage competition, another important focus of this potential remedy should be on the innovation opportunities it could deliver. For example, by enabling a message with less space constraint than existing formats such as Standard 18 (Bacs), users - particularly corporates - may be able to include more information in the message fields.

27. Such benefit can only be fully delivered if both ends of the process are capable of accepting and providing the full message intended. By simply introducing a message

standard without mandating space requirements, all possible benefits will not be delivered, and a pre-defined window is likely to be required in order that all PSPs receiving enhanced data formats can provide them to their customers. This is likely to result in significant cost to the participants.

28. As the PSR is aware, the current (regulatory) change programme being placed on the PSPs is already significant and careful consideration must therefore be given to the timescales set against any of the objectives arising out of this Market Review. There is a lot of commonality between the programmes and regulatory requirements of Banking Reform, PSD2, AML4, as well the challenges coming from HMT with regards to Open Data & API modelling, as examples. Thus clear strategic planning is essential to ensure effective outcomes which are delivered safely and securely to protect the end user experiences. Otherwise, there is a risk that the burden of significant change across multiple projects could have detrimental consequences.

29. Of all the proposed remedies, in our opinion remedy 2 has the potential for the highest cross-community cost. A well-defined economic case for change will be essential to measure against.

Remedy 3: Ownership of Vocalink

30. As noted in Santander's Market Review response, VocaLink is of critical importance to UKplc, and the responsibility placed upon the operational performance and resilience of the service provided is of upmost importance to all involved. This in part should be recognised as a contributing factor to why the larger PSPs place importance on attendance and contribution at meetings, as well as the specific focus on operational excellence and resilience.

31. As noted in the Report, Santander is a shareholder of VocaLink [✂].

32. Internally, Santander ensures that the responsibility for overseeing VocaLink and the PSOs is structurally separated, with segregation of responsibilities clear [✂].This model has been in place since the separation of Bacs and VocaLink, in part to ensure that there is no conflict of interest between operational and commercial requirements, with the commercial decisions taken independently.

33. We do not consider divestment in itself to be an immediate solution to addressing the perceived issues. Indeed, should new shareholders or suppliers place more focus on cost reduction than on resilience and operational excellence, the negative consequences could be significant for all users. As shareholders we will seek strong commitments to operational resilience in any divestment proposal.

34. Santander does however recognise that a change in the ownership model could at least ensure that any perceived inequalities or lack of enthusiasm to invest and innovate can be managed more effectively. Alongside technological improvements, and innovation in the payments space, the ability to have an effective multi-supplier model is more likely now than in the past [✂].

35. [✂]

36. [✂] This in turn ensures that the reinvestment programme in VocaLink's business as usual and innovation ventures can continue. In previous responses to the PSR, we highlighted that Santander does not operate an indirect payment services as a business, rather the model we operate is a cost-based operation with no income stream to off-set against. All developments, maintenance and running costs can only be attributed to the on-going service delivery essentials our customers expect and require.

Remedy 4: LINK

37. Santander supports the work to separate Link from VocaLink to ensure a clear governance model is in place. This will help to ensure the operational rulebook and factory services are delivered independently and provide transparency.

38. It is also important to note that the required changes are delivered in a sensible and efficient way to minimise disruption and cost during the transition.

Santander UK plc
15 April 2016
[ENDS]

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Payment Systems Regulator
Infrastructure Market Review Team
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(N.B. this response has been sent by email to: infrastructurereview@psr.org.uk)

Dear Sir / Madam, 19 April 2016

Nationwide's comments on the interim report on the PSR's market review into the ownership and competitiveness of infrastructure provision (MR15/2.2)

Thank you for giving Nationwide the opportunity to respond to this market review. In this covering note I will outline our position in general terms and specifically comment in answer to the review questions in the attached papers.

Nationwide is the world's largest building society, a mutual owned by and run for the benefit of our members. In recent years we've sustained the best customer satisfaction among our major high street competitors and we have successfully grown our business. Our long standing strength in mortgages and savings products has been supplemented by our market leading range of current accounts.

This makes Nationwide responsible for managing £1 in every £10 of UK consumer funds and our commitment to payments reflects this; we aim 'To offer customers the payment facilities they want. Delivering them on time, every time, securely and commercially'. We continue to grow our payment services in terms of scale and choice including innovations such as Apple Pay with Android and Samsung equivalents to follow. We also have the market insight of a Payments Service Provider (PSP) with both direct and indirect relationships in our access to payments infrastructure and play an active role in helping shape the future of payments.

Overall, as a member owned PSP which is competing successfully in the market through service and innovation, we support the review and our strategy aligns with the PSR's aspirations for the market. In our responses we draw on our perspectives as a customer centric leader in our field, fully engaged in the payments ecosystem and alert to the strategic challenges ahead which influence how it is best organised. We aim to add value to the consultation process calling out where there are opportunities and threats to the delivery and development of payment services that we feel merit attention and we make a particular call on the importance of prioritisation, sequencing and governance to bring our shared objectives to life.

We value the relationship with PSR and the engagement in the Payments Strategy Forum process and are keen to fully connect in consultations, reviews and strategic developments moving forward.

Yours faithfully

[✂]

Remedy 1: Competitive procurement processes

1. Would this remedy be effective in addressing the problems we have identified?

Nationwide supports the principle of competitive procurement backed by routine market testing with strategic perspectives to scan for future options. However, there are some key points we would make in relation to the interim report.

i) First, we believe that there is more to competitive procurement than is outlined in the report. There are elements here which are specific to the provision of payments infrastructure and others that are more generic.

In the context of the payments market we need the procurement to be highly sensitive to a range of factors presenting opportunities as well as risks. For example, we recommend very close alignment with the work on common messaging standards progressing elsewhere, including the Payments Strategy Forum (PSF) and within Payments UK. Similarly, we would suggest coordinating any proposals with the ongoing work from the PSF's Simplifying Access to Markets Working Group which is considering scheme reform among other relevant issues.

In a more general sense, competitive procurement on this scale and for any critically important economic function should be driven by clear and robust principles to ensure continuity of service delivery and development. Best practice procurement design will include risk and opportunity assessments of all options which otherwise could yield unintended consequences such as barriers to entry, instability or creation of unnecessary and expensive variation. Stability is extremely important and a sound economic analysis of the costs and benefits is essential. We should not rush to accelerate procurement and risk destabilising the market.

ii) Second, there is more to an effective and dynamic market than competitive procurement. The value derived from the supply chain in terms of service and innovation, as well as costs to the customer, should be assessed throughout the lifecycle of the relationship. The procurement elements are certainly important but to evaluate them fully, we feel that there should be consideration of the economic characteristics of the market and whether, for example, there are valid micro economic forces at play which have yielded a single large scale supplier – not least the fixed costs and long term 'return on investment' attributes of infrastructure provision.

iii) With these perspectives in mind, it's important to note that in Nationwide's view, there has been both competition and innovation in the infrastructure provision. In terms of VocaLink, these have enabled Nationwide and others to create new payment solutions delivered reliably and commercially. And, it is worth noting we see the competitive interplay between infrastructure providers continuously as our customers make choices – for example, the Paym service offers a real time alternative for person to person payments through using Faster Payments which may have historically been made using cash or cheque. Equally the 'continuous authority' card payment functionality enables a regular scheduled payment that can provide an alternative to the Direct Debit or standing order.

Taking a more collective perspective through our engagement with the highly plural work of the PSF, we do not appear to be seeing the current infrastructure provision as an obstacle, indeed there are developments emerging from VocaLink which may play a key part in extending competition and innovation to the benefit of end users, where it is perhaps most valuable.

Overall, Nationwide feels the competitive procurement remedy is correct in principle if backed by routine market testing, rigorous best practice and strategic perspectives to scan for future options. In addition, we see it as part of what drives a competitive and innovative market and we have noted some of the positives and negatives we have experienced. Finally, our wider engagement with the PSF and other collective bodies including Payments UK, strongly suggests the need for awareness of and careful planning around other proposed initiatives such as scheme reform and alternative access models such as VocaLink's direct contracting for configurable services.

2. What are the relevant potential costs and benefits that we should consider?

At this stage, we don't believe that the market review has presented evidential analysis on the current costs and benefits. However, it is reported that independent assessment of the current model has suggested high levels of user satisfaction and resilience delivered at a reasonable price.

The cost:benefit case needs to be customer centric and strategic, thereby creating the best value for end users on the journey to making the UK's payment services world leading. The assessment also needs to look beyond costs to include the capacity and capability to effect the changes being suggested in the work of the PSF. To realise our ambition of outstanding payments service delivery and development we need sensible and fair loading on the industry and we should balance the effort we put into short to medium term remediation against a long term horizon where the market may benefit from different structures and solutions.

With this in mind, the enablement of change is key. For example, by promoting simplification at the operator level and direct contracting as an optional access route, we may reduce overheads and friction in access to the market as well as continuously optimising the supply chain.

Furthermore, there is merit in taking a strategic perspective and looking to an end game where the payments topology is configured towards the future market and yields benefits at the macroeconomic level. The PSF's emerging strategy and that laid out in Payments UK's 'World Class Payments Report' is potentially developing an area of comparative advantage for the UK and the solutions being formulated potentially include export options in payments provision and development where the UK may lead. We need the PSF's outlook and solutions to reflect this strategic perspective given the UK's potential influence and market reach is global.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

There are a range of risks from of sub-optimal outcomes impacting end users through to systemic instability, but an effective process with sound procurement principles should mitigate this as far as possible.

If there is weakness in how we approach competitive procurement, including acting in haste, we risk underperformance in the completeness, accuracy and timeliness of changes in the infrastructure supply chain. In any transition at the infrastructure level, the day to day delivery and development of payment services must be safeguarded. As an industry, we must also be careful not to be isolated in our responses to current detriments and thereby risk 'silos' of disconnected development. It is for this reason Nationwide has previously commented about the value of a more holistic overview of infrastructure provision in the UK payments market – there are lessons to be learned from other payment services including cheques and cards.

In the long term, payments is a systemically vital economic function with a track record of resilience that cannot be compromised. At Nationwide we know the value of appropriate central coordination in preventing and responding to incidents which are, by definition, often reciprocal in their effects. The control afforded by such coordination is crucial. We feel it would be prudent to ensure that the future industry governance is set up and operates effectively to deal with business as usual, including incidents, as well as steering transformational change such as messaging standards.

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

In principle the remedy in itself is reasonable and would be expected to be part of an effective payments market. It can be argued competitive procurement already happens and is evidenced in part on the supply side by VocaLink's success in foreign markets and on the demand side by the relatively recent procurement of CGI as the provider for the Future Cheque Model.

By definition, in a dynamic and effective market the demand side is also important, and this is where scheme reform and direct relationships between PSPs and infrastructure providers are relevant and should be considered in support of this remedy.

We believe that the PSR's analysis in the interim report falls short of a deep application of competition theory, but as noted above, a key point is a competitive market in UK payments infrastructure depends on much more than the procurement process. These other aspects need to be incorporated in the review, including dependencies such as addressing the challenge of message standards as an enabler for new entrants (as well as a technical foundation for enhanced end user services based on richer data).

The PSR is right to call out that cost and disruption are important risk factors. In part these could be mitigated by the risk management we have talked about above and care in the timing to minimise the operational and commercial risks. We comment further on these risk factors below.

5. What implementation issues do we need to consider, including (but not limited to):

o Are the operators best placed to undertake the procurement exercise?
In principle the operators have the insights into the payments market and awareness of end user needs that make them best placed to undertake the procurement exercises. However, this is an area where the market review may need to extend from remedies in the context of the current operating model and reach towards a more strategic perspective in where the market could look quite different.

This brings into focus the issue of sequencing events to account for potential developments such as:

- The PSF recommendations on Simplifying Access, potentially complemented by other initiatives arising from Payments UK's work on World Class Payments, could prescribe scheme reform that might be a sensible precursor to the next competitive procurement exercises. Through the 'solutions' of scheme reform and common message standards we have the opportunity to establish both governance and in technical/practical elements that could lay a good foundation for procurement to follow.
- The possibility of PSPs having direct relationships with infrastructure providers who may be able to provide a configurable suite of services, making contracting a more bespoke arrangement for some players.

Nationwide feels the PSR should consider and evaluate these factors to inform its final report.

o The timing of the proposed procurement exercises
From a governance perspective Nationwide would recommend the PSR carefully considers any suggestion for timing of these market review remedies. On competitive procurement specifically, we feel it should be planned to build on better foundations, such as common messaging standards, being in place to encourage competitors with fewer risks of disruption in the supply chain.

Factors to consider in the timing of the remedies include:

- As already noted, the PSF output may be relevant to the timing in a number of ways, notably the recommendations on Simplifying Access, specifically at the operator level. We would suggest operator reform is a sensible precursor.
- The PSF (and Payments UK) is also alert to the importance of message standards as an enabler of competition and innovation. We feel the interoperability remedy should also precede the competitive procurement elements. That said, we would stress there is a balance to strike here; translation services may enable parallel running and phased migration in relation to both old and new messaging standards, but this should not be perpetual. There is a risk it could allow interoperability but delay widespread deployment of 'enhanced' services to reach as many customers as possible.
- On a practical level there are other factors to consider, some of them present operational and commercial risk. These include:
    - o The known change agenda is extensive including Open Data and the UK transposition of PSD2 including the involvement of Third Party Providers – the PSR should consider the capacity and capability challenge across the industry with a keen eye on sustaining resilience in service delivery.
    - o The commercial planning and risk management sensitivities of the current (and any challenger) infrastructure providers should be carefully considered. If the procurement process becomes, in some ways, unpredictable this would undermine confidence in the long term fixed cost investment demands typical of such infrastructures.

o Would there be benefits and/or detriments if these processes were coordinated?
Coordination is key here. The strategic aim of the PSR's review is enabled through planning and deployment which needs sequencing. We have suggested the dependencies which we feel should precede procurement exercises, including reform at the operator level and common messaging standards.

It is also important to work out how this coordination happens in practice so there is a well governed and clear path to delivery – especially in the many elements that are collaborative in nature such as message standards.

We would welcome further discussion with the PSR on the governance challenge and possible solutions to enable not just the implantation of these remedies, but indeed the wider solutions we are formulating in the PSF process.

Remedy 2: Interoperability

1. Would this remedy be effective in addressing the problems we have identified?

Nationwide supports the view that common standards for payments messaging are an enabler towards competition and innovation. In principle, the proposals in this market review align with the outputs so far from the PSF Working Groups and the initiatives for enhanced services being developed as part of Payments UK's World Class Payments initiative.

The varied nature of current payment standards in the UK reflects our hybrid model of legacy and contemporary services, the latter being aligned with the international norm, ISO 20022 for interbank electronic payments. We agree new entrants seeking to deliver and develop payment services are more likely to do so if there is a common standard that also yields enhanced services, including competitive elements derived from the 'rich data' possibilities of payment messages.

As with the other remedies, there are important considerations around timing and governance which we highlight below.

2. What are the relevant potential costs and benefits that we should consider?

To optimise the cost:benefit position it is important to be clear on the scope of common messaging standards. For example, it is possible that a negative outcome could emerge if ATM messaging is included – further analysis would be needed to assess alignment with the expectations of the wider ATM market which is not currently configured to ISO 20022. The ISO 8583 messaging standards used for ATM are an acknowledged global standard for card activity and therefore already provide wide interoperability.

There are undoubtedly significant investment costs associated with implanting new payment messaging standards. In some cases, this gives scope of translation services / aggregators to enable compatibility between old back office systems and the payments infrastructure. In principle this is reasonable but there are risk factors to consider in terms of the migration period and possible 'service differentials' as noted below. We would recommend this be carefully assessed in the scoping and planning stages to optimise the role and presence of translation services.

The benefits associated with common messaging need to be considered as a whole. There are gains in terms of opening the market at the infrastructure level, beyond national boundaries. There is scope for new translation and 'portal' services, potentially enabling new access options for PSPs, including bilateral contracting direct with the infrastructure provider. Perhaps above all, there is the potential for a range of enhanced services to meet the needs and desires of end users, levering the benefits that new standards can yield in terms of e-invoicing or controllable push payments ('Request to Pay') for example.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

In the transition to more interoperability it is vital that resilience isn't compromised. The reciprocal nature of payments, and wider services such as CASS, depends on continuously reliable services supporting the transmission and receipt of messages. Therefore, there are significant operational risks to manage at the systemic level which could of course affect customers and businesses.

Another risk factor to manage is the possibility that the desired outcomes are not reached in a reasonable timescale and are too narrowly distributed in the market. For example, if a phased migration were to endure for too long, it is possible new 'service differentials' would be created with migrated PSPs able to take earlier advantage of enhanced services, adding value to their customer propositions while others are confined to existing basic services until migration completes, if it is available to them.

It will be important to assess the capability and capacity of translation services in this respect and to have effective governance through a centrally coordinated body to enable successful implementation. This governance would also need to consider the wider possibilities of a simplified payments market, potentially developed in stages with existing standards co-existing in an interim stage towards full integration at the operator level.

We feel these risks can be managed with the right governance model in place to carefully plan the scope, timing and coordinate the implementation of interoperability through new standards. Market reform to provide central management of rules and standards is crucial. In the longer term, clear rules and UK based guidelines will be important and it may be possible to develop further the work undertaken by Payments UK in this regard, aligning with related activity in the PSF Simplifying Access to Markets Working Group.

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

Nationwide supports this remedy, especially if given the appropriate governance to ensure a successful delivery. It is also consistent with analysis across the industry, including studies by VocaLink, Payments UK and the Working Groups of the PSF.

It is likely that translation services will help to keep costs down and avoid disruption in end to end services for customers and businesses. However, there needs to be a carefully governed approach to balance the interoperability and reach afforded by such services against the possible risks of service disruption as well as any unintended and enduring 'service differentials' appearing in the market as outlined above.

5. What implementation issues do we need to consider (including the length of a transition period)?

As stated already, the implementation must be carefully governed. It is likely the risks associated with a 'big bang' approach are beyond appetite and therefore a parallel running would be preferable.

However, it is important to assess the dimensions here – how long should the transition period be and what would be the consequences for customers and businesses? There is a body of work undertaken by Payments UK upon which we can possibly build a strategic plan. This could develop the necessary standards and guidelines and refine the planning around collaborative delivery, including the non-competitive elements of enhanced services enabled via new common standards. In Nationwide's view, these enhanced services show real potential to add value not just to customers in their day to day personal finance but also to businesses, government departments and charities.

Further analysis is needed to develop the transition arrangements and duration. Equally, as noted above, the roles of and the rules around translation service providers needs to be considered carefully – especially if they present the risk of unintended 'service differentials'.

6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?

Nationwide notes the analysis within the interim report in relation to this question and, from its perspective as a PSP, has no more to add on this point.

Remedy 3: Ownership of VocaLink

1. Would this remedy be effective in addressing the problems we have identified?

Nationwide views the proposed remedy is broadly aligned to an ongoing direction of travel in the payments market. We support the proposal in principle and understand its contribution to the long term goals of competition and innovation leading to enhanced outcomes for consumers and businesses.

From our perspective, we would stress the importance of keeping the needs and interests of customers as paramount throughout, maintaining reliability and stability in this critical national infrastructure.

2. What are the relevant potential costs and benefits that we should consider?

For the remedy to be effective there needs care to be taken in its design and implementation, this includes a thoroughly evaluated scoping exercise that considers the level and timing of divestment. It also needs to assess long term risks, and the benefits, of an alternative ownership model where the commercial objectives may differ and the underlying operator layer could be significantly altered.

Ultimately, excellence in service delivery and development are the outcomes sought from a more competitive and innovative topology in the payments market. The PSR needs to ensure an effective and proportionate proposal to achieve these aims, minimising the risk of any systemic failure during the journey.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

As noted above, the primary risk is continuity of service to the customer.

A careful implementation approach, following a full economic assessment and reference to remedies and solutions currently emerging, is perhaps one of the key mitigants of unintended consequences.

Potentially, alternative infrastructure providers may already have significant market presence in the domestic payments ecosystem, but not necessarily in interbank electronic payments. To a degree, care will be needed to avoid over concentration in the supply chain.

4. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?

Alternatives have not been explored in the market review as yet but the PSF's Horizon Scanning Working Group has given early consideration to alternative operating models in the payments market including a new, simplified, core payments scheme platform in the longer term. Again, the suggestion here would be to connect these strands of work together with a governance process that can assess the sequencing of solutions.

In addition, it has been publically reported that other providers have expressed their interest in purchasing VocaLink – in this commercially sensitive context, the PSR should very carefully balance its possible directions, allowing the commercial process in the market to play through.

5. What implementation issues do we need to consider, including (but not limited to):

o Who should be required to divest their shareholding?
In theory, divestment by current PSP shareholders to a non-controlling stake could yield the balance of continued engagement with the infrastructure provider, preserving the benefits of market experience and insight, together with sufficient independence in the ownership model.

o Timing of the divestment
As mentioned above, the divestment must be sensitive to any ongoing developments in the market regarding VocaLink's ownership.

Similarly, sufficient time should be given to attract potential buyers and, if necessary, afford the appropriate authorities, likely to be the Competition and Markets Authority, the opportunity to assess any concentration risks.

Finally, a divestment in haste or alternatively, undue delay, may compromise reasonable entitlement of existing shareholders to fair return. Close analysis of market conditions and potential impacts is crucial as the process develops.

o What (if any) purchaser suitability criteria should be applied?
Investment for future development is vital. VocaLink's international development has acted to provide a wider stability to the organisation and this is crucial to build the strength to meet the future challenges of evolution in the market.

Nationwide also sees the stability dimension as essential, both operationally and commercially to ensure we have continuity of service coupled with investment towards an innovative payments future. Any new shareholders or purchaser must be able to illustrate a clear industrial logic, commitment to the UK market stability and the appetite to develop for the future.

o What (if any) additional measures are required to ensure security and resilience?
As mentioned previously, continuity of service delivery and the ability to develop services is a priority. In addition, the integrity of this critical national infrastructure is paramount. To protect these elements, which are highly valued in the current arrangements, there is a need for robust due diligence including detailed risk and control assessment forming a platform for appropriate contracting.

o Should the divestment be full or partial?
As outlined above, there may advantages to partial divestment to the point where the larger PSPs no longer have overall control but remain connected to the supplier's management team offering market experience and insight.

o If partial, to what level should an individual PSP shareholding be reduced?
This will be a commercial outcome of any negotiations and must allow any new shareholders/owners to be able to evolve the company in line with their own commercial plan.

o If partial, should the total shareholding held by PSPs also be limited?
As above.

o Should changes to Board composition also be stipulated?
This will be a natural consequence of any ownership change; it is though important that the future provider must have the ability to connect with its customers and that those customers are able to work with the company to provide effective capability. This is the market norm for such providers although the history of VocaLink may enable it to be particularly strong in creating true customer focus in delivery.

Remedy 4: LINK separation

This remedy has now been achieved.

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21 April 2016

Dear Sir/Madam

Payment Systems Regulator (PSR) market review into the ownership and competitiveness of infrastructure provision MR15/2.2 – Interim Report

Virgin Money welcomes the opportunity to respond to the PSR's Interim Report on its market review into the ownership and competitiveness of infrastructure provision.

We share the PSR's view that there is no effective competition for the provision of UK payments infrastructure for the Bacs, FPS and LINK interbank payment systems, and we agree with the proposed remedies set out in the Interim Report. In particular:

- ***Competitive procurement exercises:*** We agree that competitive procurement exercises should be undertaken, and think they could deliver important benefits in defining what services are required and clarifying the cost and quality of services to be provided.

- ***Interoperability:*** We support the proposal that a common international messaging standard should be developed by FPS, Bacs and LINK based on ISO20022, and think this should lead to greater choice of infrastructure providers and create options for the development of alternative market models for payments.

- ***Ownership of VocaLink:*** We think that ownership of VocaLink by the banks that are the principal owners and users of UK payment systems has pros (such as a strong interest in security and stability) and cons (an understandable interest in maintaining the status quo) but on balance we support the proposed divestment of VocaLink.

More generally, we strongly support measures which have the potential to increase access to payment systems and to facilitate greater competition and innovation in payment services, but we think it is important that the resilience and stability of UK payments infrastructure is considered paramount in the application of any remedies designed to deliver these benefits.

Our detailed comments on the PSR's proposed remedies are contained in the attached Appendix, and we would be pleased to discuss the points we raise if that would be of assistance.

Yours faithfully,

[✂]

<u>Appendix: Virgin Money's response to the PSR's *Interim Report: market review into the ownership and competitiveness of infrastructure provision*</u>

Remedy 1: Competitive procurement exercises

We agree that competitive procurement exercises should be undertaken before current contracts for central infrastructure services come up for renewal or at the next break clause in a contract. Even without the broader objectives of this review, we think that the discipline imposed by such exercises can have important benefits in defining exactly what services are required and in clarifying the cost and quality of services to be provided.

Lessons can be learned from exercises that have already been carried out:

- As noted in Box E, before renewing their contracts with VocaLink, Bacs issued a single-supplier Request for Approach in 2014 and LINK ran a closed Request for Information in 2015. We understand that each of these exercises led to lower costs and improved service level agreements. However, full competitive procurement exercises might have led to greater benefits.

- As noted in Box F, the C&CCC ran a full competitive procurement exercise in 2015 for the core infrastructure services that will support the processing of cheque imaging: 47 parties registered an interest, 7 were shortlisted and the contract was awarded to CGI. In the context of this review, the open and competitive process and the level of interest were encouraging, as was the fact that, despite the involvement of bank representatives, the contract was not awarded to VocaLink.

We agree that, in any procurement exercise, an appropriate balance will have to be struck between, on the one hand, resilience and stability and, on the other hand, competition and innovation. There are likely to be tensions between these twin objectives. We therefore support the proposed approach that is set out in paragraph 8.13:

- For innovation, we agree that it is important to understand the current and future needs of end users, using the work being done by the Payment Strategy Forum's End-User Needs Working Group, and how advantage can be taken of new technologies to meet these needs. It is then important that the procurement strategy should reflect these findings and that it should be subject to consultation with users and tested with infrastructure providers.

- For competition, we agree with the proposal that an independent third party should ensure that due process has been followed (although we think that the independent review should not be unduly onerous) and with the proposed ability of the authorities to intervene if they are not comfortable that an appropriate process has been followed. These should overcome the possibility that infrastructure providers might be reluctant to tender because of expectations that VocaLink would be the preferred party in the procurement exercise.

- For resilience and stability, we suggest that, in each procurement exercise, infrastructure providers should be required to include as part of their tender a clear statement of how they intend to ensure resilience and stability, including in relation to innovative products and services using new technologies. We think that the authorities should be able to intervene if they have concerns that the necessary high levels of resilience and stability might not be achieved.

We think that the operators of FPS, Bacs and LINK are able to conduct full competitive procurement exercises. They have duties under CPSS/IOSCO to ensure that their provision of services meets appropriate standards and they are regulated by the PRA/Bank of England. Independent members on the boards of the operators should ensure that the procurement process is fair and transparent. Bacs and LINK will have gained useful experience from the single-supplier exercises they have already carried out, while the C&CCC has shown that an operator can run an open and competitive tender process and procurement exercise.

Remedy 2: Interoperability

We support the proposal that a common international messaging standard should be developed by FPS, Bacs and LINK. We agree that this should lead to greater choice of infrastructure providers and that it should create options for the development of alternative market models for payments. In addition, in the context of the Government's aspiration that the UK should be a world leader in FinTech, the adoption of a common international messaging standard should make it easier and more attractive for FinTech companies to develop innovative services that could be added to the IT platforms of infrastructure providers or of individual PSPs.

We suggest that the final determination of technical standards and operating rules should be such as to maximise the choice of infrastructure provider and to create strategic options for market models, as well as to achieve wider benefits which, as noted in paragraph 8.16, could help to improve security and resilience. We strongly support moving to ISO 20022 technical standards and operating rules that are compatible with those used for Euro payments in the Single European Payments Area (SEPA), which includes all EU countries, including the UK. In addition, the proposal to harmonise the different payment scheme rules should improve the levels of standardisation and therefore choices of infrastructure provider.

We agree that the Payments Strategy Forum should analyse the business case for moving to a common messaging standard such as ISO 20022. We note the comments about the benefits of a phased approach rather than a 'big bang' migration and about the use of message translation services during a period of transition. Our intuition is to support a phased approach, but we agree that the transition period should not be too lengthy, since the full benefits may only be available when a critical mass of participants is using the common standard. We assume that valuable lessons can be learned about transition to a common messaging standard, and about maintaining resilience and stability during the period of transition, from the experience in many European counties of the move to SEPA payments.

We note the alternative payment system models that are set out in Annex 5. We do not have a preference for any particular alternative model, but we recognise the value in being able to move to alternative models if it seems desirable to do so. For example, there could be a case for direct PSPs exchanging payment details directly with each other, as mentioned in Annex 5, or for bilateral contracts between PSPs and infrastructure providers, as mentioned in paragraph 8.30. However, we would expect any alternative models to be developed with a clear understanding of the benefits and risks to consumers and financial stability. A move to distributed processing should not result in greater risks to customer treatment or settlement in the event that a participant is unable to meet their obligations than today.

In addition, it is important that any alternative model being considered should not create new barriers to entry, especially at a time when initiatives led by the FCA (such as *Smarter consumer* communications, *Regulatory barriers to innovation in digital and mobile solutions* and *Regulatory sandbox*) will make it easier for new entrants to compete by offering online banking products and services that increase consumer engagement and lead to good outcomes for consumers.

Finally, in relation to this proposed remedy, we think that it is desirable to avoid conflation between the adoption of a common messaging standard for payments and the creation of an open banking standard that will make it possible for banking data to be shared and used securely. We regard both initiatives as important and desirable, but we see them as separate from each other.

Remedy 3: Ownership of VocaLink

As noted in Table 1, four large banks (Barclays, HSBC, Lloyds and RBS) together own 77.59% of VocaLink. The balance is owned by nine smaller banks and building societies, including 0.79% by Virgin Money.

In previous responses, we have said that we see pros and cons in the ownership of VocaLink by the banks that are the principal owners and users of the UK payment systems including FPS, Bacs and LINK. For example, in our letter to the PSR dated 24 April 2015, we recognised that the large banks, as the principal users of payment systems, have a strong interest in the security and stability of the infrastructure supporting payment systems and in its low costs, but that they have an understandable interest in maintaining the status quo, including their dominant positions in current accounts, which act as a 'gateway' to other financial products. As noted in paragraph 8.23, common ownership arrangements can lead to inertia, while the independent ownership of VocaLink may be more conducive to supporting an evolving payment system market that may arise in the future.

On balance, we support the proposed divestment, subject to the following points:

- We suggest that consideration should be given to the banks that own VocaLink maintaining reduced shareholdings in VocaLink, at least for some period, to avoid the possibility of a sudden shift from arrangements that might have been too comfortable and that might have led to inertia to arrangements that might cause the sort of 'blame-game' conflict that seems to exist between train operating companies and Railtrack.

- We think that one of the key suitability criteria for possible purchasers of VocaLink is that they are able to commit to very high levels of resilience and stability and to delivering innovation, agreed through the Payments Strategy Forum or directly with the Payment Systems Regulator, within the periods of VocaLink's existing contracts. We also suggest that, in defining the suitability criteria for possible purchasers of VocaLink, consideration should be given to the strategic preference between the greater resources and/or international experience which might be available from a large infrastructure provider and the greater focus which might be available from a smaller provider for which the contracts with FPS, Bacs and LINK would be very important.

We note the point made in paragraph 8.25 about data analytics. We do not think that any purchaser of VocaLink should gain exclusive rights to use the data on payment transactions which it would gather as infrastructure provider to FPS, Bacs and LINK. We think it highly likely that specialist companies will have superior skills in data analytics. As stated in paragraph 8.15, it is important that current arrangements are clear on ownership of intellectual property and terms for licensing it.

Remedy 4: LINK

Consistent with the above, we agree that the legal separation of LINK from VocaLink should be completed.

Our ref JM/JP
Your ref
Date 18 April 2016

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[✂]

[✂]

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Dear Sir

Market review into the ownership and competitiveness of infrastructure provision

We thank you for inviting us to respond to the *Interim Report for the Market Review into the ownership and competitiveness of infrastructure provision.*

Clydesdale Bank notes that this review was prompted by concerns raised during the Financial Conduct Authority's (FCA) call for Inputs and the Payment Systems Regulator's (PSR's) evidence gathering process.

We also note your three key findings as follows:

- No effective competition for the provision of UK payments infrastructure for FPS, Bacs and Link
- Common ownership and control between the operators and infrastructure provider have an impact on competition and the speed of innovation in the industry
- UK payments systems unique messaging standards are acting as a barrier to entry for new infrastructure providers into the UK market

[✂]

Finally the recommendation around the introduction of common message standards is noted, however we are conscious that this would be a substantial change across all 3 payments systems requiring significant investment from all participants, particularly impacting smaller members, and therefore full consideration and discussion with stakeholders should take place along with a robust cost / benefit analysis before any final decision is reached.

With reference to Tables 1 and 2 on pages 74 and 75 of the document, Clydesdale are listed as CYBG Plc – this should state Clydesdale Bank PLC and we would be grateful if this could be amended before the final report is issued.

As a small, ambitious challenger bank, we remain supportive of the overall aims and objectives of the market review to promote effective competition, development, and innovation in payment systems in the interests of service-users and users of the payment services. We welcome the aim of ensuring that payment systems are operated and developed in a way that takes account of, and promotes, the interests of service-users of payments services.

Clydesdale Bank believes that key deliverables of the PSR include fulfilment of customer needs, collaboration between the Regulator, Payment Schemes and member banks.

It is important that any regulator and the industry builds on what improvements have been achieved by the industry and the infrastructure providers. Care should be taken, therefore, to ensure that in implementing any of the recommended changes, the PSR does not penalise smaller banks or impose disproportionate costs or resource constraints on them.

Recent reforms have helped to ensure that smaller banks have a greater involvement in the governance of the overall programmes and we would wish this continued in any changes that result from this review.

Yours sincerely,

[✂]

Danske Bank

Many Thanks for your email. Danske Bank does not plan to provide comment on the interim report. Please confirm acceptance of this.

Regards / Med venlig hilsen
[✂]

Danske Bank
Transaction Services
PO Box 183
Donegall Square West
Belfast
BT1 6JS
[✂]

Transpact

Dear PSR,

I have just one point of feedback to provide in relation to the Interim Report: Market review into the ownership and competitiveness of infrastructure provision.

The Interim Report advises take-up of the ISO 20022 standard due to competition issues.
However, nowhere in the report is it stated that the current UK payment standards are 'not fit for purpose', and the current 18 character limit for a payer's name is far insufficient for purpose, as it allows the ability to hide identity and encourage significant money laundering and terrorist financing throughout the UK payment systems.
It is a national disgrace that in 2016 such a system is still being used for UK payments, and looks to be for some years ahead.

As the PSR is responsible for the UK's payment 'plumbing', surely the report must add this compelling reason for the quick take-up of ISO 20022 or similar to remedy this defect – in addition to the competition issues noted.

Best Regards,
Andrew Kaye

[✂]

Metro Bank's Feed Market Review into the Ownership and Competitive Infrastructure Provision and the Specific Ownership by the Direct PSPs in VocaLink

Ownership and control of both the central infrastructure (CI) for Bacs Link and Faster Payments (FP) through VocaLink, as well as the related Payment System Operators are the same – and all dominated by five large players 'big five'. This inhibits indirect PSPs from having a voice, impacting both competition and innovation. It also is a barrier to entry for both aggregators and gateway suppliers to schemes as VocaLink who own CI set the technical accreditation, as well as offering a commercial solution 'PayPort' for Faster Payments and the ETS service for Bacstel-IP.

To redress this monopoly, we strongly agree with 'Remedy 1' and suggest that competitive procurement exercises should take place when the current contracts come up for renewal (2020) and notice in line with the current contracts for Bacs and FP should be given in 2018. A transparent tender process is long overdue.

Link have made some changes to their governance and operational structure, and while a step in the right direction, we strongly encourage an independent review of this process.

We also recommend that in addition to 'Remedy 1', the review should also propose that the procurement exercise should be autonomous and not dominated by the five larger players, but rather overseen by the PSR or completed by the Payment Strategy Forum (PSF). This will ensure not only an unbiased process, but also that the security and resilience of the payment infrastructure is maintained.

The director and shareholders of any new CI need to be more independently run with autonomous directors, as well as including a range of different sized direct and indirect PSPs, representing all constitutions and aggregators, as well as the FinTech community. This links to 'Remedy 3' and could be achieved before the CI contacts are ready for renewal, which entails the divestment of the five big players of their interest in VocaLink. Independent ownership would allow more competition, but the way this would be achieved would need carefully managed to ensure all services are maintained.

'Remedy 2' is also being addressed through the PSF who are looking at message standards to address the detriment of incompatibility of schemes. The work completed to date by the 'Simplifying Access to Markets Working Group', aligns to the recommendation in the report of moving to ISO20022 message type which is the correct outcome for the payment industry. As stated in the report this would require a gradual transition period, to allow PSPs of all sizes to undertake both the change and its associated costs of a project of this size would bring.

We firmly believe that the Market Review into the Ownership and Competitive Infrastructure Provision is very comprehensive and has shown a pragmatic approach. We look forward to the final report and the subsequent actions that the PSR will take, our only disappointment is the length of time it has taken.

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Market review into the ownership and competitiveness of infrastructure provision – Interim Report (February 2016) MR 15 2.2

Non Confidential summarised responses per PSR proposed remedies on behalf of Al Rayan Bank Plc
[✂]

Summarised responses in red text follow each set of questions per proposed remedy.

Remedy 1: Competitive procurement processes
1. Would this remedy be effective in addressing the problems we have identified?
2. What are the relevant potential costs and benefits that we should consider?
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?
5. What implementation issues do we need to consider, including (but not limited to): > Are the operators best placed to undertake the procurement exercise? > The timing of the proposed procurement exercises. > Would there be benefits and/or detriments if these processes were coordinated?

The PSR have honed in on the key interbank payment system areas that will benefit from an overhaul in terms of competition and the delivery of interbank payment systems choices with regards to provision of central infrastructure services to them.

We support the approach suggested by the PSR on this area as it engrains the best practices of openness and fairness bringing much needed transparency. The process itself can be timed to arise during the next break clauses within existing contracts between VocaLink (central infrastructure services provider) and the interbank payment systems operators of Faster Payments Service (FPS) , Bacs and LINK.

It would be advantageous if such break clauses are found to be not unnecessarily too far ahead in the future and equally not too widely dispersed from each other for each of the abovementioned interbank systems. Otherwise the risk is that a well-co-ordinated set of procurement activities and inertia from a holistic industry improvement perspective are drip fed and protracted resulting in delayed benefits resulting for PSPs, end users etc. additionally prospective bidders may start to drop out of the process losing interest due to other contending priorities arising.

The procurement exercise itself being audited independently with the PSR oversight and ability to intervene if required will serve as a good yardstick delivering confidence, competition and certainty of completion timeframes.

Remedy 2: Interoperability
1. Would this remedy be effective in addressing the problems we have identified?
2. What are the relevant potential costs and benefits that we should consider?
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?
5. What implementation issues do we need to consider (including the length of a transition period)?
6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?

This area represents a great opportunity to make the technical infrastructures attractive to global stakeholders interested in providing full and/or ancillary central infrastructure services to the Operators of the FPS, Bacs and LINK interbank payment systems delivering wider choice for PSPs and good outcomes for end users, consumers etc.

However, the timing of deriving common standards acceptance, the implementation of changes on the ground for individual PSPs are likely to pose significant risks around : costs of change and transitionary arrangements being protracted with inherent risks of misalignment of technical and operational processes. The pragmatic view maybe to accept that these ideals are unlikely to deliver short term good outcomes as desired and that the Payments Strategy Forum findings should be consulted for a more informed decision making supported by a robust business case rational.

Remedy 3: Ownership of VocaLink

1. Would this remedy be effective in addressing the problems we have identified?
2. What are the relevant potential costs and benefits that we should consider?
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
4. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?
5. What implementation issues do we need to consider, including (but not limited to): > Who should be required to divest their shareholding? > Timing of the divestment > What (if any) purchaser suitability criteria should be applied? > What (if any) additional measures are required to ensure security and resilience?> Should the divestment be full or partial? > If partial, to what level should an individual PSP shareholding be reduced? > If partial, should the total shareholding held by PSPs also be limited? > Should changes to Board composition also be stipulated?

Operators of FPS, Bacs and LINK with regards to their role within any procurement process would be best represented if they are disinvested to a degree from the ownership of VocaLink, not having a controlling influence but are able to add the critical expertise to the assurance of coverage of services being procured and the resilience warranties and liability definitions being fully defined.

We believe this would be a prerequisite step to any procurement process/ strategy being embarked upon to ensure the maximum opportunity to garner a wider set of interested parties looking to join the bidding /tender processes, having the confidence of a 'level playing' field for all.

Remedy 4: LINK

1. Would this remedy be effective in addressing the problems we have identified?
2. What are the relevant potential costs and benefits that we should consider?
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

For the package of remedies as a whole 1. Would these remedies be effective in addressing the problems we have identified? 2. How effective would the package be if one or more of the remedies above were excluded? 3. Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider? 4. Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated? 5. Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive? 6. What implementation issues do we need to consider (including timing)?

The PSR potential remedy seems to be a measured and well balanced approach wholly proportionate to the desired outcomes and consistent with the overarching aims of achieving open competitive landscapes within the UK Interbank payment system which are resilient and robust and not open to perceptions of siloes /monopolies. Legal separation of ownership of the functions of LINK from VocaLink and anticipated resultant outcomes from the LINK governance review being implemented should address immediate concerns and impediments.

Gateways

7. May the accreditation process for Bacstel-IP prevent other providers from entering the market?

The transparency of the accreditation process to provide Gateway services to the Bacs interbank system through publication of the base criteria by VocaLink would be a definite improvement to ensuring fairness of process and ensuring all interested parties are not put off from engaging in offering their services on a competitive and equal footing basis for consideration.

VOCALINK

APRIL 2016

MARKET REFORM

VOCALINK'S RESPONSE TO THE PSR'S INTERIM REPORTS

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Foreword

The PSR has published its interim reports within the infrastructure and indirect access market reviews. We welcome many of the PSR's proposals for change, outlined in its interim reports, which go a long way to promote reform in the industry. We believe that market reform can go further to secure the long term benefits from competition and innovation. This year, the PSR has a unique opportunity to set the industry on a path to achieve these benefits.

In November 2015, we submitted to the PSR *'A vision for future competitive and innovative resilient payment systems: VocaLink's input to the PSR's market reviews'* (the 'Vision'), as an input to the PSR's market reviews. The Vision proposed a five step plan for promoting competition and innovation, given the significant technological change in the industry and the need for reform to the industry's structures:

- Making access easier to payment systems;
- Reducing the barriers to entry and switching for infrastructure providers;
- Reforming the scheme arrangements;
- Managing the remaining network effects; and
- Changing the current VocaLink ownership model.

This paper is our response to the PSR's interim reports for both the infrastructure and indirect access market reviews. In this paper, we outline why market outcomes have been consistent with competition. Moreover, we describe how and why the PSR should follow through with the final market reforms promoted by VocaLink's Vision. These include direct contracting between banks and other financial institutions ('FIs'), and infrastructure providers, as well as reforms to the scheme company arrangements. We also ask the PSR to assess the benefits from competition *in* the market.

We ask the PSR to analyse these market reforms, using the remaining time within both its infrastructure and indirect access market reviews. Clearly, the market reviews would be incomplete without the analysis of measures to promote competition and innovation suggested by stakeholders. Further, we call on the PSR to implement its policies in a proportionate manner to allow the industry to gain the benefits of change in a reasonable manner.

Finally, we would welcome the opportunity to discuss this response directly with the PSR ahead of its decisions, and to engage positively for the benefit of our customers and the wider European market.

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Contents

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Executive summary

Introduction

1. This document is VocaLink's response to the PSR's interim report for its market reviews into payments infrastructure and indirect access to payment systems[1]. We look forward to working with the PSR to ensure that any remedies adopted following the completion of the market reviews are effective at promoting competition, innovation and the interests of users, while remaining appropriate and proportionate to the issues identified.

2. We welcome many of the PSR's proposals for change. However, we ask the PSR to go further in analysing other areas of market reform. In summary:

   - VocaLink supports many aspects of the PSR's competition analysis;
   - Market outcomes have been consistent with effective competition;
   - The PSR's analysis of the potential for future competition needs to go further;
   - Competition in the market is possible; VocaLink supports many aspects of the PSR's proposed remedies, but has some concerns; and
   - The Payment Strategy Forum's ('PSF') output is encouraging, but we have some concerns.

VocaLink supports many aspects of the PSR's competition analysis

3. VocaLink welcomes the PSR's finding that payment processing is not a natural monopoly[2]. This finding is consistent with our own analysis, which examines network effects, economies of scale and the implications on competition in payment processing. Our experience from payment systems markets in Europe and other sectors demonstrates that network effects are becoming less important with developments in technology, and they do not act as a barrier to competition in this market. Similarly, economies of scale in payment processing are not a barrier to entry to the UK, with considerable scope for new entry from global infrastructure providers.

4. We agree with the PSR's findings that:

   - The market for the provision of central infrastructure services is a global one[3] with many competitors[4]. This finding is consistent with our experience of winning contracts to provide services or software in Sweden, Singapore and the United States;

   - There is effective competition in the provision of gateway services and there is a sufficient choice of providers;

   - We do not benefit from a competitive advantage due to our role as the central infrastructure provider[5];

[1] PSR, MR15/2.2 – *'Interim report: market review into the ownership and competitiveness of infrastructure provision'*, 25 February 2016 ('infrastructure interim report') and PSR MR15/1.2 – *'Interim report: market review into the supply of indirect access to payment systems'*, 10 March 2016 ('indirect access interim report').
[2] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.3.
[3] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.118.
[4] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.111.
[5] PSR, *'infrastructure interim report',* 25 February 2016, box, page 62.

- Our customers are overwhelmingly satisfied with the value for money, quality and innovation that our services provide[6]. We believe that this is consistent with effective competition. Our latest Customer Satisfaction Survey (2015) demonstrates that nearly all our customers are satisfied with our services: we maintained a very high customer satisfaction score[7] of 91.9% and have made a further improvement in the net promoter score[8] of 58.5%; and

- The initiatives to open up access to payment systems are generating increasingly positive results. We believe that indirect access to payment systems should be made easier and have developed PayPort, our Payment Aggregator Service ('PAS'), to address this. PayPort provides simplified access to Faster Payments and we have committed to providing access to more payment channels including those provided in or by Bacs, Single Euro Payments Area ('SEPA'), Society for Worldwide Interbank Financial Telecommunication ('SWIFT') and Clearing House Automated Payment System ('CHAPS').

Market outcomes have been consistent with effective competition

5. We do not agree with other aspects of the PSR's competition analysis: specifically the conclusion that competition in the past was ineffective.

6. The PSR's assessment of competition in the provision of payments infrastructure has focused on the procurement processes that the scheme companies have followed in the past. We note that procurement processes are only one context in which competition can take place, and are not a necessary condition for effective competitive outcomes to occur. The PSR's assessment has shown that the procurement processes conducted could have been improved. However, the PSR's analysis does not provide a sound basis for concluding that competition was ineffective.

7. While we note that the PSR believes that the technical procurement processes could be improved, poor procurement does not necessarily result in poor market outcomes. The scheme companies negotiated a hard bargain and VocaLink submitted market-competitive bids, during the last procurement rounds for the core contracts. There is no evidence that the outcomes of the negotiations were significantly different to what could have been expected from a system of competition with a greater direct choice of infrastructure providers.

8. The evidence available on: i) the competitive constraints that exist on us; and ii) the outcomes of the competitive process (prices, quality and investments/innovation), points to the presence of effective competitive outcomes.

[6] PSR, *'infrastructure interim report',* 25 February 2016, box, page 31.
[7] The customer satisfaction metric is the percentage of respondents who scored their satisfaction at VocaLink's service at 8 out of 10 and above.
[8] The 'net promoter score' is the percentage of respondents who designated themselves as 'promoters' of VocaLink, less the percentage who designated themselves as 'detractor'.

The PSR's analysis of the potential for future competition needs to go further

9. We are encouraged that the PSR is planning to consider what the market might look like in the future[9]. However, we ask the PSR to consider an alternative sequencing of this work. We believe a better outcome could be achieved if that work was brought forward to feed into the market reviews due for completion in 2016. This would enable the PSR to consider more appropriate remedies that can deliver a market structure that produces greater competition and innovation.

10. VocaLink's Vision set out a five step plan for promoting competition and innovation[10]. We acknowledge that the PSR has proposed to remedy some of these steps, but we call upon the PSR to analyse these important remaining steps:

Direct contracting

11. The current collective contracting arrangements, which lead to one-size-fits-all products, can be substantially improved in order to promote competition and innovation. We propose a model of direct contracting between banks or FIs and infrastructure providers. This would benefit competition and innovation through:

    - **Value growth based on a tailored suite of products and services**: Banks and FIs would receive a tailored suite of products that directly meets their business needs (and ultimately their customers' needs);

    - **Greater innovation:** Direct contracts offer the opportunity and incentive for banks and FIs to develop in private, with infrastructure providers, the innovation that they need to differentiate themselves, in competition with other banks and FIs. Infrastructure providers would also be incentivised to innovate to increase business beyond the provision of core services;

    - **Greater competition:** Direct contracting would increase the number of product areas open to competition, beyond the current core services. Innovative new products developed individually by banks, with infrastructure providers, could promote competition between retail banks;

    - **Competition *in* the market could be facilitated:** Direct contracting could facilitate more than one infrastructure provider and hence aid the development of competition in the market;

    - **Facilitate entry by challenger banks:** By unbundling core services, the entry costs for new banks and FIs to use the payment systems should be reduced, thereby increasing competition between retail banks; and

    - **Profit incentive on the procurer:** Banks and FIs would be incentivised to run the procurement process that is most appropriate to its specific needs.

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9 PSR, *'Payment Systems Regulator Limited Annual Plan and Budget 2016/2017'*, 31 March 2016, page 10.
10 VocaLink, *'the Vision'*, November 2015.

Reform of the scheme arrangements

12. Currently, there are scheme companies that govern the following retail non-card schemes: Bacs, Cheque and Credit Clearing, Faster Payments and LINK[11]. Each of the scheme companies undertakes many of the same functions, from contracting of the infrastructure provider to setting the rules and standards.

13. We see the need for a re-evaluation of the role of the scheme companies and the establishment of a new Payment Systems Organisation ('PSO'). In our view, this new PSO should be responsible for setting standards and rules, accreditation of industry participants and systemic risk. Importantly, we do not believe that the new PSO should have responsibility for contracting, thereby enabling the development of direct contracting, within a model of competition *in* the market.

14. The primary benefits that flow from scheme reform are a positive effect on competition and innovation, while retaining a focus on the resilience of the system. A new PSO, with re-evaluated functions as described above, would improve the incentives for innovation compared with the status quo. Not only would direct contracting be enabled, but also individual banks and FIs would be incentivised to use infrastructure providers to innovate, in competition with other banks and FIs.

15. We understand that many in the industry would like to see scheme companies merged into one scheme company. While a single organisation would reduce the current duplicated expense from multiple scheme companies, we believe that far greater benefits for the industry and our customers lie in the competition and innovation that wider scheme reform would bring. The success of a new PSO would depend on the retention of management and payments expertise, as well as best practice from the current schemes. Therefore, we would urge the PSR and PSF when considering the merger of schemes to re-evaluate the schemes' functions and to seek to avoid the loss of expertise and best practice.

16. In parallel with the work of the PSF, we would urge the PSR to progress its own analysis on the topic. VocaLink would be willing to contribute our further thoughts on the way that scheme reform could be achieved in a way which would unlock these benefits.

Competition in the market is possible

17. We ask the PSR to analyse the potential benefits from competition *in* the market, which features infrastructure providers operating simultaneously. Our analysis shows that competition in the market is possible because:

    - The UK is a large enough market segment for more than one infrastructure;
    - The economics of an entrant infrastructure provider allow for competition in the market; and
    - Network effects no longer bind the industry to a sole infrastructure provider.

18. We believe that competition in the market, with simultaneously operating infrastructure providers, would bring the following benefits to the industry in the UK, compared with the current model of competition *for* the market:

[11] We note that the CHAPS scheme company governs the wholesale payments system in the UK and there are schemes based in Northern Ireland, which lie outside of our scope.

- **Greater innovation:** More flexible contracting could enable a more tailored timetable for innovating and changing the service offering from infrastructure providers to meet the demands of banks and FIs. This compares favourably to the current position of competition for the market, where the service offerings and time tables are collectively agreed and recontracted every five years. This more flexible direct contracting, within a more flexible competitive market could include operational innovations, such as product specification and commercial innovation to pricing models;

- **Greater competition:** Similarly, more flexible direct contracting, within a more flexible competitive market opens up the opportunity to ensure that competition is active between infrastructure providers; and

- **Operational resilience:** Multiple and separate infrastructures increase the operational resilience in the UK, compared with a single infrastructure.

19. Given the benefits from competition in the market, we are concerned that the PSR's proposed remedies should not preclude the development of such models. We are encouraged by the PSR's proposed interoperability remedy which should enable a common platform, remove barriers to entry and, therefore, facilitate competition in the market.

20. Against this background we would ask the PSR to prioritise further work on analysing all the potential aspects of market structure reform highlighted within our Vision document, and specifically, to consider the benefits from competition in the market. Further, we ask the PSR to ensure that its remedies do not preclude the advent of such a model for the UK.

VocaLink supports many aspects of the PSR's proposed remedies, but has some concerns

21. Broadly, VocaLink welcomes the PSR's remedies for promoting competition. However, we are concerned that the PSR's findings appear to be pre-determined and that the proposed remedies may have already been decided. We ask the PSR to take an open-minded approach to its analysis and the proposed remedies.

22. We welcome competitive procurement processes because they enable VocaLink to compete for contracts and demonstrate our value for the industry. Accordingly, we broadly support the PSR's proposed remedy regarding effective procurement processes, subject to the concerns outlined below:

    - **The PSR should be realistic about further benefits from procurement processes:** The processes employed in the past delivered competitive outcomes and the PSR should be cautious about expected improvements in outcomes from more elaborate procurement processes;

    - **Further market reform is possible and should not be precluded:** Procurement for competition *for* the market should not preclude the establishment of competition *in* the market. We are concerned that the PSR's procurement remedy is focused on ensuring that choice is maximised for selecting between infrastructure providers for a single provider per scheme. We encourage the PSR to analyse and propose further reforms, such as scheme reform and direct contracting before taking steps to implement any procurement process remedies;

- **The use of break clauses could be counter-productive:** The PSR encourages the early procurement of contracts. However, we believe that procurement has a greater opportunity of achieving the PSR's objectives and improving outcomes if common standards are in place first. Further, early procurement might place at risk current innovation; disincentivise future innovation; and restrict the time available to the PSF and PSR to undertake their work plan on the scope of services and scheme company governance. ✂ Therefore, we do not believe that the early procurement of contracts promotes competition and innovation.

23. In respect of the proposed remedy for the divestment of the current shareholders' holding in VocaLink, we request that the PSR proceeds with care in order to allow its aims to be fulfilled ✂. We are concerned that the PSR, through over-specifying its proposed remedy, could deter potential buyers. In particular, we consider that the PSR has neither the power nor the need to impose any purchaser selection criteria and that the level and timing of the divestment should be reasonable and proportionate to the issues identified.

24. The PSR should also prioritise and sequence the proposed remedies appropriately, in particular so that any procurement exercise should be timed to maximise competition and, more generally, to take into account other developments in the sector.

The PSF's output is encouraging, but we have some concerns

25. We are encouraged by the level of participation in the PSF and the volume of work that this is generating. We look forward to responding to a consultation on the PSF's strategy, in due time. Given that this is the first opportunity to discuss the topic, we have some residual concerns about the potential outcomes from the PSF:

    - The PSR needs to be clear as to how it will take into account the PSF's recommendations and how these will be either supported or enforced by the PSR;
    - We are concerned that the PSF membership lacks an infrastructure representative;
    - We encourage the PSF to focus on developing its strategic priorities for the long-term future, rather than today's 'detriments'; and
    - We are concerned about the potential for a restriction of competition arising from a collaborative approach to innovation.

26. We recognise the importance of a successful PSF process in managing coordination issues within the industry. Therefore, we want to work with the PSR and the PSF to resolve these concerns, to ensure the success of the strategy that is developed.

Conclusion

27. We consider that the market reviews provide the PSR with a unique opportunity to make changes to the market that will promote even greater competition and innovation to the benefit of users. The greatest benefits can be achieved if the PSR implements a package of remedies that truly reform the market. In particular, the PSR should use the current market reviews to further analyse the benefits for competition and innovation from reform to the scheme arrangements and direct contracting, as well as from competition in the market. Clearly, the market reviews would be incomplete without the analysis of measures to promote competition and innovation suggested by stakeholders.

28. Finally, we would welcome the opportunity to discuss this response directly with the PSR ahead of its decisions, and to engage positively for the benefit of our customers and the wider European market.

Chapter 1

Introduction

1.1. The PSR is conducting two market reviews: the infrastructure market review and the indirect access market review. This document is VocaLink's response to the interim reports from both of the PSR's market reviews.

1.2. VocaLink welcomes the PSR's finding that payment processing is not a natural monopoly[12]. This finding is consistent with our own analysis, which examines network effects, economies of scale and the implications on competition in payment processing. Our experience from payment systems markets in Europe and other sectors demonstrates that network effects are becoming less important with developments in technology, and they do not act as a barrier to competition in this market. Similarly, economies of scale in payment processing are not a barrier to entry to the UK, with considerable scope for new entry from global infrastructure providers.

1.3. We agree with the PSR's findings that:

- The market for the provision of central infrastructure services is a global one[13] with many competitors[14]. This finding is consistent with our experience of winning contracts to provide services or software in Sweden, Singapore and the United States;
- There is effective competition in the provision of gateway services and there is a sufficient choice of providers;
- We do not benefit from a competitive advantage due to our role as the central infrastructure provider[15]; and
- Our customers are overwhelmingly satisfied with the value for money, quality and innovation that our services provide[16]. We believe that this is consistent with effective competition. Our latest Customer Satisfaction Survey (2015) demonstrates that nearly all our customers are satisfied with our services: we maintained a very high customer satisfaction score[17] of 91.9% and have made a further improvement in the net promoter score[18] of 58.5%.

1.4. However, in this response, we ask the PSR to consider further areas of assessment for competition and innovation.

12 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.3.
13 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.118.
14 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.111.
15 PSR, *'infrastructure interim report'*, 25 February 2016, box, page 62.
16 PSR, *'infrastructure interim report'*, 25 February 2016, box, page 31.
17 The customer satisfaction metric is the percentage of respondents who scored their satisfaction at VocaLink's service at 8 out of 10 and above.
18 The 'net promoter score' is the percentage of respondents who designated themselves as 'promoters' of VocaLink, less the percentage who designated themselves as 'detractor'.

1.5. The structure of this response is as follows:

- In Chapter 2, we examine the PSR's assessment of competition and its outcomes, demonstrate that market outcomes in the past have been consistent with effective competition;
- In Chapter 3, we consider what further market reform would promote greater competition and innovation, and call on the PSR to analyse all available options as part of its market reviews;
- In Chapter 4, we set out why competition in the market is possible and should be promoted;
- Chapters 5 and 6 broadly welcome the PSR's proposed remedies and note some specific concerns with proposed remedies, and the role of the PSF;
- Chapter 7 addresses other issues;
- In Appendices 1 and 2, we answer the PSR's specific consultation questions;
- Appendix 3 is a reproduction of our Vision document which we previously submitted; and
- Appendices 4 and 5 contain Oxera's independent studies that accompanied our Vision.

1.6. We would welcome the opportunity to discuss this response directly with the PSR ahead of its decisions, and to engage positively for the benefit of our customers and the wider European market.

Chapter 2

Market outcomes have been consistent with effective competition

Introduction

2.1. The PSR has assessed competition for payments infrastructure provision and has concluded that '*there is currently no effective competition in the provision of central infrastructure services*'[19] and that '*VocaLink is not subject to direct competition*'[20]. While we agree with most other aspects of the PSR's assessment, we do not agree with these conclusions.

2.2. In VocaLink's Vision, we set out five steps to promote greater competition and innovation. While we hope that improvements can be made for the future, it is incorrect to conclude that the market did not produce outcomes consistent with effective competition in the past.

2.3. The PSR's assessment has focused on the procurement processes and not on other sources of competitive pressure. Effective procurement processes are only one possible source of competitive pressure – and not a necessary condition for effective competition to exist, given the opportunity for effective bargaining between negotiating parties. We do not agree with the PSR concluding that potential problems in the procurement processes equate to ineffective competition.

2.4. This chapter explains our assessment of market outcomes that have occurred, in the following sections:

- The PSR's assessment has focused on the formal procurement processes and not on other sources of competitive pressure;
- Assessment of the scheme companies' outside options; and
- Evidence on competitive constraints and outcomes.

The PSR's assessment has focused on the formal procurement processes and not on other sources of competitive pressure

2.5. The PSR's infrastructure interim report describes the three procurement processes (including contract renegotiations) conducted by the Bacs, Faster Payments and LINK scheme companies[21]. We note that the PSR has concluded that the processes were ineffective[22] and proposes a remedy to improve the procurement processes of the core schemes for the future[23].

2.6. The PSR's main basis for these conclusions is that it found a '*lack of competitive procurement exercises*'[24]. From this, it has inferred that there is a lack of '*shopping around*'[25], and thus that

[19] PSR, '*infrastructure interim report*', 25 February 2016, paragraph 7.15.
[20] PSR, '*infrastructure interim report*', 25 February 2016, paragraph 4.176.
[21] PSR, '*infrastructure interim report*', 25 February 2016, chapter 4.
[22] PSR, '*infrastructure interim report*', 25 February 2016, paragraph 4.37.
[23] PSR, '*infrastructure interim report*', 25 February 2016, chapter 8.
[24] PSR, '*infrastructure interim report*', 25 February 2016, paragraph 4.37.
[25] PSR, '*infrastructure interim report*', 25 February 2016, paragraph 4.37.

scheme companies are not in a position to assess whether they are receiving good value for money[26].

2.7. The PSR's arguments can be summarised as follows[27]:

- Scheme companies can impose competitive pressure on payments infrastructure providers by running formal competitive procurement processes on a regular basis;
- Such procurement processes allow payment schemes to shop around and compare value for money and other terms, as well as to understand the nature and extent of the costs and risks of switching; and
- Such shopping around encourages payments infrastructure providers to offer better terms and to become more efficient and innovative.

2.8. The PSR has assumed, based on this assessment, that the problems the PSR identify with the procurement processes mean that competition for infrastructure provision is ineffective. We challenge this assumption strongly. Many markets do not feature formal competitive processes and yet competitive bargaining takes place and competitive outcomes occur[28]. We would have anticipated that the PSR's analysis would have consider these competitive bargaining issues. As a result, the PSR risks concluding that the outcomes of previous competitive processes were sub-optimal.

2.9. We are not aware of any market or competition investigation concluding that competition is ineffective simply and only based on the finding that the procurement processes are ineffective. In market investigations, the nature and extent of competition are examined based on a range of factors including an assessment of outcomes.

2.10. More specifically, there are several reasons why we feel the focus of the PSR's assessment on procurement processes limits the PSR's analysis. These include:

- **Overstating the level of information required by customers to drive competitive outcomes:** The PSR appears to have assumed implicitly that a given level of information (that is provided in a certain type of procurement process) is required in order to generate sufficient competitive tension. This is not the case – scheme company purchasers have many ways of gaining information about the market, outside of formal procurement processes;
- **Over-reliance on the existence of switching costs:** The PSR's analysis seems to draw the implication that competition is ineffective from the existence of costs or risks associated with switching provider[29]. However, switching costs are not directly related to

26 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.59.
27 PSR, *'infrastructure interim report',* 25 February 2016, paragraphs 7.11 and 4.135.
28 For example, in its analysis of wholesale supply of premium movie channels, the Competition Commission noted (in relation to market definition) that *'the extent of buyer power held by retailers (which have large installed customer bases), and which may be able to obtain rights directly … could offset any ability of a stand-alone monopoly wholesale supplier to increase prices compared with two or more competing stand-alone wholesale suppliers'* (Competition Commission, *'Movies on pay TV market investigation'*, Final Report, August 2012). The CAA's decision to remove price caps from London airports was (in part) due to its finding that the buyer power of airlines counteracted the strength of airport operators, indicating that bilateral bargaining was sufficient, absent regulation, to ensure an efficient outcome for consumers. (CAA, *'The CAA Response to DfT's consultation paper on European Airport Charges Directive'*, June 2007).
29 See our discussion further below.

competition in a market[30]. There are markets where switching costs are high, but that are nonetheless very competitive. Further, there can be pro-competitive reasons for longer term contracts, which the PSR appears to not have considered; and

- **Drawing incorrect implications from the evidence on outcomes:** In the infrastructure interim report, insufficient weight was placed on direct evidence of the existing competitive constraints or on observable market outcomes (for example, prices, quality and investments/innovation levels). When scheme companies, banks and FIs are satisfied with outcomes, the PSR concludes that because, in its view, there is insufficient 'shopping around' by the scheme companies, they are not in a good position to assess value for money. However, any lack of shopping around is not *per se* evidence of poor outcomes, but rather a restatement of the PSR's view on the procurement processes. Similarly, the PSR infers that greater shopping around would lead to better outcomes. However that kind of conclusion would require additional analysis that the PSR has not set out in the infrastructure interim report. This undermines the PSR's conclusion that competition is not effective.

2.11. For these reasons, in our view, the analysis set out in the infrastructure interim report, can only support the finding that the procurement processes could be improved. However, this conclusion falls a long way short of finding either that competition itself is ineffective, or that the outcome of the procurement processes was sub-optimal.

Assessment of the scheme companies' outside options

2.12. Each of the scheme companies has alternative providers to VocaLink that it could turn to if negotiations with us fell through. This is recognised in the infrastructure interim report:

- **Potential competitors say that they are interested in market entry:** The PSR spoke to alternative domestic and international payments infrastructure providers and it identified that four providers would be interested in competing for the LINK contract and that six providers would be interested in competing for each of the Bacs and Faster Payments contracts[31]; and

- **The PSR identified a global market with a many additional potential competitors:** The PSR found that the '*market for the provision of central infrastructure services is a global one*'[32]. After reviewing the range of potential providers that offer similar payments infrastructure services for domestic interbank payment systems in other countries, the PSR identified at least a further ten providers who could potentially compete for UK core services[33]. Further, payment systems infrastructure operations can be provided from overseas (for example, we run the operation of the Swedish scheme equivalent to Bacs from the UK[34]).

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30 The relationship between switching costs and market power is not straightforward. For example, see L. Cabral (2016): '*Dynamic pricing in customer markets with switching costs*', Review of Economic Dynamics, Vol. 20; and J.-P. Dubé et al (2009): '*Do Switching Costs Make Markets Less Competitive?*', Journal of Marketing Research, Vol. 46.

31 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.111.

32 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.118.

33 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.118.

34 While some scheme companies may stipulate that the infrastructure is based in the UK, however, we note that it is within their gift to amend this requirement in future contracts.

2.13. These examples show that there are alternatives available to the scheme companies. It is also important to note that the scheme companies are informed about them and are able to leverage these alternatives in negotiation because VocaLink should consider these alternatives a commercial threat.

2.14. In terms of information, as noted above, the scheme companies are sophisticated customers who know well the alternatives available to them (that is, their outside options). Among other aspects, their members are aware of alternative payment infrastructure technologies and the domestic and international options available to them[35]. Indeed, the PSR reported that some direct banks and FIs compared the prices paid for payments infrastructure services across the international jurisdictions where they operate[36]. The scheme companies have the ability to compare alternatives. Therefore, it is not sustainable to conclude that the absence of a formal procurement process means that scheme companies are not aware of, or do not evaluate, the alternative providers available to them or are not able to assess value for money.

2.15. In terms of leveraging these alternatives in negotiation, the PSR had raised concerns about scheme companies' ability to switch providers. The PSR stated that it is *'unclear whether the existing provisions in each contract as well as the IPR [intellectual property rights] and termination and exit provisions are sufficient to enable a switch in provider. This, in the PSR's view dampens the competitive pressure on VocaLink'* [37]. As such, it proposes that *'current contractual arrangements are in place to ensure that VocaLink is obliged to enable transition to a new provider'* [38]. However, this view is predicated on the idea that the ease of switching away from VocaLink is directly related to the competitive pressures that VocaLink faces in the market. The PSR has not established this in its analysis. As noted above (paragraph 2.10), this is not necessarily the case and there are markets where the existence of switching costs are consistent with a competitive outcome.

2.16. In sum, the three main scheme companies have, and are aware that they have, alternatives available to them should their negotiations with VocaLink break down, or should they be dissatisfied with any aspect of our offering. Put another way, their outside options are relatively strong.

2.17. The scheme companies' outside options are set to become even stronger in light of the forthcoming common message standard and enhancement of interoperability[39]. This will further expand the set of international payments infrastructure providers potentially interested in serving UK customers. Further, the scheme companies are able to leverage these alternatives in negotiations and will have an increasing incentive to do so going forward if the other proposed remedies are implemented.

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35 In VocaLink's Vision, we describe UK legacy message standards as a barrier to entry for international infrastructure providers. We describe how PAS portals are able to translate message standards, thereby removing the barrier to entry. Such portals could have been used by the scheme companies to remove such barriers, just as we suggest that such barriers can be removed in the future.

36 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.45, second bullet point (although the PSR also reports that other stakeholders pointed to the existence of some difficulties in carrying out international comparisons on a like-for-like basis).

37 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.149.

38 PSR, *'infrastructure interim report',* 25 February 2016, paragraph 8.14.

39 See Chapter 4 for further discussion.

Evidence on competitive constraints and outcomes

2.18. In this section, we set out evidence that supports the concept that market outcomes have been consistent with effective competition, in the following areas:

- **Evidence on competitive constraints:** The existing competitive constraints that flow from the negotiating parties' outside options previously discussed; and
- **Evidence on outcomes of the competitive process:** Price, quality and investments/innovation, which are consistent with competition being effective.

Evidence on competitive constraints

2.19. The value of the outside options available to the scheme companies relative to that available to VocaLink has resulted in competitive pressures on VocaLink. Such constraints are expressed in our internal documents that have been supplied to the PSR[40]. In order to assess the significance of these constraints, it is important to recognise that competitive pressures can be and are exercised outside of formal procurement processes. This factor is recognised by competition authorities[41] and arises from the ability of buyers to exercise pressure on sellers through the mere threat of re-procuring.

2.20. Particularly in cases such as this, where the consequences for the seller (the payment infrastructure provider) of losing a contract are serious, a credible threat to switch is enough to impose competitive pressures on VocaLink. For example, indications of an intention to switch or complaints from the payment scheme, or making us aware that it is considering seeking expressions of interest from alternative providers whether or not it results in the issuing of a Request for Interest/Proposal.

2.21. In addition, where there are benefits from long-term commercial relationships[42], exercising pressure outside of bidding processes can be a more efficient way of ensuring the continued provision of high quality and efficient service without incurring the cost and disruption of a formal procurement process[43].

2.22. One of the reasons competitive pressure can be exercised outside of formal procurement processes is that for a buyer to put pressure on the seller, the buyer does not necessarily need to have a lot of information on alternatives available to it (e.g. the value of the alternative offer and the costs of switching). It is in fact sufficient that we consider the threat to re-procure and switch a credible one for competitive pressures to be exercised.

[40] ✂

[41] See, for example, Competition Commission (now CMA), '*Statutory audit services for large companies market investigation, Final Report*', para. 9.3; and Competition Commission (now CMA), '*Report on the proposed acquisition of the London Stock Exchange by Deutsche Börse AG or Euronext N.V*', paragraph 5.37 (in relation to the effect of a threat of switching).

[42] For example, we believe that the improvement in our quality of service provided over the course of the relationship with scheme companies is partly driven by our increased knowledge of them and our increased ability to work effectively with them over time.

[43] ✂

2.23. These are the competitive pressures evidenced in our internal documents mentioned above and that is seen in a range of evidence available to the PSR:

- Competitive constraints between (or in the absence of) procurement processes or contract renegotiations;
- Competitive constraints through a contract renegotiation third, through procurement processes; and
- Competitive constraints through a procurement process – LINK.

Competitive constraints between (or in the absence of) procurement processes or contract renegotiations

2.24. We experience competitive pressures outside of formal procurement processes and contract renegotiations. If any aspect of our offering (or terms of business) falls short of the scheme companies' needs, we know that they would be ready to re-procure and are able to switch to a different provider.

2.25. This is evidenced in internal documents provided to the PSR. These highlight the risk of price pressure, even as far in the future as six years from the time of writing[44]. The PSR has recognised that our internal documents reflect our awareness of the potential competitive threat from other providers and of the risk of losing the contracts with the scheme companies[45]. The PSR should not dismiss the role of that particular threat in achieving competitive outcomes.

Competitive constraints through a contract renegotiation

2.26. Competitive constraints also arise in the absence of a procurement process. During contract renegotiations, we are mindful of our customers' ability to find alternative providers if our terms of business do not remain competitive. Evidence of this relating to the latest contract renegotiations has been provided to the PSR and is set out below[46].

<u>Bacs</u>

2.27. The PSR noted that Bacs scheme company mentioned the following benefits gained through the 2014 contract renegotiation[47]:

- A tariff reduction with a cap on tariffs and no indexation applied until ✂ and a discount on the annual service charge;
- An improvement in service level agreements ('SLAs');
- Improved contract provisions around Intellectual Property Rights ('IPRs') and termination rights; and
- Investment commitment and development fund commitment.

✂

2.31. The above provides clear and unambiguous evidence of a competitive outcome. The various benefits to the scheme company and the Bacs' members following the 2014 Bacs contract

[44] See footnote 40.
[45] PSR, *'infrastructure interim report'*, 25 February 2016, paragraphs 4.119-4.120. More generally, we do provide quality enhancements on our services even outside procurement processes or contract renegotiation periods.
[46] We consider the LINK procurement process further below, although we note that some of the resulting contractual changes took place over the course of the contract renegotiation after we were selected as the preferred provider.
[47] PSR infrastructure interim report, paragraph 4.42, first bullet point.

renegotiation are consistent with this scheme company holding a relatively strong negotiating position with VocaLink and achieving a competitive outcome. It is not reasonable of the PSR to ignore or dismiss this evidence.

<u>Faster Payments</u>

2.32. In relation to the Faster Payments contract renegotiation of 2014, we first note that Faster Payments scheme company was fully satisfied with the quality of service received. Nevertheless, it sought to confirm whether it was also getting good value for money. As the PSR noted[48], the scheme company and VocaLink commissioned jointly an independent international benchmarking study, which found that *'the underlying cost principles applied [by VocaLink] within the Faster Payments costing model appear to be reasonable. […] the average expected EBIT based on the proposed charges are at the lower end of the range for comparable companies.'*[49]

2.33. As in the case of the Bacs' contract renegotiation, there were a number of changes to the Faster Payments contract in 2014 in favour of the scheme company, compared to the previous contract, including the following:

- Price benefits, such as unit pricing economies of scale with growing volume and cost-effective improvements in the change request process, and improvements in the SLAs[50]; and
- ✂

2.34. The PSR noted that the scheme company stated that few providers would have been interested in a contract as short as three years and this was one of the reasons why it chose to remain with VocaLink[51]. ✂ This evidence is consistent with the scheme company's relatively strong negotiating position, and provides further evidence of a competitive outcome.

✂

Competitive constraints through a procurement process - LINK

2.36. An example of procurement process is the LINK process, started in early 2015 for its core services. As noted by the PSR, LINK asked a consultancy firm to provide a shortlist of potential providers[52]. Three firms, including VocaLink were selected for LINK's request for interest ('RFI').

2.37. Later, we were selected as the preferred provider, which (as LINK told the PSR) *'suggests [that] VocaLink offers the best overall value for money'*[53]. However, even following this selection, a lengthy contract renegotiation period ensued, which ended in early March 2016. ✂

2.38. The LINK RFI example provides evidence of some of the competitive constraints that we face[54], and again provides unambiguous evidence of a competitive outcome.

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48 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.42, second bullet point.
49 KPMG, *'Detailed Review of Faster Payments Costing Methodology'*, 11 November 2013, page 4.
50 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.42, second bullet point.
51 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.23.
52 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.27.
53 PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.44.
54 This is also consistent with the internal documents referred to in paragraph 2.23 above, with regard to the risk felt by us in relation to the possible loss of the LINK contract and the need to accommodate LINK's requests as a result.

Evidence on outcomes of the competitive process

2.39. As noted at the outset of this chapter, the infrastructure interim report has not presented any evidence that the current outcomes (in the form of prices, quality or investment/innovation) are not competitive. In fact, the observed market outcomes are consistent with competition being effective. We have highlighted above examples of where competitive outcomes are observable in the context of contract renewal negotiations. In this section, we review the further direct evidence available to the PSR relating to price, quality and investments and innovation.

Price

2.40. As noted by the PSR[55], when some of the scheme companies have commissioned independent price benchmarking reports, our prices have been found to be leading to an EBIT at the low end of the range of comparable companies.

2.41. Further, the Lipis Advisors study commissioned by the PSR found that '*pricing in the United States and the Euro area is comparable for low value bulk transactions, with headline prices of 0.15–0.30p, but functionality is not comparable to the UK, where the central infrastructure covers a greater portion of the value chain'* [56]. Therefore, we provide a greater proportion of the value chain to users at a comparable 'Euroland' price.

2.42. These findings, coupled with the fact that our levels of quality of service and innovation are recognised to be among the best globally (see below), are consistent with VocaLink providing good value for money in relation to payment infrastructure services in the UK.

2.43. We also note that the way in which we have historically agreed prices with the scheme companies is inconsistent with us holding any significant market power. ✂ If we possessed and wanted to exert any significant market power, we would have not continued to adopt such a pricing mechanism. Further, as set out above (and as acknowledged by the PSR[57]), the scheme companies have obtained price-related benefits during recent contract renegotiations.

2.44. As a result, the evidence available to the PSR clearly supports the effectiveness of competitive forces, and the fact that competitive outcomes can be readily observed.

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[55] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.58.
[56] Lipis Advisors, *'Payment system ownership and access models'*, December 2015, page 27.
[57] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.42.

Quality

2.45. Just as in the case of prices, the infrastructure interim report does not feature any evidence of the quality of our service provision being below the competitive level. In fact, there is evidence that the quality of provision observed in the market is consistent with a competitive outcome. For example:

- The Lipis Advisors' study commissioned by the PSR in 2015 compared the UK's interbank payment systems to those of 12 comparable countries[58]. This study found that UK payment systems display rich overall functionality compared to other systems, which we submit is the result of the quality of and investment into the underlying payments infrastructure;

- The PSR stated that our customers, both the operators (scheme companies) and many direct banks and FIs are very positive about our quality of service. They stated that our services have been highly resilient and stable, which are the main priorities for direct banks and FIs. Many of them told the PSR that we have met or exceeded our SLAs for system availability and performance. Importantly, none of the customers interviewed by the PSR said they are dissatisfied overall with our services[59];

- Our customers' satisfaction is particularly noteworthy given that it is typically the scheme companies, rather than VocaLink, which are responsible for setting service specification and service quality standards within a contract. In turn, we need to meet these standards and need to invest in our infrastructure to a level that delivers the required service performance to meet contractual obligations in the future. Should we fail to meet these SLAs covering system availability and performance of various functions, we are liable for financial penalties[60]. However, as it is noted by the PSR, over the past five years, we have nearly always met these quality standards set by our customers[61]. This level of service quality constitutes clear and unambiguous evidence that competition is working effectively; and

- ✂

Investment

2.46. As with price and quality, the infrastructure interim report does not feature any evidence that investment is below competitive levels. In fact, the evidence demonstrates that the levels of investment observed in the market are consistent with a competitive outcome. For example:

- As mentioned above, the Lipis Advisors' study commissioned by the PSR found that product offerings in the UK are richer (for both core and overlay services) than most other systems in the scope of that report, and identified investment as the driver of this[62];

[58] Lipis Advisors, '*Payment system ownership and access models – Comparative analysis of 13 countries* ', December 2015, page 65.
[59] PSR, *'infrastructure interim report',* 25 February 2016, paragraphs 4.61 and 4.63.
[60] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.62.
[61] PSR, *'infrastructure interim report',* 25 February 2016, paragraphs. 4.70 to 4.72.
[62] Lipis Advisors, '*Payment system ownership and access models – Comparative analysis of 13 countries*', December 2015 page 34.

- Another independent report commissioned by the PSR notes that, even in the context of the current ownership arrangements, VocaLink has been able to innovate by developing the new mobile-based point-of-sale Zapp service[63];
- As also mentioned above, the scheme companies typically set specific service quality standards in our contracts, which require significant investments in order to be met. ✂;
- As noted by the PSR, there are no concerns among scheme companies or direct banks and FIs about us, or our core services, hampering innovation or changes in payment infrastructure. Some of these noted that we have been proactive and helpful when scheme companies have proposed concepts for developments in core services in the past, providing our expertise and knowledge to develop efficient, cost-effective solutions[64]; and
- We have not paid dividends to our shareholders. Our profits are re-invested, to the benefit of our customers.

2.47. While we consider that we have invested sufficiently to achieve high innovation levels on both core and non-core payments infrastructure services, an assessment of the competitive levels of innovation would be incomplete without considering the demand side, that is, the needs and preferences of the scheme companies, banks and FIs. Innovation by us is at times constrained by the demand of our customers, particularly on core services. The scheme companies themselves and several direct banks and FIs told the PSR their belief that our ability to innovate in core services is limited by the demands of our customers[65]. This has also been acknowledged by the PSR[66].

2.48. Notwithstanding the limited demands of our customers, innovations for core contracts services include enabling charity donations to be made via ATMs, point-of-sale transactions through LINK, fraud reporting on LINK transactions, mobile top-up at point of sale, pull payments in Faster Payments and work to enable the independent ATM deploy model.

2.49. As for non-core services, there is clear independent evidence that our levels of investment and innovation have resulted in a number of innovative services that stand out when compared internationally (for example, the Current Account Switch Service, Paym and Zapp)[67]. Other commercial innovations and developments include products and functionality for: access (PayPort); request for payment; tokenisation; access under the revised Directive on Payment Services ('PSD 2'); directory services; ISO 20022 compliant products and real time card credits.

2.50. Therefore, the evidence shows that we invest significantly and deliver services that are of the highest quality and meet our customers' needs. As we state in VocaLink's Vision, we would like to increase the rate of innovation in the market, but it would be unreasonable of the PSR to conclude that current outcomes indicate a lack of effective competition.

[63] London Economics, *'Competition and collaboration in UK payment systems, Final Report'*, 29 October 2014, page 28.
[64] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.91.
[65] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.89.
[66] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 4.98.
[67] Lipis Advisors, '*Payment system ownership and access models – Comparative analysis of 13 countries*', December 2015, page 34.

Conclusion

2.51. The PSR's assessment of competition in the provision of payments infrastructure has overly focused on the procurement processes that the scheme companies have followed in the past. We note that procurement processes are only one context where competition can take place, and are not a necessary condition for effective competition to occur. At best, the PSR's assessment has shown that the procurement processes conducted by the scheme companies could be improved. However, it does not provide a sound basis for concluding that there is a lack of competition as a consequence.

2.52. When we consider the evidence available to the PSR on i) the competitive constraints that exist on us and on ii) the outcomes of the competitive process (prices, quality and investments/innovation), we conclude that the evidence points to the presence of effective competitive outcomes.

2.53. VocaLink's Vision sets out a five step plan for promoting even further competition and innovation in the future. In the next chapter, we outline how the benefits from even greater competition and innovation could be achieved, as long as market structure reforms are completed.

Chapter 3

Further market reform is needed to promote future competition and innovation

Introduction

3.1. VocaLink's Vision outlined a five step plan for promoting competition and innovation in the UK. Given this potential for change in the European market that we outlined in the Vision, we are disappointed that the PSR was not more ambitious in its assessment of potential competition. We want to see a liberalised market and in this chapter, we encourage the PSR to extend its analysis of reforms to those that would promote greater competition and innovation.

3.2. Given the problems identified by the PSR, we note that the PSR proposes the following remedies through both its infrastructure and indirect access market reviews, which were mentioned in VocaLink's Vision:

- Making access easier to payment systems;
- Removing the message standard barrier to entry;
- A different ownership structure for VocaLink; and
- Ensuring the success of the PSF.

3.3. We note that these remedies do not cover the following areas that we outlined in the Vision:

- Direct contracting; and
- Reforming the scheme arrangements.

3.4. In this chapter, we discuss the following in the sections below:

- VocaLink's Vision set a clear agenda for changing the market;
- Direct contracting; and
- Reforming the scheme arrangements.

3.5. We believe that the PSR has a unique opportunity to analyse further the market and the potential for promoting greater competition and innovation in the future. We believe that direct contracting and reform of the scheme arrangements are key further steps in achieving that potential. We call on the PSR to analyse all of the options presented by VocaLink in our Vision within its current infrastructure market review and to complete the story on reforming the market.

3.6. In the next chapter, we discuss the potential for competition *in* the market, which flows from the market reforms discussed in the Vision.

VocaLink's Vision set a clear agenda for changing the market

3.7. In November 2015, we submitted to the PSR VocaLink's Vision for future competitive and innovative resilient payment systems. We have since shared this with key stakeholders in the market, including PSF working groups. The full document, with accompanying consultant reports are included as Appendices 3 and 4 to this response.

3.8. The Vision provided a five step plan through which greater competition and innovation could develop in the UK:

- **Making access easier to payment systems:** In the Vision, we highlighted the limited competition against the sponsor bank business model, which may act as a barrier to competition and innovation in the wider retail banking market. Indirect access portals or payment aggregator services ('PAS') portals, such as VocaLink's PayPort product[68], will provide technical access to systems. This will increase competition and make access to systems easier;

- **Reducing the barriers to entry and switching for infrastructure providers:** We noted that the new PAS technology is enabling opportunities to reduce the segmentation between the UK and the rest of the European market. Since current SEPA infrastructure providers do not have systems that work using legacy UK message standards and rules, they would need to develop new systems to complete for the UK scheme contracts. We believe that such a development cost acts as a barrier to entry for SEPA providers entering the UK. Similarly, we believe that the investment cost of converting bank back-office systems from the UK legacy message standards acts as a barrier to switching to SEPA providers.

  PAS products, such as VocaLink's PayPort are able to translate between UK and international message standards, including ISO 20022 and SEPA standards. The effect of this functionality is that the message standard becomes irrelevant. Therefore, the provision of translation services between message standards helps to remove a barrier to entry of, and switching, to European infrastructure providers in the UK;

- **Reforming the scheme arrangements:** VocaLink operates within an environment of multiple scheme companies. We believe that reform is necessary to aid greater competition and innovation. Specifically, the Vision suggested the reform of the multiple scheme companies, and the establishment of a single Payment Systems Organisation[69]. We discuss this proposal in greater detail in this chapter;

  The Vision also suggested changing the current model of collective scheme company agreements into an environment of direct contracting between banks/FIs and their infrastructure providers, to allow greater innovation and competition to develop;

- **Managing the remaining network effects:** While the impact of network effects had reduced, some network effects will remain in the industry. Our Vision proposed the creation of an industry Interoperability Code of Conduct, as well as stressing the importance that the PSF should be successful; and

- **Changing the current VocaLink ownership model:** Finally, the Vision also articulated the benefits that would accrue from changing VocaLink's current ownership arrangements.

[68] In the Vision, we discussed the 'Single Front Door' product, which has now been rebranded as 'PayPort', and is an extension of the current portal product offered for access to Faster Payments.
[69] In the Vision, we referred to a 'Standards Body'. Also, we note that the PSF has referred to a 'Payment Systems Operator'. We believe that 'Payment Systems Organisation' reflects a role which is wider than merely governing standards, but also reflects the non-operational nature of the role.

3.9. We believe that taking forward all the steps outlined in our Vision would ensure that there can be greater competition and innovation for the market. We do not believe that the PSR's proposed remedies package alone can achieve these outcomes. We also believe that competition *in* the market is also a possibility if the approach articulated in the Vision were to be adopted, as discussed in the next chapter.

Direct contracting

3.10. In VocaLink's Vision, we questioned the validity of the current one-size-fits-all collective approach to contracting and proposed a system of direct contracting between bank or FI and infrastructure provider. In this response, we provide greater detail concerning:

- The need for change;
- The practical model;
- Precedents for direct contracting in former one-size-fits-all infrastructure industries; and
- The benefits for promoting competition and innovation.

The need for change

3.11. In the Vision, we stated that direct contracting would aid the development of innovative new products, as well as a new working model. In this new model, an infrastructure provider could offer a menu of unbundled core and non-core products directly to customers. This would both help to spur the development of products that could promote retail bank competition, as well as allowing smaller banks and FIs to opt out of products that do not match their needs, or the needs of their customers.

3.12. We note that the PSR helpfully states in its interim report that '*we do not rule out that this could be an effective competition model*''. However, the PSR also observes that the topic '*was not the focus of this review*' and that '*further work would need to be done to understand the pros and cons of bilateral contracting and removing the collective purchasing model*''[70].

3.13. Currently, VocaLink holds direct contracts with banks and FIs within the Bacs and LINK schemes, but the terms are set by the scheme companies; while VocaLink contracts directly with the Faster Payments scheme company. These collective contracts were procured by and subsequently negotiated directly with the scheme companies. This one-size-fits-all arrangement is sub-optimal for the industry because it crowds out primarily the following innovation and competition.

- **Value creation:** The current working practices of the scheme companies prevent VocaLink from unbundling the core (i.e. offering fewer services for a lower price), or from offering uniquely to one bank or FI value added services related to the core service, without having to offer this service to others. This has the effect of both forcing smaller banks and FIs to pay for items they do not want while taking the incentive from other banks and FIs to develop new products that could help them to compete and differentiate themselves.

[70] PSR, *'infrastructure interim report',* 25 February 2016, paragraph 4.14.

- **Commercial win-win opportunities:** The one-price-fits-all practice prevents commercial innovation on price, preventing incentives for win-win opportunities to benefit both the smooth running of the infrastructure or the commercial benefit of the bank or FI.

3.14. Therefore, we believe that direct contracting is needed in the UK and we ask the PSR to review the potential for competition and innovation that flows from direct contracting urgently, as part of the current infrastructure market review.

The practical model

3.15. To assist the PSR to consider the issues, we have set out below an illustrative example of how direct contracting could work. VocaLink would be keen to provide assistance to the PSR in developing this or other options.

3.16. Currently, VocaLink holds direct contracts with Bacs and LINK members, on terms set by the scheme companies and a contract with the Faster Payments scheme company. We envisage the continuation of direct contracts with banks and FIs, but on terms set in negotiation between the bank or FI and the infrastructure provider.

3.17. Clearly, some aspects of the core service may be provided commonly to banks and FIs. We envisage that infrastructure providers could offer a menu of core services, to allow for a comparison of prices and service levels, in order to ensure effective competition. Such a menu would also allow smaller banks and FIs to unbundle the current core of services, to allow them to buy only the services they need.

3.18. The banks and FIs should be free to incorporate in their contracts items including the following:

- Price flexibility (including discounts from a core price) – for example to further unbundle the core price further and/or to incentivise volume growth; and

- Additional value added non-core services, offered either on a menu basis by the infrastructure provider or through commercial negotiation.

3.19. In developing this model for direct contracting, we would be interested to discuss any additional safeguards that the PSR may see as necessary.

Precedents for direct contracting in former one-size-fits-all infrastructure industries

3.20. There are clear precedents for direct contracting in infrastructure industries, where previously a one-size-fits-all approach was usual. Such contract innovation has led to win-win opportunities for both infrastructure providers and their customers, together with pricing and operational innovations.

3.21. Gatwick Airport moved recently from a one-size-fits-all service provision to direct contracting with its airline customers. These contracts feature operational and commercial innovations from the core service, to provide a win-win arrangement within a competitive market[71].

[71] CAA, *'CAP1102 Economic regulation at Gatwick from April 2014: final proposals'*, October 2013.

3.22. Since the move to direct contracting with individual airlines, Gatwick and its direct contracted customers have introduced a number of targeted service initiatives and innovations, including:

- Agreeing to a request by easyJet to consolidate the airline's operations into a single terminal, and securing agreement from British Airways and Virgin Atlantic to relocate some of their operations to facilitate this; and

- Introducing GatwickConnect to improve the service offering for airlines wishing to exploit the connecting market and speeding up the check-in time for connecting passengers[72].

3.23. The electricity wholesale market provides another example of a market that has transitioned fully to direct contracting. From 1990 until 2001, the electricity wholesale market was structured around a pooling model, in which generators submitted offers to provide wholesale electricity to a central pool and electricity suppliers purchased electricity from this pool. The arrangements for scheduling, dispatch and pricing of wholesale electricity were highly centralised under this model.

3.24. A direct contracting ('self-dispatch') model was introduced in the GB electricity wholesale market under the New Electricity Trading Arrangements ('NETA') in 2001. Under the self-dispatch system, generators of electricity enter into bilateral contracts with purchasers based on anticipated demand. The contracting parties typically negotiate a set of master terms and conditions that are common across contracts, and prices are then negotiated bilaterally or determined through demand and supply matching on public exchanges at the time of purchase. The contracting parties communicate their anticipated behaviour to the system operator ('SO'), which takes control of balancing supply and demand in near real time. Discrepancies between what parties physically did (actual delivery) and contractual positions are then 'cashed out' through contracts with the SO. This represents a more market-driven approach than the pooling model previously used.

3.25. A recent report by the Competition and Markets Authority ('CMA') considered the effectiveness of the electricity wholesale market. The report found that:

- Bilateral trading is leading to close to technically efficient operation of the system;
- For most purposes, prices are transparent in the GB wholesale electricity market; and
- The transaction costs under a bilateral contracting system are not significantly different than under a pooled model[73].

[72] Oxera, '*Evaluation of the Competition Commission's BAA airports market investigation*', final report, prepared for Gatwick Airport Limited, 25 January 2016.

[73] National Audit Office, '*The New Electricity Trading Arrangements in England and Wales*', 2003, Report by the Comptroller and Auditor General, HC 624 Session 2002-2003, 9 May; Competition and Markets Authority, '*Energy market investigation: Wholesale electricity market rules*', 27 February 2015; Ofgem, '*The GB electricity wholesale market*', https://www.ofgem.gov.uk/electricity/wholesale-market/gb-electricity-wholesale-market.

The benefits for promoting competition and innovation

3.26. Given this precedent in other infrastructure industries, we believe that the benefits of direct contracting for interbank payments include the following:

- **Value growth through a tailored suite of products and services**: Banks and FIs would receive a tailored suite of products that directly meets their business needs (and ultimately their customers' needs). For example, a bank with no or few corporate customers would not require the 'corporate access' package of services, but might want a seven-days-a-week service for instant payments;

- **Greater innovation:** Direct contracts offer the opportunity and incentive for banks and FIs to develop in private, with infrastructure providers, the innovation that they need to compete with other banks and FIs. Infrastructure providers would also be incentivised to innovate to increase business beyond the provision of core services;

- **Greater competition:** Direct contracting would increase the number of product areas open to competition, beyond the current core services. Innovative new products developed individually by banks, with infrastructure providers, could promote competition between retail banks;

- **Competition *in* the market would be facilitated:** Direct contracting could facilitate more than one infrastructure provider and hence aid the development of competition in the market;

- **Facilitate entry by challenger banks:** By unbundling core services, the entry costs on new banks and FIs to use the payment systems should be reduced, thereby increasing competition between retail banks; and

- **Profit incentive on the procurer:** The bank or FI would be incentivised to run the procurement process that is most appropriate to its needs.

3.27. In our view, while direct contracting may take time to establish as part of the wider set of market changes, the PSR needs to prioritise its further work on this topic, due to the significance of the benefits on offer. We believe that direct contracting has an integral role to play in a future environment where there is competition in the market.

Reforming the scheme arrangements

3.28. In VocaLink's Vision, we called for reform of the scheme arrangements, as one of the five steps for promoting competition and innovation. In this response, we will provide greater detail in this area concerning:

- The need for change;
- The practical model; and
- The benefits for promoting competition and innovation.

The need for change

3.29. In VocaLink's Vision, we argued that as competition and innovation develops further, the role of the existing retail non-card scheme companies needs to be reviewed, leading to the establishment of a new Payment System Organisation ('PSO')[74]. We refer the PSR to Section 2 of the Vision, which is reproduced in Appendix 3.

3.30. Currently, there are scheme companies that govern the following retail non-card schemes: Bacs, Cheque and Credit Clearing, Faster Payments and LINK[75]. Each of the scheme companies undertakes many of the same functions, from contracting of the infrastructure provider to setting the rules and standards.

3.31. The PSR referenced this issue within its infrastructure interim report, recognising that '*an alternative body to the current operators [scheme companies] may be appropriate*' and cross-referencing the fact that this topic is now on the agenda of the PSF, via its Simplifying Access to Markets Working Group. We understand that many in the industry would like to see scheme companies merged into one scheme company and we outline some concerns with this approach below.

3.32. Given this focus at this time and the movement in discussion about scheme reform, we want to define in more detail our opinion about the need for change:

- **Multiple scheme companies:** There are multiple companies that conduct similar functions across the retail schemes. This may have arisen at the time for good reasons, but now there are genuine questions about the efficiency of having multiple scheme companies, as we explained in the Vision. We note that there are also questions about a limitation on innovation, if the schemes are siloed and are not allowed to develop together;

- **Retention of valuable expertise and best practice:** However, we feel that the strength of focus in the industry may be weighing too heavily towards a reduction in number of scheme companies, compared with a reassessment of the schemes' functions. The risk of merging schemes together is that the industry loses valuable management and payments expertise, and particularly, knowledge of systemic risk. Further, the individual examples of best practice from across the scheme companies could also be lost if scheme companies are merged together without a careful assessment and retention of such examples of best practice; and

- **Re-evaluation of the scheme functions:** In our view, the impetus for scheme reform starts with a re-evaluation of the functions conducted by the scheme companies in the context of the current and future market for payments. In the Vision, we set out why the contracting function and collective working practices of the scheme companies constrain the development of innovation and competition. This is particularly noticeable where collective one-size-fits-all contracts crowd out the innovation of direct contracting between bank or FI and the infrastructure, with its potential for unbundling the core and developing non-core products. Also, we would point to the working practices that

[74] In the Vision, we referred to a 'Standards Body'. Also, we note that the PSF has referred to a 'Payment Systems Operator'. We believe that 'Payment Systems Organisation' reflects a role which is wider than merely governing standards, but also reflects the non-operational nature of the role.

[75] We note that the CHAPS scheme company governs the wholesale payments system in the UK and there are schemes based in Northern Ireland, which lie outside of our scope.

require individual innovations developed for one bank, to be provided to all banks and FIs, thereby reducing the incentive on banks and FIs to pay for innovation.

Both of these restrictions constrain competition between infrastructure providers, as well as reducing the potential for competition between retail banks. We believe that these scheme company functions need to be re-evaluated.

The practical model

3.33. In the Vision, we discussed the introduction of a new PSO. We have assessed the current scheme functions and believe that the new PSO should undertake:

- **Standards setting:** Standards provide a platform for greater competition. The PSR has tasked the PSF with identifying the common international message standard which should be adopted for Bacs, FPS and LINK schemes. Once this has been established, we believe that there is an ongoing role for the new PSO in ensuring that standards are reviewed and updated, to ensure the interoperability within the industry, as well as between the UK and the rest of the European market.

  While standards provide a platform for competition, excessive standardisation can extinguish innovation and variation between infrastructure providers. Therefore, we believe that the new PSO should also be tasked with determining the maximum level of standardisation in the industry, to allow innovation to develop between competing infrastructure providers;

- **Rule setting:** Similarly, the rules governing the interactions between the participants in a scheme and infrastructure providers need to be set and updated. Given the opportunity for direct contracting between banks or FIs and infrastructure providers, such rules need to be appropriate, to allow for competition between infrastructure providers. We believe that the new PSO should undertake this function;

- **Accreditation:** Ongoing resilience of the system is important for the industry. We see a role for the new PSO in maintaining a system of accreditation for participants in payments in the UK; and

- **Systemic risk:** Given the opportunities for the development of the industry to include easier access to systems and simultaneously competing infrastructure providers, we believe that it is important for the new PSO to retain the schemes' focus on systemic risk. This would allow the Bank of England to continue to monitor the stability of systems, for the benefit of the whole industry.

3.34. Importantly, we believe that the new PSO should not retain the scheme companies' current contracting role, to allow for direct contracting between banks or FIs and infrastructure providers.

3.35. Further, the skills of current scheme company management and staff, as well as the different best practice features of each of the scheme companies should be retained in the new PSO.

The benefits for promoting competition and innovation

3.36. The primary benefits that flow from scheme reform are a positive effect on competition and innovation, while retaining a focus on the resilience of the system. A new PSO, with re-evaluated functions, as described above, would improve the incentives for innovation compare with the status quo. Not only would direct contracting be enabled, but also individual banks and FIs would be incentivised to use infrastructure providers to innovate, in competition with other banks and FIs.

3.37. While a single organisation across the industry would reduce the current duplicated expense from multiple scheme companies, we believe that far greater benefits for the industry and our customers lie in the competition and innovation that wider scheme reform would bring. The success of a new PSO would depend on the retention of management and payments expertise, as well as best practice from the current schemes.

3.38. In parallel with the work of the PSF, we would urge the PSR to progress its own analysis on the topic. VocaLink would welcome the opportunity to contribute our further thoughts on the way that scheme reform could be achieved in a way which would unlock these benefits.

Conclusion

3.39. The PSR's proposals signal a move in the right direction for reforming the industry in the UK. However, we believe that the PSR has a rare opportunity to analyse further the market and the potential for promoting competition and innovation in the future. We believe that direct contracting and reform of the scheme arrangements are key further steps in realising that potential. Clearly, the market reviews would be incomplete without the analysis of measures to promote competition and innovation suggested by stakeholders. We call on the PSR to analyse these options within its current infrastructure market review and to complete the story on reforming the market.

Chapter 4

Competition in the market is possible

Introduction

4.1. In VocaLink's Vision, we discussed competition *in* the market, in which multiple infrastructure providers operate in the UK, at the same time. We stated our belief that this market structure was possible, as long as the five steps for market reform were followed.

4.2. In the previous chapter, we explained why direct contracting and scheme reform were needed and would promote competition and innovation. In this chapter, we set out in greater detail why we believe that competition in the market is possible, within the following sections:

- Description of competition in the market;
- The economics of payments supports the concept of competition in the market;
- Simultaneously operating infrastructure providers could bring benefits to the industry; and
- We are concerned that the proposed remedies should not preclude competition in the market.

4.3. In Annex 5 of its infrastructure interim report, the PSR describes a range of alternative payment system models. We are disappointed that the benefits to competition and innovation of such models do not appear to be reflected in the PSR's proposals. The material in this chapter represents further analysis that we have conducted on what could be achieved from competition in the market and we urge the PSR to give it due consideration during the remaining part of the market review.

Description of competition in the market

4.4. Competition in the market exists when more than one infrastructure provider operates at the same time. At the moment, we believe that there are barriers to entry from the UK legacy message standards that prevent entry from other operators in the European market. Once these barriers have been removed, then we believe that entry for simultaneous operation is possible.

4.5. Annex 5 of the infrastructure interim report highlights alternative payment system models. We can foresee two possible formats for simultaneous infrastructure operation, which we describe in turn below:

- Infrastructure competition *within* a network; and
- Infrastructure competition *between* schemes.

Infrastructure competition within a network

4.6. We could foresee more than one infrastructure provider, direct contracting with banks and FIs, effectively interoperating as a single network. The PSR could foresee two variants of the model:

- **Banks and FIs connect to all infrastructure providers:** If all direct member banks and FIs are connected to all infrastructures, then banks and FIs could contract with one or more of the providers to send payments to any recipient bank or FI. Competition would develop if the service specification offered by the different infrastructures was similar. We note that most member banks connect to more than one non-competing scheme infrastructure today. PAS portals, such as VocaLink's PayPort product are designed to make access to multiple infrastructures cheaper and easier, particularly for smaller banks and FIs. The use of such portals could enable greater direct participation in the competitive model; and

- **Banks and FIs connect only to their chosen infrastructure provider:** Where payments are made only through a single infrastructure provider, then the infrastructure providers would need to communicate between themselves, in order to clear the payment.

4.7. Both of these models offer ubiquity and interoperability, as well as greater competition between infrastructure providers – as long as the infrastructure provider is freely able to contract directly with banks and FIs.

Infrastructure competition between schemes

4.8. Competition within a network offers the opportunity to have competing infrastructure providers while maintaining ubiquitous reach. However, we note that establishing such a framework would require coordination between members of the industry.

4.9. An alternative model of competing infrastructures may develop, which does not require such coordination. If an entrant was to contract directly with a small number of banks, then it could secure critical mass of the UK's automated clearing house ('ACH') payments, in essence, setting up a competing scheme[76].

4.10. Since PAS portals are able to route payments between systems, then payments to member banks within the entrant scheme could be routed to the entrant infrastructure provider; while payments to other banks and FI would be sent to the existing infrastructure.

4.11. This model does not require the coordination of the entire industry. In fact, the switching banks could remain as members of the current schemes, while routing some or all of their payments via the entrant infrastructure provider. The new provider would not need to provide a ubiquitous service to all banks and FIs, because the existing systems already provide such universal coverage. Interoperability is achieved between the providers through the multi-homing of the participating banks, as they choose to route different payments between infrastructure providers.

[76] We note that this form of competition does not represent competition between scheme companies. Rather, this competition is between infrastructure providers operating through different schemes.

4.12. Multiple schemes exist in the UK today. Bacs and Faster Payments offer different service specifications, and so they are not in direct competition. However, they interoperate through the multi-homing of member banks and FIs, which choose to participate in both schemes.

4.13. This model features multiple schemes with similar service specifications, which are in direct competition with each other. We note that there is a trend in Continental Europe for such a model and increasingly, banks and FIs are able to opt for alternative systems.

The economics of payments supports the concept of competition in the market

4.14. We have conducted further economic analysis of payments in the UK, the size of the market and on network effects. This analysis has convinced us that multiple infrastructure providers are possible in the UK. We request that the PSR conducts similar analysis to assess for itself that competition in the market is possible.

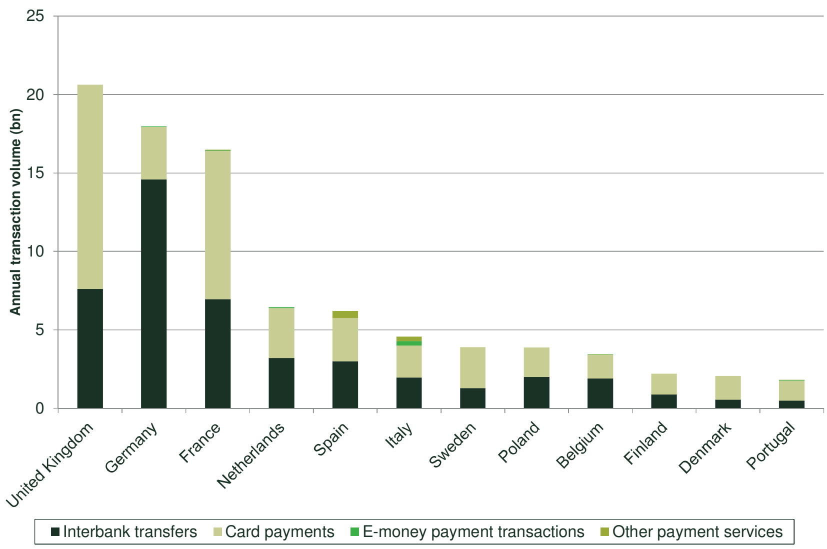
4.15. We describe this analysis in the following sections:

- The UK is a large enough market segment for more than one infrastructure; and
- The economics of an entrant infrastructure provider allows for competition in the market; and
- Network effects no longer bind the industry to a sole infrastructure provider.

The UK is a large enough market segment for more than one infrastructure

4.16. The UK is part of a European market for payments. A top down perspective on different European states shows that the UK transacts the largest number of electronic payments, as shown in the figure below.

Figure: The size of UK electronic payment transactions relative to other European states



Source: Oxera analysis based on ECB data.

4.17. Each of country has at least one infrastructure provider. Further, the number of transactions in most of the countries is less than half of the number of UK transactions[77]. This suggests that the number of transactions in the UK could support multiple infrastructure providers with a similar scale to those seen in other countries.

The economics of an entrant infrastructure provider allows for competition in the market

4.18. We believe that the most likely entrant into the UK would be an infrastructure provider from Continental Europe. Such a provider would be well placed to service the UK, once the barriers to entry are removed, using its existing systems, from data centres sited in its home state. With such economics, the entrant would have broadly covered its fixed costs at home and could enter the UK using incremental pricing.

4.19. We have estimated that with new entrant's incremental asset lifetime investment costs of £20 million, at current unit prices, it would need to attain a 25% to 35% share of current Faster Payments transactions, in order to breakeven. This investment figure is consistent with our experience of bidding for contracts outside the UK.

4.20. This analysis would suggest that entry into the UK is feasible and that simultaneous operation of more than one infrastructure provider could be supported in the UK.

4.21. Further, the likely Continental European nature of entry points to a consolidation within the European market, in which infrastructure providers from different countries operate across Europe. In the future, a significant scale of operations may be required to compete in different countries.

Network effects no longer bind the industry to a sole infrastructure provider

4.22. A network is a product or service whose value to the user increases as the number of users grows[78]. A new user accrues private benefit from using the network, but also confers benefits on existing users. These additional benefits are called 'network effects' or 'network externalities' in the academic literature. There are many examples of industries that exhibit network effects, such as telephone networks, video games, disc players, post, as well as payment systems[79].

4.23. Traditionally, it has been argued that markets that exhibit strong network externalities (hereafter 'network industries') tend to converge on one particular standard or technology[80]. This 'tipping' of the market occurs because when there are enough users utilising one standard or technology, there are large benefits to other users of adopting that standard or technology over a competing one.

4.24. However, various types of network industry do appear to support several or many competing platforms. Online social networks are a recognised example of platforms with strong network effects, yet Instagram, Facebook, and Google+ all co-exist with users often having

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77 The exceptions to this rule are France, which operates with a similar quantity of interbank transfers and Germany, which operates multiple infrastructure providers already.

78 Page, W. and Lopatka, J. (1999), *'Network Externalities'*. Encyclopaedia of Law and Economics, Encyclopaedia of Law and Economics 952.

79 Rochet, J.-C. and Tirole, J. (2003), *'Platform Competition in Two-Sided Markets'*, Journal of the European Economic Association, 1(4):990 –1029.

80 Page, W. and Lopatka, J. (1999), *'Network Externalities'*. Encyclopaedia of Law and Economics, Encyclopaedia of Law and Economics 952.

accounts on more than one of these platforms. In other words, the fact that an industry exhibits network effects does not, in itself, mean that the market cannot sustain multiple providers, as has been well documented in the academic literature[81].

4.25. There are multiple models for competition within networks, including:

- **Unbundling and access:** A naturally monopolistic part of the value chain is separated and access is granted to that essential facility for multiple competing providers. This model has been employed in postal markets and telephone-based broadband in the UK. This is relevant to an industry with an intractable function which cannot be economically duplicated, but can easily be separated from the rest of the value chain;

- **Multi-homing:** Customers/suppliers access more than one network/provider, which compete. This is the case with social media, central counterparty ('CCP') clearing services for securities and modes of transport. We note that the costs of accessing multiple networks/providers determine the number of networks/providers that can operate simultaneously and compete. For example, the cost of accessing more than one mobile phone network would be high, as this would require owning multiple phones, and therefore we tend not to multi-home mobile networks; while the costs of accessing different modes of transport are negligible, and so consumers switch between rail and aviation networks easily.

  We note that aggregators, which enable easier/cheaper access to multiple networks/providers can be employed to increase competition. There are many examples of aggregators, for example televisions can access more than one TV network; and

- **Interoperability:** Competition between networks/providers can be increased if interoperability on a common platform/standards can be established. This has been the case in mobile telephony, where the different networks interoperate, allowing for competition.

4.26. Conditions vary for determining the end state model for competing networks. The examples of competing networks in payments outlined above feature aspects of multi-homing and interoperability. We note that either of these models could develop in the future. However, our conclusion is that network effects no longer preclude competition between infrastructure providers.

Simultaneously operating infrastructure providers could bring benefits to the industry

4.27. We believe that competition in the market, with simultaneously operating infrastructure providers could bring the following benefits to the industry in the UK:

- **Greater innovation:** More regular interaction between banks or FIs and infrastructure providers could spur a more flexible timetable for innovating. This could enable the more regular changing of service offerings from infrastructure providers to meet the demands of banks and FIs, compared with competition for the market, where recontracting occurs every five years or so. These service offerings could include

81 Armstrong, M. (2002), *'Competition in Two-Sided Markets'*, Rand Journal of Economics, Vol 37.

operational innovations, such as product specification, and/or commercial innovation to pricing models;

- **Greater competition:** Similarly, the opportunity to interact regularly opens up the opportunity to ensure that competition is active between infrastructure providers; and

- **Operational resilience:** Multiple and separate infrastructures increase the operational resilience in the UK, compared with a single infrastructure.

4.28. We believe that these benefits are significant and we encourage the PSR to analyse the potential for competition in the market.

We are concerned that the proposed remedies should not preclude competition in the market

4.29. Given such benefits from competition in the market, we are concerned that the PSR's proposed remedies should not preclude the development of such models.

4.30. We acknowledge that the PSR's interoperability remedy should enable a common platform and remove barriers to entry, which should facilitate competition in the market. However, we are concerned that the PSR's procurement remedy is focused on ensuring that choice is maximised for selecting between infrastructure providers for a single provider per scheme.

4.31. We encourage the PSR to broaden this remedy to allow for multiple infrastructure providers, directly contracting with banks and FIs, in order to maximise the competitive benefits from procurement.

Conclusion

4.32. We have conducted preliminary analysis of the market and have concluded that competition in the market is possible. This is supported by the economics of the industry and infrastructure providers. Further, we believe that there are benefits from competition in the market.

4.33. Against this background we would call on the PSR to prioritise further work on analysing all the potential aspects of market structure reform highlighted within our original Vision document, and specifically, to consider the benefits from competition in the market. Further, we ask the PSR to ensure that its remedies do not preclude the advent of such a model for the UK.

Chapter 5

Concerns with the PSR's proposed remedies

Introduction

5.1. VocaLink welcomes most of the PSR's remedies for promoting competition, but in this response, we have asked the PSR to go further to analyse the potential for competition through direct contracting, reform of the scheme arrangements and competition in the market. However, we have a number of concerns with aspects of the PSR's proposed remedies, which are outlined in this chapter under the following headings:

- Overall - VocaLink broadly supports the proposed remedies but is concerned that the proposed remedies appear to be pre-determined;
- Overall - The PSR should ensure that the remedies are appropriately prioritised and sequenced;
- Remedies 1 and 2 - Some of the potential remedies outlined in the infrastructure interim report are unclear because they rely on outcomes from the PSF's process;
- Remedy 1 - Competitive procurement exercises: The remedy needs to be sensitive to the true potential of competition;
- Remedy 2 – Interoperability: Transitioning to a common standard needs further analysis;
- Remedy 3 – Ownership of VocaLink: Care is needed to achieve the aims of the proposed remedy; and
- Remedy 4 – LINK: VocaLink supports the separation of scheme and infrastructure provider.

Overall - VocaLink broadly supports the proposed remedies but is concerned that the proposed remedies appear to be pre-determined

5.2. We are concerned that the preliminary conclusions set out in the infrastructure interim report and the proposed remedies appear to have been pre-determined from the outset of the infrastructure market review. This is reflected in the limited scope of the market review which, despite representations, was clearly framed by the PSR to focus on VocaLink alone, rather than a full review of the ownership and competitiveness of all payment scheme infrastructure provision in the UK. It is also reflected in the resultant limited analysis conducted by the PSR.

5.3. Therefore, we are concerned that prior to this consultation, the PSR has already reached decisions on its competition analysis and remedies, and that this consultation has not taken place at a sufficiently formative stage as to allow us to make meaningful representations to the PSR.

5.4. Our concerns are heightened by a recent speech by the Managing Director of the PSR[82]. Of particular concern here is that the section of the speech that talks about the infrastructure market review is titled simply 'VocaLink', and on previous occasions Ms Nixon has referred to the market review as an analysis of the 'VocaLink question'[83]. This demonstrates clearly that the PSR views inappropriately the infrastructure market review as a review of VocaLink, rather that the market itself. It also demonstrates clearly the PSR has taken a very narrow view and has already decided that VocaLink is the problem and has not assessed all of the relevant issues. This re-enforces the perception in the industry that the PSR considers that the purpose of the infrastructure market review is to address the 'VocaLink question'.

5.5. The definitive tone and text of the speech also demonstrates that the PSR had already reached decisions on its competition analysis and remedies before this consultation and representations from VocaLink and others[84].

5.6. As a result, although VocaLink broadly supports the proposed remedies, it is concerned that the infrastructure market review has been a one-sided exercise intended to support the PSR's pre-determined conclusions. This is reflected in the unreasonably narrow approach that the PSR has chosen to take to the market review, instead of an open-minded and balanced review of all of the issues. We ask the PSR to be open minded in considering responses to the consultation and its resultant conclusion. Clearly, the market reviews would be incomplete without the analysis of measures to promote competition and innovation suggested by stakeholders.

Overall - The PSR should ensure that the remedies are appropriately prioritised and sequenced

5.7. While we support broadly the PSR's proposals, the manner in which they are implemented, in particular timing and sequencing, will determine whether they achieve effective outcomes. Divestment, interoperability (common standards), scheme reform and direct contracting are required before procurement processes can be revisited.

5.8. When implementing any remedies the PSR should take a reasonable and proportionate approach to prioritise and sequence them to take into account the other significant

[82] PSR, *'A tale of two market reviews' by Hannah Nixon, managing director of the PSR, at the Money 20/20 Europe event, Copenhagen'*, 6 April 2016. Accessed at https://www.psr.org.uk/psr-publications/speeches/a-tale-of-two-market-reviews.

[83] PSR, *'Payment systems: the regulatory challenge' by Hannah Nixon, speech to the European Payments Regulation Conference*, 3 December 2014. Accessed at http://www.fca.org.uk/news/speeches/payment-systems-the-regulatory-challenge.

[84] - Nowhere in the speech does it mention that the market reviews are at the consultation stage;
- The language demonstrates that the PSR has reached final views in terms of its analysis. Statements that the PSR's concerns have *'ultimately proved well placed'*, that its *'interim findings… confirmed'*, and that common ownership and control *'are hampering competition'* demonstrate that the PSR has already made up its mind on these issues, and is not open to representations, evidence and argument from respondents to its consultation. Similar statements were made in the press release accompanying the infrastructure interim report (for example *'[t]he evidence we have gathered shows that common ownership is hampering competition and the speed of innovation in the market'*);
- The language also demonstrates that the PSR is not open to be persuaded that any of the proposed remedies are ineffective, unnecessary or inappropriate. Statements such as *'we intend to take direct action'*, and *'these measures will'* also reveal that the PSR has reached final views on the effectiveness and appropriateness of the proposed remedies. Again, similar statements were made in the press release accompanying the infrastructure interim report (for example *'Our proposals will increase competition and create more opportunities for challengers, fintechs and other organisations looking to enter the market. This will create the conditions for greater innovation'*); and
- In addition, statements that *'[t]hey are tough measures'* and *'twelve months ago …. I was clear that we would need to show our teeth from time to time'*, makes it clear the PSR decided that it needs to be *'tough'* before it had assessed any evidence in respect of the infrastructure market review, and that it is more concerned with appearing *'tough'* than undertaking the appropriate process and reaching the right decisions.

upcoming developments in the sector. Risk to stability, resilience and integrity of the systems can be mitigated and managed only if a carefully managed approach is taken to the transfer to a common message standard. From 2018 onwards, the banks, FIs and the wider payments system will be under significant pressure to implement a number of far-reaching regulatory initiatives that will redefine the operation of both the payments system and retail banking. For example:

- **Q1 2017 – Q1 2019** is the timeframe over which the UK Open Data Initiatives (as required by HM Treasury) will be implemented;
- **January 2018** is deadline for the national transposition of PSD2; and is to be followed for 12 months by the implementation of mandatory European Banking Authority (EBA) Regulatory Technical Standards. We expect there to be significant effects on banks' own systems as third party providers (TPPs) are given the ability to initiate payments;
- **January 2019** is the deadline for banks to implement the ring fencing of their retail banking operations (as required by HM Treasury), with significant implications for their connections to the payments system;
- In a similar timeframe banks will be undertaking change programmes to address their ageing and complex legacy technology systems to reduce the negative effect on customers from systems failures; and
- ✂

Remedies 1 and 2 - Some of the potential remedies outlined in the infrastructure interim report are unclear because they rely on outcomes from the PSF's process

5.9. Given the reliance on the PSF process by the PSR, currently some of the potential remedies set out by the PSR in the infrastructure interim report lack sufficient clarity. In these areas, we and other stakeholders do not have sufficient certainty to enable us to comment properly. Indeed, significant aspects of the potential remedies described are conditional on the outcome of the work being undertaken by the PSF. For example:

- **Remedy 1 (Competitive procurement exercises):** We are concerned that the application of this remedy '*may change once the Payments Strategy Forum has developed its strategy*', while '*the timing and range of services procured, as well as who procures these services will be influenced by the outcomes of the Payments Strategy Forum's work*'[85]; and
- **Remedy 2 (Interoperability):** This is remedy is subject to the PSF analysing '*the business case for moving to a common messaging standard, such as ISO 20022*'[86].

[85] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.15.
[86] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.21.

5.10. We request confirmation from the PSR that it will consult further with VocaLink (and the payment services industry more generally) regarding each of the potential remedies set out in the infrastructure interim report, once more detailed information about what the remedies will look like is known. We also ask that the PSR to confirm that such consultation will take place at a sufficiently formative stage as to allow meaningful representations to be made and that the PSR will, at that point, provide adequate time for VocaLink to prepare a proper and informed response to the consultation.

Remedy 1 - Competitive procurement exercises: The remedy needs to be sensitive to the true potential of competition

5.11. We welcome competitive procurement processes because they enable VocaLink to compete for contracts. Accordingly, we broadly support the PSR's proposed remedy regarding effective procurement exercises, subject to the concerns outlined below:

- The PSR should be realistic about further benefits from procurement processes;
- Further market reform is possible and should not be precluded; and
- The use of break clauses could be counter-productive.

The PSR should be realistic about further benefits from procurement processes

5.12. In Chapter 2, we demonstrated that good outcomes (price, service quality and innovation) have been achieved from contract negotiations in the past and that a bargaining framework explains how those were achieved. We support competitive procurement processes because they increase the likelihood of good outcomes. However, it should not be assumed that introducing competitive procurement processes will lead to different or even better outcomes in future.

5.13. We are also concerned that some commentators may only consider the proposed remedies successful if VocaLink losses at least one of the core contracts. We seek the PSR's reassurance that this is not its measure of success, because markets can be highly competitive and have low levels of switching. VocaLink provides a high quality and reliable service with good value for money and therefore, increased competition may well not lead to a change in infrastructure provider.

Further market reform is possible and should not be precluded

5.14. We have two concerns that a procurement remedy should not preclude further market reform:

- **Reform of the scheme arrangements and direct contracting:** First, the PSR's procurement remedy seeks to modify the scheme companies' *behaviour*, rather than reform the scheme arrangements. We believe that the remedies which we set out in Chapter 4 of this response would reform the market and create the right incentives; and

- **Competition in the market:** Second, we believe that competition in the market is possible and would bring benefits from competition and innovation. We ask the PSR not to preclude the opportunity to develop competition *in* the market, through establishing a procurement process which is based on competition *for* the market.

The use of break clauses could be counter-productive:

5.15. Finally, the PSR should not rush into a competitive procurement process prematurely, and should prioritise its other proposals which, when implemented, would have a positive effect on competition in the eventual procurement process. In VocaLink's experience, it may be challenging to have a reformed procurement process in place in order to use it to award the next contracts (✂). It would be unrealistic for the PSR to commit itself to a tighter timetable which could prejudice its ability to meet its stated objectives.

5.16. Specifically, the PSR has proposed that procurement exercises are undertaken before current contracts for central infrastructure services come up for renewal, or at the next break clause in a contract. We interpret this statement by the PSR to mean that the scheme companies should commence a procurement process sufficiently ahead of the expiration date of the contract, so that if the contract is awarded to a new provider, the new contract can commence immediately after the expiration of the old contract. Further, we interpret '*at the next break clause'* to mean an earlier date than the 'natural' expiration date if that is possible under the contract terms. If our interpretation of the PSR's statements is not correct then we request that the PSR clarifies its meaning and that we have the opportunity to comment on the clarified wording of the remedy.

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5.19. It is our view that if PSR was to encourage the use of early break clauses within existing contracts in order to facilitate an early competitive procurement exercise before planning for common standards and interoperability, it would be counterproductive to its own objective to accelerate a greater degree of competition in the current market for payments infrastructure and contrary to the broader benefit of the payments system. We are also concerned that the perceived misuse of break clauses now, purely to implement a 'quick win' may create a precedent that would preclude their beneficial inclusion in future contracts.

5.20. Additionally, as noted above there are important prioritisation and sequencing issues within the proposed remedies and interaction issues with the wider work of the PSF and the payments environment on which early procurement of new contracts could have negative effects, for example on the resilience and stability of the systems.

5.21. Consequently, the PSR should assess its priorities, before developing and consulting on an appropriate sequence of actions that would best allow it to realise its objectives, while ensuring that end users continue to get the best possible service from the payments systems.

5.22. Early procurement of new contracts would:

- **Limit, or delay, the effectiveness of other remedies:** The proposed remedies are aimed at improving competition in the provision of infrastructure. If interoperability and a common international message standard are to be realised for Faster Payments, Bacs and LINK, it will need to be implemented in a co-ordinated and sequenced manner. If such standards can be set before the next round of contract negotiations for each of Bacs, Faster Payments and LINK this will increase the number of potential suppliers and the intensity of competition. Early procurement of new contracts is unlikely to leave sufficient time for the UK to migrate to this international message standard and as such would limit the field of available competition;

- **Reduce the time available for the PSF to review and propose potential new service needs[87]:** End users would be better served by allowing the PSF sufficient time to define what innovative new services may be required before the procurement processes commence and enable the scheme companies to implement the plans set out by the PSF;

- **Disrupt on-going innovation and act as disincentive for future innovation:** The disruption caused by an early procurement process would have a negative effect on the ability of the scheme companies and the infrastructure providers to implement the innovation that is already 'in train' (e.g. access or request to pay). We are concerned that early procurement is not in the interest of service users because the cost of putting this innovation at risk will more than outweigh the benefit of introducing a more competitive and transparent procurement exercise earlier than it would otherwise take place. Further, we are concerned that encouraging early procurement of contracts by the PSR creates an expectation of a similar PSR policy in future. This would reduce the incentives for future innovation;

- **Reduce the time available for the PSF to consider reform to the scheme arrangements and direct contracting[88]:** An early procurement process would reduce the time available for the PSR to consider and implement reform of the scheme arrangements. Similarly sufficient time should be given to evaluate the merits of direct contractual arrangements between banks and infrastructure providers, before committing the payments system to further contracts arranged on a collective bargaining basis; and

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5.23. In conclusion, bringing forward the procurement process before the introduction of common standards runs the risk of perpetuating the status quo and therefore risks undermining the effectiveness of the procurement process. It would also fail to take into account the time needed to implement other remedies proposed by the PSR and stakeholders such as VocaLink, as well as the wider significant changes taking place in the market.

Remedy 2 – Interoperability: Transitioning to a common standard needs further analysis

5.24. We welcome the inclusion of the proposed interoperability remedy cautiously, because we think that it needs further analysis. However, we welcome the underlying consideration that the PSR has given within the infrastructure interim report to the important roles that interoperability and common messaging standards could play in reforming the industry to promote competition, promote innovation and better meet users' needs.

5.25. In our Vision document, we noted that the legacy UK message standards acted as a barrier to entry and switching[89]. We also highlighted the potential innovation benefits from a common message standard, specifically given that the ISO 20022 message contains more information than current messages and banks and FIs could innovate based on this[90].

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[87] We set out our concerns with the PSF in Chapter 6. For the purpose of discussing the remedies in this chapter we take the PSF role as presented by the PSR.

[88] We set out our concerns with the PSF in Chapter 6. For the purpose of discussing the remedies in this chapter we take the PSF role as presented by the PSR

[89] VocaLink, *'the Vision'*, 30 November 2015, page 8.

[90] VocaLink, *'the Vision'*, 30 November 2015, page 19.

5.26. In the Vision, we also highlighted the significant investment cost to our customers for making their back office systems compatible with a new message standard. For this reason, we described the way in which PAS portals, such as VocaLink's PayPort product (recently rebranded from Single Front Door), can translate between message standards[91]. Such PAS portals can remove the barriers to entry and switching that result from legacy message standards, without first requiring both infrastructure providers and banks to convert their back office systems. We suggested to the PSR that it should further scrutinise the benefits from mandating a common standard[92].

5.27. In the infrastructure interim report, the PSR is proposing under Remedy 2 that '*a common international message standard is adopted for Faster Payments, Bacs and LINK*' and that the PSF will examine the type of message standard to be adopted[93]. We recognise that the PSR has proposed a phased approach to this adoption, given the levels of investment cost implied and that message translation services can be used during the transition period[94]. However, we nevertheless have a number of observations and some concerns about this remedy as currently proposed:

- The PSR needs to consider the role of PAS portals as part of its proposed interoperability remedy;
- The PSR needs to consider the operational approach to transition and the need to preserve resilience throughout the process; and
- The PSR should consider request to pay and a full debit/credit interoperability for Faster Payments.

The PSR needs to consider the role of PAS portals as part of its proposed interoperability remedy

5.28. We believe that there are significant benefits from using a wider message standard that could flow from the use of the additional data that could be transmitted. We encourage the PSR to analyse these benefits, in order to understand the costs and benefits of such a transition.

5.29. We call on the PSR to make its remedy towards adopting a common international message standard reasonable and proportionate. We note that the impetus for change cited in the infrastructure interim report was that the '*lack of common international message standards in the UK acts as a barrier to entry for some potential infrastructure providers*'. While we agree that the legacy message standards act as a barrier to entry, in the Vision, we highlighted that the use of PAS portals would remove this barrier. We are concerned that the PSR has not analysed the use of PAS portals as a more reasonable, proportionate and less intrusive tool for achieving its aim, especially in the short term. PAS portals could achieve the remedy aim with lower costs and fewer risks.

5.30. Therefore, the PSR should analyse the ability of the use of PAS portals to remove barriers to entry, as part of its assessment of the interoperability remedy. We note that this is a decision for the PSR and, as such, the input from the PSF in relation to widening access should only be treated as one input into setting the remedy. The existence of a PSF position or

[91] VocaLink, *'the Vision'*, 30 November 2015, page 9.
[92] VocaLink, *'the Vision'*, 30 November 2015, page 19.
[93] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.17.
[94] PSR, *'infrastructure interim report',* 25 February 2016, paragraphs 8.18 and 8.19.

recommendation on this issue does not remove the PSR's responsibility to consult and decide on a reasonable and proportionate remedy.

5.31. It might be more appropriate, in the short term, to use PAS portals to reduce the barrier to entry, while the PSR assesses the long term strategic case for moving to an international common standard such as ISO 20022.

The PSR needs to consider the operational approach to transition and the need to preserve resilience and manage risks throughout the process

5.32. As we highlighted in the Vision, the investment cost for the industry of adoption of a new message standard will be significant. The transition to common standards and interoperability would be a major industry programme.

5.33. Given the significance of the project, we suggest that the PSR establishes criteria to assess the merits of different options and migration approaches. Such criteria could include a positive cost/benefit analysis incorporating such elements as the assessment of technical achievability, risk profile, the potential to enhance competition, and the speed of migration.

5.34. A poorly managed transition would represent a threat to the operational and financial resilience and stability of the industry. In our view, it would very difficult (in terms of costs and risk) to make the wholesale changes required to an existing live system. Therefore, the new system(s) would need to be available first and volumes subsequently migrated. Risks may be reduced if a co-ordinated, sequenced approach is taken and if new and old systems were to be initially run in parallel.

5.35. There are many potential options around sequencing and coordination and we are keen to work with the PSR, the PSF and the industry more widely to develop the appropriate options for consideration and the implementation of the preferred option.

The PSR should consider request to pay and a full debit/credit interoperability for Faster Payments

5.36. We encourage the PSR to seek interoperability between the current scheme functionality to enable choice for end customers. Currently, there is a difference in functionality between schemes, that is more than merely Bacs offering a batched 3-day clearing service, while Faster Payments offers a real time clearing service. In order to achieve a level of interoperability between the current schemes, we ask the PSR to consider the case for the harmonisation of the schemes' functionality. In particular, we ask the PSR to consider the case for Faster Payments to gain the capability for: i) clearing debits as well as credits; and ii) 'request to pay'. In addition in Chapter 7, we discuss our proposition for allowing a choice for corporates to access Faster Payments.

Remedy 3 – Ownership of VocaLink: Care is needed to achieve the aims of the proposed remedy

5.37. The PSR has proposed that VocaLink's current owners should divest their shareholding in VocaLink. In its consultation, the PSR has asked for feedback on aspects of the application of this proposal, including the form, timing, purchaser suitability criteria and the need for regulatory oversight.

5.38. VocaLink's Vision identified the changing of the current ownership model as one of the five steps towards promoting competition and innovation. However, we have concerns about the possible negative effect of any over-specification by the PSR, in the implementation of the proposed remedy, including in relation to form, timing, purchaser suitability criteria and regulatory oversight.

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5.42. Therefore, we ask the PSR to pause its work on this proposed remedy, ✂ and not discuss any further specification regarding the change of ownership. ✂

5.43. More generally, we have concerns should the PSR pursue this proposed remedy, in the following areas:

- The effectiveness and proportionality of the proposed remedy, including the costs and benefits;
- The PSR should not set suitability or selection criteria on the choice of the new shareholder;
- The appropriate timing of divestment;
- The appropriate level of divestment; and
- There is no justifiable basis for imposing requirements on Board composition.

The effectiveness and proportionality of the proposed remedy, including the costs and benefits

5.44. Any remedy involving a disposal of an interest in an infrastructure provider necessarily involves the interference with property rights. Therefore, we ask the PSR to ensure that the proposal is properly assessed for effectiveness and proportionality ✂.

5.45. The details of that remedy must also be the subject of adequate consultation with the businesses affected. In that vein, we would ask the PSR to conduct a thorough analysis of the costs and benefits resulting from the proposed remedy, and to compare these costs and benefits with those associated with alternative remedies, in order to conclude on the appropriateness and proportionality of a divestment remedy. The limited nature of the assessment set out in the infrastructure interim report suggests that the PSR has not yet considered these factors in its infrastructure market review. If the PSR concludes that the proposed divestment remedy is necessary and proportionate, then we ask the PSR to set out adequate reasons for this view in a future report to the industry and provide VocaLink with a further opportunity to comment on the proposed remedy, including the way in which it is proposed to be implemented.

5.46. Finally, in relation to the PSR's request for views on the *'need for regulatory oversight'*, we ask the PSR to be proportionate and reasonable in relation to any oversight measure put in place, above and beyond those that already exist. The PSR should explain and justify its reasoning, if it wishes to establish any regulatory oversight. ✂

The PSR should not set suitability or selection criteria on the choice of the new shareholder

5.47. We are concerned about the PSR request for feedback concerning purchaser suitability criteria, as we do not believe that the PSR has the power to set such criteria. In its infrastructure interim report, the PSR states in relation to the potential remedy regarding the ownership of VocaLink that it would '*welcome views on the divestment process, including purchaser suitability criteria and the need for regulatory oversight*' and that '*[i]n particular, we recognise that security and resilience are paramount, and that measures need to be in place to safeguard these*'.[95] Accordingly, the consultation questions set out at Annex 8 to the infrastructure interim report invite views on '*what (if any) suitability criteria should be applied*'' and '*what (if any) additional measures are required to ensure stability and resilience*'.

5.48. VocaLink is surprised by the reference in the infrastructure interim report to the PSR considering the application of purchaser suitability criteria or other additional measures in the context of the potential change of ownership. The PSR's statutory powers do not extend beyond requiring a disposal of an interest. Therefore, these powers do not encompass the ability for the PSR to impose requirements as to the identity of the purchaser of the disposed interest, or for selection criteria to be applied in relation to the divestment process.

5.49. The ambit of section 58 of the Financial Services (Banking Reform) Act 2013 (FSBRA) is plain. It states clearly that the PSR '*may require a person who has an interest in … an infrastructure provider … to dispose of all or part of that interest*', in circumstances where the PSR '*is satisfied that, if the power is not exercised, there is likely to be a restriction or distortion of competition*'. It does not make any provision for the PSR to impose selection criteria or impose requirements regarding the identity of the purchaser. Further, we note that nowhere else in FSBRA is the PSR granted such additional powers.

5.50. Given the clear limitation on the PSR's power to require a disposal, it is unsurprising that the PSR's own guidance on the application of section 58 makes no reference to any ability on the part of the PSR to impose additional requirements, such as purchaser suitability criteria[96].

5.51. The limited nature of the powers granted to the PSR to require a disposal of an interest is in sharp contrast to the detailed provisions laid out in the Enterprise Act 2002 in relation to disposal remedies following a Market Investigation or Phase 2 Merger Investigation, where the CMA can, among other things: (i) order the transfer of ownership and (ii) require approval of the purchaser by the CMA (or another person) before the transfer[97]. Accordingly, if Parliament had intended the PSR to have additional powers to impose suitability criteria or determine the identity of a purchaser in the context of a disposal under section 58 it would have provided for them within the statutory framework – as it has done in relation to the CMA under the Enterprise Act 2002.

5.52. Since the PSR is not entitled to take a purposive view of FSBRA and read additional powers into the plain wording of section 58, it is not clear to us on what basis the PSR is able to impose suitability criteria or other additional measures in relation to any disposal required following the infrastructure market review. Therefore, we would welcome clarification from the PSR on what legal basis it considers that it is entitled to impose any such additional requirements.

5.53. In any event, even if it had the necessary power, the PSR has no need to impose purchaser suitability criteria. Any concerns the PSR may have about the identity of the purchaser are covered by the regulatory framework in which the disposal will take place. For example, the PSR has an existing function to keep the market under review (Section 64, FSBRA) and could

95 PSR, '*infrastructure interim report*', 25 February 2016, paragraph 8.27.
96 For example, see the explanations of section 58 given in the summary of the PSR's regulatory powers provided in the infrastructure interim report, the PSR's Powers and Procedures Guidance, and the PSR's Markets Guidance.
97 Enterprise Act 2002, Schedule 8, paragraphs 13(3)(a) and 13(3)(k).

intervene if necessary in the future, while other regulators have relevant statutory powers to ensure the sale does not raise financial stability or competition issues:

- **Financial stability:** The Bank of England has powers under the Part 5 of the Banking Act 2009, in respect of the oversight of the stability of payment systems including Bacs and Faster Payments; and

- **Competition:** The CMA has powers under the Enterprise Act 2002 to investigate whether (i) there is a relevant merger situation falling within the UK merger control regime, (ii) that relevant merger situation has resulted, or may be expected to result, in a substantial lessening of competition, and (iii) it should take action to remedy any substantial lessening of competition. The European Commission has similar powers in respect of mergers with an EU dimension[98].

The appropriate timing of divestment

5.54. In its infrastructure interim report, the PSR requests feedback on the timing of any change of ownership under the proposed remedy. Given the onerous nature of the proposed remedy, the timing of any such change of ownership must provide VocaLink's existing shareholders with sufficient time in which to realise a fair market value for their shares. In this case, a period of less than ✂ to enter into an arrangement to sell would give the impression of a 'fire sale'. This would not provide VocaLink's shareholders with sufficient opportunity to achieve fair market value for their shareholdings and thus would not be proportionate or reasonable. In this context, it should also be noted that:

- Given the timing of the competitive procurement processes for the relevant contracts, it is not necessary to rush through a change of ownership;

- Given there is no evidence that outcomes are poor under the current contracts (such evidence would have to be substantial given the onerous nature of this proposed remedy) there is only a very low risk that users will be harmed before the change of ownership occurs; and

- Given the nature of the services in question and the contractual controls, there is no risk in this case of any 'degradation' of assets as a result of a longer process that provides VocaLink's shareholders with sufficient opportunity to achieve fair market value for their shareholdings.

5.55. Further, the PSR should not set a change of ownership deadline which, by effect, imposes purchaser suitability criteria. The purchaser should be given reasonable time to meet any regulatory requirements. For example, an unduly short deadline for completing the transaction would automatically preclude any potential acquirer which needed to obtain regulatory clearances that needed to be satisfied before completing the transaction. By contrast, a deadline for entering into an arrangement to sell to the purchaser would allow any necessary regulatory clearances to be obtained after that date.

[98] Council Regulation (EC) No. 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ 2004 L24/1.

The appropriate level of divestment

5.56. In relation to the level of any divestment, it is not necessary to require a full disposal to achieve the stated aims of the proposed remedy. As set out in Oxera's paper[99], a reduction of VocaLink's current shareholders' interests to the level of a non-controlling stake would be an effective and proportionate remedy.

5.57. VocaLink notes that in relevant merger cases in which the Competition Commission required the divestment of a shareholding, notably in relation to BSkyB/ITV and Ryanair/Aer Lingus, it decided that full divestment would be unnecessarily intrusive and therefore disproportionate[100]. Those considerations apply in this case. The PSR would not be acting in a reasonable or proportionate way if it required VocaLink's shareholders to divest the whole of their interests in VocaLink.

5.58. In these circumstances, the PSR should only order that VocaLink's current shareholders dispose of their existing interests to a level that is sufficient to achieve the stated aims of the remedy, namely enhancing competition and the incentives to innovate. In this case, that would be achieved by the current shareholders reducing their shareholding to a level at which they can no longer exercise control over VocaLink and therefore cannot block innovation or influence the competitive procurement process, as described by the PSR. Any requirement on VocaLink's shareholders to dispose of their interests beyond that level would be unnecessarily intrusive and disproportionate.

There is no justifiable basis for imposing requirements on Board composition

5.59. A change of ownership would be an effective and sufficient remedy for the issues identified by the PSR. Therefore there is no basis for the PSR to impose additional governance requirements (including Board composition), either as part of the proposed divestment remedy, or as a standalone remedy.

5.60. As set out above, section 58 of FSBRA does not allow the PSR to impose such additional requirements and therefore the PSR has no basis for imposing requirements on Board composition in the context of the proposed divestment remedy. Further, as explained in Oxera's paper[101]:

- Changes to governance only are unlikely to increase, and could possibly harm, competition and innovation; and
- A reduction of the current ownership to a non-controlling stake would deliver significant benefits to corporate governance because it enables ownership to be contested and control to be transferred to a new set of owners. This market for corporate control acts as a mechanism for improving performance.

[99] Oxera, *'Governance and ownership of payments systems infrastructure'*, 27 November 2015.
[100] See: Competition Commission, '*Acquisition by British Sky Broadcasting Group plc of 17.9% of the shares in ITV plc, Report sent to Secretary of State (BERR)*', 14 December 2007, paragraph 6.74; Competition Commission, '*A report on the completed acquisition by Ryanair Holdings plc of a minority shareholding in Aer Lingus Group plc*', 28 August 2013, paragraph 8.119.
[101] Oxera, *'Governance and ownership of payments systems infrastructure'*, 27 November 2015.

Remedy 4 – LINK: VocaLink supports the separation of scheme and infrastructure provider

5.61. We support the concept of separation between LINK scheme and infrastructure provider. This remedy has already been achieved and the separation was effective from 1 April 2016[102].

[102] See http://www.link.co.uk/faqs/ accessed 10 April 2016.

Chapter 6

The role of the PSF

Introduction

6.1. In VocaLink's Vision, we set out the importance of the PSF being successful, to deal with the coordination issues flowing from the remaining network effects in the industry. We are encouraged by the level of the participation in the PSF and the volume of work that this is generating. We look forward to responding to a consultation on the PSF's strategy, in due course.

6.2. Given that this is the first opportunity to discuss the topic, we have some residual concerns about the structure and process of the PSF, which we outline in this chapter:

- The PSR needs to be clear as to how it will take into account the PSF's recommendations;
- We are concerned that the PSF membership lacks an infrastructure representative;
- We encourage the PSF to focus on developing its strategic priorities for the long-term future, rather than today's detriments; and
- We are concerned about the potential for a restriction of competition arising from a collaborative approach to innovation.

6.3. However, we want to work with the PSR and PSF to resolve these concerns, to ensure the success of the strategy that is developed.

The PSR needs to be clear as to how it will take into account the PSF's recommendations

6.4. We are concerned that the PSR should not delegate responsibility for the appropriate, proportionate and reasonable application of its regulatory functions to the PSF. Sections of the infrastructure interim report suggest that this could reflect the PSR's current thinking. For example, the infrastructure interim report states in relation to the potential remedy on competitive procurement exercises that:

- *'the Payments Strategy Forum's work on end users' needs will clarify the services required, and we propose that the procurement strategy should take account of the outcomes of that work'*[103];

- *'[u]nder the current structure these remedies would apply to operators [scheme companies] of FPS, Bacs and LINK, however this may change once the Payments Strategy Forum has developed its strategy'*[104]; and

- *'the timing and the range of services procured, as well as who procures these services will be influenced by the outcomes of the Payments Strategy Forum's work'*[105].

[103] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.13.
[104] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.15.
[105] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.15.

6.5. Similarly, in relation to the potential remedy on interoperability, the infrastructure interim report states that:

- *'The Payments Strategy Forum, in its work on simplifying access to markets, will be examining the type of messaging standard to be adopted'*[106]; and

- *'The Payments Strategy Forum will analyse the business case of moving to a common message standard such as ISO 20022, but we welcome stakeholders' feedback on the timing and potential costs of moving to common international message standards. Under the current structure this remedy will apply to the operators [scheme companies] and PSPs, but as outlined in paragraph 8.15 this may change following the Payments Strategy Forum's work'*[107].

6.6. These statements suggest that the PSR has decided to adopt the outcomes of the PSF's work, even before the PSF's work has been completed, the recommendations have been consulted and the PSR has had opportunity to consider. Therefore, we are concerned that the PSR has prejudged its position in relation to adopting recommendations made by the PSF regarding the future of the payments services industry.

6.7. This position is surprising, given that the PSR had previously stated that the PSF's decisions were not intended to be binding, and the PSR had not formally delegated any of its functions to the PSF[108].

6.8. We ask the PSR to clarify its position in relation to the adoption of PSF recommendations. Further, we ask the PSR to define the process by which the industry is consulted on the PSF's recommendations, as well as on the results of the PSR's subsequent analysis.

We are concerned that the PSF membership lacks an infrastructure representative

6.9. We are concerned about the lack of an infrastructure provider representative in the PSF's membership. In our response to the PSR's 2014 consultation paper[109], we sought *'clarification of how the PSR envisages infrastructure providers, and other technology innovators, being represented on the PSF'*[110]. However, we understand that the PSR chose not to include any individuals from infrastructure providers (or other technology innovators) within the PSF's membership. This was despite individuals from different infrastructure providers being involved in the group set up to establish the PSF.

6.10. Instead of membership, individuals from VocaLink have only been asked to participate in the working groups. The analysis being undertaken by these working groups is only an input to the deliberations of PSF members as they determine the industry strategy.

6.11. We are concerned that this lack of representation means the PSF should not be regarded as being a representative body that properly reflects the complete UK payments systems industry. This emphasises the need for the PSF's strategy to be consulted over a reasonable timeframe, to allow all members of the industry to comment – and for those comments to be considered fully by the PSR.

[106] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.17.
[107] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.17.
[108] PSR, *'PS15/1: A new regulatory framework for payment systems in the UK', 25 March 2015,* paragraph 2.13.
[109] PSR, *'PSR CP14/1: A new regulatory framework for payment systems in the UK'*, November 2014.
[110] VocaLink, Response to PSR CP14/1, page 4.

We encourage the PSF to focus on developing its strategic priorities for the long-term future, rather than today's detriments

6.12. The purpose of the PSF is to develop and agree strategic priorities for the long term[111]. However, we are concerned that the PSR has asked for the PSF's work to date to focus on 'detriments' and finding solution for today's problems, rather than strategy[112].

6.13. Further, in considering strategy for the long term, we would encourage the PSF and also the PSR to focus on strategic measures that meet the commercial needs of the industry. This would aid the adoption of the PSF's strategy without the need for regulatory enforcement action. We do not believe that such action would be necessary with an appropriate commercial strategy.

6.14. We acknowledge the hard work of the members of the PSF. We want to help to make the PSF's strategy a success. We encourage the PSF to identify ways in which we could help.

We are concerned about the potential for a restriction of competition arising from a collaborative approach to innovation

6.15. The PSF is discussing practical measures to meet the identified detriments. We are concerned that the collaborative nature of the exercise may result in collective outcomes that dampen the incentive for individual companies to innovate. As a consequence, such collective outcomes could restrict innovation and competition, both between payments companies and also between banks and/or FIs, as they find innovative ways of differentiating themselves.

6.16. Therefore, we encourage the PSF to continue to identify strategic solutions in which individual innovation and competition can happen, rather than seeking collective outcomes. We also ask the PSR to consider carefully impact of the PSF's strategy on competition and innovation.

Conclusion

6.17. We see the importance of a successful PSF process in managing coordination issues within the industry and welcome the efforts of the PSF's members to conclude a meaningful strategy. Although we have a number of concerns with the process, we want to work with the PSR and PSF to resolve these concerns, to ensure the success of the strategy that is developed.

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[111] *'We [the PSR] will establish a new process for industry strategy-setting through a Payments Strategy Forum (the 'Forum'), …. The Forum will include a wide range of industry and service-user stakeholders and will develop and agree strategic priorities for the long-term development of payment systems where the industry needs to work together.'* PSR, *'Policy Statement PSR PS15/1A new regulatory framework for payment systems in the UK*', 25 March 2015, paragraph 9.

[112] In November 2015, the PSF identified 66 detriments. PSF, Agenda Item 2: Forum Away Day Output, Annex 1, accessed https://www.paymentsforum.uk/sites/default/files/documents/Forum%20Away%20Day%20Output.pdf. While '*[s]ince its December [2015] meeting the Forum and its Working Groups have been considering, grouping and defining detriments. This work is now complete. Consideration has also been given to high-level collaborative solutions that might address these'*. PSF website accessed 31 March 2016 https://www.paymentsforum.uk/history/draft-minutes-3rd-forum-meeting-published and PSF, Draft minutes, 25 February 2016, https://www.paymentsforum.uk/sites/default/files/documents/PSF25022016%20-%203rd%20Forum%20Meeting%20Minutes%20DRAFT.pdf

Chapter 7

Other issues

Introduction

7.1. This chapter focuses on our remaining issues with the PSR's interim reports:

- Indirect access should be made easier;
- The risk of data analytics foreclosure is low;
- There are many Bacs gateway providers;
- Ring fencing would damage competition;
- Co-ordination of timing of procurement; and
- Obliging VocaLink to transfer to a new provider.

Indirect access should be made easier

7.2. We welcome the PSR's finding that the initiatives to open up access to payment systems are generating increasingly positive results. We understand that the PSR still has some concerns about the supply of indirect access, but that it expects the changes the industry is making will address these issues. We welcome the PSR's proposals that it supports these developments and will monitor their impact, rather than take further regulatory action now which could hinder progress.

7.3. We believe that indirect access to payment systems should be made easier and have developed our PAS product to address this. As consumer demand has grown for real-time services, more banks and FIs want to gain access to the Faster Payments infrastructure, so in recent years we have invested substantially to provide secure and universal access to the payment systems. PayPort[113], our new managed service gateway, simplifies access to Faster Payments for banks and FIs. By providing the technological infrastructure needed to access Faster Payments through a software-as-a-service and without the need for additional overheads, PayPort enables businesses to offer their customers digital-based products: boosting innovation and competition across the payments industry and in retail banking. Our ability to deliver the full benefits of this innovative service is dependent on the Faster Payments scheme company delivering its next phases of accreditation and certification.

7.4. As part of our objective to support and foster competition in the payments, we have also developed a sponsor service which allows member banks to sponsor regulated institutions, that do not hold a banking licence, in Faster Payments, as either direct or indirect agencies. PayPort Sponsor comes configured out-of-the-box which will dramatically simplify the sponsorship process and increase the number of options new entrants have to participate in Faster Payments.

7.5. The PayPort Sponsor product reduces the barriers to entry for banks wishing to become sponsor banks. A new sponsor bank capable of offering these services to customers will increase competition in the current market which is not served by many of the sponsor banks. The PayPort Sponsor product enables sponsor banks to use a new business model for providing indirect access services and differs to the traditional sponsor bank business

[113] At the time of writing VocaLink's Vision, the PAS portal product for non-Faster Payments schemes was called 'Single Front Door'. Since that time, we have chosen to extend the 'PayPort' brand to cover the PAS portal for all schemes.

model. As a consequence we think that competition will benefit from this innovative, disruptive technological change.

7.6. As a member of the Faster Payments Scheme, Raphaels Bank will be able to provide other payment service providers with access to the UK's core payments infrastructure through VocaLink's PayPort service. Raphaels Bank represents the first newly announced member of the scheme since 2008, opening up access to other financial institutions and providing its customers with 24/7 real-time payments, powered by VocaLink.

7.7. PayPort is one of the first gateways to be accredited by the scheme as a supplier of access to Faster Payments. We expect our PayPort offering will develop rapidly in 2016 and 2017, and we have committed to providing access to more payment channels including Bacs, SEPA, SWIFT and CHAPS. We expect it to evolve further to provide access to Cheque and Credit Clearing, SEPA instant credit transfers, cards (issuing side) and possibly other foreign networks depending on customer demand. We also expect our competitors to develop similar products and services.

7.8. PayPort Multi-Payments service provides indirect access to Faster Payments for corporates at similar speeds to direct access. For corporates (and indirect agencies) or we provide near real-time transaction processing through a simple and direct connection into our PayPort managed service gateway – helping FIs' customers to make payments more quickly. We believe that access for corporates offers a significant opportunity to grow competition for this specific market segment, which has faced traditionally higher prices for access to payment systems.

7.9. Finally, to further simplify access to payments and increase competition, VocaLink has developed a professional services proposition, which includes in-depth training on Faster Payments' on-boarding process and on-site support, both before and after implementation. These services support new Faster Payments participants in their end-to-end journey by reducing complexity and improving their overall time to market.

The risk of data analytics foreclosure is low

7.10. The PSR raised a concern that a change in ownership or provider may lead to a foreclosure of commercial opportunities (such as data analytics) to other innovative providers[114]. We consider that the risk of foreclosure in the data analytics market and other commercial opportunities is low for several reasons:

- ✂ It is not clear how the nascent market will develop and which potential products and services will be technically and commercially viable and come to market;
- The data is owned by the banks and FIs and not us. Like any other data analytics business, we need the banks' and FIs' permission to use their data; and
- There is no evidence from our more developed business lines that the role of central infrastructure provider grants us with a competitive advantage in the provision of other services (for example of gateway solutions[115]).

[114] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.15.
[115] PSR, *'infrastructure interim report'*, 25 February 2016, box, page 61.

7.11. We consider that these reasons would remain in the event of a change in ownership of VocaLink.

There are many Bacs gateway providers

7.12. The PSR has investigated competition in Bacs gateway solutions. We note that there are currently 17 software solution providers that supply Bacs gateways using the corporate, internet based channel (Bacstel-IP). They support c.55,000 direct submitters to the Bacs service. VocaLink runs the accreditation process for Bacstel-IP solution on behalf of the Bacs scheme and does not provide any Bacstel-IP software solutions.

7.13. Further, we note that it is possible to use SWIFT for access to Bacs (via the SWIFTNet Transmission Service). Some larger banks use this method. Finally there is a functionally rich high volume channel (called the Enhanced Transmission Service ('ETS')) accessible via the VocaLink Extranet, used by some major banks and the Department for Work and Pensions. VocaLink and Experian provide software solutions for ETS and two banks are integrated directly. VocaLink and Bacs are currently looking at proposals to encourage more widespread adoption of the ETS channel, further opening the market for gateway solutions for Bacs access.

7.14. On behalf of Bacs, we operate both the solution supplier accreditation process and the new member accreditation process. We are not aware of any specific issues. We understand that, through its 'new access model' paper, which we support, Bacs is updating the processes. In general, we support any moves to make scheme accreditation processes more transparent and less onerous, while maintaining appropriate levels of risk management.

Ring fencing would damage competition

7.15. A remedy option that the PSR considered but chose not to pursue was ring fencing and separating the core contract function from other 'elective' or 'value added services' provided by VocaLink, to enable more providers to compete for the contract[116].

7.16. We agree with the PSR that such a remedy would reduce the flexibility in the services that infrastructure providers are able to offer under core services and that it would be difficult to monitor and enforce. We add that it:

- Is neither proportionate nor effective to remedy the issues that the PSR has raised in its infrastructure interim report;
- Does not meet the PSR's objectives of reducing any incumbency advantage or maximising the potential number of interested parties in a competitive procurement exercise;
- Is not consistent with the PSR's other findings. It is not required to enable any of the other remedies or make other remedies effective. The PSR is not proposing that core contracts are to be treated differently to other VocaLink contracts;
- Would distort competition (unless the same requirement was placed on other companies bidding for the contracts);

[116] PSR, *'infrastructure interim report'*, 25 February 2016, paragraphs 8.31 to 8.33.

- Would create disproportionate costs. PSR has not articulated the benefit or purpose. Ring fencing or separation would not create any benefit to outweigh the costs;

- Is unlikely that ring-fencing would produce any incremental benefits given the PSR's existing market review and information gathering powers; and

- Is difficult and impractical to define a boundary between core and value added services.

7.17. We conclude that ring fencing or separation is not an appropriate, proportionate or effective remedy to the issues that the PSR has identified.

Coordination of timing of procurement

7.18. The PSR asked for views on the timing of the procurement exercises for each of the payment systems, and whether there would be benefits and/or detriments if the timing of these were coordinated[117].

7.19. ✂ Therefore, the ability to coordinate timing may be restricted in the short run.

7.20. The lengths of the contracts (and therefore the termination dates and any break clauses) are a consequence of the degree of certainty (or flexibility) that the parties require. For example, the certainty of supply (from the procurer's perspective) and the certainty of recovering investment and other sunk costs (from the supplier's perspective). This is balanced by the value of flexibility in the event of changes in the parties' needs or outside factors. We would therefore caution against choosing contract lengths which significantly conflict with the needs of either of the parties to that contract.

7.21. ✂Coordinating contract timings may facilitate consolidation of scheme requirements and the possibility to transfer services from one scheme to another.

7.22. We also note that this would not be an issue with direct contracting, where each bank or FI would choose the timing which best met its needs and the requirement of the infrastructure provider to recover its costs.

Obliging VocaLink to enable transfer to a new provider

7.23. The PSR proposed *'[c]urrent contractual arrangements are in place to ensure that VocaLink is obliged to enable transition to a new provider'* and that *'[i]t is important that current arrangements are clear on ownership of intellectual property and terms for licensing it. We [the PSR] also expect operators [scheme companies] to satisfy themselves that current contract terms will allow them to transfer to another provider, and that any exit plans are completed and in place.'*[118]

[117] PSR, *'infrastructure interim report'*, 25 February 2016, paragraphs 8.15.
[118] PSR, *'infrastructure interim report'*, 25 February 2016, paragraph 8.14.

7.24. We note that the scheme companies expressed the view that the current contracts are sufficient for their needs[119]. We consider that this proposal is neither appropriate nor necessary.

[119] PSR, *'infrastructure interim report'*, 25 February 2016, paragraphs 4.141 and 4.142.

Appendix 1

Cross reference to PSR Infrastructure Questions

Remedy 1: Competitive procurement processes	
1. Would this remedy be effective in addressing the problems we have identified?	Paragraphs 2.1 to 2.54 and 5.11 to 5.23
2. What are the relevant potential costs and benefits that we should consider?	Paragraphs 5.11 to 5.23
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	Paragraphs 5.11 to 5.23
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?	Paragraphs 3.1 to 3.39
5. What implementation issues do we need to consider, including (but not limited to): • Are the operators best placed to undertake the procurement exercise? • The timing of the proposed procurement exercises. • Would there be benefits and/or detriments if these processes were coordinated?	 Paragraphs 3.1 to 3.39 Paragraphs 5.15 to 5.23 Paragraphs 5.22 and 7.18 to 7.22
Remedy 2: Interoperability	
1. Would this remedy be effective in addressing the problems we have identified?	Paragraphs 5.24 to 5.35
2. What are the relevant potential costs and benefits that we should consider?	Paragraphs 5.24 to 5.35
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	Paragraphs 5.24 to 5.35
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?	Paragraphs 3.1 to 3.39 and 5.28 to 5.31
5. What implementation issues do we need to consider (including the length of a transition period)?	Paragraphs 5.32 to 5.35
6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?	Paragraphs 5.24 to 5.35
Remedy 3: Ownership of VocaLink	
1. Would this remedy be effective in addressing the problems we have identified?	Paragraphs 2.1 to 2.54 and 5.37 to 5.58
2. What are the relevant potential costs and benefits that we should consider?	Paragraphs 5.37 to 5.58
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	Paragraphs 5.37 to 5.42
4. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?	Paragraphs 3.1 to 3.39 and 5.45
5. What implementation issues do we need to consider, including (but not limited to): • Who should be required to divest their shareholding?	 Paragraphs 5.56 to 5.58

• Timing of the divestment	Paragraphs 5.54 to 5.55
• What (if any) purchaser suitability criteria should be applied?	Paragraphs 5.47 to 5.53
• What (if any) additional measures are required to ensure security and resilience?	Paragraphs 5.47 to 5.53
• Should the divestment be full or partial?	Paragraphs 5.56 to 5.58
• If partial, to what level should an individual PSP shareholding be reduced?	Paragraphs 5.56 to 5.58
• If partial, should the total shareholding held by PSPs also be limited?	Paragraphs 5.56 to 5.58
• Should changes to Board composition also be stipulated?	Paragraphs 5.59 to 5.60
Remedy 4: LINK	
1. Would this remedy be effective in addressing the problems we have identified?	Paragraphs 2.1 to 2.54 and 5.61
2. What are the relevant potential costs and benefits that we should consider?	Paragraph 5.61
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?	Paragraph 5.61
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?	Paragraph 5.61
For the package of remedies as a whole	
1. Would these remedies be effective in addressing the problems we have identified?	Paragraphs 3.1 to 3.39, 6.1 to 6.17and 5.1 to 5.14
2. How effective would the package be if one or more of the remedies above were excluded?	Paragraphs 3.1 to 3.39, 6.1 to 6.17and 5.1 to 5.14
3. Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?	Paragraphs 3.1 to 3.39, 6.1 to 6.17and 5.1 to 5.14
4. Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?	Paragraphs 5.7 to 5.14
5. Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?	Paragraphs 3.1 to 3.39 and 4.1 to 4.33
6. What implementation issues do we need to consider (including timing)?	Paragraphs 5.7 to 5.8
Gateways	
7. May the accreditation process for BACStel-IP prevent other providers from entering the market?	Paragraphs 7.12 to 7.14

Appendix 2

Cross reference to PSR Indirect Access Questions

Indirect access	
1 Do you agree with our interim findings? Please provide evidence to support your response, in particular if you disagree with our findings.	Paragraphs 7.2 to 7.9
2: Have we identified the key concerns with the supply of indirect access to interbank payment systems? If not, please identify any other key concerns you have and to the extent possible provide evidence to support your comments.	Paragraphs 7.2 to 7.9
3: Do you think that the current and anticipated developments we have listed are likely to address the concerns we have identified?	Paragraphs 7.2 to 7.9
4: What other steps could the PSR take to promote or support the developments, in particular the entry of new IAPs and/or expansion of existing IAPs/direct PSPs or any further steps the PSR could take to make the process of switching easier/more transparent? In particular, are there any technical or regulatory matters that are acting as barriers to switching, which the PSR could seek to address?	Paragraphs 7.2 to 7.9
5: Are there any important developments that are likely to impact the supply of indirect access that we have not identified in this interim report? If so please also set out the timelines for these developments, and any factors that might impact on the likelihood of them occurring. Please also indicate how you think these developments might address the concerns we have identified.	Paragraphs 7.2 to 7.9
6: If the developments do not sufficiently address the concerns we have identified in the next 12 months, what action, if any, do you consider we should we take at that point? What would be the advantages and disadvantages of such action?	Paragraphs 7.2 to 7.9
7: Is there any regulatory or other action that you consider the PSR should take now? What would be the advantages and disadvantages of such action?	Paragraphs 7.2 to 7.9

Appendix 3

VocaLink's Vision for future competitive and innovative resilient payment systems

A vision for future competitive and innovative resilient payment systems:

VocaLink's input to the PSR's market reviews

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Foreword

The UK's payments systems are on the verge of significant technological change – the structures in the industry need to keep pace to enable the growth of competition and innovation. The current structure has worked successfully, offering resilience to UK consumers, based on the technology that existed at the time. In this vision for the industry, VocaLink sets out a number of structural changes that would enable the release of a new working model, that could grow competition and innovation.

We request the PSR to take this vision into account in forming its conclusions within the current market reviews of the infrastructure and access.

David Yates, Chief Executive Officer, VocaLink
November 2015

Executive summary

This paper sets out VocaLink's vision for the UK's payments systems, to drive greater competition and innovation, while maintaining the highest levels of resilience, availability and security.

VocaLink has provided the key banking payment systems infrastructure in the UK for many years. It is financially and operationally resilient. As technology changes, it is VocaLink and other infrastructure providers across Europe that have the incentive to innovate and develop payments, in order to compete and grow value in the systems for their customers. Without the innovation provided by infrastructure providers, payment systems will not develop.

The UK sits within an active European market for payments. The Single Euro Payments Area ("SEPA") has created a single market, whereby infrastructure providers from across Europe can operate regardless of member state borders. The UK is currently segmented from SEPA, to the detriment of the greater competition and innovation that would otherwise benefit UK customers.

This vision provides a 5 step plan through which VocaLink believes that greater competition and innovation could develop in the UK.

New technology is granting opportunities to reduce the segmentation between the UK and the rest of the European market. Specifically, indirect access portals or payment aggregator services ("PAS"), through which banks and FIs can access the payment systems are able to translate between the UK and ISO 20022 and/or SEPA message standards. Such portals benefit competition in two ways: first, they allow infrastructure providers to offer choice by unbundling the current sponsor banks business model; and second, the PAS ability to translate between message standards reduces one of the key barriers to entry for European infrastructure providers entering the UK in the future.

While VocaLink is actively developing its PAS portal, other actions are required to grow competition and innovation.

Specifically, this vision considers the reduction in the impact of network effects on the industry, given the capability of modern technology. This reduction means that activities which previously have required collaboration in the industry, can be now be released to become competitive.

VocaLink sits within an environment of multiple scheme companies. Given the reduction in the impact of network effects, we do not see the need for multiple scheme companies and some of their activities. In this vision, we suggest the creation of a single Standards Body, into which the scheme companies could coalesce. This Standards Body would set the basic operational parameters for the industry. The vision also suggests changing the current collective scheme company contracts into direct contracting between bank/FI and an infrastructure provider, to allow greater innovation to develop.

Collective agreement for some other aspects of the industry will remain important. We suggest the creation of an industry Interoperability Code of Conduct, as well as suggesting that the PSR should ensure that the Payments Strategy Forum is successful.

Finally, we point out the benefits from changing VocaLink's current ownership arrangement.

We believe that the steps taken in this vision could ensure that there can be both greater *competition for the market* when the core contracts are re-tendered in 2020. We also see no barrier to *competition in the market,* in which multiple infrastructure providers contract directly with different banks and FIs and operate simultaneously in the UK.

Competition in the market is a very real possibility given that each of the largest UK banks already contract within the EBA SEPA clearing system for their euro payments, as well as operating the current UK systems. We suggest that developing such a future market could benefit our customers significantly, through greater competition and innovation, particularly where competition in the market enables fluid and regular competitive switching.

Finally, we suggest a series of analytical work packages that we believe the PSR should undertake to understand the possibilities for competition and innovation set out in this vision, as well as calculating the costs and benefits of the regulatory changes required.

While this vision promotes growth in competition and innovation for payments in the UK, it also represents VocaLink's commercial interests, which are aligned with this direction. VocaLink and other infrastructure providers can only grow their businesses where they can grow value for their customers through innovation and can compete across the rest of Europe.

This vision represents part of VocaLink's input into the PSR's current market reviews, which consider indirect access and the infrastructure. Alongside this vision, we are submitting two further pieces of evidence, commissioned from Oxera: first, an analysis of the economics of competition and innovation in payments; and second, an assessment of the governance and ownership of VocaLink. We request that the PSR takes this work into account within its market reviews.

Plan for this paper

Section 1 describes the current state of the operation and the market. Section 2 describes VocaLink's 5 step plan for growing competition and innovation. Section 3 outlines what we believe is possible for competition and innovation, if the 5 step plan is followed. While Section 4 provides a list of further analysis that the PSR could undertake to ensure that competition and innovation grows in the industry.

Section 1:

A resilient payment system in a constrained market position

Introduction

This section outlines the current state of the European market in which we operate and the features of the industry, which are relevant to the debate surrounding greater competition and innovation in the future. We discuss the following items:

- VocaLink is in a sound position to face the future;
- Technology incentivises VocaLink to innovate;
- The current UK scheme based operating model for bank payments; and
- The current state of the European market.

VocaLink is in a sound position to face the future

VocaLink provides the infrastructure behind BACS, Faster Payments and LINK systems, together with a range of related non-core products for banks and financial institution ("FI") customers. VocaLink's current Board has focused on ensuring that the business is financially resilient, in order to ensure the operational resilience of the systems, which provide a secure and reliable service to our customers.

Financial resilience is not a given. In 2009, VocaLink required recapitalisation to ensure that it could continue to operate. Alongside a focus on financial resilience, this recapitalisation, together with a policy for shareholders not taking dividends, have ensured that the business has been able to invest in its core operation (e.g. greater security measures, as well as new products, such as Paym). VocaLink has achieved consistently its key customer SLAs during the operational lifetime of the core BACS, Faster Payments and LINK contracts.

In addition, the business has also re-invested its retained earnings in innovation. VocaLink is developing non-core product lines where it is able: first, related to ATM processing; and second, directly in contract with banks through ZAPP and Payments Data Insights.

With capital reserves benchmarked on a risk based assessment of market challenges, we believe that VocaLink is in a sound position to innovate and develop its systems for a more competitive future.

Technology incentivises VocaLink to innovate

As a provider of technology, VocaLink cannot afford to rely on its core service contracts lasting unchanged over time. Unlike utility companies, which can rely on natural monopoly positions to ensure their businesses going forward, technology providers can rapidly lose their market positions as entrants develop new and sometimes disruptive systems. For this reason, VocaLink, like other technology firms, needs to invest in innovation to ensure its future.

Infrastructure provision can also be characterised by a lack of readily available market opportunities. In order for VocaLink to grow its business, it must expand geographically and/or create new value for its customers through innovation and new products. Geographic expansion is difficult where infrastructure is already provided locally. Therefore, both expansion geographically and in the UK is dependent on innovation in order to either grow value or achieve a competitive edge. Therefore, in order for VocaLink to ensure its business in the future and to grow beyond its current size, it needs to innovate. This means that VocaLink and other infrastructure providers in payments have a *natural incentive to innovate*. The relative success of this innovation will depend on the wider market in which we operate.

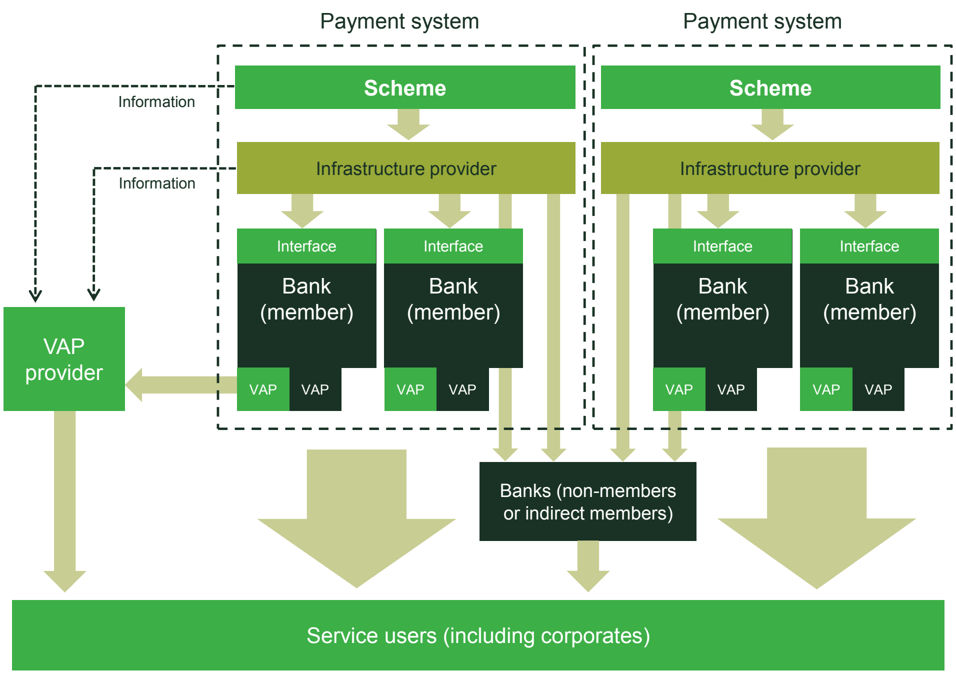
The current UK scheme based operating model for bank payments

At its core, VocaLink provides the infrastructure, under contract to the BACS, Faster Payments and LINK scheme companies. Each scheme company both determines the message standard and rules of the system, as well as collectively contracts with an infrastructure provider, on behalf of their member banks. The infrastructure provider supplies a service to member banks through a chosen interface. The BACS service is also provided to some corporates and other organisations through a dedicated interface.

Banks and FIs that are not members of the respective schemes are required to access the payment system through *sponsor banks*, who are already scheme members. Sponsor banks operate in competition with each other.

In addition to the core infrastructure provision, VocaLink has sought to innovate and grow its business through non-core value adding products ("VAPs"). These products are designed to use the processes or information from the core service. More VAPs have been accepted in the LINK system than from the BACS and Faster Payments schemes.

Figure: Schematic of current UK scheme based operating model



Source: VocaLink

The current state of the European market

Europe has an active market for bank payment systems. The Single Euro Payments Area ("SEPA") was established by European institutions to become a single market for payments across the EU[1]. With a single SEPA message standard and rule book, the single market has reduced the barriers to entry between the infrastructure in member states and allowed bank back office systems to clear on a Europe-wide basis.

Europe's card clearing systems operate in an increasingly aligning segment of the European market. Infrastructure provision for card and bank clearing is similar and can be interchangeable; while the consumer choice between card and bank clearing is merging over time.

The introduction of SEPA, together with the co-existence of bank and card clearing systems, have demonstrated the ability of multiple clearing systems to exist in the same geographic area at the same time. Many of the larger SEPA member states operate legacy local systems, as well as having banks that participate in EBA Clearing cross-border systems. While in states such as Germany, multiple legacy bank clearing systems exist.

The UK sits in a segmented part of the European market. The BACS and Faster Payments systems use message standards which are unique to the UK and different from SEPA or international ISO20022 standards. These UK message standards have become embedded because of the cost to banks and corporates of changing their back office systems, as well as the cost of changing the core infrastructure. We do not believe that it would be economic for a European SEPA infrastructure provider to develop a system using unique UK message standards, particularly as these systems would not be used outside of the UK.

Competition in the UK segment of the European market exists. In recent years, VocaLink faced stiff competition for both the Faster Payments and LINK contracts. ✂ More recently, CGI has been awarded the contract for the future imaging and clearing of cheques. VocaLink's bid for this contract was unsuccessful.

While there is strong evidence of a European market, there is also growing evidence of consolidation globally. Currently, VocaLink operates in Singapore and Sweden. In addition, VocaLink has recently been awarded the contract to provide our Immediate Payments System software to the American market, through The Clearing House ("TCH"). TCH processes 50% of all commercial automated clearing house volume in the USA. The new system provided by VocaLink will process real time payments to banks and FIs across the USA.

Fundamentally, we believe that greater competition and innovation lie ahead, due to the advance of technology – as described in the next two sections of this vision document.

[1] European Commission (2015), 'Single Euro Payments Area (SEPA)', http://ec.europa.eu/finance/payments/sepa/index_en.htm, last accessed 26 October 2015.

Section 2:

Action to grow competition and innovation

Introduction

While competition and innovation exists in the European market in which VocaLink operates, we believe that a number of steps could be taken to strengthen competition and innovation for the sake of customers. We have identified 5 sets of constraints that we believe hold back competition and innovation in the UK. This section describes these constraints and puts forward a 5 step plan for improvement, in the following areas:

1) Making access easier to payment systems;
2) Reducing the barriers to entry and switching for infrastructure providers;
3) Reforming the scheme arrangements;
4) Managing the remaining network effects; and
5) Changing the current VocaLink ownership model.

Not only do these 5 constraints hold back UK payment systems, but VocaLink is also prevented from expanding its business. VocaLink has a keen interest in growing value to our current and future customers through innovation, and is enthusiastic about the removal of such constraints.

Step 1: Making access easier to payment systems

We understand that access to the UK's bank clearing payment systems remains technically difficult for some new banks and FIs, and the PSR is investigating whether this acts as a barrier to entry. BACS and Faster Payments were established using heavily bespoke operating systems, connecting the back office systems of the core larger banks and corporates with the central infrastructure. We believe that reducing the complexity of direct connection to the payment systems may in turn reduce a fixed cost barrier to new or smaller banks and FIs.

Where a bank or FI has been unable to connect directly, a market for indirect access has developed. In this market, the larger UK banks with direct access ("sponsor banks") offered indirect access to other banks and FIs, through their systems. This model may have suited some banks and FIs, given the bundling of both indirect access to payments with settlement services from the sponsor banks. However, we note the lack of choice for banks and FIs that wanted easier direct access. Further, we understand that some banks and FIs would prefer not to use the sponsor banks' working practices (e.g. sort codes) or to grant the sponsor bank visibility of its transactions.

At the moment, there is little competition against the sponsor bank business model. This situation may act as a barrier to competition and innovation in the wider retail banking market.

Step to remove the constraint – Single Front Door

Indirect access developed because of the cost and complexity in the old technology for accessing payments systems. This underlying technological barrier should no longer exist, given the advancement and lower prices for computer storage and messaging. VocaLink, alongside other technology providers, has developed products to make access to payment systems easier. VocaLink's PayPort product enables access to Faster Payments easier and cheaper to establish. The product will be available from December 2015 and we have been gaining traction in the market already.

PayPort competes directly with bureaux and fintech providers, such as Bottomline Technologies; and indirectly with the sponsor bank business model for Faster Payments, through unbundling access to the payment system. We expect similar access products to be sanctioned by the Faster Payments Scheme in the next few months, in competition with PayPort.

While we see the market value in making direct access to Faster Payments easier, at the moment there is no equivalent for a 3 day service. Further, we believe that the need to separate transactions between different payment systems also could represent a barrier for some smaller banks and FIs. For these reasons, VocaLink is developing a one-stop-shop indirect access portal or payment aggregator service portal ("PAS"), which we have called the *Single Front Door* product. This portal would be available to all banks and FIs and would both undertake the sorting of transactions between 3 day, instant, SEPA, SWIFT and CHAPS payments, as well as inherently making indirect access easier for banks and FIs. Currently, Single Front Door has been specified and we plan to bring this product to market in 2016.

We believe that others in the market are developing similar products that compete directly with VocaLink's Single Front Door, including Bottomline Technologies and Fiserv. Further, we believe that the action of developing one-stop-shop PAS portals should grow choice for banks and FIs, by unbundling the sponsor bank business model and thereby growing choice for access. In turn, this could stimulate further competition and innovation in the retail banking market.

PAS portals like Single Front Door may require clearance from both the BACS and Faster Payments scheme companies. Given their importance to challenger banks and FIs and to the future market operation, we would expect the PSR to take a keen interest in enabling such products to market as soon as possible. We will update the PSR on progress and any new barriers that we perceive over the next 12 months.

Step 2: Reducing the barriers to entry and switching for infrastructure providers

Competition and innovation exists in infrastructure provision in the UK today. However, we recognise that there are technological barriers to entry and switching that have prevented other infrastructure providers from competing more strongly for UK BACS and Faster Payments contracts.

There is an active market for payments infrastructure provision across Europe. Since 2012, the Single Euro Payments Area ("SEPA") has operated in continental Europe. SEPA payments operate using a single basic rule set and message standard, which is a variant of the international ISO20022 standard. Prior to the introduction of the SEPA standard, member states operated under different rules and message standards, which created barriers to a single market. A single rule set and message standard has opened, and should increasingly open further SEPA states to cross border competition, as well as acting as a catalyst for the consolidation of infrastructure providers.

BACS and Faster Payments do not operate on an ISO20022 message standard, and instead use the legacy Standard 18 and ISO8583, as well as bespoke rules. In order for a SEPA infrastructure provider to compete with VocaLink's systems, it would need to develop a new system which could only be used in the UK market. We believe that such a development cost acts as a potential barrier to entry for European infrastructure providers entering the UK.

Further, since each of the banks, FIs and corporates who use the BACS and Faster Payments systems also have systems that use the unique UK message standards and rules, each of these back office systems would need to be changed to allow a SEPA infrastructure provider to operate its SEPA systems in the UK. If a SEPA system was established in the UK, then this would require a significant investment to ensure that each customer of the payment systems would be SEPA compliant from the first day of the new operation. We believe that this significant investment would act as a barrier to switching from the established operation to a SEPA infrastructure provider.

Therefore, we believe firmly that there is a single European market for payments infrastructure, but that there are transient barriers to entry and switching that currently segment the UK from SEPA. If these barriers to entry and switching were reduced, then we believe that this segmentation would also be removed and competition for infrastructure provision would be stronger. ✂

Step to remove the constraint – Single Front Door

We believe that the barriers to entry and switching created by the UK's bespoke message standard and rules are transient. One-stop-shop PAS portals such as VocaLink's Single Front Door act to remove the message standard barrier. These products feature a message translation function, within which messages can be translated, for example, between a ISO20022 message sent from a bank to a UK message based infrastructure, and vice versa. The effect of this functionality is that the message standard becomes irrelevant for the choice of either back office system or infrastructure operation.

The second factor that acts as a barrier are the system rules. These rules are governed by the scheme companies. If the PSR wishes to grow competition for the market at the time of the next contract tendering, then we suggest that the PSR should review the UK specific scheme company rules and ensure that they are changed to the extent that they do not act as a barrier to entry for SEPA competitors.

Entry into a full European market is important for VocaLink, as well as growing competition in the UK. We see operating across borders throughout Europe as a development for the business. VocaLink's new Immediate Payments System product ("IPS"), which already operates in Singapore, is ISO20022 compatible and could be used in the future to provide the infrastructure in the UK. We recognise that competing openly in a significant area such as the UK using IPS would grow the credibility of the system for export.

The current barriers to entry and switching are transient. The entry to market of PAS portals that make the choice of message standard irrelevant, as well as a review of UK specific scheme rules, should act to remove the barriers to entry and switching, to allow SEPA infrastructure providers to compete actively for the core contracts in ✂. This would have the effect of removing any segmentation between the UK and the wider European market.

Step 3: Reforming the scheme arrangements

While technology is finding an answer to reduce barriers to entry and switching, we believe that the development of future innovation will be constrained by the current arrangements in which the scheme companies find themselves. We encourage the PSR to reform these arrangements in order to fulfil its statutory objective towards competition and innovation.

We see the need for reform because of the following problems:

a) Multiple scheme companies crowd out commercial innovation;
b) Collective working arrangements crowd out unilateral and non-core innovation; and
c) Current scheme companies are burdened with a bundle of activities.

We discuss below each of these points in turn. We see our suggestions as consistent with the World Class Payments recommendation, which was initiated by Payments UK.

While we believe that reform is necessary to aid greater competition and innovation, we do not seek to criticise our colleagues in scheme companies, who work diligently to promote the resilience of their schemes. Instead, we want to discuss openly with the PSR the opportunities for reforming the current arrangements to ensure that the work of our colleagues maximises the benefit to our customers through competition.

a) **Multiple scheme companies crowd out commercial innovation:** There is a scheme company for each of the multiple payment systems, as an accident of history. Each new system has represented the growth in technology over time and the introduction of a new service specification. In most cases, such commercial specification has remained unique to the scheme and its particular choice of operational model.

   By accident, we believe that the linkage between commercial specification and operational model has restricted innovation. Through demarking the operations offered, the industry has not been incentivised to develop new commercial product service specifications (e.g. a 1 day clearing service) that combine elements of schemes. Whereas, when new service specification has been invented, in most cases a new scheme company has been established, with all of its lack of synergy with the existing schemes.

b) **Collective working arrangements crowd out unilateral and non-core innovation:** The current working arrangements at many of the scheme companies require the same innovation to be provided to each member. This means that banks are disincentivised from seeking innovations from the core operation, which could grant them a competitive advantage in the retail banking market.

   This is particularly concerning given the advent of challenger banks, with a new emphasis on competition in retail banking. With more and varied customers, the payment systems should be challenged for even further innovations from the core operation.

   Equally, the one-size-fits-all approach to contracting means that value is wasted as banks are unable to tailor the service that they require from the infrastructure. This has also had the effect of limiting the potential for development of non-core products.

   Finally, cost recovery infrastructure contracts disincentivise both scheme companies and infrastructure providers from seeking to develop value for their customers. Such contracts focus on cost, rather than on developing value adding innovation from the core.

c) **Current scheme companies are burdened with a bundle of activities:** While technology is reducing barriers to entry and switching, we believe that technology is also reducing the impact of network effects on the industry. When data storage and secure communication links were expensive, then the need to coordinate every player in the industry was economically paramount. However, with the relative reduction in costs and the advancement of technology, we believe that the impact of network effects is reducing. For example, Single Front Door has the ability to reduce the cost to a bank, FI or corporate of accessing multiple systems. Lower costs could enable greater connectivity to more infrastructure providers, thereby reducing the need for a single infrastructure hub[2].

The lessening of the impact of network effects in the industry, results in a corresponding reduction in the requirement for collaboration within the industry. The retrenchment of the need for collaboration opens up greater opportunity for competition.

In the current model, the scheme companies have been tasked with setting standards and rules for the industry, contracting with infrastructure providers and monitoring day-to-day performance of the infrastructure. Given the opportunities from advancing technology, we believe that there should be a focus on ensuring innovation is developed where network effects are strongest – and developing standards that allow for value creation. However, we believe that the scheme companies have been burdened unduly by their contracting and monitoring activities.

[2] We note that common standards will still be required to allow interoperability between all infrastructure providers and their customers, to connect with each other.

Step to remove the constraint – Reform of scheme companies

We believe that the following reform is necessary to solve for the constraints posed by the current arrangements:

A) Multiple scheme companies crowd out commercial innovation – *Payment aggregator service products delink operation from commercial service specification, allowing innovation*;

B) Collective working arrangements crowd out unilateral and non-core innovation - *Direct contracting between infrastructures and customers*; and

C) Current scheme companies are burdened with a bundle of activities - *Establishment of a single Standards Body*.

We discuss below each of these points in turn:

A) **Multiple scheme companies crowd out commercial innovation – *Payment aggregator service products delink operation from commercial service specification, allowing innovation*:** We have discussed the benefits from PAS portals, such as VocaLink's Single Front Door, for growing competition for access and reducing barriers to entry and switching. The final benefit we would point to is the ability of the industry to delink the particular operation (e.g. the BACS system) from the commercial service specification (e.g. a 3 day transfer service).

The Single Front Door will offer our customers the ability to route payments through to whichever operation is most suitable. For example, a bank will be able to signal to the PAS portal which type of service is required for a payment, rather than having to route it deliberately to the BACS or Faster Payments systems. This has the effect of delinking the chosen service specification from the physical routing of messages to a particular system

– a task that would be undertaken within the Single Front Door software. This opens the possibility for the Single Front Door to develop new products (e.g. a 1 day clearing service) that route to existing legacy operations or in fact to European based operations, without needing to develop a new system.

Through the Single Front Door, our customers would have a single access point into all of the infrastructure (including non-VocaLink infrastructure). This would make the distinction between schemes less relevant and would also question the value of retaining multiple scheme companies. In fact, further bespoke specifications of scheme arrangements in a market with PAS portals would only frustrate the commercial service specification offered by the infrastructure provider.

Therefore, we believe that the UK should no longer have *multiple* scheme companies, covering payment systems.

B) **Collective working arrangements crowd out unilateral and non-core innovation - *Direct contracting between infrastructures and customers:*** We believe that direct contracting between banks or FIs and the infrastructure would aid the development of innovative new products, as well as a new working model. In this new model, an infrastructure provider could offer a menu of unbundled core and non-core products directly to customers. This would both help to spur the development of products which could aid retail bank competition, as well as allowing smaller banks and FIs to opt out of unnecessary products.

We recognise that direct contracting may take time to establish, within a wider process of market liberalisation. The current monopsony model, in which scheme companies negotiate as single buyers of infrastructure is designed to ensure that the basic core service is contracted securely. However, with greater competition from infrastructure providers and more technological possibilities to develop core and non-core innovations, more of the benefits from direct contracting are released.

VocaLink is very interested in direct contracting with our customers. As a business with the incentive to innovate to create value for customers, we are frustrated by the current collective working arrangements in the scheme companies.

Therefore, we would encourage the PSR to design a process of contract liberalisation from 2020.

C) **Current scheme companies are burdened with a bundle of activities - *Establishment of a single Standards Body:*** As competition for infrastructure provision develops further, we believe that the role of the scheme companies needs to be reviewed, in the light of reducing network effects. We believe that scheme companies have been burdened by a bundle of activities – rather than being allowed to support innovation in the interests of customers.

We have already questioned the need for multiple scheme companies in the UK. In addition, we do not believe that scheme companies should collectively contract with the infrastructure in the future – with contract liberalisation allowing direct contracting between banks and FIs and infrastructure providers.

When we consider the collaborative activities that are required to allow the market to function well, we believe that there is an important role for a *Standards Body*, into which the current scheme companies could coalesce. This new organisation would set message standards and rules for the industry, in aspects of the core operation that still suffer from network effects.

Standards provide a platform for greater competition, as well as managing the remaining network effects in the industry. If both competing infrastructure providers and their customers interoperate on a common standard, then customers are able to have a choice of infrastructures.

While standards provide a platform for competition, excessive standardisation can extinguish innovation and variation between infrastructure providers. Therefore, we believe that the Standards Body should be tasked with determining the maximum level of standardisation in the industry, to allow innovation to develop between competing infrastructure providers.

Further, the Standards Body could act as the accreditation body for the industry, to ensure that resilience is maintained in the systems.

We believe that a lean and single organisation across the industry would reduce the current c.£10m p.a. expense of the current scheme companies – funds that could be invested in innovation[3].

Therefore, in contrast with the current scheme companies, we believe that there should only be one Standards Body, into which the current multiple scheme companies could coalesce.

Step 4: Managing the remaining network effects

While we believe that the impact of network effects are reducing, some network effects will remain in the industry. Therefore, the need to both coordinate and set strategy for collective areas of agreement is important, to set the direction correctly for innovation on the core infrastructure. We see two further steps to remove the potential for network effects to act as a constraint, as discussed below:

- Industry Interoperability Code of Conduct; and
- Success of the Payments Strategy Forum.

Step to remove the constraint - Industry Interoperability Code of Conduct
We have proposed the establishment of a Standards Body, to oversee the application of common standards. Such common standards are important to allow greater connectivity between infrastructure providers and their bank, FI and corporate customers.

In addition, we believe that the industry should establish an Interoperability Code of Conduct, which would govern how the operational rules are applied by infrastructure providers, in order to give customers certainty. This proposal is of particular importance where more than one infrastructure provider operates in the UK.

Clearly, the Interoperability Code of Conduct would need to be non-discriminatory towards new entrants. Together with a Standards Body, an Interoperability Code of Conduct would act to provide a common platform that would enable banks and FIs to more easily access multiple systems. This would have the effect of lessening the impact of the remaining network effects and of promoting greater competition.

Step to remove the constraint – Success of the Payments Strategy Forum
We believe that there is a role for a coordinator to ensure that collective strategy is set and implemented. The PSR has designated the Payments Strategy Forum ("PSF") to undertake this role. We encourage the PSR to promote the work of the PSF and to ensure that the body is a success.

We wish to play our part within the setting of the collective strategy for the industry. We were concerned at the PSF's inception that the chosen membership may not have the

[3] Calculation based on published accounts for 2011 to 2014, for BACS, Faster Payments and LINK scheme companies, excluding the UK Payments Administration. This excludes the additional cost of scheme members for the scheme's governance arrangements.

up-to-date practical knowledge of the current infrastructure, in order to produce strategy that can be applied practically. However, we have a desire to see the PSF succeed, and we want to offer our support through our engagement with the different working groups, to ensure that this happens.

Step 5: Changing the current VocaLink ownership model

The ownership of the infrastructure is a central concern of the PSR's current infrastructure review. The current ownership model has benefitted VocaLink and the industry to date, given the secure financial and operational resilience of the company and the work of current shareholders. However, we note the following concerns about the current model that predate the PSR's review:

- **VocaLink's concerns about expansion beyond the interests of current shareholders**: Both VocaLink and current shareholders want to expand our business beyond the product and geographic interests of some of the current shareholders, particularly into the wider European market. This requires additional equity investment, which may not follow the interests of some of the current shareholders' business models, but may be of wider interest to new investors; and

- **Cruickshank/OFT reviews:** These reviews concluded that separation was needed between the infrastructure on one hand, and the rule setting and contracting functions, on the other. This recommendation resulted in the creation of scheme companies[4]. However, given the common ownership of scheme companies and VocaLink by the UK's core banks, a change in VocaLink's ownership would follow the spirit of the Cruickshank/OFT recommendations. This is of particular concern as the industry moves to direct contracting between banks and infrastructure providers. A change in ownership model would maintain the separation between infrastructure and contracting party, required by Cruickshank/OFT.

Further, we have recently commissioned Oxera to undertake a review of the appropriateness of different governance and ownership models on mitigating the likely risks that the company will face in the future. Oxera's independent view is that the current level of customer bank control over VocaLink's shareholding is not optimal for the future challenges of the business. Oxera has recommended a form of ownership in which customer banks lose overall control. The Oxera report accompanies this vision and is submitted to the PSR as evidence into the infrastructure market review.

Step to remove the constraint – Change of ownership control

For these reasons, we have been seeking to change the current ownership model and to expand ownership beyond the current customer/shareholders. Such new shareholders would need to have an interest in resilience and investing in the core technology, as well as having correlated interests in growing VocaLink's offering in the wider European and Global marketplace.

Conclusion

We believe that fulfilment of this 5 step plan should act to grow competition and innovation in the UK, as it develops fully within a wider European market. In the next section, we outline the possibilities for competition and innovation in the medium term if this 5 step plan is followed.

[4] Cruickshank, D. (2000), 'Competition in UK banking: a report to the Chancellor of the Exchequer', March. Following the Cruickshank review in 2000, the OFT and the industry set up an industry task force to address some of the concerns raised about competition in UK payment systems

Section 3:

What is possible for the UK in the future

Introduction

In this section, we discuss the following features of the potential future market arrangements in the UK:

- Greater competition for the market; and
- Competition in the market.

Greater competition for the market

We believe that payment aggregator service portals will act as a gamechanger for the UK. They make access for smaller banks and FIs easier and offer choice by unbundling the current sponsor bank business model. They also reduce barriers to entry and switching that have traditionally prevented other European infrastructure providers entering the UK market. This means that in 2020, at the time of the next core contract re-tendering, European operators will have a greater opportunity to bid for these contracts directly, using existing SEPA based systems, translated for UK bank and corporate back offices through a PAS portal.

We believe that the benefits of competition will grow in the future. For the indirect access space, the agency banks that currently buy indirect access to payment systems could gain significantly from greater choice and competition.

More fundamentally, we believe that greater competition for central contracts would deliver benefits, based on a competition for service quality, service specification and price, each of which dimension would require greater innovation to provide a competitive advantage for competing infrastructures:

- **Service quality:** While operational resilience is a necessity for payment systems, we believe that direct customer assistance is an important further dimension for competition. Since 2013, we have employed a specialist customer liaison team and have focused on customer service quality. We believe that the innovation in this form of service quality would result naturally from greater competition;

- **Service specification:** The delinking of service specification from the operation through PAS portals allows for greater innovation of further products. Competing infrastructure providers would be freer to develop new products, to add value and meet future customer demand. This could be in the form of products provided to a single customer, or new products provided to all customers (e.g. a 1 day service). We believe that the greatest benefits would arise when the scheme company arrangements are reformed to enable unilateral innovation and direct contracting; and

- **Price:** Greater competition on price would incentivise greater pricing innovation. At the moment, collective contracts result in one-price-fits-all. Direct contracting, together with greater competition would incentivise infrastructure providers to seek pricing deals within contracts, which could differentiate pricing to the benefit of both the provider and the customer. Such contracts are commonplace in infrastructure provision in other industries.

We believe that greater competition for the market will arise at the time of the next core contract re-tendering in 2020. We would encourage the PSR to support the development of PAS portals and take the steps suggested in this vision to enable this new future for the UK.

Greater competition for the market is important for VocaLink. We see the current arrangements as stifling for innovation and we believe that only market liberalisation and development can enable an environment in which we can develop greater value for our customers. Only through that greater value can we grow our business.

Competition in the market

We believe that further benefit could be gained from direct competition *in the market*, in which multiple infrastructure providers operate in the UK, at the same time. We do not see additional insurmountable barriers to greater competition in the market, as long as it is supported by regulators.

Once direct contracting between infrastructure providers and banks or FIs has been established, then multiple infrastructures could process payments in the UK, based on the standards established by a Standards Body. We do not see the development of such an arrangement as unexpected or technically impossible to achieve because:

- Other industries operate multiple switching systems (e.g. fixed line and mobile telecoms);
- Both the US and Germany operate multiple bank payment clearing systems in the same country;
- Most large SEPA member states also operate SEPA and legacy national systems simultaneously;
- Moreover, UK banks already operate multiple systems, as well as the core BACS, Faster Payments and LINK systems:
    - The CHAPS system operates alongside Faster Payments;
    - CGI has recently won the contract for the future cheque clearing system. This system would operate alongside BACS and Faster Payments;
    - LINK and card based ATM systems operate concurrently; and
    - Importantly, most UK banks operate their euro transactions through the SEPA based EBA clearing system. As they update their UK back office systems to an ISO20022 message basis, they would be able to process their sterling payments on the same systems; and
- Finally, PAS portals reduce the cost of operating multiple systems at the same time, enabling both larger and smaller banks and FIs to participate in the competitive market.

We want to stress the likelihood of the development of multiple *competing* systems in the future market. With the addition of a PAS portal, any bank or FI could also access European based systems, even before they update their back office systems to become ISO20022 compatible.

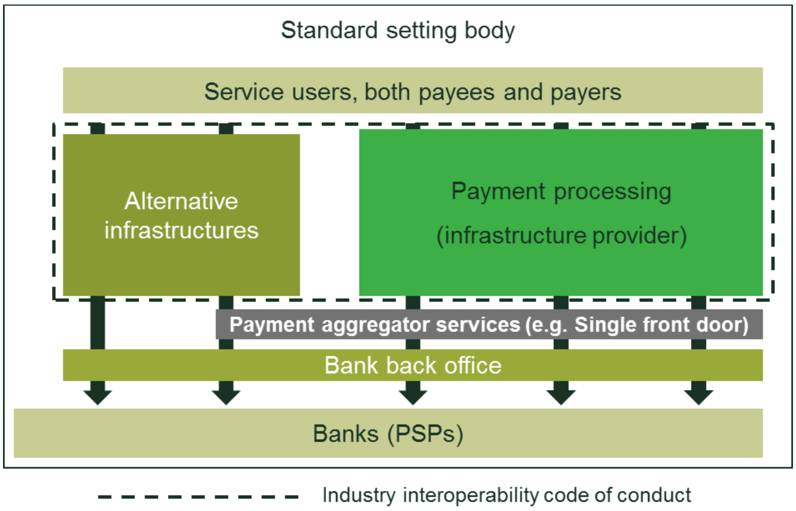
We believe that there are significantly more benefits from *competition in the market*, in addition to those derived from competition for the market. Competition for the market features infrastructure providers competing for contracts once every 5 years. Competition in the market could feature daily switching, where banks and FIs could feasibly have contracts with more than one infra-structure provider and could switch actively on a frequent basis, depending on the products and deals presented. Such regular switching would give infrastructure providers an even greater incentive to innovate on service quality, product specification and price.

In order for competition in the market to become a reality, we believe that the PSR would need to oversee the steps outlined in Section 2. Reform of the scheme company arrangements would be key to the proliferation of choice. Further, we believe that infrastructure providers would need to develop an industry code of conduct, in which practical elements of interoperability could be agreed, in addition to the standards set by a new Standards Body.

Maintaining the resilience of payment systems is important. We note that multiple systems, between which banks can easily switch their transactions offer a greater level of resilience. If one system were to be unavailable, an alternative system would be available to continue payments for the UK economy.

Competition in the market is important for VocaLink. While the company is able to grow value for its customers, we believe that the regular switching enabled by competition in the market further spurs the development of new products.

Figure: Schematic of future UK operating model with competition in the market



Source: VocaLink

Conclusion

We believe that both greater competition for the market and competition in the market are possible, with the reforms outlined in Section 2. Both offer greater benefits to our current and future customers and to the wider European market in which we operate. However, we note that there are further competitive and innovative benefits from competition in the market and the active and frequent switching that this would enable.

In the final section, we outline analytical steps that we believe the PSR should undertake in order to both assure itself of the validity of this direction of travel for the industry, as well as the steps that it would need to take in order for this greater competition to take place.

Section 4:

VocaLink's request of the PSR

Introduction

In this section, we outline the steps that we believe the PSR should undertake as part of its current market reviews, in order to make the aspects of greater competition and innovation happen in the UK. Specifically, we request the PSR to conduct:

- Analysis of reform of the scheme arrangements; and
- Analysis of barriers to competition in the market;

In addition, we want to highlight two further policy areas that do not feature in VocaLink's vision, but we believe should be subject to further scrutiny:

- Analysis of the benefits of one-price-fits-all; and
- Optional step: Data benefits from mandating a common message standard.

Finally, we conclude by requesting that the PSR considers this vision as evidence within its two market reviews. We discuss these points in turn below.

1) Analysis of reform of the scheme arrangements

Specifically, VocaLink has pointed out a number of reforms to the scheme arrangements, which we believe would improve competition and innovation in the UK. We note that these reforms are consistent with the findings of Payment UK's World Class Payments initiative that has recently concluded. We recognise that this is a complex area, in which a number of vested interests lie. For this reason, we would urge the PSR to undertake its own analysis in this area and make its conclusions about benefits of reform.

2) Analysis of barriers to competition in the market

Similarly, we believe that there are significant benefits to be gained from allowing competition in the market to develop. We recognise that this development would represent a new working model for the UK, and as such would require foresight on behalf of infrastructure providers and their customers. However, we would urge the PSR to consider the measures that it could take to allow competition in the market to develop.

Specifically, we would point to the following areas of analysis:

- What regulatory clearance regime would be needed for multiple infrastructure providers; and

- What settlement system would need to be in place for banks and FIs to settle accounts, both on a UK system, but also on a SEPA based system (potentially outside of the UK).

3) Analysis of the benefits of one-price-fits-all

We outline in our vision that pricing innovation could add value to the market by changing the current one-price-fits-all model. We note that it is usual for infrastructure providers in other industries to sign bilateral contracts in which pricing discounts are offered on a win-win basis, potentially recognising bulk provision and rewarding growth with discounts.

We note that both large and small banks, as well as FIs stand to benefit from changes proposed in this vision. While larger banks could benefit from bulk discounts in contracts, smaller banks, particularly those which indirectly access via a sponsor bank also stand to benefit from PAS portals and greater competition in that market.

However, we note that public policy interest in supporting challenger banks, and we would expect the PSR to take a view on the appropriateness of this vision to benefit these challengers.

4) Optional step: Information benefits from mandating a common message standard

Finally, we note the benefits of mandating a common message standard for the UK. We identify the unique UK message standards as a barrier to entry and switching in Section 2. However, we note the ability of PAS portals to convert between messages standards, thereby reducing the barriers. Given the implied cost of requiring each of the bank and corporate back office systems to be changed to an ISO20022 standard, we stop short of calling for the mandating of a common standard in the short or medium term.

However, we believe that there could be benefits from having a common standard in the UK. The ISO20022 message contains more information than the messages used in BACS and Faster Payments systems currently (e.g. invoice information). While the conversion function of the PAS portals can translate between the maximum content of the UK standards, the wider message information is lost. We note the benefits to banks and FIs from having the information available in the system and the innovation they could develop from this information. In addition, while we do not believe that a common message standard is necessary to develop greater competition, we note that it may make the path to market entry easier.

We note that the Payments Strategy Forum is considering the costs and benefits of a common message standard. We believe that the PSR should take its own view, independent of the Forum, given the significance of the issue to the future of the industry in the UK.

Conclusion – Request to the PSR to conduct a full analysis of VocaLink's vision

VocaLink has provided its vision, together with two accompanying documents written by Oxera, as evidence into the PSR's indirect access and infrastructure market reviews. These have been provided during the analysis phase of the reviews, in order to allow the PSR time to consider the evidence provided and incorporate into its consultation. We request the PSR to conduct a full analysis of VocaLink's vision, as part of these market reviews.

Appendix 4

Oxera: Competition and innovation in payments

Competition and innovation in payments

An analysis of market functioning and innovation

Prepared for
VocaLink

November 2015

www.oxera.com

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compelling economics

Contents

Executive summary

VocaLink has commissioned Oxera to provide a review of the opportunities for greater competition and innovation in payment systems in the UK, in the context of VocaLink's own vision for change in the UK payments landscape. The report will be used as evidence to inform the PSR's market review into the ownership and competitiveness of the provision of infrastructure services.

Competition in payment systems has been a subject of much debate for more than a decade (i.e. since the Cruickshank review of UK banking in early 2000 and subsequent Office of Fair Trading studies). These reviews and studies have led to significant policy reforms that have changed the landscape of the UK payments sector. The most recent of these is the creation of the Payment Systems Regulator, with duties to promote competition, innovation and the interests of service users. The PSR was launched on April 2015, with the initiation of two market reviews, one of which examines the ownership and competitiveness of infrastructure provision.[1]

Purpose of this report

Given the PSR's focus on competition for the provision of infrastructure services for payment systems, the purpose of this report is two-fold:

- assessing the current state of competition for the underlying infrastructure of payment systems, and the incentives for innovation across the value chain for payment systems; and
- examining the economic features of VocaLink's vision and the possible effect of these features on competition and innovation.

While this study focuses on competition for the provision of infrastructure services, it is also important to remember that competition also happens elsewhere in the value chain for payment systems. In particular, end-consumers can generally choose from several payment methods, depending on the particular transaction situation. For example:

- for payments over the Internet, most consumers have access to debit and credit cards and other payment products such as PayPal, for example;
- when paying a bill such as a utility bill, consumers can use debit or credit cards, direct debit (e.g. a continuous payment authority), credit transfer, cash or, in the UK, a service such as PayPoint;
- for payments in a retail outlet, debit and credit cards and cash are generally available as payment methods.

Looking ahead, in relation to innovation in particular, developments in new technology (e.g. VocaLink's Pay by Bank app, which allow consumers to pay retailers using a credit transfer) are expected to allow consumers to use interbank payments for payment at the physical point of sale (e.g. in store), thus competing with card payments. Increasing choice for consumers would be expected to place competitive constraints on different payment methods.

[1] The final terms of reference are provided in Payment Systems Regulator (2015), 'Market review into the ownership and competitiveness of infrastructure provision', June.

As well as looking to the future, it is worth examining recent developments in payment systems outside the UK. Over the previous five years, Payment Service Providers (PSPs) operating across Europe have experienced significant changes in how payment services are provided, with the introduction of the Single Euro Payments Area (SEPA). SEPA is a eurozone concept, which was introduced following the development of the single currency, in order to make it easier to pay for goods and services electronically in another euro area country. SEPA has created a market with multiple infrastructure providers competing simultaneously to provide payment processing services to PSPs across different European countries. Infrastructure providers have adopted the same messaging standard (ISO20022) in order to exchange information and allow for 'interoperability' between competing providers. SEPA therefore provides an example of how regulatory pressures have led to a larger, more competitive market for payment services.

Examining market failures

A well-designed regulatory framework for the payments sector should start with an assessment of the 'market failures' that the regulatory intervention seeks to remedy—'market failures' are situations where the market, left to its own devices, may not provide the best outcome for consumers.

For a number of utility sectors, markets were identified as natural monopolies (i.e. most economically served by one player).[2] Price control regulation was therefore introduced to curb market power and mimic the disciplines of a competitive market. Over the years, much attention has been placed on the exact scope of natural monopoly, with the result that, in many of these sectors, regulation has been rolled back from the potentially competitive areas in order to allow for new entry and to enable market forces to flourish. Indeed, the experience of utility regulation is that regulators have typically sought to introduce as much competition as is feasible, restricting price and access regulation to the remaining monopoly facilities.

Three further points are relevant to understanding the context in payment systems.

- First, there is no clear evidence that payment systems are a natural monopoly, with the experience from Europe and SEPA (as discussed above) suggesting otherwise.
- Second, the PSR has a statutory duty to promote the interests of service users, competition and innovation. The first two of these are similar to the duties of other regulators, while the third (innovation) is unique to the PSR. There is a perception that price control regulation is generally not conducive to innovation. This is why, in recent times, some economic regulators have sought to introduce additional competitive mechanisms in order to stimulate innovation (e.g. innovation funds, which are open to competition from third parties).
- Third, payment systems are subject to significant technological developments and therefore share some similarities with other sectors that have undergone major technological changes, including telecoms and the trading and post-trading of securities. In these sectors, advances in technology have facilitated

[2] Natural monopoly exists if, over the relevant range of outputs, the costs of production are minimised by concentrating production in a single firm. This would result from the presence of economies of scale, which would lead to unit costs falling with the output level.

the introduction of competition for many services that were previously provided as a monopoly.

It is therefore important to consider the specific features of payment systems, in order to understand market failures, their drivers and how technology will affect them before deciding on whether a remedy is necessary and, if so, what sort of remedy.

Examining the current model for the provision of infrastructure

In the context of the Bacs, FPS and LINK payment systems, the current model for the provision of infrastructure services (which has arisen from commercial, regulatory, technological and economic developments) has delivered beneficial market outcomes for the users of payment systems:

- the current arrangements have delivered reliable and resilient payment systems, as is evident from recent measures of performance reliability for Bacs, FPS and LINK;
- a competitive process has been undertaken for each of the service contracts (with several competitors), with the exception of Bacs. Prices have fallen for the three service contracts; and
- innovation has occurred, with two recent studies demonstrating that the current model has delivered innovative payment systems, for example real-time payment processing.

However, the current model of competition can be improved. In particular, there are features of the payments market that may limit the scope for competition, with Bacs being the main payment system that has experienced no competition for the contract to provide processing services—although user ownership of the infrastructure provider may have placed a constraint on VocaLink as the only provider of infrastructure services for Bacs. The features that may limit the scope for competition include the following.

Central to a functioning transaction is that all participants adopt the same messaging standard, scheme rules and working practices. The existing UK standards have delivered a reliable and resilient service, but have evolved from legacy systems that may now act as a barrier to switching infrastructure provider, because existing potential providers use different messaging standards to the legacy Bacs one. In addition, if the direct member PSPs would incur substantial upfront costs in order to switch infrastructure provider (e.g. to reconfigure back-office systems to communicate with the standard used by the new provider), then this would be a barrier as the upfront costs are likely to exceed the benefits to the individual PSP.

Looking ahead and the incentives for innovation

The payments market has changed substantially in recent years and is expected to change further going forward, with the emergence of new technology. This technological challenge to VocaLink's business gives the firm a natural incentive to innovate. However, it is important to ensure that the incentives for innovation work well for all participants across the payments value chain and to ensure that participants are well placed to take advantage of these opportunities for innovation.

Scheme innovation

The incentives for innovation have been well documented in several studies, with a distinction between two types of innovation: unilateral and collective.

Unilateral innovations can be brought forward by a single company, which bears the cost of the innovation and receives the benefits. The PSP would consider implementing an innovation if the expected benefits were to exceed the upfront cost on a net present value (NPV) basis—i.e. if it were to pass the private cost–benefit analysis case (or CBA case).[3] As such, PSPs should be adequately incentivised to proceed with the innovation.

Collective innovations, however, require adoption from a critical mass of PSPs. We understand from VocaLink that, at the scheme level, the scheme working practices may restrict the development of collective innovations on the Bacs and FPS infrastructure, with such innovations requiring the agreement of the direct member PSPs. This means that for collective innovations to proceed they would need to pass the private CBA for most of the direct member PSPs. In other words, the expected benefits would need to exceed the upfront costs of the investment for most of the direct member PSPs.

There are reasons why such innovations may not pass the private CBA case for most PSPs—for example, if the collective innovation:

- provides no competitive advantage;
- does not take account of previous investment decisions (e.g. if a PSP has recently invested in a new system, which it would have to write off);
- rivals a unilateral development of the PSP.

This may mean that innovations that deliver benefits to the industry or society overall may not be taken forward—a source of 'market failure'. These 'market failures' could be dealt with in different ways:

- first, having a regulatory coordination function for those innovations that do not confer a competitive advantage, but have an industry or social benefit—the PSR has decided that the Payment Strategy Forum will have this coordinating role;
- second, changing the scheme working practices to allow for a subset of PSPs to agree to take forward and adopt an innovation.

Infrastructure provider innovation

Initiatives that further enhance competition would be expected to promote innovation. In an environment with multiple infrastructure providers competing to process payment instructions on behalf of users (under a competition for the market, or a competition in the market model), those competitors would be expected to offer different and bespoke service offerings (e.g. providing a 'menu' of services) in order to 'beat the competition'.

[3] The NPV is defined as the present value of cash flows generated less initial investment. Cost–benefit analysis (CBA) is a systematic process for calculating and comparing the costs and benefits of a particular investment or regulatory policy intervention with the status quo.

An overview of the proposals in VocaLink's vision

VocaLink's vision contains proposed changes to the future regulation of payment systems.[4] They include the following.

- An access solution (i.e. the 'single front door')—VocaLink would create an access solution, which builds on the recent trend in payment systems towards aggregator services (i.e. PSPs connect to a third party, which acts as a technical aggregator combining demand from several PSPs). The vision builds on this development through providing one access solution for all payment systems and, most notably, providing functionality that translates a payment instruction received on one messaging format into a different messaging format for processing. This access solution would be expected to be a contested service.
- Changing the current ownership model—the vision proposes expanding the current ownership beyond the current user shareholders, in order to further promote the basis for competition and innovation.
- Reforms to the schemes and their working practices—the vision proposes introducing bilateral contracting, with the intention to allow PSPs to opt out of particular services, or allow a subset of PSPs to agree to take forward a collective innovation. The creation of a standards body would ensure that a technical body would maintain a capability for interoperability and competition in the market.

VocaLink envisages the potential for both greater competition *for* the market and, further, competition *in* the market, given the changes in technology and suggested reforms to the schemes and their working practices.

Competition for the market

The single front door would be expected to remove barriers to switching that may arise at the PSP level of the value chain and would otherwise mean that a scheme would be unwilling to introduce a new infrastructure provider because PSPs would not be able to communicate with the new provider. Not all PSPs and corporates would have to upgrade their back-office systems in order for the industry to migrate effectively to a new standard. This is because the single front door, as described in the vision, would serve as a translator. This would mean that a payment instruction could originate on the legacy standard (e.g. Standard 18), with the single front door translating the message into another messaging standard for processing (e.g. ISO20022) and potentially returning it to the legacy standard (e.g. Standard 18) for delivery to the other bank. In theory, this would also remove entry barriers for any new entrant infrastructure provider—e.g. they would not have to invest in obsolete systems in order to compete for the Bacs service contract.

One of the main advantages of the immediate reforms proposed in the VocaLink vision for the contract renewal is that, if successful, it would enhance competition in an incremental and low-risk way—e.g. without mandating that banks upgrade their back-office infrastructure at the same time.

Two additional points are relevant.

[4] VocaLink's vision is set out in an accompanying document. VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

First, while the schemes currently undertake the competitive tendering process to select the infrastructure provider, the PSR or another third party may need to design, or at least be comfortable with, the competitive framework for the competitive tendering process. This was the approach adopted for the recent competitive tendering process for the renewal of the LINK ATM contract, with the new LINK scheme company deciding to engage a third party to oversee the process. The purpose of such a role would be to provide new entrant infrastructure providers with additional assurances that the competitive process would be conducted on a level playing field.

Second, there is a question about whether prospective competitors to the single front door would require access to information on standards (e.g. guidance on the format of the messaging standard) or intellectual property to provide the interface with the PSPs and corporates (e.g. in relation to the underlying code). In relation to standards, we understand that the scheme company owns this information and would be responsible for providing such information to new entrants. As regards intellectual property held at the infrastructure level, we understand that VocaLink is not obligated to share intellectual property, as such information could be replicated from information held by the scheme. Access to this information would therefore be subject to commercial negotiations.

Competition in the market

VocaLink's vision sets out the possibility of having several infrastructure providers competing simultaneously to provide payment processing services, which would align with the SEPA model. Indeed, we understand from VocaLink's vision that some PSPs (e.g. the large UK banks) are also active in the eurozone (where the SEPA model is in place) and may already have some of the necessary interfaces with the SEPA systems—e.g. they may already process their euro payments in line with the SEPA messaging standard and processing rules. The introduction of a mechanism that allows for interoperability between the UK and the European messaging standard (e.g. for the smaller PSPs with no SEPA interface) would be expected to further assist with moving towards such a model.

Implications of the proposed changes in the vision on the incentives for innovation

Reforms to the scheme companies and their working practices. Reforming this aspect of the scheme arrangements would make it easier for a subset of direct member PSPs (i.e. the PSPs for which the innovation has passed the private CBA case) to proceed with a new collective innovation, thus removing the potential barrier to certain types of collective innovations or the development of non-core innovations that may have existed in the past.

Competition for the market. Increasing competition for the market for the three core contracts would be expected to enhance innovation. This is because VocaLink and potential new entrants would be required to bid for the contract, based on the service offered and the price, and would thus have the incentive to develop new innovative propositions in order to win the contracts with individual PSPs.

Changes to ownership. By widening the ownership beyond the banks and building societies that compete with each other in the downstream market for retail banking services, innovations that focus on meeting the needs of a wider set of users may be further incentivised. Divestment of ownership, for example, may enhance the incentive to push innovations that are suited to different business models, especially in a future payments market where new entrant PSPs (e.g. from the so-called 'FinTech' companies) are expected to present a greater challenge to the established retail banks.

Overall assessment of the changes proposed in VocaLink's vision

First, the changes proposed in the vision address the structural features of payment systems that have the potential to restrict the development of competition and the promotion of innovation:

- the single front door, as described in the vision, has the potential to reduce bank switching costs and the cost of entry for European infrastructure providers (e.g. Equens). This would be expected to enhance competition for the existing contracts for the provision of infrastructure services for Bacs, FPS and LINK ATM;
- divestment of ownership grows VocaLink's incentive to compete and to meet the demand of a wider set of interests;
- removing some of the constraints that may act to limit the incentives for innovation—e.g. the current scheme working practices, which we understand mean that innovations that require access to the underlying infrastructure of payment systems would require the agreement of direct member PSPs at the scheme level. Removing some of these constraints would be expected to enhance the incentives for innovation across the payments value chain.

In addition, the VocaLink vision proposes to move towards a competitive model that aligns with the model in place elsewhere in Europe, with multiple payment processors competing simultaneously to process payments on behalf of PSPs (i.e. with the SEPA model that was introduced in the eurozone, as discussed above). We note from the VocaLink vision that some of the large PSPs in the UK may already have some interfaces with the SEPA model in Europe, in order to process their euro payments. This may therefore assist with moving towards the competitive model in place in the eurozone. In addition, having a mechanism in place to allow for interoperability between the UK and the SEPA messaging standard (e.g. for the smaller PSPs with no SEPA interface), as proposed under VocaLink's vision with the creation of the single front door, would be expected to further assist with integration between the UK and the eurozone. Such a move would be expected to create benefits to service users from infrastructure providers being able to operate on a larger scale in a larger European market.

VocaLink's vision would therefore be expected to increase competition and enhance the incentives for innovation across the value chain.

1 Introduction

1.1 Motivation for the report

From the early 2000s, there have been several government and industry reviews examining the functioning of the market for electronic payment systems. This began with the Cruickshank review in 2000 and a subsequent Office of Fair Trading (OFT) study in 2003, which led to the creation of an OFT Payments Task Force in 2004.[5] These initiatives have led to several reforms, the most recent of which was the introduction of a new economic regulator to oversee payment systems in the UK.[6] In April 2014, the Payment Systems Regulator (PSR) was established with statutory objectives to promote:

- competition;
- innovation;
- the interests of service users.[7]

The PSR was launched on April 2015, with the initiation of two market reviews and various other industry initiatives, including the creation of a Payment Strategy Forum to collaborate on industry-wide innovations. The market reviews will cover the following features of payment systems:

- market review into the ownership and competitiveness of infrastructure provision;[8]
- market review into the supply of indirect access to payment systems.[9]

Recognising the PSR's statutory objectives and the scope of the market reviews, a key contribution to the PSR's own analysis will be understanding the nature of competition, prospects for competition, and incentives for innovation in payment systems. Oxera has been commissioned by VocaLink to comment on VocaLink's own vision for how the provision of UK payments infrastructure should be regulated over the next few years, given these regulatory aims.[10] The purpose of this report is therefore twofold:

- assessing the current state of competition for the underlying infrastructure of payment systems, and the incentives for innovation across the value chain for payment systems;
- examining the economic features of VocaLink's vision and the possible effect of these features on competition and innovation.

[5] See, for example, Cruickshank, D. (2000), 'Competition in UK banking: a report to the Chancellor of the Exchequer', March; Office of Fair Trading (2003), 'UK payment systems: an OFT market study of clearing systems and review of plastic card networks', May; and Office of Fair Trading (2005), 'First annual progress report of the Payment Systems Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, May.
[6] It was decided that the PSR would be a subsidiary of the Financial Conduct Authority (FCA) following an HM Treasury consultation on UK payment systems. HM Treasury (2013), 'Opening up UK payment: response to consultation', October.
[7] Payment Systems Regulator (2015), 'The PSR purpose', https://www.psr.org.uk/about-psr/psr-purpose, last accessed on 17 August 2015. See also PSR (2015), 'A new regulatory framework for payment systems in the UK: policy statement', March.
[8] The final terms of reference are provided in Payment Systems Regulator (2015), 'Market review into the ownership and competitiveness of infrastructure provision', June.
[9] The final terms of reference are provided in Payment Systems Regulator (2015), 'Market review into the supply of indirect access to payment systems', May.
[10] VocaLink's vision is set out in an accompanying document. VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

This report draws on economic theory and literature, the existing evidence base and new empirical analysis to assess competition and the incentives for innovation.[11] It is one of two reports prepared for VocaLink and accompanies VocaLink's own vision for the future of payment systems.[12] These reports will be submitted to the PSR as evidence in order to inform its market reviews.

1.2 What is a payment system?

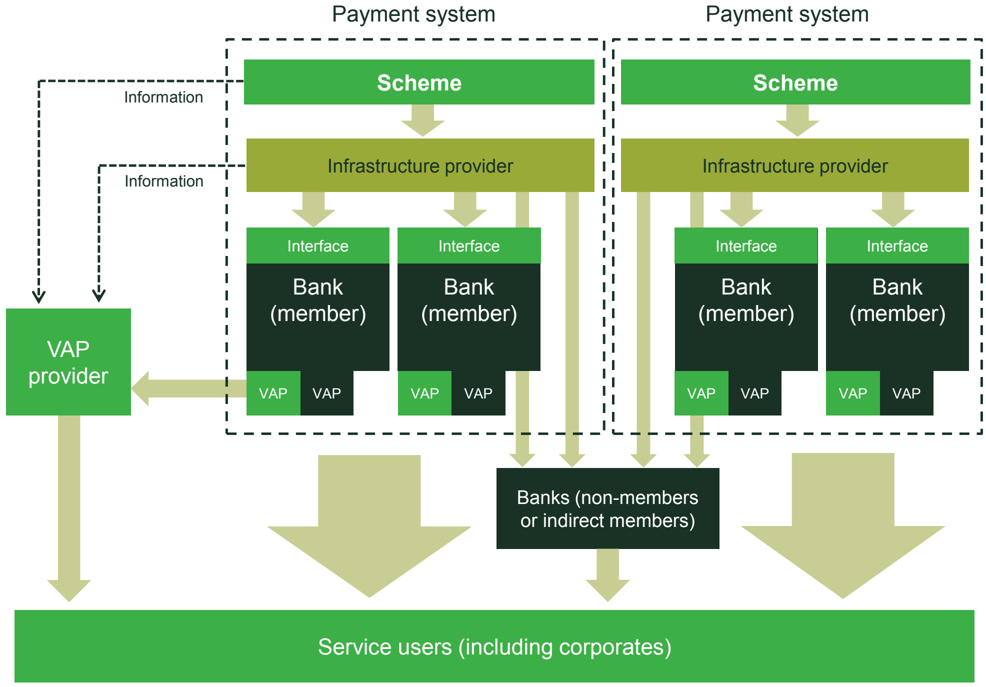
Payment systems enable the transfer of 'money' between individuals or companies. While the definition of money tends to change over time, the term commonly refers to cash and claims against credit institutions in the form of deposits.[13] An interbank payment system involves multiple players of different types. Figure 1.1 illustrates the value chain in the UK payments sector and the interactions between the various stakeholders. In particular, the figure shows the key components of a payment system, which are the scheme, its infrastructure and the member banks.

The figure illustrates the different ways in which banks (or other financial institutions) can connect to the payment system. A bank can become a member of the payment scheme, and connect directly to its infrastructure (this requires investment in back-office interface infrastructure). These members are referred to as *direct* members. Alternatively, a member can access the payment system *indirectly* via another (direct) member. Banks that are not members of the payment scheme can also obtain access via direct members.

In the retail function, banks also provide value-added products (VAPs), such as mobile payments or electronic invoicing and bill payment, on top of the payment service.[14] Some of these products are offered by third-party providers, which compete with banks in this segment of the market. Independent VAP providers generally require access to information on scheme and infrastructure standards in order to deliver their products and services.

[11] See, for example, Payment Systems Regulator and Ofcom (2014), 'Innovation in UK consumer electronic payments: A collaborative study by Ofcom and the Payment Systems Regulator', November; KPMG (2014), UK Payments Infrastructure: Exploring Opportunities', August; London Economics (2014), 'Competition and collaboration in UK payment systems', report commissioned by the PSR; and Oxera (2014), 'Money-go-round: insights into the economics and regulation of payment systems', *Agenda*, May.
[12] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.
[13] See, for example, Bank of England (2000), 'Oversight of Payment Systems', November.
[14] Electronic invoicing allows users to create, send, receive and process invoices and purchase orders online and is a recent move away from paper-based invoicing systems. Electronic invoicing is discussed as a recent innovation in Accenture (2014), 'Review of the International Landscape of Innovation in Payments and Insights for UK Payments', report commissioned by the Payment Systems Regulator, p. 33. RBS, for example, has introduced e-invoicing services. RBS, 'e-invoicing explained: The fast, efficient, secure way to manage invoices', http://www.rbs.co.uk/corporate/electronic-services/g7/e-invoicing/explained.ashx, last accessed 15 September 2015.

Figure 1.1 Overview of the interaction between different players



Source: Oxera.

For ease of reference, the key terms used in this study are defined in Box 1.1.

Box 1.1 Glossary of key terms used for the study

The 'scheme' company or 'interbank operator'—the organisation responsible for managing and operating the payment system. This involves setting the format of the electronic message (i.e. the technical standard), the rules for processing the payment (e.g. the payment cycle), and procuring processing functions from an infrastructure provider. There is a separate 'scheme' company for each of the interbank payment systems. Currently, the scheme company is owned by scheme members, who are also (direct) member PSPs.

Payment Service Providers (PSPs)—provide services for the purposes of enabling the transfer of funds—the banks (members and non-members) are the PSPs in Figure 1.1.

The infrastructure provider—provides central processing infrastructure for the purposes of operating a payment system to the scheme company under a contract. The central infrastructure comprises a package of systems and services (i.e. hardware and software) used to process funds transfers.

Value-added products (VAPs)—in the retail market, banks also provide VAPs on top of the payment service. Some of these products are offered by third-party providers, which compete with banks in this segment of the retail market. Independent VAP providers generally require access to information on scheme and infrastructure standards in order to deliver their products and services.

Service users—those who use, or are likely to use, services provided by payment systems. This includes both sides of a payment transaction (i.e. payer and payee).

Source: Oxera, based on Payment Systems Regulator (2015), 'Market review into the ownership and competitiveness of infrastructure provision', June.

This study focuses on the payment systems that are 'designated' for oversight by the PSR and for which VocaLink provides the underlying infrastructure—i.e. Faster Payments Service (FPS), Bacs and LINK ATM services.[15]

1.3 Assessing the current state of competition and innovation

Competition could happen at the different levels of the value chain.

- **Competition among PSPs**—PSPs compete with each other in the context of retail banking, with PSPs developing new VAPs (e.g. RBS emergency cash, Barclays Pingit) in order to retain existing customers and attract new customers. Another relevant example relates to the recent emergence of mobile payments—e.g. competition between Zapp and Apple Pay (a VAP introduced by a non-bank PSP)—with such competition happening on top of the underlying payment systems infrastructure.[16]
- **Competition at the 'scheme' level**—a group of PSPs could establish a new 'scheme' company for a new interbank payment system, which would compete with an existing scheme company.
- **Competition for the provision of infrastructure services**—a new entrant infrastructure provider could seek to displace the incumbent provider, with the new entrant providing infrastructure processing services to the scheme company.

It is also important to remember that, at the consumer end of the value chain, consumers can choose from several payment methods, depending on the situation. For example:

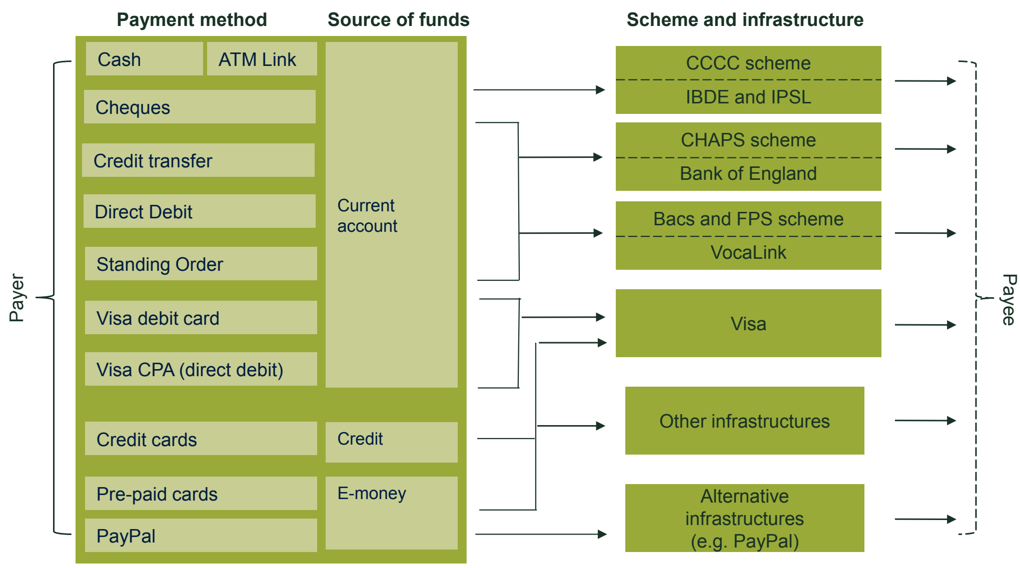
- for payments over the Internet, most consumers have access to debit and credit cards and other payment products such as PayPal or Zapp (or 'Pay by Bank app') in the UK;
- for transactions at a private property (for example, paying a plumber), consumers can generally use cash, debit or credit cards (for example, by calling the office of the service provider and making the payment over the phone), or new mobile payment methods;
- when paying a bill such as a utility bill, consumers can use debit or credit cards, direct debit, credit transfer, or cash (or, in the UK, a service such as PayPoint;
- for payments in a retail outlet, debit and credit cards, and cash are generally available as payment methods.

In relation to this latter area in particular, looking ahead, developments in new technology (e.g. Pay by Bank app, which allow consumers to pay retailers using a credit transfer) are expected to allow consumers to use interbank payments for payment at the physical point of sale (e.g. in store), thus competing with card payments.

Increasing choice for consumers would be expected to place competitive constraints on different payment methods. Figure 1.2 provides an overview of the different payment methods available to consumers.

[15] HM Treasury (2015), 'Designation of payment systems: response to the consultation', March.
[16] *Financial Times* (2015), 'UK banks seek to Zapp Apple with digital payment services', http://www.ft.com/cms/s/0/4bc7b682-23e0-11e5-9c4e-a775d2b173ca.html#axzz3lnBdDOnD, July, last accessed 15 September 2015.

Figure 1.2 Payment products, schemes and infrastructures (based on the UK)



Source: Oxera.

Given the focus of the PSR market review and where the industry is today, this study focuses on competition for the provision of infrastructure services, unless stated otherwise.

This study examines the processes that led to the current contracts for Bacs, FPS and LINK ATM services, including whether the contract was awarded through a competitive process and the negotiation process leading to the contract renewal. To complement this analysis, the study also examines several market outcomes, including:

- prices over time;[17]
- choice;
- service quality;
- innovation.

Focusing on this latter area in particular, in light of recent technological developments, the promotion of innovation is clearly a key priority in the payment systems market in the UK and other countries. Hence, this study examines the incentives for innovation in the payment systems value chain and the extent to which current incentives align with the priority to unlock future innovations as technology continues to develop.

1.4 VocaLink's vision and developments in Europe

This study is also forward-looking and therefore examines the changes to payment systems regulation proposed in VocaLink's vision, and the possible effect on competition and on incentives for innovation. In addition, it considers these initiatives in the context of the broader developments in payment systems in Europe.

[17] Other types of analysis (such as an international price comparison) are beyond the scope of this report.

1.4.1 VocaLink's vision for payment systems

VocaLink's vision proposes to integrate with the European model over time, with the main features of VocaLink's vision summarised in Box 1.2 below.

Box 1.2 Features of VocaLink's vision

1. **Making access easier to payment systems:** The vision involves VocaLink developing an indirect access portal called the 'single front door'. We understand that the single front door would allow PSPs to connect directly to the infrastructure (providing an alternative to the current model of indirect access). It would therefore be expected to address concerns raised about indirect access to payment systems. In addition, we understand that the single front door would provide a single point of access to the three main service contracts (Bacs, FPS and LINK ATM services) by providing switching and formatting functionality for PSPs. We understand that this builds on new innovations in access, with aggregator services for FPS for example.
2. **Reducing the barriers to entry and switching for infrastructure providers:** We understand that, in addition to providing indirect access, the 'single front door' would be able to perform a translation function, which would translate a payment instruction originated on a legacy standard (e.g. standard 18 for Bacs) onto the standard used for processing (which could be ISO20022, for example). In theory, this would be expected to avoid the PSPs incurring upfront investment associated with renewing new back office systems (e.g. in order to move to a new standard for the payment system), which may currently act as a barrier to switching away from the legacy standard for example. VocaLink's vision also proposes that the PSR examines the scheme company rules and working practices, in order to ensure that they allow for entry from new entrants that use the SEPA standard.
3. **Reforming the scheme arrangements:** The vision proposes to introduce bilateral contracting between the PSPs and the infrastructure providers, in order to incentivise the infrastructure provider to develop and offer a menu of services to PSPs. The vision explains that this would allow PSPs to opt out of particular services, initiate a unilateral innovation with the infrastructure provider, or allow a subset of PSPs to agree to take forward a collective innovation (thus removing the scheme working practices that may currently restrict the opportunities in this area). In addition, VocaLink's vision proposes that the PSR reviews the role of the scheme companies, with the creation of a standard setting body that is set up to agree the technical standards for infrastructure providers and PSPs, including the operational rules for the industry.
4. **Managing the remaining network effects:** The vision recognises the importance of an industry interoperability code of conduct, as well as a body to coordinate on collective innovation. In this regard, the vision notes that the PSR has established the Payment Strategy Forum to perform this latter role.
5. **Changing the current VocaLink ownership model:** In order to further facilitate competition and to ensure that VocaLink is well placed to respond to the potential risks that may arise in the future payment markets, the vision proposes to expand ownership beyond the current user shareholders.
6. **Potential for competition and innovation:** The product of the evolution of technology and the specific reforms proposed by VocaLink should allow for the further development of competition—both competition *for* the market (i.e. an increase in competitors willing to bid for contracts) and competition *in* the market (i.e. multiple infrastructures directly competing at the same time). This is both consistent with European consolidation through SEPA and removes the barriers to the UK participating within the European market. Greater innovation would be a product of increased competition, as infrastructure providers innovate to compete.

Source: Oxera based VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

1.4.2 Developments in Europe

Over the previous five years, PSPs elsewhere in Europe have experienced significant changes in how payment services are provided, with the introduction of the Single Euro Payments Area (SEPA) in 2012.[18] The introduction of SEPA was driven by the development of the single currency, with SEPA allowing users to make fast and secure electronic payments between bank accounts anywhere in the euro area.[19] SEPA has therefore created a market with multiple infrastructure providers competing simultaneously to provide payment processing services to PSPs across different eurozone countries. Under the SEPA model, infrastructure providers use the same messaging standard (i.e. ISO20022) in order to exchange information and allow for 'interoperability' between providers.[20] Interoperability is maintained through agreements between PSPs and infrastructure providers, with the agreements ensuring that providers will be able to process SEPA payments and that all bank accounts are reachable.[21] SEPA therefore provides an example of a much larger competitive market for payment services, with interoperability agreements in place between infrastructure providers. It is understood that SEPA allows more than 500m citizens, and over 20m businesses and European public authorities, to make and receive payments in euros, regardless of their location.[22] We understand from VocaLink that some PSPs (e.g. the large UK banks) already process their euro payments in line with the requirements of SEPA, which means that they may already have some of the necessary interfaces with the SEPA systems.

1.5 Structure of the report

This report is structured as follows:

- section 2 sets out the current market structure and the economic characteristics of the underlying infrastructure of payment systems, as recognised in previous studies, and the possible effect on competition;
- section 3 examines the state of competition and innovation to date;
- section 4 sets out the prospects for innovation in the future and the incentives for innovation in the payment systems value chain;
- section 5 examines the prospects for competition and the incentives for innovation under VocaLink's vision for a future payment systems market;
- section 6 concludes.

[18] European Commission (2015), 'Single Euro Payments Area (SEPA)', http://ec.europa.eu/finance/payments/sepa/index_en.htm, last accessed 20 October 2015.
[19] European Commission (2015), 'Single Euro Payments Area (SEPA)', http://ec.europa.eu/finance/payments/sepa/index_en.htm, last accessed 20 October 2015.
[20] Interoperability in this context means the processing of transactions across networks or systems. European Central Bank (2009), 'The Payment System: payments, securities and derivatives and the role of the eurosystem', p. 55. Information on EBA clearing is provided in EBA Clearing (2015), 'SEPA Credit Transfer (SCT) service overview', last accessed 3 November 2015.
[21] European Central Bank (2009), 'The Payment System: payments, securities and derivatives and the role of the eurosystem', p. 151.
[22] European Commission (2015), 'Single Euro Payments Area (SEPA)', http://ec.europa.eu/finance/payments/sepa/index_en.htm, last accessed 20 October 2015

2 Current market structure and economics

This section provides an overview of the structure and economics of payment systems:

- the current market structure for payment systems in the UK;
- the economic characteristics of the underlying infrastructure;
- network effects in two-sided markets;
- the economics of standards;
- possible implications for competition and innovation.

2.1 Historical drivers of the current market structure

Commercial, regulatory and technological developments have all shaped the current market structure over time.

2.1.1 Commercial and strategic developments

In the late 1960s, the Joint Stock Banks Clearing Committee established the InterBank Computer Bureau (ICB) as an outsourced 'back-office' function to process interbank payments and replace paper-based transactions.[23,24] In the 1980s, ICB was renamed Bankers Automated Clearing Services (Bacs) Ltd, with its membership extended to include building societies. In 2004, Bacs Ltd was rebranded as Voca Ltd (which would be responsible for owning and operating the Bacs infrastructure), following the creation of the Bacs Scheme company as a separate legal entity, as discussed below.

As regards LINK, in the 1980s building societies and other non-bank participants decided that there was value to be gained by creating a shared interbank network of automated teller machines (ATMs), rather than having separate ATM networks. In February 1985, LINK Ltd was established as a joint venture company involving Abbey National, Nationwide Building Society, National Giro, the Co-operative Bank, American Express and smaller building societies. LINK invested in the technology to provide a central switch for the ATM network. The LINK ATM network grew in size over time, as other ATM networks, building societies and banks joined (including Halifax in 1989, RBS and NatWest in 1997 and Barclays in 1998).[25]

More recently, in 2007, Voca Ltd merged with LINK Ltd to form VocaLink. This was in response to the commercial opportunity to deliver the FPS, given the knowledge and expertise of both organisations—as discussed in the box below.

[23] Facts Announcement, 'BACS Payments: 46 years of change at the cutting edge of financial transactions', http://www.facts-announcement.co.uk/2014/05/03/bacs-payments-46-years-of-change-at-the-cutting-edge-of-financial-transactions/, last accessed 15 September 2015.
[24] Bacs, 'History of Bacs 1968', http://www.bacs.co.uk/Bacs/DocumentLibrary/History_of_Bacs.pdf, last accessed 13 August 2015.
[25] Batiz-Laso, B. (2009), 'Emergence and evolution of ATM Networks in the UK, 1967−2000', *Business History*, **51**:1.

Box 2.1 Faster Payments Service

Following the Cruickshank review, the OFT (in its 2003 report) raised concerns about consumers losing out on interest income as a result of the standing order 'float'—i.e. as regards Bacs standing orders, the OFT noted that float arises when the money reaches the receiving customer's account up to two working days after it is debited from the paying customer's account (see OFT (2003), p. 6).

To address these concerns, in its first progress report in 2005, the Payment Systems Task Force asked the payments industry to introduce a form of faster electronic clearing, including in relation to standing orders. The recommendation was based on a cost–benefit analysis (CBA), as discussed below.[1]

The Bacs Payment Scheme Limited (BPSL) innovation working group—a working group set up by the task force—considered the cost and demand for a faster payment service. BPSL estimated that the one-off IT development costs would be no more than £65m, although this did not include other supplementary one-off and ongoing costs or the costs for users of payments in amending their systems and procedures. Overall, taking the industry as a whole, the BPSL's CBA showed that:

> It is clear that if banks were to impose no additional charges, there is no convincing narrow cost-recovery case. The wider business case, however, shows a significant notional value accruing to the United Kingdom economy, as well as broader benefits such as the reduction of settlement risk through shorter clearing cycles.[2]

The industry agreed to form an 'Implementation Group' to consider how the recommendation for faster electronic clearing could be put into practice. In December 2005, APACS (Associated for Payment Clearing Services) presented proposals to the Task Force confirming an implementation date of November 2007.[3] Following a competitive tendering process, the contract to provide the central infrastructure was awarded to Immediate Payments Limited (IPL), a joint venture company set up by Voca Ltd and LINK Interchange Limited, which later became VocaLink following the merger in 2007.

Note: The Payment Systems Task Force was set up following the Chancellor's pre-budget report of November 2003. It was chaired by the OFT and comprised representatives from the banking, retail, consumer and business sectors. The Treasury and Bank of England acted as observers. [1] Cost–benefit analysis (CBA) is a systematic process for calculating and comparing the costs and benefits of a particular investment or regulatory policy intervention with the status quo. [2] Office of Fair Trading (2005), 'First annual progress report of the Payment Systems Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, May, executive summary and p. 8. [3] Office of Fair Trading (2007), 'Final report of the Payment System Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, February, p. 2.

Source: Oxera based on Office of Fair Trading (2003), 'UK payment systems: An OFT market study of clearing systems and review of plastic card networks', May; Payment Systems Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, May; Office of Fair Trading (2007), 'Final report of the Payment System Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, February; Milne, A. and Tang, L. (2005), 'An economic analysis of the potential benefits and dis-benefits of faster payments clearing', May.

The most recent commercial development was the creation, in 2015, of the LINK scheme as a separate legal entity, distinct from VocaLink (the LINK management was previously part of VocaLink). VocaLink continues to provide the infrastructure services for LINK, which was recently retendered (as discussed in section 3). As such, VocaLink is the infrastructure provider for Bacs, FPS and LINK ATM.

The developments described above may have had an effect on the corporate culture inherent within VocaLink and the incentives that it faces. For example, VocaLink has roots as a shared infrastructure for the entities that are now its customers. This means that, as a commercial entity, it retains a focus on investment, security of supply and price reductions.[26]

2.1.2 Regulatory developments

As discussed above, several government and industry reviews have examined the functioning of the market for electronic payment systems. Following the Cruickshank review in 2000,[27] the OFT and the industry set up an industry task force to address some of the concerns raised about competition in UK payment systems, as well as some other concerns regarding the standing order float (see Box 2.1).[28]

One of the early recommendations was for the legal separation of the rule-setting and the infrastructure-provision functions of payment systems. This led to the creation of separate legal entities: the scheme(s) responsible for setting the rules and procuring the processing functions, and the infrastructure provider(s) contracted to provide the relevant infrastructure and payment processing services. In 2003, this development led to the creation of Bacs Scheme Ltd as a separate legal entity from Bacs Ltd (later renamed Voca Ltd), which remained the owner of the underlying infrastructure.[29] Another recommendation to come out of the Payment Systems Task Force was the creation of the FPS, as discussed in Box 2.1 above.

The legal separation of scheme and infrastructure also meant that, in practice, decisions about new products and innovations (that would require access to the underlying infrastructure of payment systems or that would require a change to processing rules) would be taken mainly at the scheme level rather than the infrastructure provider level. A description of the scheme voting requirements and working practices is provided in the box below.

Box 2.2 Scheme voting requirements and working practices

Bacs—the board of Bacs Payment Schemes Ltd consists of an independent directors (including the chair), an executive director and independent director and 13 non-executive directors. The 13 non-executive directors are appointed by their respective member organisation. Their votes depend on the member organisations' transaction volumes. Each non-executive director's share of votes is capped at 22.5%. In matters relating to the public interest, '75% of the eligible votes are required for a motion to be passed.'[30]

FPS—the board of Faster Payments Scheme Limited consists of an executive director, three independent non-executive directors (including the chair) and the 10 non-executive directors representing the 'direct members'. The 10 non-executive directors are appointed by their respective member organisation. Each director has one vote. At any general meeting, decisions require a 75% majority of direct members and that the '75% is not less than 50% of the total clearing volume of the payment system.'[31] At board meetings, decisions require a 75% majority of all directors (not only the directors appointed by the direct members) plus at least 50% of the total clearing volume of the payment system and the majority of independent non-executive

[26] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.
[27] Cruickshank, D. (2000), 'Competition in UK banking: a report to the Chancellor of the Exchequer', March.
[28] The creation of the OFT Payment Systems Task Force was announced in the Chancellor's pre-budget report. HM Treasury (2003), 'Pre-budget report', December, p. 50. Office of Fair Trading (2005), 'First annual progress report of the Payment Systems Task Force', a report prepared for the Payment Systems Task Force by the Office of Fair Trading, May; and Office of Fair Trading (2007), 'Final report of the Payment Systems Task Force', February.
[29] Bacs, 'History of Bacs 1968', http://www.bacs.co.uk/Bacs/DocumentLibrary/History_of_Bacs.pdf, last accessed 13 August 2015.
[30] Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems – An Accenture report commissioned by the Payment Systems Regulator', p. 41.
[31] Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems – An Accenture report commissioned by the Payment Systems Regulator', p. 47.

directors.

LINK—the Network Members Council that governs LINK consists of an independent chairman, one LINK executive and 37 member representatives. The 37 member representatives are appointed by their respective member organisation. Voting rights are allocated based on the member organisations' transaction volumes while each member representative's share of votes is capped at 15%. 'Vote volumes are split 50/50 between issuers and acquirers with one transaction counting for both the issuer and acquirer.'[32] 'All decisions relating to operations typically require a 50-60% majority of votes for a motion to pass. Interchange issues require an 80% vote.'[33]

In relation to scheme working practices for Bacs and FPS, we understand from VocaLink that, under the current scheme working practices, innovations that require access to the underlying infrastructure of payment systems require the agreement of direct member PSPs at the scheme level.

Source: Oxera, based on Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems – An Accenture report commissioned by the Payment Systems Regulator'.

In terms of more recent regulatory developments, the European Commission has introduced a package of measures that have potentially wide-ranging implications for payment systems across the EU. The key aims of these measures, known collectively as the Payment Services Directive 2 (PSD2), are to level the playing field for different types of payment service providers and to ensure greater consistency of regulatory approaches across the EU.[34] PSD2 focuses on access to current accounts, with the introduction of access conditions to restrict the ability of payment systems to discriminate against service providers, with the aim of promoting a level playing field, competition and innovation in payment systems.

In summary, the legal separation of the rule-setting and infrastructure-provision function of payment systems was the industry's response to concerns raised about governance, competition and innovation in payment systems. Evidently, the reforms have not had their full intended effect, given that several concerns remain about the level of competition and the incentives for innovation in payment systems. In addition, recent developments in the EU (with PSD2, in particular) show that competition must be considered in the context of the wider EU developments.

2.1.3 Technological developments

Payment systems have evolved considerably as technology has developed—especially since before the 1960s when interbank payments were paper-based.

In the 1970s, for example, payment instructions were originally sent and received via magnetic tapes. However, the use of magnetic tapes gradually reduced as technology developed, with the introduction of the Bacstel service in 1983—i.e. a new telephone service for Bacs payments.[35]

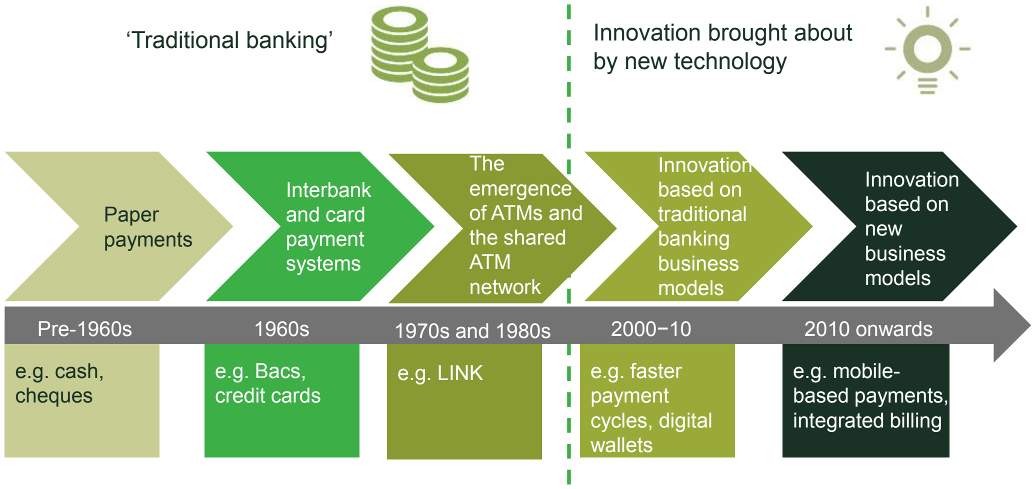
From the early 2000s, the pace of change was associated with significant advances in technology (e.g. with payment systems becoming more Internet-based), and in particular with the creation of Bacstel-IP (i.e. 'new Bacs', a system

[32] Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems – An Accenture report commissioned by the Payment Systems Regulator', p. 49.
[33] Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems – An Accenture report commissioned by the Payment Systems Regulator', p. 49.
[34] European Commission (2013), 'Proposal for a Directive of the European Parliament and of the Council on payment services in the internal market', proposal, 24 July.
[35] See Bacs, 'History of Bacs 1968', http://www.bacs.co.uk/Bacs/DocumentLibrary/History_of_Bacs.pdf, last accessed 13 August 2015; and KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', August, p. 23.

that allows users to submit payments via the Internet) and FPS (see Box 2.1).[36] More recently, payment systems have continued to make significant technological advances with the emergence of mobile payments, for example.

Figure 2.1 provides a high-level overview of the evolution of payment systems.

Figure 2.1 Evolution of electronic payments



Note: The figure is purely illustrative, to show the emerging trends; therefore, it does not capture all payment innovations.

Source: Oxera.

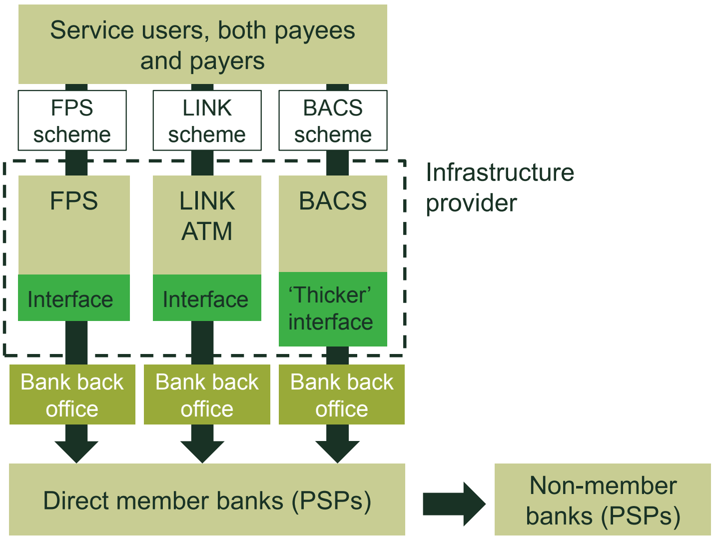
Technological developments have changed the way that payment services are provided. However, while technology has changed, previous investment decisions have had implications for how competition has developed (the choice of messaging format, for example, as discussed below). Technology has continued to develop at a rapid pace with recent initiatives such as the introduction of virtual currencies (e.g. Bitcoin), based on block chain technology.

2.2 The current value chain

Figure 2.2 provides an overview of the current structure of payment systems for FPS, Bacs and LINK ATM services—the focus of this study.

[36] VocaLink (2013), 'Our history of innovation'. Bacstel-IP was introduced in 2002, as described in Bacs, 'Corporate Information', http://www.bacs.co.uk/Bacs/Corporate/CorporateOverview/Pages/Overview.aspx, last accessed 15 September 2015.

Figure 2.2 Overview of the payments value chain



Source: Oxera.

It is worth highlighting some relevant considerations and characteristics.

As described above, FPS, LINK and Bacs have evolved very differently. This means that the PSPs' back-office systems are therefore bespoke for Bacs, FPS and LINK, with each payment system having its own unique process chain.

In relation to Bacs in particular, for example, its evolution has meant that the provision for infrastructure for Bacs has a 'thicker' core compared with other payment systems in the UK and elsewhere in Europe. In particular, the processing layer of the value chain includes some of the functions that would otherwise be undertaken by the PSPs, including the connectivity channels between corporates and the infrastructure provider—i.e. Bacstel–IP.[37] In addition, Bacs still uses the original standard (i.e. Standard 18), which was introduced in the 1980s—i.e. when Bacstel was introduced as a telephone service for sending and receiving payment instructions for Bacs, with Bacstel reducing the need for magnetic tapes.[38]

The role of the payment system scheme is another point worth highlighting. As discussed above, the schemes are responsible for setting the rules for the payment system and procuring the processing functions. This means that agreement among the direct member PSPs is required at the scheme company level—e.g. to agree working practices, contract with the infrastructure provider, confirm the rules for the payment system and approve investment in new technology.

The economic characteristics of payment systems have also had a bearing on how the current market structure has developed, as discussed below.

2.3 Economic characteristics of payment systems

A regulator or competition authority may decide to intervene in a market in order to address market failures—that is, situations where the market, left to its own

[37] See KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', August, p. 22.
[38] See Bacs, 'History of Bacs 1968', http://www.bacs.co.uk/Bacs/DocumentLibrary/History_of_Bacs.pdf, last accessed 13 August 2015; and KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', August, p. 23.

devices, may not provide the best outcome for consumers.[39] Market failures typically arise from the economic characteristics of the sector and so it is important to understand these characteristics for the payment systems value chain.

The economic characteristics of payment systems have been covered extensively in previous studies.[40] In relation to the scheme and infrastructure providers, these characteristics are considered to include:

- large fixed costs;
- economies of scale;
- network effects and two-sided markets;
- the economics of 'standards' and the PSP switching costs;
- ownership arrangements (i.e. the fact that VocaLink is owned by some of the PSPs that collectively own and control various scheme companies).

In traditional infrastructure sectors, such as the water industry or energy networks, it is the presence of large fixed costs and economies of scale that mean that services may be provided most efficiently by the single provider—i.e. as a 'natural monopoly'. However, the same may not (or may no longer) be true for the underlying infrastructure of the interbank payment systems (e.g. especially with the emergence of the SEPA model in Europe).

In 2013, the OFT (the predecessor body to the Competition and Markets Authority, CMA) observed that payment systems do not appear to have natural monopoly characteristics, and that the level of fixed costs and economies of scale might, in principle, seem to permit competition between rival payment systems. It also noted, however, that the combination of network effects and the ownership of payment systems might have had some effect on the development of competition in payment systems in practice.[41,42] This section therefore focuses on network effects in two-sided markets, and on another issue of relevance to payment systems: the economics of standards. While both of these features are most visible at the scheme level of the value chain, they also affect the development of competition at the infrastructure provider level of the value chain. This section also briefly refers to the possible effect of ownership arrangements on competition; however, this is the subject of a separate Oxera study on the governance and ownership of payment systems infrastructure.[43]

It is worth noting that although payment systems are unique in nature, they share some similarities with other sectors that have undergone major technological changes, including telecoms and the trading and post-trading of

[39] In general, there are three broad categories of market failure: positive and negative externalities, market power, and asymmetric information.
[40] See, for example, Office of Fair Trading (2013), 'How regulation of UK payment systems could enhance competition and innovation', July, pp. 29−32; and Financial Conduct Authority (2014), 'Payment systems regulation: call for inputs', March.
[41] Office of Fair Trading (2013), 'How regulation of UK payment systems could enhance competition and innovation', July, p. 30.
[42] The OFT study notes, for example, that the largest banks, as owners of the infrastructure companies and the largest users of payment systems, have little incentive to switch away from the existing payment systems. The possible effect of user ownership on incentives and competition is examined in a separate Oxera report.
[43] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.

securities.[44] These sectors were once considered natural monopolies (as a result of the presence of network effects and large fixed costs); however, advances in technology have facilitated the introduction of competition for many services that were previously provided as a monopoly.

In addition, even in sectors subject to limited technological change, the experience of economic regulation over the previous 25 years is that regulators have typically sought to introduce as much competition as feasible, with competition introduced in the levels of the value chain that do not have natural monopoly characteristics. More recently, economic regulators have started to introduce competition for the market in those areas that remain subject to natural monopoly characteristics. A recent example relates to energy transmission, with Ofgem introducing competition for the market for the development of new offshore transmission generation assets (it is currently consulting on extending this regime to onshore transmission generation).[45] This is in recognition of the limitations of formal price control regulation, in particular in incentivising innovation.[46]

It is therefore important to consider the specific features of payment systems, in order to understand market failures, their drivers and how technology will affect them before deciding on whether a remedy is necessary and, if so, what sort of remedy.

2.4 Network effects at the scheme level

Network effects arise in payment systems because the value of the network increases for all existing participants as each additional member joins (participants exert what is known as 'network externalities' on each other). Access to schemes typically exhibits network externalities, since the value of access to a user depends on the number of other users that have access.[47] For example, the value to a bank from joining a scheme that offers direct debits will be high only if there are a number of other banks in the scheme. Under the current industry structure, therefore, network effects are most visible at the scheme level of the value chain and are likely to be the key market failure at this level.[48]

Network effects have several implications for how competition may develop in payment systems. For example, once a scheme is in place, it may be difficult for an alternative scheme to enter by offering competing services, since, on entry, it will have very few connections and may find it hard to establish a critical mass of customers to support entry. Indeed, this was recognised by the OFT in 2013.[49]

[44] See, for example, Oxera (2011), 'Securities trading and post-trading in the EU: what impact has competition had?', *Agenda*, May, http://www.oxera.com/Latest-Thinking/Agenda/2011/Securities-trading-and-post-trading-in-the-EU-wha.aspx.
[45] Ofgem (2015), 'Offshore transmission', https://www.ofgem.gov.uk/electricity/transmission-networks/offshore-transmission, last accessed 20 October 2015.
[46] See UKRN (2015), 'Innovation in regulated infrastructure sectors', January.
[47] In the case of credit card and similar schemes, there are two types of users: customers or purchasers (buyers), and merchants (sellers). The network externalities arise *between* these two groups. In other schemes, the network externalities may arise within the same type of user.
[48] Network effects or externalities may be considered a 'market failure'. Market failures are situations where market functioning, left to its own devices, may not lead to the best outcome for consumers. In general, there are three broad categories of market failure: positive and negative externalities, market power, and asymmetric information. For a description of market failures in financial services, see Oxera (2006), 'A framework for assessing the benefits of financial regulation', report prepared for Financial Services Authority, September.
[49] The OFT noted that 'the presence of network effects means that it is difficult for a potential new payment system to be created and grow, as for a new system to be considered valuable, it would need connections to

To some extent, network effects also affect competition for the provision of infrastructure services, with the competitive arrangements set to maintain the positive network externalities. There are two broad forms of competition that allow the positive network effects to be maintained.

- **Competition for the rights to supply the market**. Competition for the market means that at any time there is only one supplier, with some form of competition to be that supplier—this means that the supplier could change frequently. Competition for the market may be promoted in order to maximise the size of the network and the value (or the economic 'utility') that market participants derive from that network. Indeed, several academic studies conclude that strong network effects imply that competition *for* the market takes precedence over competition *in* the market in order to preserve those positive network effects.[50]
- **Competition in the market**. Competition in the market relates to having multiple suppliers available in the market simultaneously. For example, in Europe, the trading and post-trading of securities involves central counterparties (CCPs) clearing equity trades, with competition from multiple clearing infrastructures.[51] With competition *in* the market, positive network effects may be maintained through interoperability—i.e. having all participants conform to the same technical standards and operational rules, and agreeing to exchange information (as discussed in section 2.5).

Both forms of competition would require the agreement of standards and operational rules (e.g. the length of the payment cycle). This is discussed in the next section in the context of the economics of standards.

2.5 The economics of standards

As discussed above, a payment system involves multiple players of different types. PSPs need to ensure that they have the right interface, as defined by the scheme, to access the services provided by the scheme.

In practice, this means that PSPs that are a direct member of the scheme need to establish their own back-office infrastructure to provide the links between their customer accounts and the central processing infrastructure used by the scheme. Therefore, the back-office infrastructure needs to allow participants to communicate with each other, which is done via electronic message (i.e. with the electronic message allowing for the exchange of payment instructions from one PSP to another, through the infrastructure provider). In this regard, the back-office infrastructure can be considered to serve two broad functions:

- **understand the message**—the PSP needs to be able to understand the electronic message that comes from the other direct members (i.e. direct PSPs). To understand the message, all direct members of the scheme need to agree the format of the message at the scheme level.[52] The format of the message is known as the messaging standard, or 'standard' for short. PSPs

a significant proportion of the existing banks and building societies'. See Office of Fair Trading (2013), 'How regulation of UK payment systems could enhance competition and innovation', July, p. 29.
[50] Economides, N. (2008), 'Public Policy in Network Industries', reproduced in Buccirossi P. (2008), *Handbook of Antitrust Economics*, MIT press, Chapter 13, p. 486.
[51] Oxera (2010), 'Counterparty clearing house user choice: an evolving European landscape', *Agenda*, March.
[52] Standards can refer to the standardisation of operational capability and rules.

may face significant upfront costs to configure their systems to the standard set by the scheme company;[53]

- **action the message**—once the message is received, the PSP must be able to action that message in order to complete the service. In this regard, direct bank members need to follow the same rules for processing the payment. Essentially, they have to agree when they will receive a payment instruction and the timeframe for processing that instruction—i.e. the payment cycle.

Both functions have two effects in relation to the provision of the underlying infrastructure of payment systems.

- **Effects on coordination**—coordination is required as scheme members need to agree and implement the same processing rules (see Box 2.2).
- **Effects on competition for the provision of infrastructure services**—the economics of standards affects the demand and supply side of the market.
  - **Supply side**—prospective new infrastructure providers may be unwilling to invest in 'old' legacy technologies and standards, if those technologies are, or will soon become, obsolete. This may be most prevalent for Bacs, which is based on Standard 18—i.e. a standard that is not used by other infrastructure providers—leading to a small market of potential infrastructure providers.
  - **Demand side**—there may be an unwillingness to switch infrastructure provider if the process of switching will require the users (i.e. the PSPs) to incur significant upfront investment in new technologies (e.g. upgrading their back-office systems), especially if the 'old' technologies and messaging standards are considered to work well.[54]
- In addition, the cost of switching to an individual bank may exceed the expected benefits to that bank—i.e. the investment may not pass a private cost–benefit analysis case (see section 4). This may make it difficult to reach agreement (at the scheme level) to switch infrastructure provider under the current scheme working practices, as discussed in Box 2.2 above.[55]

The existence of a standard can therefore reduce competition by increasing the hurdle for a new entrant, and increasing switching costs for users.

2.6 Ownership

Several reports have raised questions about the effect of ownership and governance of certain infrastructure providers on competition. In particular, does the fact that VocaLink is owned by some of the PSPs that are the main direct users of these systems have an impact on competition? Oxera has completed a separate study on the effect of ownership on competition and the incentives for innovation.[56]

[53] Economides (2008) provides an overview of the economics of standards in the context of 'standard wars'. See Economides N. (2008), 'Public Policy in Network Industries', reproduced in Buccirossi P. (2008), 'Handbook of Antitrust Economics', MIT press, Chapter 13, p. 479.
[54] See also, for example, Evans, D. and Schmalensee, R. (2009), 'Innovation and evolution of the payments industry', April, pp. 45−50.
[55] The rules for agreement at the scheme level are set out in Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems', report commissioned by the Payment Systems Regulator. Bacs, for example, requires 75% of the eligible votes for a motion to be passed (p. 41).
[56] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.

Each of the features described above has implications for how competition might be expected to develop in payment systems, and the incentives for innovation.

2.7 Conclusion: what are the possible implications?

The current market structure can be explained by commercial, regulatory and technological developments, and the economic characteristics of payment systems. Given these developments, it is easy to understand how this has resulted in the structure of the interbank payment systems that we observe in the UK today—e.g. with payment systems owned by the major users of those systems, which creates a focus on resilience.

The economic characteristics of payment systems can give rise to network effects, which are one of the main 'market failures' in payment systems. These are most visible at the scheme level, but also affect competition across the payments value chain—for example:

- at the scheme level, competition from the creation of a new scheme is unlikely, as it would be very difficult for a new payment system to be created and to grow;
- at the infrastructure provider level, competition for the provision of infrastructure services is possible; however, it would require some form of industry solution in order to maintain the positive network effects (e.g. setting a common technical standard).

Other factors may also have had an effect on competition, including, for example, the economics of standards and the previous sunk investment in the back-office systems. This may reduce incentives to switch provider among some direct member PSPs, which may make it difficult to reach agreement to switch provider at the scheme level. This applies to switching infrastructure provider and the development and adoption of new innovations (see section 4).

Competition may not develop as far as it can on its own. With the presence of network externalities and the economics of standards, participants are unlikely to overcome these effects on their own. This may mean that one firm will become the established participant in the market, with new entrants unable to enter the market. In this context, a regulatory authority (such as the PSR) may need to take the lead in introducing the competitive architecture with relevant access arrangements, or establishing a process through which the technical standards are agreed. This was the case in other sectors, with the regulatory framework facilitating as much competition as possible.

The next section examines the current state of competition in practice.

3 Competition to date

This section examines the current state of competition for the provision of infrastructure services for UK payment systems by examining the processes that led to the current contracts for Bacs, FPS and LINK ATM services. To complement this analysis, this section also examines some market outcomes, including:[57] prices over time; choice; service quality; innovation.[58]

This section also provides a brief overview of developments elsewhere in Europe (i.e. the eurozone), where a different model of competition has developed.

3.1 Examining the contractual processes

The contractual process can be examined by considering the following questions:

- was there a competitive process for services—including at the time when the service was originally introduced and upon renewal of the contract?
- who were the competitors?
- what was the outcome?

In the UK and other countries, competition in the context of payment systems is generally through a competitive tendering process (i.e. competition for the market). We examine both of the following core services contracts:

- FPS;
- LINK ATM.

There was no competitive process for Bacs. This is largely a consequence of its history (as discussed in section 2, it was introduced in the late 1960s) and the fact that Bacs uses ‘old’ technology and a standard that is now obsolete. There may also have been no competitive process because no obvious competitors had emerged at the time. The renewal of the Bacs contract, however, was the subject of commercial negotiations between the Bacs scheme company and VocaLink.

As an additional reference point, the provision of infrastructure services for the cheque and credit clearing (C&CC) payment system was recently subject to a competitive process. The process was overseen by the Cheque and Credit Senior Sponsors Group (SSG) and the PSR, with HM Treasury as an adviser. VocaLink, CGI, NCR, and iPSL were invited to respond, with CGI winning the contract.

An assessment of the contractual processes for each of the core services is summarised below.

3.1.1 FPS

The introduction of FPS was recommended by the Payment Systems Task Force (see Box 2.1 for an overview of the history of FPS).

[57] Note that this is not a full competition study.
[58] Innovation is the focus of section 4; therefore, it is only discussed briefly in this section.

The contract for the original build and operation of the infrastructure services for FPS was subject to competitive tender—i.e. competition for the market. The Association for Payment Clearing Services (APACS) managed the procurement process and the invitation to tender was issued to all relevant contenders, with Voca and LINK (as a joint venture); Visa; European Banking Authority (EBA); SWIFT; and MasterCard invited to submit a detailed proposal.

The contract was awarded to Voca and LINK—it is understood that the contract was awarded to Voca and LINK based on cost and the quality of the response. The original contract was renewed in January 2014 following bilateral negotiations between the FPS scheme company and VocaLink, with VocaLink benchmarking returns against the returns earned by comparator companies. It is understood that the FPS contract comes up for renewal in ✂.

3.1.2 LINK

As discussed in section 2, LINK was first established in 1985 as a joint venture company to provide a central platform for the ATM network.[59] As of 2009, VocaLink has had a rolling contract with each individual bank, with each bank having the 'right to withdraw' from LINK by providing VocaLink with 21 months' notice.

Earlier this year, the new LINK scheme company decided to engage Logica to oversee the tendering process for the renewal of the contract (see section 2 for discussion about the creation of the new scheme company). ✂ VocaLink was identified as the preferred bidder and is currently in exclusive negotiations with the LINK scheme. It is understood that VocaLink was awarded the contract because of the levels of service and price offered (e.g. VocaLink offered a significant discount on current prices).

3.1.3 Main observations

There were competitive processes, with several competitors, in relation to the original contracts for the provision of infrastructure services for FPS. The contract renewal was subject to bilateral negotiation, with VocaLink benchmarking returns against the returns earned by comparator companies. There was no competitive process for Bacs; although user ownership of the infrastructure provider may have placed a constraint on VocaLink as the only provider of infrastructure services for Bacs. In addition, the contract renewal for LINK was recently subject to a competitive process, with VocaLink competing against other infrastructure providers.

Overall, the tendering process and negotiation with the scheme companies appears to have led to price reductions. These outcomes are examined more closely in the next sub-section.

3.2 Prices over time

✂

3.3 Choice

There is choice at several levels of the value chain, including:

- the scheme has the choice of the infrastructure provider for processing payment instructions;

[59] The emergence of LINK, for example, is documented in Batiz-Laso, B. (2009), 'Emergence and evolution of ATM Networks in the UK, 1967−2000', *Business History,* Volume 51, Issue 1.

- consumers have the choice between different payment methods, including interbank payments, payment cards and digital wallets, for example.

These are discussed in turn.

3.3.1 Choice at the scheme level

As shown above, the PSPs (i.e. the direct member banks), through the scheme, had a choice of alternative infrastructure providers. Figure 3.1 below shows the competitors for the original tenders for each of the core service contracts that were subject to competitive tender.

Figure 3.1 Competitors for core services

✂

3.3.2 Choice at the consumer level

There is significant downstream competition and choice within the payments sector. End-consumers can choose from a variety of different payment methods, which has increased with the onset of online payment methods. Key payment methods that end-customers may use include cash; credit transfers; direct debits and standing orders; payment cards (debit and credit); pre-paid cards; mobile payments (e.g. Zapp, or Pay by Bank app, and Paym); E-money (e.g. Bitcoin); and ‘digital wallets’ (e.g. PayPal).[60]

Consumers will choose their preferred payment methods depending on different functionalities and service offerings. In the context of interbank payment systems, payment cards offer similar services to those offered through the interbank payment systems. For example, payment cards offer the continuous payment authority, which authorises a retailer or organisation to claim regular payments from the consumer’s credit or debit card. The continuous payment authority is similar to a direct debit; however, there are important differences (e.g. the latter is subject to the direct debit guarantee, which includes a refund guarantee).[61]

Looking ahead, the availability of choice is expected to increase further, with the emergence of new technology. Pay by Bank app, for example, will allow consumers to make payment via an interbank credit transfer at the physical point of sale (e.g. in store), thus further rivalling payment cards.[62]

Increasing choice for consumers places competitive constraints on different payment methods.

3.4 Service quality

There are various measures of service quality in payment systems, such as speed of payment processing and reliability.

A key measure of reliability is the ‘service availability of the system’. VocaLink has a monthly target for this metric for each payment system, as set out in service-level agreements, which it has never failed to meet. Figure 3.2 shows the availability percentages averaged over each year.

[60] Financial Conduct Authority (2014), ‘Competition and collaboration in UK payment systems’.
[61] UK Cards Association (2015), ‘Making regular payments’, http://www.theukcardsassociation.org.uk/individual/making-regular-payments.asp, last accessed 12 October 2015.
[62] *Financial Times* (2015), ‘UK banks seek to Zapp Apple with digital payment services’, http://www.ft.com/cms/s/0/4bc7b682-23e0-11e5-9c4e-a775d2b173ca.html#axzz3oKhMJ62W, 7 July 2015.

Figure 3.2 Service availability for the core service contracts

✂

As shown above, VocaLink has consistently delivered high levels of reliability.

3.5 Innovation

Several studies have sought to examine the current state of innovation in payment systems in the UK.[63] Two conclusions from these studies are worth highlighting and considering further:

- several aspects of the UK payments infrastructure are already considered to be world class;[64]
- innovations are mainly at the consumer-facing end of the value chain, utilising the existing payments infrastructure, and have not yet ‘disrupted’ the established payment systems.[65]

These observations are examined in turn below.

3.5.1 Several aspects are already considered to be world class

Several studies have examined innovation at the infrastructure level of the payment systems value chain, and across the payment systems value chain.

KPMG noted that, based on industry feedback, several aspects of the UK payments infrastructure are considered to be ‘world class’, with the FPS, Bacstel-IP, Direct Corporate Access and the reachability of the LINK ATM network cited as examples.[66]

In addition, Accenture reviewed the international landscape of innovation in order to provide insights for UK payment systems.[67] Its study identified that improvements in infrastructure have tended to cover three broad areas:

- real-time payments processing—e.g. Bankgirot;
- vision for a cashless system—e.g. Nigeria cashlite;
- adoption of international standards—e.g. ISO20022.

It is worth noting that real-time payment processing is already available in the UK, with the introduction of FPS.[68]

These two recent studies would therefore appear to suggest that UK payment systems have already experienced considerable innovation to date.

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[63] KPMG (2014), UK Payments Infrastructure: Exploring Opportunities’, August; and Accenture (2015), ‘Review of the International Landscape of Innovation in Payments and Insights for UK Payments’.
[64] For example, see KPMG (2014), UK Payments Infrastructure: Exploring Opportunities’, August, p. 7.
[65] These observations were made in Payment Systems Regulator and Ofcom (2014), ‘Innovation in UK consumer electronic payments: A collaborative study by Ofcom and the Payment Systems Regulator’, November, pp. 5 and 6. See also World Economic Forum (2015), ‘The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed’, June, p. 51.
[66] For example, KPMG (2014) observes that industry feedback suggests that ‘several aspects of the UK payments infrastructure are already considered to be world class.’ KPMG (2014), UK Payments Infrastructure: Exploring Opportunities’, August, p. 7.
[67] Accenture (2015), ‘Review of the International Landscape of Innovation in Payments and Insights for UK Payments’, p. 33.
[68] Although gross settlement happens at three intervals on weekdays—settlement in the relevant accounts occurs at daily cycles 07:15, 13:00 and 15:45. As discussed in KPMG, this is not transparent to the customer, who typically observes the transaction as complete almost instantaneously. See KPMG (2014), UK Payments Infrastructure: Exploring Opportunities’, August, p. 26.

3.5.2 Innovation has arisen at the consumer-facing end of the value chain and have not yet 'disrupted' the established payment systems

The concept of disruption in payment systems is not straightforward. We consider two examples of what could be considered 'disruption', to understand why we may not yet have observed this disruption having an impact on the existing payment systems in the UK:

- mobile payment systems such as M-Pesa;
- Bitcoin (and similar virtual- or crypto-currencies).

These examples are discussed in further detail below.

Mobile payment systems such as M-Pesa

In 2007, Safari-com, a mobile network operator, introduced M-Pesa in Kenya. With M-Pesa, users establish an electronic account that is linked to their mobile telephone number. M-Pesa offers a deposit-taking function and a clearing and settlement function.

Deposit function—users deposit cash at any M-Pesa shop, which is loaded as e-money that can be used for transactions using Short Message Service (SMS) technology.

Clearing and settlement function—the payer can send funds to the payee through SMS, with the mobile carrier infrastructure serving as the payment infrastructure. Payees can then collect cash from any M-Pesa shop.

M-Pesa therefore operates as a person to person (P2P) money transfer service that can also be used to purchase goods and services.[69] As such, M-Pesa effectively provides an alternative payment infrastructure that could potentially compete with existing infrastructure. Box 3.1 provides an overview of why payment methods such as M-Pesa may not have been introduced in other countries, including the UK.

Box 3.1 Why has M-Pesa not been observed in other countries?

The question is why a mobile payment system (M-Pesa) has been developed so successfully in Kenya and not in the UK (or other European countries). There are three important factors that are likely to be involved.

- First, the traditional banking system was not as well developed in Kenya. Only a small proportion of the population had access to a personal current account, and this created an opportunity for non-banks and a demand for non-bank payment services.
- Second, regulators allowed mobile telephony companies to introduce a payment system and take deposits. It is unlikely that the regulatory framework in Europe would have allowed mobile telephony companies to offer such a system in Europe without the mobile companies becoming banks (and, therefore, being regulated by the financial regulators). In other words, a difference in the regulatory regime facilitated innovation in Kenya.
- Third, the network operator had high coverage across the mobile users in Kenya. Therefore, they were able to roll out M-Pesa without the requirement for coordination between potential competitors.

Source: Oxera.

[69] M-Pesa is discussed in Evans, D. and Schmalensee, R. (2009), 'Innovation and evolution of the payments industry', April, p. 63; World Economic Forum (2015), 'The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed', June, p. 46; FCA (2015), 'Call for Input: Regulatory barriers to innovation in digital and mobile solutions', June, p. 2.

Bitcoin (and similar virtual- or crypto-currencies)

Bitcoin was launched in 2009 and is an example of a virtual currency, which has its own infrastructure. Users can complete transactions using the Bitcoin system without the use of traditional payments infrastructure.[70] The infrastructure of Bitcoin can be thought of as essentially a network of 'nodes' (computers running Bitcoin software) that verify and publish payments on a shared public ledger (a 'block chain').[71] The public ledger works on a unit of account called a 'bitcoin'. Users are able to buy bitcoins with national currencies using conventional payment methods (e.g. PayPal, debit cards).

Essentially, therefore, within the network in which it operates (that is, all the vendors and individuals who accept Bitcoin payment), Bitcoin completely replaces the need for any existing payment system infrastructure, as the system performs the roles ordinarily performed by traditional payments infrastructure:

- **deposit** functions are fulfilled by the fact that the public ledger stores the number of bitcoins on the block chain;
- **settlement and clearing**. The nodes verify payment and ensure that the transaction is published on the public ledger. This means that the Bitcoin infrastructure clears and settles payments in much the same way as traditional infrastructure does.

Bitcoin operates payment infrastructure that is distinct from traditional providers. The UK government is currently examining the potential benefits that digital currencies could bring to consumers, as well as the potential risks presented by the same.

However, currently only around 100,000 merchants worldwide accept the currency, and the total user base is estimated to be around 25m.[72] As a result, if users want to conduct transactions with non-Bitcoin users, they need to convert bitcoins into an alternate (traditional) currency. This service is usually provided by 'bitcoin exchanges', which effectively link the bitcoin ledger with traditional payment methods (which, in turn, rely on existing payment infrastructure). Therefore, short of achieving ubiquity or at least near ubiquity, Bitcoin is unlikely to completely replace existing infrastructure.

Furthermore, Bitcoin and other such virtual currencies are considered to pose some potential risks to users.[73] These issues may reduce the extent to which Bitcoin will be adopted by consumers and banks on a large scale in the future.

This example shows that although Bitcoin is widely regarded as a disruptive technology, it is likely to take a long time before any widespread disruptive effect is observed.

3.5.3 Overall consideration of disruption

The examples show that 'disruption' in payment systems is not straightforward and that there are several factors that can explain why 'disruption' may not have been observed on a large scale in payment systems.

[70] See, for example, World Economic Forum (2015), 'The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed', June; and Accenture (2014), 'Review of the International Landscape of Innovation in Payments and Insights for UK payments: summary findings', report commissioned by the Payment Systems Regulator.
[71] Kopstein, J. (2013), 'The Mission to Decentralize the Internet', *The New Yorker*, 12 December.
[72] Juniper Research (2015), 'The Future of Cryptocurrency'.
[73] HM Treasury (2015), 'Digital currencies: response to the call for information'.

On the other hand, where the current payment systems market has provided opportunities for competition, these seem to have been exploited. For example, over the past decade, competition has arisen from digital wallets such as PayPal. PayPal was originally introduced to allow consumers to avoid sharing payment details with third parties; however, it now also provides a payment infrastructure for internalised payments between two users that hold balances with PayPal.[74] Thus, PayPal provides an infrastructure that can compete with Bacs and FPS for payments where both parties have PayPal accounts.

Overall, therefore, the UK appears to be ahead of other countries as regards the level of innovation, and there are factors to explain why large-scale disruption has not been observed in the UK. However, innovation could grow further with the development of new technologies, and it is therefore important to ensure that incentives are aligned in order to fully exploit the opportunities for innovation (see section 4, which examines the scope for innovation in the future).

3.6 Competition elsewhere in Europe

It is worth remembering that a different model of competition has developed elsewhere in Europe (i.e. in the eurozone), with competition in the market for infrastructure processing services (as discussed in section 1.4 above). In this regard, the experience of SEPA in the eurozone provides a relevant example of a competitive model for payment systems, with the overall gains expected from SEPA evaluated at several billion per year.[75] It may therefore be worth examining whether there are initiatives that would allow for closer integration between payment systems in the UK and the eurozone, in order to allow infrastructure providers and PSPs to operate on a larger scale and realise benefits from being able to access a larger payment systems market. Indeed, we note that some PSPs (e.g. the large UK banks) already process their euro payments in line with SEPA, which means that they may already have some of the necessary interfaces with the SEPA systems. This may therefore assist with closer integration between payment systems in the UK and the eurozone.

3.7 Conclusion: what is the current state of competition?

The interbank payment systems have delivered desirable market outcomes for consumers. The current arrangements have delivered reliable and resilient payment systems.

A competitive process has been undertaken for each of the service contracts (with several competitors), with the exception of Bacs. Prices have fallen for the three service contracts. As explained, there may be some factors (such as switching costs) that may impose some limits on the degree of competition.

A different model of competition has emerged in the eurozone, with several infrastructure providers competing simultaneously to process payment instructions on behalf of PSPs. It may therefore be worth examining whether there are initiatives that would allow for closer integration between payment systems in the UK and the eurozone, in order to allow infrastructure providers and PSPs to operate on a larger scale, and realise benefits from operating in a larger European market.

[74] Note that the PSR and Ofcom also recognise PayPal as an overlay payment system. See, for example, Payment Systems Regulator and Ofcom (2014), 'Innovation in UK consumer electronic payments: A collaborative study by Ofcom and the Payment Systems Regulator', November.
[75] European Commission, 'Single Euro Payments Area (SEPA)', http://ec.europa.eu/finance/payments/sepa/index_en.htm, last accessed on 20 October 2015.

Innovation has occurred, with two recent studies suggesting that the UK is ahead of other countries in relation to payment systems innovation.[76] However, there are features of the UK payment system that mean that the relationship between competition and innovation is complicated, and that the technical ability to produce new innovations may not be fully exploited. These are examined in the next section.

[76] For example, KPMG (2014) observes that industry feedback suggests that 'several aspects of the UK payments infrastructure are already considered to be world class.' KPMG (2014), UK Payments Infrastructure: Exploring Opportunities', August, p. 7.

4 Innovation

The previous section demonstrates that there has been innovation to date. What is more crucial, however, is that the industry is well placed to take advantage of innovative opportunities in the future. This section therefore considers the incentives for innovation across the payments value chain. In particular, it covers the following areas:

- prospects for innovation in the future, with closer integration between payment systems in the UK and Europe;
- incentives for innovation across the payment systems value chain.

4.1 Prospects for innovation in the future payments market

With the emergence of innovations leveraging on new technology and innovations from non-bank players in recent years (e.g. mobile payments), there is an important question about whether this trend is expected to continue. This section therefore considers the demand- and supply-side influences faced by payment systems in order to understand what the future payments market might be expected to look like.

4.1.1 Demand-side influences

As discussed in various studies, consumer expectations are rising—not only in relation to security and reliability, but also in relation to the immediacy of payments (e.g. fast) and convenience.[77] This suggests that customer demand for new payment innovations is likely to continue to grow.[78]

4.1.2 Supply-side influences

Several studies have examined the future prospects for technological developments in payment systems.[79] In summary, the main conclusions of these studies are that:

- further developments in new technology will continue to drive the potential for further innovation in payment systems;
- non-bank players (e.g. 'FinTech' companies) are expected to present a greater challenge to the traditional bank players.[80] A recent article in the *Financial Times*, for example, noted that the banks face a struggle to defend their business model against digital disruption, with transaction and payments being one of the activities most likely to be disrupted by new technology.[81]

[77] For example, Accenture recently noted that the widespread use of smartphones is opening up new territory for mobile payments over the coming years. Accenture (2014), 'Review of the international landscape of innovation in payments and insights for UK payments', report commissioned by the Payment Systems Regulator, p. 10.
[78] Payments UK (2015), 'World Class Payments in the UK Enhancing the payments experience', August, p. 6.
[79] See, in particular, the research project undertaken by the World Economic Forum (2015), 'The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed', June; Evans, D. and Schmalensee, R. (2009), 'Innovation and evolution of the payments industry', April, p. 53; Sullivan, R.J. and Wang, Z. (2007), 'Nonbanks in the Payments System: Innovation, competition and risk – a conference summary'; and Hall, B.H. (2007), 'Innovation in non-bank payment systems', May.
[80] Payments UK (2015), 'World Class Payments in the UK Enhancing the payments experience', August, p. 5.
[81] *Financial Times* (2015),'McKinsey warns banks face wipeout in some financial services', 30 September, http://www.ft.com/cms/s/0/a5cafe92-66bf-11e5-97d0-1456a776a4f5.html#axzz3oKhMJ62W.

Indeed, several non-bank players already have a presence in payment systems, including PayPal and, more recently, Apple and Google.[82,83]

From the studies examined and recent developments, new technology is expected to create opportunities to bring new innovations to the market, with non-bank players expected to play an important role in this regard.

Thus, taking the demand- and supply-side influences into account, it is desirable to ensure that the incentives across the payments system value chain are fit for purpose and allow the industry to unlock prospective innovations in an environment that is expected to be rich in innovation.

4.2 Incentives for innovation in payment systems

4.2.1 General theory

Incentives to innovate will only be present if the innovator can enjoy sufficient benefits from that innovation, often in the form of increased profitability. Protection of intellectual property can make the creation and exploitation of ideas profitable (by preventing prospective competitors from copying that innovation and entering the market), thereby creating an incentive to innovate.[84] However, several studies note that protection of intellectual property alone often does not provide a sufficient incentive to innovate; therefore, firms frequently seek further benefits, including first-mover advantages, gaining knowledge and exploiting complementary capabilities.[85]

Some studies have sought to examine the relationship between competition and innovation. The most notable of these is Schumpeter (1942), which proposed the theory of ‘creative destruction’.[86] Schumpeter considered that firms will continue to innovate in order to continue success as long as there is the threat of being overtaken by the new innovation. This is particularly important in a technological industry, where advancements in technology can make a firm’s means of production obsolete. Building on Schumpeter’s theory, other studies have considered that the degree of competition in the product market has an inverted-U relationship with innovation.[87] In other words, that there is an optimal level of competition (i.e. between a monopoly and perfect competition) that would maximise the incentives to innovate.

Despite the fact that VocaLink is a technology firm and has a natural incentive to innovate, the incentive alone may be insufficient to ensure technological

[82] See, for example, Deutsche Bank (2012), ‘The future of (mobile) payments: New (online) players competing with banks’, December; and World Economic Forum (2015), ‘The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed’, June, p. 36.
[83] Accenture also observes that the incumbent position of traditional banks has been challenged in many economies by the emergence of alternative payment providers. Accenture (2014), ‘‘Review of the international landscape of innovation in payments and insights for UK payments’, report commissioned by the Payment Systems Regulator, p. 13.
[84] See, for example, Kanwar, S. and Evenson, R. (2001), ‘Does Intellectual Property Protection Spur Technological Change?’.
[85] See, for example, Levin, R., Klevorick, A., Nelson, R. and Winter, S. (1987), ‘Appropriating the Returns from Industrial Research and Development’; and Teece, D. (1986), ‘Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy’.
[86] Schumpeter, J. (1942), ‘Capitalism, Socialism and Democracy’.
[87] This is based on the theory that when the intensity of competition is low (e.g. with a natural monopoly), a firm may face a lower incentive to innovate as it does not face the threat of new entry; similarly, when the intensity of competition is high (e.g. perfect competition), a firm may face a lower incentive to innovate as they may be unable to secure such high profits from that innovation. See Aghion P., Bloom N., Blundell R., Griffith, R. and Howitt, P. (2005), ‘Competition and Innovation: An Inverted-U Relationship’.

advancement.[88] In order to provide innovation a party must be not only willing to innovate, but also able. For example, not every firm has the means to fund innovation, however well placed and keen it is to innovate. This is one key reason why economies need well-functioning financial markets to fund such progress.[89]

There are two points to note from the academic literature:

- the relationship between competition and innovation is complicated, but in Schumpeter's view the incentive to innovate is driven by the competitive process (e.g. advancing technology);
- the natural incentive to innovate is a necessary, but not sufficient, condition to promote innovation; having the ability (in particular access to finance) to innovate is also important.

Therefore, VocaLink's natural incentive to innovate may not be sufficient to ensure that innovation develops further—and so it may be desirable to ensure that the structure of the payment systems industry supports any innovation.

4.2.2 Incentives at the scheme level

The incentives for innovation in payment systems have been documented in several studies.[90] These studies typically focus on the difficulties associated with adopting innovations brought to the market. One commonly cited reason is the coordination failure arising from the network effects that are inherent in payment systems, where it follows that a new innovation may require all PSPs, or, in some cases at least a 'critical mass' of PSPs, to agree to that innovation. Indeed, the scheme companies were created, in part, to fulfil this coordinating function, with schemes setting the working practices that govern how payment systems are used. As discussed in Box 2.2, we understand from VocaLink that innovations that require access to the underlying infrastructure of payment systems for Bacs and FPS in practice require the agreement of the direct member PSPs at the scheme level.

As a consequence of network effects, the pace of innovation is set by the slowest (or the least innovative) participant in the group. This has led to a distinction between two types of innovation: collective versus unilateral (as discussed in Box 4.1).

[88] Wessel, M. (2012), 'Why big companies can't innovate', *Harvard Business Review*, https://hbr.org/2012/09/why-big-companies-cant-innovate.
[89] Hartmann, P., Heider, F., Papaioannou, E. and Lo Duca, M. (2007), 'The role of financial markets and innovation in productivity and growth in Europe', European Central Bank, September.
[90] Office of Fair Trading (2013), 'How regulation of UK payment systems could enhance competition and innovation', July.

Box 4.1 Collective versus unilateral innovations

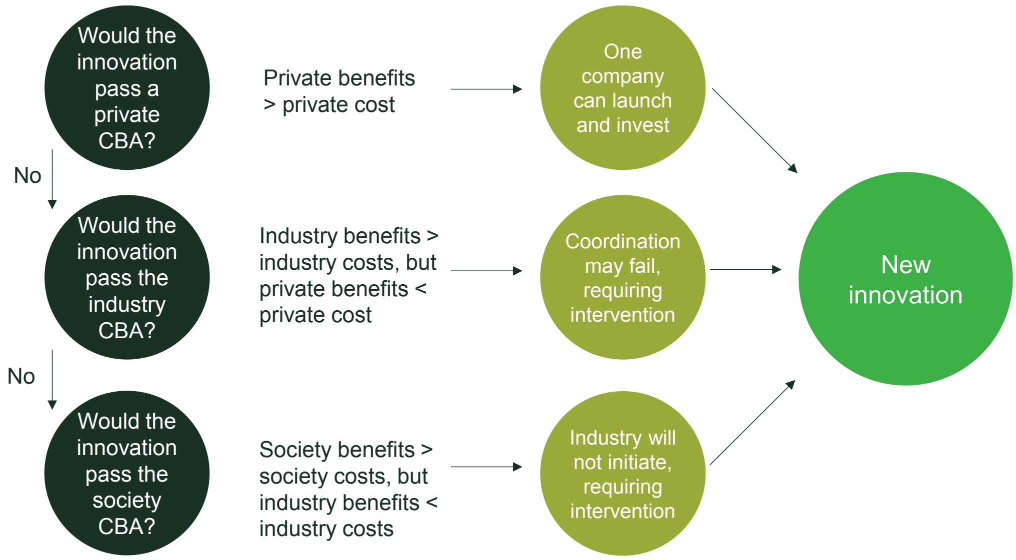
Collective innovations—as the name suggests, collective innovations require a significant degree of coordination and collaboration, as they necessitate a critical mass of participants to agree to adopt the innovation.[91] An obvious example is the establishment of a new payment system between an existing set of PSPs which already have a payment system between them, which will require several PSPs to invest in their back-office systems and all PSPs to follow a set of rules for how and when payments are processed. Innovations within an existing scheme, or the creation of a new scheme, tend to belong to this category of innovation.

Unilateral innovations—these innovations are at the other end of the spectrum, in that it is not essential to have all participants to agree to an innovation in order to proceed with that innovation. Unilateral innovation can be brought forward by a single company, which will bear the cost of adopting the innovation, as well as receive the benefits. An obvious example is the RBS emergency cash facility which allows current account holders to access money without a debit card, through entering a code at the ATM. Such innovations can be developed by one company on its own, without having to coordinate with other PSPs or the members of the payment scheme.

Source: Oxera.

The incentives underlying collective and unilateral innovations can, at least partially, be explained by considering the cost–benefit analysis case (or 'CBA case') for a particular innovation—and asking which organisation incurs the cost of an innovation, and which organisation receives the benefit.[92] Figure 4.1 shows three CBA cases: the private CBA, industry CBA and society CBA.

Figure 4.1 Private, industry and social CBAs



Note: CBA, cost–benefit analysis. The private CBA involves the costs borne by, and benefits to, the participant making the investment. An industry CBA includes the private cost and benefits plus any industry-wide externalities. The social CBA includes the industry costs plus any consumer and society-wide externalities.

Source: Oxera.

[91] The concept of collective innovations was first recognised in Cruickshank, D. (2000), 'Competition in UK banking: a report to the Chancellor of the Exchequer', March, p. 66.
[92] The distinction between private and social costs and benefits is discussed in several studies, including Lybecker, K. (2014), 'Promoting Innovation: the economics of incentives', July, http://www.ipwatchdog.com/2014/07/21/promoting-innovation-the-economics-of-incentives/id=50428/, last accessed on 14 August 2015.

For most unilateral innovations, it would be expected for the costs to be incurred by one party and that the same party would receive (at least most of) the benefits. That party would be expected to consider proceeding with the investment if it passed the private CBA case—i.e. if the private benefits exceeded the private cost.

Collective innovations, however, are inherently more complicated. Left to the freedom of the competitive market, the industry would only consider proceeding with the innovation if it passed the private CBA case for each individual bank (even if the innovation were to pass the industry or society CBA case). However, there are several reasons why a collective innovation that is desirable from an industry perspective may not pass the private CBA case for each PSP and would not be taken forward. Three such reasons are provided below for illustration (note that these are not mutually exclusive).

Some collective innovations may provide no competitive advantage. There may be collective innovations that if all or most PSPs are investing in the project (and therefore utilising the innovation) then each individual PSP will gain no competitive advantage. This would therefore limit the private benefits that would be expected to arise from the innovation (e.g. from gaining a competitive advantage and increasing market share). In this regard, the private benefits are small and the collective innovation may not pass the private CBA case.

Some collective innovations may not take account of previous investment decisions in PSPs' back-office infrastructure. PSPs are at different stages of their investment cycle, with some PSPs having invested in legacy systems that utilise the 'old' technology. For those PSPs, the cost of the previous investment is 'sunk' and they may be able to minimise their own costs (and therefore maximise their own profits) from continuing to use the legacy systems (as they would avoid further upfront investment costs related to the new innovation). In this regard, the NPV of utilising the 'old' technology may exceed the NPV of investing in the 'new' technology, which may mean that the collective innovation would not pass the private CBA case for those PSPs.[93]

Some collective innovations may rival a unilateral development of the PSP. Consider a scenario that involves PSPs collaborating on a collective innovation at the same time that an individual PSP is privately developing its own unilateral innovation.[94] From the perspective of the individual PSP, the private benefits from the unilateral innovation may be contingent on the success of the collective innovation. For example, the individual PSP may be able to maximise the expected returns from the unilateral innovation if it can bring the innovation to the market before the collective effort and capture most of the market for itself. In this case, the individual PSP may have the incentive to 'stall' the collective effort in order to maximise the expected benefits from its unilateral innovation (i.e. the NPV of the unilateral innovation would exceed the NPV of the collective innovation). In turn, this would mean that the collective innovation would not pass the private CBA case. In each of these cases, industry or socially beneficial innovations may not be taken forward, which may act as a source of market failure. However, these market failures can be dealt with in different ways.

In the past, for example, some industry or socially beneficial innovations that provide no competitive advantage have been initiated by government (or government agencies). The most obvious example is the introduction of FPS,

[93] The NPV is defined as the present value of cash flows generated less initial investment.
[94] This could be the case for an innovation that is unilateral but where there are efforts in the industry to coordinate and develop the innovation jointly (e.g. for a new cross-PSP mobile payment).

which necessitated a government intervention (i.e. through the OFT's Payment Systems Task Force). As discussed in Box 2.1, the positive investment case for a faster payment service was made based on the society CBA—i.e. once the value to the UK economy was included.[95] This demonstrates the point that FPS did not pass the private CBA for each individual bank, or potentially even the industry CBA for the banks collectively, which may explain why the banks had little incentive to introduce FPS on their own.

In recognition of this issue, the PSR has decided that the Payment Strategy Forum will assist with performing this coordinating role going forward.

The latter two areas—i.e. some collective innovations may not take account of previous investment decisions in back-office infrastructure and some collective innovations may rival a unilateral development of the PSP—may be dealt with through measures that allow a subset of PSPs to adopt an innovation on the underlying infrastructure (see Box 2.2 for an overview of voting rules and working practices, which Oxera understands may currently prevent a subset of PSPs adopting an innovation).

For certain types of innovation, having just a few PSPs participating may be sufficient. Allowing a subset of PSPs to adopt an innovation would have two effects.

First, it would remove the 'all or nothing' approach to collective innovation—i.e. that either all PSPs adopt the collective innovation, or no-one adopts the collective innovation. Collective innovations that pass the private CBA case for some PSPs (but not most PSPs) could be taken forward by those PSPs. For example, certain collective innovations may pass the private CBA case for some PSPs because they have not already committed substantial sunk investment and/or because they operate at a small scale and an equivalent unilateral innovation would not be commercially viable (e.g. new entrant PSPs).

Second, at least in theory, it would reduce the ability of one PSP (or a small number of PSPs) to 'stall' an innovation for its own commercial gain (e.g. if it is developing its own unilateral innovation).

Examining LINK ATM, where Oxera understands that the scheme working practices allow a subset of PSPs to adopt a collective innovation, can provide useful evidence to support similar arrangements for Bacs and FPS, for example. The introduction of mobile top-up on LINK ATM in particular is an example of an innovation that involved a subset of the banks (and may be considered partly collective), which was developed outside of the LINK scheme. Box 4.2 provides an overview of some of the innovations developed outside of the LINK scheme.

Box 4.2 Innovations developed outside of the LINK scheme

LINK mobile top-up. In 2002, mobile top-up was introduced on the LINK ATM infrastructure following commercial negotiations among VocaLink, mobile network operators and banks (i.e. card issuers and acquirers). Each mobile network operator has a multi-party contract with VocaLink and the banks, with the contract setting out the commission payable to VocaLink and the banks. This is an example of an innovation agreed with a subset of member banks based on multi-party contracts agreed outside the LINK scheme.

LINK PIN change. LINK PIN change allows users to change the card's personal identification number (PIN) at almost all LINK ATM machines. PIN change is another example of an

[95] See also Office of Fair Trading (2005), 'BPSL Innovation Working Group report', report prepared for the Payment Systems Task Force by the Office of Fair Trading, May, p. 308.

infrastructure-level innovation that was developed outside of the LINK scheme.

RBS emergency cash. In 2007, Royal Bank of Scotland (RBS) introduced the emergency cash facility at RBS affiliated ATMs (e.g. including NatWest). Emergency cash allows current account holders to access money without a debit card, through entering a code at the ATM. RBS subsequently developed 'GetCash', which builds on this concept by allowing customers to choose the amount of cash they would like to withdraw using a mobile app. The customer is then provided with a cash code that is valid for three hours and can be used to withdraw cash from any RBS affiliate ATM. The mobile app also allows customers to send the code to someone else, which they can use to withdraw cash. This is an example of an innovation that operates on a closed-loop system (at RBS affiliate ATMs), developed outside the LINK scheme.

Source: Oxera, based on interviews with VocaLink; and Office of Fair Trading (2006), 'LINK Access and Governance Working Group report', April, p. 8; and LINK (2015),'PIN change', http://www.link.co.uk/Cardholders/Pages/PINchange.aspx, last accessed on 24 August 2015; RBS (2015), 'Emergency Cash', http://personal.rbs.co.uk/personal/current-accounts/shared-edb-shelf/shared-emergencycash.html, last accessed 24 August 2015; RBS (2015), 'How do I use Get Cash', https://www.supportcentre-rbs.co.uk/app/answers/detail/a_id/2151/~/how-do-i-use-get-cash%3F, last accessed 24 August 2015; *The Guardian* (2007), 'Partygoers offered emergency cash', December, http://www.theguardian.com/money/2007/dec/17/currentaccounts.consumeraffairs, last accessed 24 August 2015.

Another relevant consideration for LINK is that its fees are earned based on processing volumes. Arguably, this provides PSPs and the infrastructure provider with further incentives to develop innovations that increase processing volumes (e.g. LINK mobile top-up). The next subsections consider the incentives for innovation at the other levels of the value chain.

4.2.3 Incentives at the infrastructure provider and PSP levels

There may be a number of ways of further incentivising innovation at the infrastructure and PSP level.

- Facilitating the adoption of innovation by a subset of PSPs.
- Innovations that focus on meeting the needs of a wider set of users may be further incentivised with a widening of the current ownership arrangements.

These are discussed in turn.

First, the infrastructure provider is well placed to develop services that meet the needs of different sets of users. In particular, it could offer a base level of service (e.g. basic processing) and a 'menu' of other services, which users could choose to opt into. However, we understand that this is not possible under the current scheme working practices (e.g. with the 'all or nothing' approach to innovation). As the infrastructure provider does not have the ability to push valuable innovations to different users (despite being well placed to), valuable innovations are not incentivised sufficiently at the infrastructure provider level.

In addition, and in the case of VocaLink in particular, by widening the ownership beyond the banks and building societies that compete with each other in the downstream market for retail banking services, innovations that focus on meeting the needs of a wider set of users may be further incentivised.

These issues are discussed in the Oxera report on the ownership of VocaLink.[96]

Furthermore, initiatives that further enhance competition would be expected to promote innovation. In an environment with multiple payment infrastructures

[96] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.

competing to process payment instructions on behalf of users (under a competition for the market, or a competition in the market model), those competing infrastructure providers would be expected to promote different and innovative service offerings in order to seek to 'beat the competition' and increase market share.

Changes in respect of each of these areas would therefore be expected to promote further innovation.

In relation to the incentives for PSPs that use the payments infrastructure, it is worth noting that the incentives can be quite different for innovations that build on the existing infrastructure. If access to the underlying infrastructure is made available, then competition would be expected to facilitate innovation (e.g. with the development of new VAPs as has been observed with the emergence of E-wallets, including PayPal).

4.3 Conclusion: what are the prospects for innovation?

With technological developments, it is apparent that VocaLink has a natural incentive to innovate, given the risks to its business from competitors gaining a technical advantage. It is also important that all market participants have the incentive to realise the benefits of those innovations.

The current incentives across the payments value chain, however, may restrict the scope to invest in new innovations in the following two areas.

First, PSPs inevitably face different incentives to invest in new innovations, with the costs outweighing the expected benefits for some of the PSPs. Such an outcome could arise if, for example:

- the collective innovation provides no competitive advantage;
- the PSP has already committed substantial sunk investment in previous technologies;
- the collective innovation rivals a unilateral development of the PSP.

We understand from VocaLink that, under the current scheme working rules, collective innovations on the Bacs and FPS infrastructure require the agreement of PSPs at the scheme level (see Box 2.2). Thus, if the innovation is not commercially viable for most of the PSPs (i.e. it does not pass the private CBA for the bank concerned), the innovation would not be taken forward. This could mean that potentially valuable industry or social innovations would not be taken forward.

This could be dealt with, at least partially, through a function that coordinates on such innovations (previously, the government performed such a role). The PSR has decided that the Payment Strategy Forum will have this coordinating role.

In addition, this could be dealt with through changes to the scheme working rules to allow the adoption of innovations among a subset of PSPs. The innovations using LINK ATM, which were developed outside of the LINK scheme, provide useful evidence for the types of innovation that may be possible.

Changes to initiatives in these areas would be expected to enhance the potential for innovation going forward and allow the infrastructure provider to pursue the opportunities that are available in an environment with new entrants (i.e. non-bank players) playing an increasing role.

5 Assessment of VocaLink's vision

The previous sections provided an overview of the structural features of payment systems that would be expected to restrict the development of competition and the incentives for innovation.

- One such feature is bank switching costs and the cost of entry for European infrastructure providers (e.g. Equens), which may have to invest in legacy systems to provide processing services.
- We understand that the scheme working practices act to limit the incentives for innovation.

Furthermore, expanding the current ownership may increase the incentives facing VocaLink to push innovations to a wider set of users.

This section provides an assessment of the proposed changes to payment systems regulation in VocaLink's vision, and the extent to which these changes address each of the structural features identified above. The section therefore covers the following areas:

- the economic features of VocaLink's vision;
- the possible effect on competition;
- the possible effect on the incentives for innovation.

5.1 Economic features of VocaLink's vision

The box below describes the main economic features of VocaLink's vision.

Box 5.1 Economic features of VocaLink's vision

1. **Making access easier to payment systems:** The vision involves VocaLink developing an indirect access portal called the 'single front door'. We understand that the single front door would allow PSPs to connect directly to the infrastructure (providing an alternative to the current model of indirect access). It would therefore be expected to address concerns raised about indirect access to payment systems. In addition, we understand that the single front door would provide a single point of access to the three main service contracts (Bacs, FPS and LINK ATM services) by providing switching and formatting functionality for PSPs. We understand that this builds on new innovations in access, with aggregator services for FPS for example.

2. **Reducing the barriers to entry and switching for infrastructure providers:** We understand that, in addition to providing indirect access, the 'single front door' would be able to perform a translation function, which would translate a payment instruction that originates on a legacy standard (e.g. standard 18 for Bacs) onto the standard used for processing (which could be ISO20022, for example). In theory, this would be expected to avoid the PSPs incurring upfront investment associated with renewing new back office systems (e.g. in order to move to a new standard for the payment system), which may currently act as a barrier to switching away from the legacy standard, for example. VocaLink's vision also proposes that the PSR examines the scheme company rules and working practices, in order to ensure that they allow for entry from new entrants that use the SEPA standard.

3. **Reforming the scheme arrangements:** The vision proposes to introduce bilateral contracting between the PSPs and the infrastructure provider(s), in order to incentivise the infrastructure provider to develop and offer a menu of services to PSPs. The vision explains that this would allow PSPs to opt out of particular services, initiate a unilateral innovation with the infrastructure provider, or allow a subset of PSPs to agree to take forward a collective innovation (thus, removing the scheme working practices that may currently restrict the opportunities in this area). In addition, VocaLink's vision proposes that the PSR reviews the role of the scheme companies, with the creation of a standard setting body that is set up to agree the technical standards for infrastructure providers and PSPs, including

the operational rules for the industry.

4. **Managing the remaining network effects:** The vision recognises the importance of an industry interoperability code of conduct, as well as a body to coordinate on collective innovation. In this regard, the vision notes that the PSR has established the Payment Strategy Forum to perform this latter role.

5. **Changing the current VocaLink ownership model:** In order to further facilitate competition and to ensure that VocaLink is well placed to respond to the potential risks that may arise in the future payment markets, the vision proposes to expand ownership beyond the current user shareholders.

6. **Potential for competition and innovation:** The product of the evolution of technology and the specific reforms proposed by VocaLink should allow for the further development of competition—both competition *for* the market (i.e. an increase in competitors willing to bid for contracts) and competition *in* the market (i.e. multiple infrastructures directly competing at the same time). This is both consistent with European consolidation through SEPA and removes the barriers to the UK participating within the European market. Greater innovation would be a product of increased competition, as infrastructure providers innovate to compete.

Source: Oxera based on VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

It is apparent that VocaLink's vision for the development of competition in payment systems would at least partially rely on the success of the 'single front door' access portal (which provides access to the underlying infrastructure of payment systems). It is therefore worth spending time examining the economic features of the single front door access portal in particular.

5.1.1 The single front door access product

VocaLink would provide the single front door access solution, which we understand would work by translating a payment instruction on a legacy message format (e.g. Standard 18) into a payment instruction on a new format (e.g. ISO20022). The proposal would mean that PSPs would no longer have to use the same message format as that used to clear the payment instruction at the infrastructure processing level of the value chain. In other words, a PSP could raise payment instruction based on the legacy messaging format and this would be translated into the new messaging format for payment processing at the infrastructure level of the value chain and then translated back to the legacy messaging format for the receiving PSP to action.

The clear advantage of such an approach is that it would allow other European infrastructure providers to enter the market (e.g. those that process payments on the ISO20022 standard). This would therefore enhance competition for the market for the three main service contracts.

We understand that the single front door would be similar in functionality to new innovations in access to payment systems, with the recent development of aggregator services. Aggregator services allow a PSP to connect to a technical aggregator that combines demand from several PSPs, allowing that PSP to benefit from economies of scale. This would therefore allow a PSP to access the underlying infrastructure of payment systems at a lower unit cost than it would be able to achieve if it was a direct member of the scheme.

Indeed, it is noted that various initiatives are already underway in this area, with a competitive market developing for aggregator access solutions. Indeed, the Faster Payments Scheme Limited company recently published a study that noted that there is market space for multiple aggregators, under conservative assumptions, and that a competitive market for access is sustainable.[97]

There are two important distinctions to draw from the general aggregator services, in relation to the single front door.

- The single front door would provide aggregation services for all schemes (including CHAPS), as well as SEPA and SWIFT payments, rather than an individual scheme (which appears to be the current model).
- The single front door also provides a translation function, translating a legacy messaging standard to a new messaging standard for payment processing. It is this function that will increase the scope for competition for infrastructure provider services.

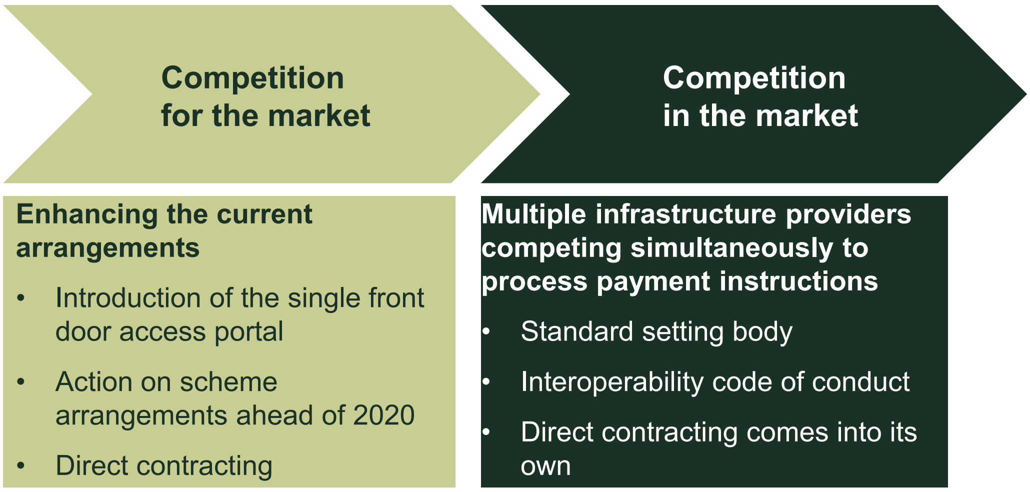
There may also be a further question about how liquidity and credit risk would be dealt with under the single front door (i.e. this relates to the risks that arise when payments are credited to recipient accounts before interbank settlement has taken place at the Bank of England). In particular, there is a question about whether a new entrant PSP would be required to pre-fund its payments with cash held at the Bank of England.[98] We note that such decisions are outside of the control of VocaLink; as such, we understand that the current scheme arrangements for pre-funding would continue to apply.

The next subsection examines the possible effects on competition.

5.2 Possible effects on competition

At a high level, the changes to payment systems regulation proposed in VocaLink's vision could be considered as promoting two models of competition, as set out in the figure below.

Figure 5.1 Economic features of VocaLink's vision



Source: Oxera based on VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

[97] See, for example, Accenture (2015), 'Faster Payments New Access Model: creating a competitive market in access services for real-time, 24/7 payments', report on the UK economics of 24/7 aggregation services for real-time payments, commissioned by Faster Payments Scheme Limited, p. 3.
[98] Liquidity and credit risk are discussed in Bank of England (2015), 'The Bank of England's supervision of financial market infrastructures – annual report', March.

5.2.1 Competition for the market

The most immediate reforms are intended to enable competition for the market, when the contracts for the three core services are due for renewal. There are three important economic features that could enhance the level of competition during the contract renewal process, as follows.

1. **The access solution (or the 'single front door'), as described above**.

VocaLink is developing the single front door access solution, which would be expected to enhance competition in the following ways:

- It removes any barriers to entry to switching to the new standard that may arise at the PSP level of the value chain. As previous investment in PSP back-office systems may mean that investing in a new standard may not pass the private CBA case for all direct member PSPs (as discussed in section 4). Without such a solution, all PSPs would need to migrate to a new standard at the same time. This solution introduces choice for PSPs: it could allow some direct member PSPs to choose to upgrade their back-office systems (e.g. to align with investment cycles) and connect directly to a new provider's infrastructure, while other PSPs could choose to route payment instructions through the 'single front door' access solution for payment processing.
- It removes any barriers to entry for prospective new entrant infrastructure providers seeking to compete for the core service contracts. As discussed in section 2, in the current situation, prospective new entrant infrastructure providers may have to invest in obsolete systems in order to compete for the core service contracts—e.g. Bacs, which uses Standard 18. The access solution would remove such a barrier to entry, by enabling new entrant infrastructure providers to use their existing systems (e.g. European players such as Equens).

2. **Changing bank ownership**. As discussed in the Oxera report on VocaLink's governance and ownership, by introducing accountability to unconnected outside investors, there would be a strengthening of the incentive to operate as a normal commercial entity.[99] This may further assist the development of more competition in the market for the provision of payments systems infrastructure, to the benefit of potential new infrastructure providers and their customers.
3. **Direct contracting and the creation of a new industry interoperability code of conduct and a standards body**. PSPs would be able contract individually with the infrastructure provider, with a menu of services that they could choose to contract from the provider. This can further facilitate innovation (as explained in section 5.3). Under a direct contracting model, direct member PSPs would still need to agree on the message format and follow the same processing rules, as discussed in section 2. This is to ensure that they can *understand* the message and *action* the message. This requires PSPs to coordinate, which could be achieved through a new industry interoperability code of conduct, as well as through a new standards body.[100]

[99] Oxera (2015), 'Governance and ownership of payment systems infrastructure', report prepared for VocaLink, November.
[100] Note that the European Commission has provided guidance on the use of technology pools in technology sectors. While this is not directly comparable to a standard setting body, it provides some useful principles that a standard setting body could follow, including open participation, safeguards against the exchange of sensitive information, the principles of safe harbour against Article 101 infringement, for example. European Commission (2014), 'Guidelines on the application of Article 101 of the Treaty of the Functioning of the

Taken together, the changes to payment systems regulation proposed in VocaLink's vision would be expected to enhance the current model of competition for the market for FPS and LINK, and allow for competition for the market for the provision of infrastructure services for Bacs, for the first time.

Indeed, one of the main advantages of the immediate reforms proposed by VocaLink for the contract renewal is that, if successful, it would enhance competition in an incremental and low-risk way—e.g. without mandating that banks upgrade their back-office infrastructure at the same time. In addition, it would provide the PSR with a platform from which it could reassess whether further competition reforms are necessary, in order to remove any remaining barriers to entry, for example.

However, two additional points are relevant.

First, the PSR or another third party may need to design (or at least be comfortable with) the competitive framework for the competitive tendering process for the three core service contracts in 2020. Indeed, as discussed in section 3, the PSR was involved in the recent C&CC contract renewal (with the PSR involved and HM Treasury as an adviser) and the recent LINK contract renewal (with Logica overseeing the competitive tendering process). This would provide new entrant infrastructure providers with additional assurances that the competitive process would be conducted on a level playing field.

Second, there is a question about whether prospective competitors to the single front door would require access to information on standards (e.g. guidance on the format of the messaging standard) or intellectual property to provide the interface with the PSPs and corporates (e.g. in relation to the underlying code). In relation to standards, we understand that the scheme company owns this information and would be responsible for providing such information to new entrants. As regards intellectual property held at the infrastructure level, we understand that VocaLink is not obligated to share intellectual property, as such information could be replicated from information held by the scheme. Access to this information would therefore be subject to commercial negotiations.

5.2.2 Competition in the market

The reforms proposed for competition for the market would provide a platform and further evidence base from which further competition reforms could be introduced—i.e. taking account of the evidence gathered from the competition for the market and a cost–benefit analysis.

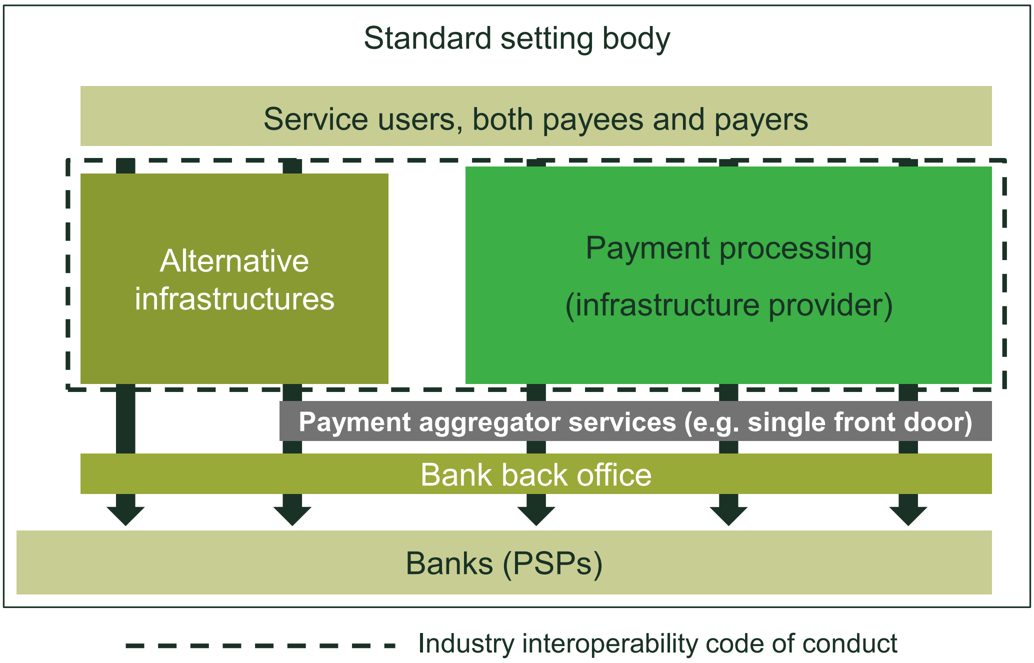
To this end, VocaLink's vision provides two additional proposals, which would allow for competition in the market:

- an interoperability code of conduct among competing infrastructure providers. Note that the precedent from telecoms is that telecoms providers are mandated to provide interoperability of networks;
- in addition, the standard setting body introduced in 2020 would continue to play an important role in ensuring that infrastructure providers and PSPs continue to coordinate—e.g. so that PSPs continue to action messages in the same way.

Figure 5.2 below provides an overview of VocaLink's proposals in this area.

European Union to technology transfer agreements', http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.C_.2014.089.01.0003.01.ENG, accessed 15 October 2014.

Figure 5.2 VocaLink's vision for a future operational model with competition in the market



Source: Oxera based on VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems', November.

VocaLink's vision would allow for closer integration with the European SEPA market, which is based on a similar model of competition in the market, with multiple infrastructure providers competing simultaneously to process payments on behalf of PSPs. Indeed, we understand from the VocaLink vision that some PSPs (e.g. large UK banks) already use the SEPA systems in order to process their euro payments, and may therefore have some of the interfaces with the SEPA systems. This may therefore assist with integration with the competitive model in place elsewhere in Europe. In addition, the introduction of a mechanism that allows for interoperability between the UK and the European messaging standard (e.g. for the smaller PSPs with no SEPA interface) would be expected to further assist with moving towards such a model, as recognised above.

An additional point to note is that, over time, the single front door would be expected to reduce the distinction between the separate scheme services, with PSPs instead presented with the choice of payment processing cycle—e.g. same-day versus three-day payment processing, rather than FPS versus Bacs.

5.3 Possible effect on incentives for innovation

The PSR has already established a Payment Strategy Forum, in order to address the market failures associated with network effects. This would be expected to provide the mechanism through which innovations that pass the industry or society CBA case (but not the private CBA) would be delivered and would be expected to enhance innovation. In addition to the Payment Strategy Forum, VocaLink's vision contains four proposals that would be expected to further enhance innovation in payment systems.

Changes to scheme working practices. As we understand from VocaLink (and discussed in VocaLink's vision), under the current scheme arrangements, a new innovation (e.g. a collective innovation, or a non-core product) that would require access to the underlying infrastructure of the payment system would necessitate the agreement of the direct member PSPs.[101] As established in section 4, this means that these types of innovation would only be pursued and implemented if the innovation passed the private CBA case for most of the direct member PSPs. As a result, some valuable innovations may not be implemented.

Reforming this aspect of the scheme arrangements would be expected to make it easier for a subset of direct member PSPs (i.e. the PSPs for which the innovation has passed the private CBA case) to proceed with a new collective innovation, thus removing the potential barrier to certain types of collective innovations or the development of non-core innovations that may have existed in the past. An example is some of the innovations that have been developed on the LINK infrastructure by a number of PSPs outside of the LINK scheme (see section 4).[102] In addition, the proposed change would be expected to remove the ability that some PSPs may currently have to stall an innovation for their other benefit—e.g. if they are pursuing their own initiative in broadly the same area.

Introduction of a standards body, an industry interoperability code of conduct and direct contracting. Similarly, building on the changes to scheme working practices, moving towards a direct contracting model (where infrastructure providers contract directly with PSPs individually, rather than through the scheme company) would enable PSPs to opt in or out of particular non-core services, for example. Again, this would be expected to enhance innovation.

Access and competition for/in the market. Increasing competition for the market for the three core contracts would be expected to enhance innovation. This is because VocaLink and potential new entrants would be required to bid for contracts, based on the service offered and the price, and would thus have the incentive to develop new innovative propositions in order to win the contract (in order to improve service to users or reduce costs of operating the infrastructure).

The changes proposed in VocaLink's vision would also allow for the introduction of a model of competition in the market (should this be assessed to deliver better market outcomes). Having infrastructure providers competing simultaneously in the market would be expected to push innovation, as infrastructure providers seek to innovate to attract and retain customers.

Divestment of ownership. The effect of divestment on the incentives to innovate is twofold.

First, by widening the ownership beyond the banks and building societies that compete with each other in the downstream market for retail banking services, innovations that focus on meeting the needs of a wider set of users may be further incentivised. Divestment of ownership, for example, may enhance the incentive to push innovations that are suited to different business models, especially in a future payments market where new entrant PSPs (e.g. from the

[101] The rules for agreement at the scheme level are set out in Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems', report commissioned by the Payment Systems Regulator. Bacs, for example, requires 75% of the eligible votes for a motion to be passed (p. 41). For FPS, the rules are as follows. 'Decisions from any general meeting will be determined by a 75% majority of direct members i.e. members of the company and where that 75% is not less than 50% of the total clearing volume of the payment system. Decisions at board meetings require at least 75% of directors to approve, plus votes from member appointed directors covering at least 50% of clearing volume, plus the majority of independent non-executive directors to approve.' Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems', report commissioned by the Payment Systems Regulator, p. 47.
[102] Several innovations have been developed outside the LINK scheme through multi-party contracts with the direct member banks. The most notable example is LINK mobile top-up. It is understood that this involves a multi-party contract for each mobile network operator, VocaLink, and issuers and acquirers.

so-called 'FinTech' companies) are expected to present a greater challenge to the established retail banks, as discussed in section 4.

Second, the introduction of external equity capital will provide financial resources for innovation.

These effects are discussed in the Oxera report on governance and ownership of the payment systems infrastructure.

5.4 Conclusion: overall assessment of VocaLink's vision

The changes to payment systems regulation proposed in VocaLink's vision address the structural features of the payment systems that have the potential to restrict the development of competition and the promotion of innovation, including:

- the single front door, as described in the vision, which has the potential to reduce bank switching costs and the cost of entry for European infrastructure providers (e.g. Equens). This would be expected to enhance competition for the existing contracts for the provision of infrastructure services for Bacs, FPS and LINK ATM;
- divestment of ownership, which grows VocaLink's incentive to compete and to meet the demand of a wider set of interests;
- removing some of the constraints that may act to limit the incentives for innovation, thus enhancing the incentives for innovation across the payments value chain.

In relation to this latter area in particular, the vision would be expected to:

- make coordination easier to achieve—e.g. innovations that were once considered collective innovation (in that direct member PSPs would have to agree) could be introduced by a subset of PSPs, underpinned by a competition platform maintained by a new Standards Body and an industry interoperability code of conduct. Similarly, the Payment Strategy Forum provides a mechanism through which innovations that benefit industry and society are taken forward;
- provide the infrastructure providers with the incentive to push unilateral innovations—e.g. through access and competition for the market;
- provide PSPs with the incentive to develop their own innovations in order to gain competitive advantage against other PSPs—e.g. a subset of PSPs could agree to an innovation.

In addition, the VocaLink vision proposes to move towards a competitive model that aligns with SEPA, with multiple payment processors competing simultaneously to process payments on behalf of PSPs. We note from the VocaLink vision that some large PSPs in the UK may already have some interfaces with the SEPA model in Europe, in order to process their euro payments. This may therefore assist with moving towards the competitive model in place in the eurozone. In addition, having a mechanism in place to allow for interoperability between the UK and the SEPA messaging standard (e.g. for the smaller PSPs with no SEPA interface), as proposed under VocaLink's vision with the creation of the single front door, would be expected to further assist with moving towards such a competitive model. Such a move would be expected to create benefits to service users from infrastructure providers being able to operate on a larger scale in a larger European market.

VocaLink's vision would therefore be expected to increase competition and enhance the incentives for innovation across the value chain.

Appendix 5

Oxera: Governance and ownership of payment systems infrastructure

Governance and ownership of payments systems infrastructure

Prepared for
VocaLink

27 November 2015

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Contents

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Executive summary

VocaLink has commissioned Oxera to provide an independent review of potential governance and ownership models for VocaLink. In the context of expected changes in the payments market and the risks these present to VocaLink, we have been asked to examine the extent to which these risks can be mitigated by alternative governance and ownership models.

This report considers the long-term sustainability of potential governance and ownership models from the perspective of the company as well as a wider set of stakeholders than the current shareholders and customers. The report provides evidence as an input into the Payment Systems Regulator's (PSR) market review of the ownership and competitiveness of infrastructure provision.[1]

The UK is recognised as having one of the world's leading payment infrastructures, for example in the area of real-time payments.[2] Within the UK market, VocaLink has developed secure, reliable and resilient payment infrastructures and introduced many new services alongside the core provision.[3] Maintaining high standards of reliability is a key consideration for the evaluation of alternative ownership models.

A defining feature of VocaLink's model of governance and ownership is that it is owned by companies operating in its own downstream market: Lloyds, The Royal Bank of Scotland (RBS), HSBC, and Barclays hold almost 80% of the share capital of VocaLink, with the remainder held by other banks and building societies.[4] Expected changes in the payment systems market present risks to the sustainability of the current model, which mean that the requirement for high standards of reliability and system availability needs to be considered alongside other objectives. The challenges of the future market for payments include:

- increasing domestic and global competition in the market for the provision of payments systems and the underlying infrastructure;
- technological advance that creates new ways to deliver value for customers and opportunities to deploy capital to finance investment;
- changing expectations of customers about how they access payment services and the quality of service they receive;
- increased scrutiny by policymakers and regulators, with the power to enforce change where necessary.

When viewed from the perspective of the company as well as a wider set of stakeholders than the current set of shareholder and customers, there may be alternative models of governance and ownership that provide better incentives for meeting the challenges of the future payments market.

First, by introducing accountability to unconnected outside investors, there would be a strengthening of the incentive to operate as a normal commercial entity. This may further assist the development of more competition in the market for

[1] Payment Systems Regulator (2015), 'Market review into the ownership and competitiveness of infrastructure provision—terms of reference', June.
[2] KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', 31 August.
[3] Oxera (2015), 'Competition and innovation in payments: an analysis of market functioning and innovation', November, Figure 3.4.
[4] Most recent shareholdings: Lloyds Banking Group plc 25.1%, HSBC Bank plc 15.91%, Barclays Bank plc 15.18%, Royal Bank of Scotland Group plc 21.37%. Source: Orbis.

the provision of payments systems infrastructure, to the benefit of potential new infrastructure providers and their customers.

Second, by opening up ownership to parties other than the banks and building societies that compete with each other in the downstream market for retail banking services, there may be better incentives to provide innovations that focus on meeting the needs of a wider set of users.

Third, there is an opportunity to reinforce existing access arrangements through changes to the ownership models of both the payment system operators and the schemes, by providing economic incentives to facilitate access to a wider set of users.

These opportunities for improving on the current governance and ownership arrangements build on issues that have been raised previously, for example in the Cruickshank Report and by the Office of Fair Trading.[5]

This report draws out the economic implications for the future of VocaLink of the considerations described above. In particular, a key question to address is:

> **What reforms to ownership and governance structure would best mitigate risk to VocaLink, given the developments described above?**

In other words, are there more suitable models of ownership and governance for VocaLink that could more effectively achieve the following:

- **greater competition** between payment systems and providers of payment systems infrastructure;
- **wider access** to payment systems infrastructure by payments service providers and other providers of financial services;
- **further innovation** in the interests of a wider set of payment systems users;
- **shareholder value maximisation** by focusing on delivering value to a wide set of users and end-customers.

Addressing the objectives of competition, innovation, and access will require a package of changes; reform to governance and ownership of VocaLink is necessary but only part of the solution.

Experience from other sectors suggests that there is a range of potential alternative models that provide better conditions for competition, innovation, and access. However, there are no obvious and stable examples of the current model—ownership by the companies operating in its own downstream market—generating significant competition benefits or delivering timely innovation for a wider set of users.

This report considers five potential alternative models to the existing one of governance and ownership. These have been chosen because they reflect different points on a spectrum of differing degrees of outside scrutiny, financial interest, and control.

[5] Cruickshank, D. (2000), 'Competition in UK Banking: A report to the Chancellor of the Exchequer', March; OFT (2013), 'UK Payment systems—How regulation of UK payment systems could enhance competition and innovation', July.

Model 1 Enhanced transparency arrangements (e.g. publication of Board minutes).

Model 2 Enhanced corporate governance arrangements (e.g. increased voting rights for independent directors or a fully independent Board).

Model 3 External equity capital is introduced; existing owners retain a controlling stake.

Model 4 External equity capital is introduced; existing owners divest to a non-controlling stake.

Model 5 Existing owners fully divest.

Models 3–5 are compatible with either privately held share capital or a public stock market listing. However, as ownership will be more dispersed under a listed model, the extent of divestment required to cede control will be greater than under a private model.

These models have been evaluated in terms of how well they provide an ownership and governance structure that is sustainable in the long run for VocaLink. Specifically, the models are assessed for how well they deliver:

- good corporate governance;
- incentives for competition in the provision of payments infrastructure;
- wider access to payments infrastructure;
- incentives for innovation in the interests of a wider set of payment systems users;
- incentives for reliable and resilient payments infrastructure.

Under all the models there is a strong incentive to maintain high standards of reliability due to the reputational and financial impact to the company of a system failure. The way in which this objective is achieved varies across the models.

Options for reform without ownership change (models 1 and 2) include enhanced transparency requirements (e.g. the publication of Board minutes) and enhanced governance (e.g. increased voting rights for independent directors or a fully independent Board). Relative to the current model, these reforms are unlikely significantly to strength or weaken incentives to provide reliable infrastructure and wider access. Increased transparency would allow competitors to obtain more information on innovations and undermine VocaLink's ability to realise the full value of innovation. A more independent Board may be more averse to risky and innovative investments than a Board with more direct accountability to shareholders and the interests of shareholders in realising the returns to successful risk-taking. Transparency and governance reforms may therefore reduce the incentives to innovate.

The options that do not involve ownership change are also unlikely to significantly increase competition in the market for provision of payments infrastructure. As with the incentives to innovate, it could be argued that enhanced transparency would undermine VocaLink's ability to operate as a normal commercial entity and would place it at a competitive disadvantage by exposing sensitive business information and strategy to competitors.

Enhanced governance through a more independent Board not primarily accountable to shareholders could lead to VocaLink behaving less like a commercial entity. For example, the Board may direct it to prepare contract bids that are attractive from the perspective of payment service providers but which do not deliver the financial return that an entity subject to normal commercial constraints would require. This would not create incentives for new entrants to compete in the provision of payments infrastructure.

Under both models 1 and 2 VocaLink will also lack broad access to external capital to finance innovation.

Introducing external equity capital would allow VocaLink to be capitalised on a more conventional 'arm's-length' basis, and to be subject to the constraints and objectives imposed by outside investors. New shareholders may provide a different perspective and bring broader experience to the Board. Three different divestment options by the existing owners have been considered, which vary according to the degree of control retained by the existing owners.

Bringing in external equity capital will increase the focus on shareholder value maximisation. The extent to which this reduces the focus on system reliability depends on whether having reliable systems is a complement to, or in conflict with, shareholder value maximisation. External shareholders would be expected to focus more on the return on investment in system reliability than on the absolute level of reliability. Nevertheless, the financial and reputational consequences of failing to achieve appropriate reliability standards are likely to mean that reliable systems are a necessity for delivering shareholder value. Reliability incentives may even be stronger when external equity capital is at risk.

Under model 3, the existing owners retain an equity stake that allows them collectively to control VocaLink. The introduction of external equity capital will provide financial resources for innovation. By improving the incentives for value maximisation, it is also likely to encourage innovation and to provide economic incentives to facilitate wider access. There will be stronger incentives to consider the commercial interests of VocaLink relative to the interests of the shareholder banks when submitting contract bids, which improves incentives for new entrants to compete. However, many of the features of the existing model would continue due to overall control remaining with the existing owners.

Divestment that reduces the existing owners to a non-controlling stake (models 4 and 5) will allow VocaLink to operate independently of its current main customers. This will allow the identification, selection, and financing of innovations that have the greatest potential to deliver value to all users of payments infrastructure. For example, under either of these models it would be possible to form an investment committee that did not include any of the shareholder banks and could therefore undertake full scrutiny of investment proposals that involve sensitive client information. The incentive to maximise shareholder value would provide VocaLink with similar incentives to competitors and new entrants when bidding for contracts, and thereby facilitate development of competition in the market for the provision of payment systems infrastructure.

A reduction of the ownership of the main UK banks to a non-controlling stake would deliver another significant benefit to corporate governance: it enables ownership to be contested and control to be transferred to a new set of owners. This 'market for corporate control' acts as a mechanism for improving VocaLink's performance.

Models 4 and 5 differ according to whether banks retain a minority, non-controlling stake or fully divest. An advantage of the minority stake model would be the retention of specialist knowledge at Board level, which potentially mitigates risks that may arise from transition to a different ownership structure.

An advantage of the full divestment model is that it is a complete change from the previous structure, which may be perceived as providing better incentives for entry and competition.

To return to the key issue of ownership and governance reform as a way to mitigate the risks to VocaLink of the changing future payments market, the evaluation of the models against the objectives of improving competition, access, and innovation leads to two related conclusions.

First, further reforms to governance would be insufficient to achieve the objectives. Additional independence and transparency requirements may generate marginal benefits in access, but could have unintended consequences that actually harm the development of competition and incentives to innovate.

Second, there is a range of options around ownership reform, but only reforms that result in the existing owners reducing their equity interest to a non-controlling stake will increase the incentives for effective competition and innovation in the interests of a wider set of payment systems users, alongside other potential reforms to the market suggested by VocaLink's vision.

1 Introduction

The UK is recognised as having one of the world's leading payment infrastructures, for example in the area of real-time payments.[6] Within the UK market, VocaLink has developed secure, reliable and resilient payment infrastructures and introduced many new services alongside the core provision.[7] Maintaining high standards of reliability is a key consideration for the evaluation of alternative ownership models.

A defining feature of the model of governance and ownership is that VocaLink is owned by companies operating in its own downstream market: Lloyds, The Royal Bank of Scotland (RBS), HSBC, and Barclays hold almost 80% of the share capital of VocaLink, with the remainder held by other banks and building societies.[8] The sustainability of this model is at risk in the context of the expected changes in the payments market. The challenges of the future market for payments include:

- increasing domestic and global competition in the market for the provision of payments systems and the underlying infrastructure;
- changing expectations of customers about how they access payment services and the quality of service they receive;
- technological advance that creates new ways to deliver value for customers and opportunities to deploy capital to finance investment;
- increased scrutiny by policymakers and regulators with the power to enforce change where necessary;
- continued requirement for high standards of reliability and system availability.

These pressures create risks to the long-run sustainability of VocaLink. One way to mitigate these risks is through reform of the governance and ownership model of VocaLink. Reform can be considered from two angles. First, in terms of how outcomes for the company, as well as a wide set of stakeholders in the payment systems market, may be affected if the current governance and ownership arrangements remain in place. Second, by considering the scope for alternative governance and ownership models to mitigate the risk of adverse outcomes in the payment systems market.

The changing payments market will affect all payment infrastructures in one form or another. This report is concerned with analysing the current ownership and governance model of VocaLink and hence drawing out the economic implications for VocaLink of the considerations described above. In particular, a key question to address is:

What reforms to ownership and governance structure would best mitigate risk to VocaLink, given the developments described above?

In other words, are there more suitable models of ownership and governance for VocaLink that could more effectively achieve the following:

- **greater competition** between payment systems and providers of payment systems infrastructure;

[6] KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', 31 August.
[7] Oxera (2015), 'Competition and innovation in payments: an analysis of market functioning and innovation', November, Figure 3.4.
[8] Most recent shareholdings: Lloyds Banking Group PLC 25.1%, HSBC Bank PLC 15.91%, Barclays Bank PLC 15.18%, Royal Bank of Scotland Group PLC 21.37%. Source: Orbis.

- **wider access** to payment systems infrastructure by payments service providers and other providers of financial services;
- **further innovation** in the interests of a wider set of payment systems users;
- **shareholder value maximisation** by focusing on delivering value to a wide set of users and end-customers.

This report draws out the economic implications for the future of VocaLink of the considerations described above.

Addressing the objectives of competition, innovation, and access will require a package of changes—reform to governance and ownership is necessary but only a part of the solution.

VocaLink has commissioned Oxera to provide an independent review of potential governance and ownership models for VocaLink. In the context of expected changes in the payments market and the risks these present to VocaLink, we have been asked to examine the extent to which these risks can be mitigated by alternative governance and ownership models.

This report provides evidence as an input into the Payment Systems Regulator (PSR)'s market review of the ownership and competitiveness of infrastructure provision. [9] It contains the following pieces of evidence and analysis:

- a review of the existing governance and ownership model of VocaLink;
- an analysis of the effect of this model on incentives and outcomes for a wide set of stakeholders in the market for payment systems;
- lessons from reforms in payments systems outside the UK and in other financial market infrastructures and the telecoms sector;
- an evaluation of five alternative governance and ownership models:[10]

  Model 1 Enhanced transparency arrangements (e.g. publication of Board minutes).

  Model 2 Enhanced corporate governance arrangements (e.g. increased voting rights for independent directors or a fully independent Board).

  Model 3 External equity capital is introduced; existing owners retain a controlling stake.

  Model 4 External equity capital is introduced; existing owners divest to a non-controlling stake.

  Model 5 Existing owners fully divest.

The report considers the long-term sustainability of these models from the perspective of the company as well as a wider set of stakeholders than the current shareholders and customers. It focuses on the incentives created by alternative models rather than their details as such (e.g. the identity of potential

[9] Payment Systems Regulator (2015), 'Market review into the ownership and competitiveness of infrastructure provision—terms of reference', June.
[10] This is a set of plausible governance and ownership models drawn from the full range of potential models. The models have been chosen because they reflect different points on a spectrum of differing degrees of outside scrutiny, financial interest, and control.

new owners) or their implementation (e.g. the transition path to an alternative model).

2 Why does governance and ownership matter?

This report focuses on the governance and ownership of VocaLink as a company and the impact of this model on incentives for the infrastructure provider and outcomes for a wide set of stakeholders in the payment systems market.

The UK is recognised as having one of the world's leading payment infrastructures, for example in the area of real-time payments.[11] Within the UK market, VocaLink has developed secure, reliable and resilient payment infrastructures and introduced many new services alongside the core provision.[12] Maintaining high standards of reliability is a key consideration for the evaluation of alternative ownership models.

VocaLink's corporate governance has been reformed and developed. For example, the size of the Board has been reduced and the number of non-executive directors has increased. However, the underlying trends in the payments market, including greater demands for competition and innovation and a high rate of technological change, put the long-term sustainability of the governance and ownership model at risk.

This section sets out the economic characteristics of the current model of governance and ownership, and considers its suitability in the context of the expected evolution of the payments market.

2.1 What does governance and ownership mean in this context?

Governance of payment systems is a broader concept than governance of VocaLink as a company, and includes the payment system operators (schemes) and Payments UK. Different combinations of the same banks and building societies own or control the scheme companies and VocaLink.

This report focuses on the governance of VocaLink as a company and the impact of its ownership model on incentives.

Corporate governance can be defined as the ways in which the suppliers of finance to firms assure themselves of getting a return on their investment. [13] Moreover, the Companies Act 2006 gives Directors the duty to promote the success of the company, taking into account the effect of decision in the long term, the interests of employees, the need to foster business relationships, the impact of decision on the community and the environment, while maintaining a reputation for business conduct and fairness between members (shareholders) of the company.[14] Following the duties set out for Directors should fully enable the business to ensure that resources are allocated in a way that maximises shareholder value.[15]

It has been argued that corporate governance should be directly concerned with the maximisation of a broad set of stakeholders rather than a more narrow focus on shareholder value maximisation. However, setting managers the objective of internalising the objectives of all stakeholders is unrealistic. First, without the focus on shareholder value, managers will have few constraints on their actions

[11] KPMG (2014), 'UK Payments Infrastructure: Exploring Opportunities', 31 August.
[12] Oxera (2015), 'VocaLink's vision for payment systems: an economist's perspective', Figure 3.6.
[13] See Shleifer, A. and Vishy, R. (1997), 'A survey of corporate governance', *Journal of Finance*, **52,** 737–83; and Becht, M., Bolton, P. and Roell, A. (2002), 'Corporate governance and control', *Handbook of the Economics of Finance*.
[14] Section 172, *Companies Act 2006*.
[15] Allen, F. (2005), 'Corporate governance in emerging economies', *Oxford Review of Economic Policy*, **21**:2, 164–77.

and will be able to justify a wide range of behaviour as serving the interests of a particular set of stakeholders. Second, the natural incentive of managers will be to align with the interests of the stakeholder groups that have the most power, rather than to give all groups equal weight.[16]

In well-functioning, competitive markets, managing the company to maximise shareholder value is consistent with maximising value for customers and stakeholders more generally.[17] The dynamics that lead to this result include:

- prices that reflect the willingness of customers to pay for goods and services and the ability of companies to provide them;
- managers that have the ability and incentive to respond to changes in the market place and customer requirements;
- a rigorous process for comparing the risk–reward profiles of different opportunities based on market signals and selecting the investments expected to contribute most to value, after adjusting for risk;
- capital being raised from external providers of equity or debt, where the opportunities to create value exceed the capacity of the company to finance investments from internal funds.

In addition to maximising value for shareholders collectively, the corporate governance arrangements extend to managing conflicts between different investors, such that they are:

> the ways in which a corporation's **insiders** can credibly commit to return funds to **outside** investors and can thereby attract external financing [emphasis added].[18]

The governance literature defines two types of owner: 'insider' and 'outsider'. Outsider ownership relates to shareholders whose primary interests are to maximise the value of the companies that they invest in. Insider ownership relates to shareholders who derive private benefits in addition to the value of their shareholding. The distinction between insider and outsider ownership is important because the insiders' interests can potentially be in conflict with those of the outsiders. This can be compounded where the outsider proportion of the shareholding is dispersed among a number of investors, which reduces the incentive of any individual shareholder to exert effective monitoring over management.[19]

In summary, good governance maximises shareholder wealth within the constraints of the market and regulatory environment and manages the potential conflict between different groups of shareholders.

2.2 What does modern governance and ownership look like?

Best-practice governance and ownership arrangements are not static concepts, rather they evolve to meet the changing requirements of economies and societies. There have been many attempts to codify 'best practice' domestically and internationally, and these codes are periodically revised and updated.

[16] Vives, X. (2000), 'Corporate Governance: Does It Matter?', chapter 1 in Vives, X. (ed) *Corporate Governance: Theoretical and Empirical Perspectives*, Cambridge University Press.
[17] Assuming all relevant costs and benefits are reflected in market prices.
[18] Tirole, J. (2006), *The Theory of Corporate Finance*, p. 16, Princeton University Press.
[19] La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. (2002), 'Investor Protection and Corporate Valuation', *The Journal of Finance*, **57**:3, pp. 1147–170.

However, there is broad agreement around a number of core principles, including:[20]

- separation of the roles of shareholders and the Board;
- accountability of the Board to the company and to shareholders;
- effective monitoring of management by the Board.
- protection of shareholder rights and the proportional treatment of all shareholders.

The 2014 UK Corporate Governance Code summarises that:

> the purpose of corporate governance is to facilitate effective, entrepreneurial and prudent management that can deliver the long term success of the company.[21]

These principles of good governance are compatible with a range of ownership arrangements. However, a global trend of particular relevance to this report is the break-up of vertically integrated companies and the outsourcing of suppliers.[22] Rajan and Zingales (2000) suggest that this is a consequence of the changing nature of investments from tangible towards intangible and human capital, and an increase in international competition.

Traditionally, when investment has been focused on creating tangible assets, the value of vertical integration is derived from having legal title and control over key economic inputs. In the modern economy, investment increasingly involves the creation of intangible assets, often in the form of human capital. Companies usually obtain the right to use these assets through employment contracts with staff, which is a fundamentally weaker form of control than having legal title over tangible assets. In such an environment, the value of vertical integration is significantly reduced.

International competition has facilitated increased specialisation and has revealed the competitive strengths and weaknesses of vertically integrated companies at different points in the value chain. The opportunities for cost savings and efficiency improvements from vertical separation and outsourcing have increased.

In summary, the establishment of formal, 'arm's-length' relationships between shareholders and the Board, and the trend towards voluntary vertical separation across much of the economy, are key features of modern governance and ownership models.

2.3 The future payments market

Technological advance has had a significant impact on the way companies provide products and services to customers across a wide range of retail markets. Increasingly, technology is also changing the ways in which customers pay. For example, the introduction of contactless technology by card companies has created a faster and more convenient payment method. Consumer technology companies such as Apple, Google, Amazon, and eBay have also integrated payment services within their existing customer propositions.

[20] Cadbury Committee (1992), 'The Financial aspects of Corporate Governance'; Financial Reporting Council (2014), 'The UK Corporate Governance Code'; OECD (2014), 'OECD principles of corporate governance'.
[21] Financial Reporting Council, op. cit.
[22] Rajan, R. and Zingales, L. (2000), 'The Governance of the New Enterprise', in Vives, X. (ed), *Corporate Governance: Theoretical and Empirical Perspectives*, Cambridge University Press.

The payments market is evolving quickly and is characterised by a large range of opportunities to generate value for customers and intense competition to be the providers of this value. These developments also present risks to the long-term sustainability of VocaLink. It is important to reflect on the salient features of the market as these provide the context within which to assess whether the governance and ownership of VocaLink is appropriate, given these circumstances.

- **The market for the provision of payments systems infrastructure will continue to become more competitive**.

  The contracts for Bacs, FPS and LINK could be competitively re-tendered at a similar time (✂). This would potentially give alternative bidders an option of bidding for more than one contract. To the extent that VocaLink's operational model benefits from combining multiple services under a 'leveraged model'—for example, the sharing of common infrastructure and operational costs—this competitive advantage will be reduced when bidders have the chance of winning multiple contracts.

  Improvements in computing power and the development of Internet protocol-based systems mean that the functionality of systems developed in the past can often be replicated using a different and cheaper technology solution (e.g. the potential for widespread use of 'distributed ledger' technology).[23]

  The Revised Directive on Payment Services (PSD2) will facilitate entry by new payment services providers and increases the opportunities for competitor providers of payment systems infrastructure.

- **European infrastructure providers are consolidating**. Since the introduction of SEPA and common standards (ISO 20022), infrastructure providers in the SEPA area have been consolidating. This creates a more active European market, in which the UK sits, with ever-strong competitors to contest UK contracts.

- **Customer expectations are changing**. A recent report by Payments UK outlines a series of changes that customers expect from payments systems.[24] Closer relationships with all potential customers are needed to give the infrastructure provider the information and incentive to develop products and services that customers want. This is particularly important when technology and customer expectations are changing rapidly.

- **Technology creates many opportunities to create value**. Not only does technology create different ways of delivering payment services, but also different ways of delivering services that depend on payment services. This creates opportunities for payment systems to innovate and generate value for customers, particularly given the ever-closer EU market. Infrastructure providers need the opportunity and incentives to respond to market signals and maximise value in this environment. In particular, this requires optimal scrutiny of investment proposals, and access to external sources of capital to finance value-enhancing propositions.

- **Infrastructure providers have a natural incentive to create widespread value for the whole industry**. The value of an infrastructure provider depends on the value they create for customers and the share of the market

[23] HM Treasury (2015), 'Digital currencies: response to the call for information', March.
[24] Payments UK (2015), 'World Class Payments in the UK, Enhancing the payments experience—Initial Report', August.

they can acquire. If an infrastructure provider is not innovating and delivering value, it will eventually lose its competitive edge and will cease to be sustainable as a commercial entity.

- **Increased scrutiny by policymakers and regulators**. The payments industry has received increased regulatory attention since the Cruickshank Report of 2000.[25] More recently, the Payment Systems Regulator (PSR) was introduced to oversee payment systems in the UK, with a mandate to promote competition and innovation.[26] The competitiveness of the retail banking market is also under scrutiny by the Competition and Markets Authority (CMA), and the interaction with payment systems is relevant to the assessment of competition in the retail market. At the EU level, one of the aims of the Revised Payment Services Directive (PSD2) is to open up payments markets to new entrants. The governance and ownership model needs to be compliant with regulatory requirements, but also to recognise that the effect of this regulatory change should spur competition and innovation, in an ever-changing and more challenging future environment.
- **Reliability of infrastructure is a high priority**. Payments infrastructure provides a core economic function and is relied on by users to be available when expected. VocaLink has provided a secure, reliable, and resilient infrastructure. The governance and ownership model needs to maintain incentives to ensure system reliability.

The features outlined above present both opportunities and risks for VocaLink. There is potential for the company to add significant value if it is able to take advantage of the opportunities that technological advance creates for serving all customers in new and innovate ways. However, if the company is constrained in its ability to respond to the requirements of all customers then it risks displacement by a competing infrastructure provider. The commercial viability of VocaLink requires a governance and ownership model that gives the company the instruments and incentives to remain as an innovative and competitive company in the future payments market.

VocaLink's vision is for a market structure that unlocks the potential of the future payments market and facilitates competition in the provision of payments systems platforms. As an intermediate step towards this goal, there will be competition in the provision of access solutions. The vision is intended to stimulate a form of innovation that delivers value to a wider set of users and stakeholders.[27]

In summary, the extent to which alternative governance and ownership models mitigate risk in the context of the changing payments market can be assessed in terms of how they provide incentives that facilitate the following:

- **greater competition** between payment systems and providers of payment systems infrastructure;
- **wider access** to payment systems infrastructure by payments service providers and other providers of financial services;
- **further innovation** in the interests of a wider set of payment systems users;

[25] Cruickshank, D. (2000), 'Competition in UK Banking: A report to the Chancellor of the Exchequer', March.
[26] It was decided that the PSR would be a subsidiary of the Financial Conduct Authority (FCA) following an HM Treasury consultation on UK payment systems. HM Treasury (2013), 'Opening up UK payment: response to consultation', October.
[27] VocaLink (2015), 'A vision for future competitive and innovative resilient payment systems: VocaLink's input to the PSR's market reviews'.

- **shareholder value maximisation** by focusing on delivering value to a wide set of users and end-customers.

Providing incentives to maintain high standards of reliability is a minimum requirement of any alternative ownership model.

The next section reviews the current VocaLink model of governance and ownership and assesses it against these objectives.

2.4 The current VocaLink governance and ownership model

The current model has created a financially and operationally resilient and stable company. The current ownership reflects the historic operating model, whereby VocaLink (and its predecessor companies) has acted as the operational meeting point for the UK banks that owned the company. In order to manage costs appropriately, VocaLink has, in effect, acted as a joint venture, with banks pooling their resources and maximising the joint benefit to the UK financial services sector. As a result, VocaLink has a solid operational service record for its bank shareholder customers.

Financially, the joint arrangements of VocaLink's history have similarly benefitted from the collective action of banks. The shareholders have never taken dividends from the company and have had the incentive to deliver a service that meets their needs as customers. The model enabled payment systems users to work together to produce a payments infrastructure and overcome the 'free-rider'[28] and 'hold-up'[29] barriers that often strongly disincentivise such a large investment. The model has been developed over time through governance reforms.

While the current model has met the needs of the industry for a resilient operation to date, having assessed the current state of VocaLink's governance and ownership in the context of future challenges, we believe that continuing with the same structure could pose significant risks to the business. The following two sub-sections explain first the economic features of the current arrangements, and second the issues with this model in the context of the future payment systems market.

2.4.1 Economic overview of the current model

There are different combinations of the same banks and building societies that own and control each of the payment systems (the schemes) and Vocalink (the infrastructure provider). The existing ownership and control relationships result in the same banks and financial institutions having control or significant influence over the industry, including a strong influence on Payments UK.[30]

The membership of the Board of Vocalink Holdings Limited includes six representatives appointed by the shareholders, three independent non-executive directors, the chief executive officer, the chief financial officer, and the chairman.[31] The Board is now smaller and more independent than it was before. These reforms will have provided better incentives to consider a wider set of stakeholders and will have increased the effectiveness of the Board. However, Shareholder Directors still have significant influence over the Board.

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[28] Tirole, J. (2006), *The Theory of Corporate Finance*, pp. 436–37, Princeton University Press.
[29] Ibid., p. 53.
[30] Accenture (2014), 'A Review of Governance and Ownership of UK Payment Systems', p. 5.
[31] Source: https://www.vocalink.com/about-us/our-people/ (accessed on 2 October 2015). The company is in the process of amending the articles of association to include an additional independent non-executive director.

At present, the joint owners and members of VocaLink and the schemes are 17 banks, including the large retail banks in the UK (Lloyds, Barclays, HSBC, and RBS) which also are the systems' biggest users.[32] The 'Big Four' banks between them own nearly 80% of VocaLink's shares, with the remainder owned by 13 other banks and building societies.[33]

For the big four banks, the share of net assets represented by their shareholding in Vocalink is very insignificant. The average value of the net assets share to each bank's market value for 2007–14 ranges from a high of 5 basis points (i.e. 0.05%) for RBS, to a low of 0.6bp (0.006%) for HSBC.[34] Maximisation of the value of VocaLink and developing innovative new services would be expected to be a low priority versus the operational importance of the services VocaLink provides. There is a risk that the banks view VocaLink as an operation to be run at minimum cost rather than as a source of innovation and value.

In relation to financial policy, VocaLink has been reliant on internal rather than external sources of long-term finance. It currently has no debt outstanding and its main long-term liability relates to a defined-benefit pension scheme (2014: £51.5m).[35] The group does not pay a dividend and is not accountable to unconnected external investors. Investments have been funded within the constraint of operating cash flows, and the company has not been capitalised as a stand-alone commercial entity operating at 'arm's-length' from its shareholders.[36]

In economic terms, the current model effectively enables common control of a sub-set of the companies operating in the downstream market and the current provider of an essential input. Although this has created a financially and operationally resilient and stable company and the model has been improved over time through governance reforms, this arrangement raises issues in the context of the future payments market.

2.4.2 The current model in the context of the future payments market

The opportunities from reform to the current governance and ownership model stem from two factors: the control currently exercised by shareholder banks; and the potential to realise value that accrues through their status as customers of the company, which may conflict with the objective of maximising the company's value. Specifically, there may be better models for incentivising competition, innovation, and access to payment systems infrastructure, which are key to delivering the potential of the future payments market.

First, by introducing accountability to unconnected outside investors, there would be a strengthening of the incentive to operate as a normal commercial entity and greater focus on the objective of maximising shareholder value. This would improve the commercial sustainability of the company and assist the development of more competition in the market for the provision of payments systems infrastructure.[37] This in turn would have benefits for potential new infrastructure providers and their customers.

Second, by opening up ownership beyond the banks and building societies that compete with each other in the downstream market for retail banking services,

[32] HMT (2013), 'Opening up UK payments: response to consultation', p. 15, paras 2.86–87.
[33] Most recent shareholdings: Lloyds Banking Group plc 25.1%, HSBC Bank plc 15.91%, Barclays Bank plc 15.18%, Royal Bank of Scotland Group plc 21.37%. Source: Orbis
[34] Based on data from Orbis and Datastream and analysis conducted by Oxera.
[35] Vocalink (2014), 'Vocalink Holdings Limited: Annual Report & Accounts 2014', p. 27.
[36] Ibid., p. 11.
[37] The current ownership structure does not prohibit entrants from competing, as demonstrated by VocaLink's unsuccessful bid for the recent Cheque & Credit Clearing Company tender.

innovations that focus on meeting the needs of a wider set of users may be better incentivised. Furthermore, as business cases for new products and services are likely to include commercially sensitive customer information on each of the shareholder banks, an alternative governance and ownership model may enable the Board of VocaLink to consider a wider range of investment propositions.[38]

Similarly, an alternative model may provide greater incentives to develop innovations that would enhance companies' ability to compete in the downstream market for retail banking services. This could enable the development of new financial services business models and greater competition.[39]

Technology and customer expectations are likely to continue advancing at speed. Payments systems and payments infrastructure have adapted and will need to continue adapting to these trends. If VocaLink were to face a more conventional set of commercial incentives, it may be more able to innovate in a way that promotes the interests of the wider users of the payment systems and improves the commercial sustainability of the company.

There is an opportunity to reinforce existing access arrangements through changes to the ownership models of the payment system operators and the schemes, by providing economic incentives to facilitate access to a wider set of users. This is important for creating the conditions that enhance competition and growth in related markets, including the development of new business models.

2.5 Conclusions

This section has considered the opportunities and challenges of the future payment systems market and the benefits that may be realised from a change to the governance and ownership structure of VocaLink.

The current model effectively enables common control of a sub-set of the companies operating in the downstream market and the current provider of an essential input. Although this has created a financially and operationally resilient and stable company, and the model has been developed over time through governance reforms, the future payments market presents challenges in relation to competition, innovation, and access to payment systems infrastructure.

In terms of the stimulation of more competition, by introducing accountability to unconnected outside investors, there would be a strengthening of the incentive to operate as a normal commercial entity, which may further assist the development of more competition in the market for the provision of payments systems infrastructure.

As regards innovation, by opening up ownership beyond the banks and building societies that compete with each other in the downstream market for retail banking services, innovations that focus on meeting the needs of a wider set of users may be better incentivised. Similarly, an alternative model may provide greater incentives to develop innovations that enhance companies' ability to compete in the downstream market for retail banking services. Reform to the current model may accelerate innovation.

[38] Vertical integration impairs the upstream company's ability to innovate where this requires downstream customers to disclose commercially sensitive information. Stefanadis, C. (1997), 'Downstream vertical foreclosure and upstream innovation', *The Journal of Industrial Economics*, **45**:4, pp. 445–56.
[39] This is in addition to the negative impact that significant levels of insider ownership have been found to have on corporate risk-taking, as documented in Wright, P, Ferris, S., Sarin, A, and Awasthi, V. (1996), 'Impact of corporate insider, blockholder, and institutional equity ownership on firm risk taking', *The Academy of Management Journal*, **39**:2, April, pp. 441–63.

Considering the incentives to provide access, there is an opportunity to reinforce existing access arrangements through changes to the ownership models of the payment system operators and the schemes, by providing economic incentives to facilitate access to a wider set of users.

To conclude, it is necessary to consider alternative models of ownership and governance as options that could mitigate risks to the company in the future payments market. An alternative model would provide better economic incentives to promote the interests of a wider set of stakeholders and contribute to the long-run sustainability of the company and the market.

3 Lessons from other sectors

Looking across other sectors, there is a range of potential alternative governance and ownership models. It is important to consider whether there is widespread evidence of adoption of the current model of ownership—i.e. ownership by some of the main companies that purchase services from the company. Moreover, it is important to understand the range of alternative models that are consistent with timely innovation in the interests of a broad set of customers and competition in markets for both intermediate and final outputs.

Most of VocaLink's competitors in the financial technology market have a more conventional model of governance and ownership, whereby users and owners are separated and normal commercial incentives prevail. Banks still have significant ownership interest in some payment systems, but there is a trend towards the dilution of their control and in some cases they have completely divested.

Innovation and growth has occurred where providers of financial market infrastructure have opened up their ownership and where consolidation has created companies with the scale and capabilities to be internationally competitive.

The wider trend towards vertical separation noted earlier in this report has been mirrored to some extent in the regulated telecoms sector. Vertical integration in the telecoms market has led to authorities imposing separation remedies, including divestments, where there has been evidence of adverse effects on competition in a downstream market.

Overall, there are no obvious and stable examples of the current VocaLink model—'consortium' ownership by a sub-set of the companies operating in its own downstream market—generating competition benefits or delivering timely innovation for a wider set of users.

3.1 Competitors of VocaLink

VocaLink is a technology company that provides infrastructure for the financial services industry. It experiences competition from FINTECHs (financial technology companies) such as FIS, Fiserv, and CGI, the card companies such as Visa and MasterCard, and other specialist payments infrastructure providers such as Equens and NETS.

The list of potential competitors extends to include the large American technology groups such as Google, Apple, Amazon, and eBay. All of these companies offer their own payment services and have the ambition and capability to extend their offering further into the payments market.

VocaLink's competitors exhibit a diverse range of governance and ownership models. Many of the FINTECHs and the card companies are stock market-listed and have widely dispersed ownership (e.g. FIS, Fiserv, Visa). There are also a number of privately held specialist payments infrastructure providers (e.g. NETS, SIA, Equens).

Among the specialist payment systems infrastructure providers, the trend has been towards opening up of ownership to outside investors and a dilution of the control exercised by the banks that use them. For example:

- SIA is currently owned 49.9% by FSIA Investimenti S.r.l (an Italian state owned public investment fund), 16.8% by F2i Reti Logiche S.r.l (an Italian private infrastructure fund), 8.7% by Orizzonte Infastrutture Tecnologiche S.r.I (an Italian public private equity fund), and by European banks including Intesa San Paolo S.p.A (4%), Unicredit S.p.A (4%), Deutsche Bank S.p.A (2.6%).[40]

- Equens' shareholding is split between five major German, Dutch and Italian banks: DZ Bank has a 31.1% ownership stake, ICBPI has a 20% stake, ABN Amro Bank has an 18.4% stake, ING has a 15.4% stake, and Rabobank has a 15.2% stake.[41]
- NETS was taken over in March 2014 by a consortium of buyers led by two US-based private equity funds, Bain Capital and Advent. The sale was in response to a strategic review conducted in 2013 that led NETS to conclude that it should no longer be owned by its customers and that it also required additional capital to invest in new payment systems.

These companies have used ownership change as a means to achieve scale and the capabilities to be internationally competitive. For example, SIA provides services in around 40 countries, Equens operates in the Netherlands, Germany, and Italy, and NETS operates throughout the Nordic region.

The FINTECHs have also used mergers and acquisitions to grow and expand their product offerings. Notable examples include the recent acquisition by FIS of SunGard, and the acquisitions of Open Solutions by Fiserv in 2013. By incorporating a range of payments technology companies within the same group, it is possible to provide the resources to bring innovative technologies to the market. Examples of innovative products that have been introduced by these companies include the following.

- In 2008, Fiserv launched a 'triple play' mobile banking product, providing secure banking access through text, mobile web browser, and mobile app. In 2012, it launched a real-time person-to-person payments system.
- FIS has recently introduced a cardless cash product to enable ATM cash withdrawals using a mobile app. This adds to existing mobile payments products offered by FIS, including remote check deposit, and person-to-person payments.

These companies place significant emphasis on innovation and have been recognised as innovative companies:

- FIS was named one of the Stevie Awards Most Innovative Companies of the Year at the 2015 American Business Awards;
- Fiserv's Agiliti™ product was named in 'The Innovators 2015 - Transaction Services' by *Global Finance* magazine;
- CGI won the 2014 Microsoft Intelligent Systems Partner of the Year Award and the 2014 SAP-Microsoft Unite Partner Connection Innovation Award.

The card companies also have a track record of innovation, including the introduction of chip and PIN technology, and more recently contactless card payments. As noted in a recent report, the move to contactless started in 2007, although widespread use by consumers did not take off until 2014.[42] In 2015, Visa and MasterCard have partnered with Apple and Google to enable

[40] https://www.sia.eu/Engine/RAServePG.php/P/252910010404
[41] http://www.equens.com/aboutus/organisation/governance.jsp
[42] Consult Hyperion (2015), 'The Future of Payments', a report for Payments UK (based on data from the UK Cards Association).

contactless payments on debit or credit cards to be made using Apple Pay and Android Pay.

The main lesson is that the competitors of VocaLink are companies with the scale and access to resources to be innovative. This is consistent with academic research that finds a positive relationship between 'market-based' systems of corporate governance (i.e. where there is a market for corporate control and change in ownership), expenditure on research and development, and growth.[43] The trend among these companies has been to open up ownership to outside investors. The future of the UK payment systems market will increase the exposure of VocaLink to these competitors and will require an ownership and governance structure that allows it to attract the resources and achieve the scale needed to be competitive.

3.2 Other financial services infrastructure

In the UK financial services market, two other significant precedents are the divestments by the owners of the London Stock Exchange and the London Clearing House (LCH). Both institutions were previously majority-owned by their users.

In the early 2000s, the London Stock Exchange created a new ownership structure based on transferable shares (not listed on the exchange). The ownership share of any single entity was capped at 4.9% of the total voting rights. The motivation for the ownership reform was to enable the institution to operate on a fully commercial basis, which was seen as essential to its future success in an increasingly competitive environment.[44] Specifically the new structure was to facilitate a clearer focus on customer needs, effective decision-making, and the flexibility to respond to changes in the business environment.

During the 2000s, the London Stock Exchange made several acquisitions including the purchase of EDX London and Proquote Ltd. The aim of the acquisitions was to improve the service offering and the market data and trading systems provided to users.[45] In 2012, the London Stock Exchange bought a 60% ownership stake in LCH.Clearnet, becoming its single largest shareholder. It has used the purchase of LCH.Clearnet to further broaden its product offering, and uses it to provide clearing services for OTC derivatives, fixed income, commodities and listed equity.[46]

The origins of LCH.Clearnet also involved user ownership. The UK predecessor to the merged entity—the London Clearing House—was owned in the 1980s by a consortium of six UK banks. This structure was reformed in the 1990s with majority ownership transferring to the whole clearing membership and three exchanges (LME, IPE, LIFFE) acquiring minority stakes.

LCH.Clearnet was created in 2003 by the merger of the London Clearing House and the Paris-based Clearnet. The merger resulted in the clearing members owning 45.1% of the shares, the Exchanges owning 45.1%, and Euroclear owning 9.8%.

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[43] Carlin, W. and Mayer, C. (2000), 'How Do Financial Systems Affect Economic Performance?', in Vives, X. (ed) *Corporate Governance: Theoretical and Empirical Perspectives*, Cambridge University Press.
[44] International Organization of Securities Commissions (2000), 'Discussion Paper on Stock Exchange Demutualization', December.
[45] See http://www.londonstockexchange.com/about-the-exchange/company-overview/our-history/our-history.htm.
[46] London Stock Exchange, 'Annual report 2014'.

The users of LCH.Clearnet continue to have a significant ownership interest since the purchase of a majority stake by the London Stock Exchange in 2012, holding between them the shares not owned by the London Stock Exchange.

Both the London Stock Exchange and LCH.Clearnet cases are examples of user-owned models being opened up to new owners. These changes in ownership have happened in an environment where technology has changed rapidly and the companies have expanded their product offerings to meet new customer requirements.

3.3 Separation in the telecoms sector

Vertically integrated structures and the issues they present in terms of competition, innovation, and access have been considered extensively by competition authorities and regulators.

The most relevant lessons come from the telecoms sector, where the speed of technological change is relatively fast, and the scope for competition is relatively large. The focus is often on joint ownership of the local access network infrastructure and the supply of services in adjacent competitive markets. These are to a large degree analogous to the concerns regarding ownership of a payment systems infrastructure provider by their banking customers.

The landmark case of ownership separation as a means to address competition concerns is the break-up of AT&T into a long-distance telephony company and seven separate incumbent local exchange carriers (known as the regional Bell operating companies, or 'Baby Bells').[47] The US Department of Justice considered that structural break-up would be the most effective way of introducing competition.

Following the break-up, competition developed in the long-distance call market (Sprint and MCI were major challengers) and long-distance call rates fell sharply. There was also a rebalancing of prices to reflect the underlying costs, which resulted in local call rates increasing, as the previous subsidy from long-distance calls was unwound. The equipment and R&D entities (part of the long-distance entity) were not as successful as AT&T had hoped, owing to competition from external rivals.

In the UK, the local access network is still owned by BT, which also has a significant presence in related competitive markets, including the downstream retail market. A review of the case for structural separation in 2004 resulted in the operational and legal separation of BT OpenReach from the rest of BT Group. However, BT OpenReach remains owned by BT Group.[48]

In light of concerns that operational and legal separation has not delivered the full extent of the expected benefits, Ofcom is again looking at the case for structural separation. In particular, it has been suggested that being owned by BT Group gives OpenReach an incentive to discriminate against BT's competitors in the downstream market, in terms of pricing, terms of access, or performance, and that separation would remove this incentive.[49]

Ownership separation has also been implemented in Australia, New Zealand, and Singapore, as a means of delivering investment in new infrastructure.

[47] *United States v AT&T Co* 552 F Supp 131 (DDC 1982).
[48] Ofcom (2004), 'Strategic Review of Telecommunications: Phase 2 Consultation Document', 18 November.
[49] Ofcom (2015), 'Strategic Review of Digital Communications—Discussion document', 16 July.

One of the challenges to achieving ownership separation of vertically integrated telecoms companies has been the practical difficulty of determining where to draw the dividing line between the new entities. In addition, the transitional costs of separation have often been viewed as large. In the case of VocaLink, neither of these challenges exists, as the company is already operationally and legally separate from its customers.

The main lesson from the telecoms sector is that separation created the conditions for greater competition in the US and UK markets, and that the full benefits may not be realised until full ownership separation is achieved.

3.4 Conclusions

This section has considered whether there is any evidence of wider adoption of the current model of ownership—i.e. ownership by some of the main companies that purchase services from the company. Three areas of particular relevance were considered:

- VocaLink’s competitors;
- other financial services infrastructure;
- separation in the telecoms sector.

Most of VocaLink’s competitors in the financial technology market have a more conventional model of governance and ownership whereby users and owners are separated and normal commercial incentives prevail. Banks still have significant ownership interest in some payment systems, but there is a trend towards the dilution of their control and, in some cases, they have completely divested.

Innovation and growth have occurred where providers of financial market infrastructure have opened up their ownership and where consolidation has created companies with the scale and capabilities to be internationally competitive.

The wider trend towards vertical separation noted earlier in this report has been mirrored to some extent in the regulated telecoms sector. Vertical integration has led to authorities imposing separation remedies including divestments, where there has been evidence of adverse effects on competition in a downstream market.

Overall, there are no obvious and stable examples of the current VocaLink model—consortium’ ownership by a sub-set of the companies operating in its own downstream market—generating competition benefits or delivering timely innovation for a wider set of users.

4 Potential alternative models

This section sets out five potential alternative models of governance and ownership and evaluates them against the criteria of:

- good corporate governance;
- incentives for competition in the provision of payments infrastructure;
- wider access to payments infrastructure;
- incentives for innovation in the interests of a wider set of payment systems users;
- incentives for reliable and resilient payments infrastructure.

The evaluation of the models against the objectives of improving competition, access and innovation leads to two related conclusions.

First, further reforms to governance would be insufficient to achieve the objectives. Additional independence and transparency requirements may generate marginal benefits in access, but could have unintended consequences that actually harm the development of competition and incentives to innovate.

Second, there is a range of options around ownership reform, but only reforms that result in the existing owners reducing their equity interest to a non-controlling stake will provide the conditions for effective competition and innovation in the interests of a wider set of payment systems users. Divestment of control could unlock the potential of the future payments market and the ability of VocaLink to compete and add value for a wider set of users.

4.1 Alternative models

The five models have been chosen because they reflect different points on a spectrum of differing degrees of outside scrutiny, financial interest, and control.

Model 1 Enhanced transparency arrangements (e.g. publication of Board minutes).

Model 2 Enhanced corporate governance arrangements (e.g. increased voting rights for independent directors or a fully independent Board).

Model 3 External equity capital is introduced; existing owners retain a controlling stake.

Model 4 External equity capital is introduced; existing owners divest to a non-controlling stake.

Model 5 Existing owners fully divest.

Models 1 and 2 both assume the retention of the existing ownership model, whereby the share capital of VocaLink continues to be owned by the main UK banks. Each model introduces a different type of governance reform.

Model 1 would require the publication of Board minutes as a means of providing transparency over decision-making and increasing the confidence of users in the governance process. This would be similar to the transparency direction issued by the PSR to the interbank operators.[50]

Model 2 would grant the VocaLink Board the independence and powers necessary to make strategic and sustainable decisions in the interests of the company for the long term. Matters reserved for the Board of VocaLink Holdings would be limited to those that are reserved for shareholders in a listed public limited company. This would be similar to the enhanced governance principles recently established in the water sector.[51]

Models 3, 4, and 5 all assume changes to the existing ownership model, with the main UK banks diluting their existing collective shareholding by selling a stake to an outside investor (or group of investors). In this context, an outside investor is defined as any investor other than a UK bank.

The differences between models 3, 4 and 5 are determined by the degree of control surrendered by the existing owners. Within each of these models there will be a range of combinations of degree of divestment and type of new investor(s). For example, under model 3, if there is a single new investor, the existing owners can divest up to a 49% stake and retain collective control. However, if the ownership of the divested stake is widely dispersed, the existing owners may be able to have effective control with a stake of less than 51%.

Models 3–5 are compatible with either privately held share capital or a public stock market listing. However, as ownership will be more dispersed under a listed model, the extent of divestment required to cede control will be greater than under a private model.

In the analysis that follows, the focus is on differing degrees of control rather than the size of divestment and type of new investor(s).

4.2 Evaluation framework

The evaluation of models depends on how well they provide an ownership and governance structure that is sustainable in the long run for VocaLink. The models are assessed for how well they deliver:

- good corporate governance;
- incentives for competition in the provision of payments infrastructure;
- wider access to payments infrastructure;
- incentives for innovation in the interests of a wider set of payment systems users;
- incentives for reliable and resilient payments infrastructure.

A key issue is payment system reliability, which is related to the concept of financial prudence. As regards the reliability of services to individual customers, this is a matter that can be addressed contractually and through service-level agreements between infrastructure provider and customer.

At the systemic level, the PSR must have regard to:

[50] Payment Systems Regulator (2015), 'A new regulatory framework for payment systems in the UK: policy statement', March, p. 32.
[51] Ofwat (2014), 'Board leadership, transparency and governance – principles', January.

the importance of maintaining the stability of, and confidence in, the UK financial system.[52]

In the PSR's policy statement, it was decided that this would not be translated into a legal direction in relation to the financial prudence of operators or infrastructure providers.[53] This was on the basis that stability was a more direct focus of other regulators and may not be a good fit with the PSR's remit as an economic regulator.[54]

Bacs and FPS must already have regard to financial prudence under the CPSS-IOSCO principles.[55] In addition, these services are subject to supervision by the Bank of England as part of its objectives to protect and enhance the stability of the financial system.[56]

In responding to the PSR's consultation,[57] the Bank of England noted that UK payment systems have historically demonstrated a high degree of stability and reliability, and that financial stability was not a primary driver of change.[58] Nevertheless, the Bank noted that changes presented both opportunities and risks for reliability. Four criteria were established to assess changes from a financial stability perspective:

- changes should not lead to an unacceptable increase in settlement risk;
- changes should maintain or enhance the robustness and resilience of UK payment systems;
- UK payment systems should facilitate the continuity of payment services in resolution;
- the Bank's ability to effectively supervise systemically important payment systems must be maintained.

The Bank will work closely with the PSR on financial stability issues throughout the market review of ownership and competitiveness of infrastructure provision on the issue of reliability.

4.3 Evaluation of alternative models

Full assessment of the models is provided in Tables 4.1–4.5. In summary, the main findings are as follows.

- Under all the models there is a strong incentive to maintain high standards of reliability due to the reputational and financial impact to the company of a system failure. The way in which this objective is achieved varies across the models.
- The enhanced transparency requirements of Model 1 would make VocaLink not viable as a commercial entity operating in the private sector, and would undermine incentives to innovate and the ability to be an effective competitor.

[52] Financial Services (Banking Reform) Act 2013, Section 49.
[53] Payment Systems Regulator (2015), 'A new regulatory framework for payment systems in the UK', PSR PS15/1.
[54] Ibid.
[55] Committee on Payment and Settlement Systems, Technical Committee of the International Organization of Securities Commissions (2012), 'Principles for financial market infrastructures', April.
[56] Bank of England (2015), 'Payment Systems Regulator Consultation Paper—A New Regulatory Framework for Payment Systems in the UK: Bank of England Response'.
[57] Payment Systems Regulator (2014), 'A new regulatory framework for payment systems in the UK—consultation paper', PSR CP14/1.
[58] Bank of England (2015), 'Payment Systems Regulator Consultation Paper—A New Regulatory Framework for Payment Systems in the UK: Bank of England Response'.

The model does not provide broad access to external capital, which may not give VocaLink sufficient resources to finance innovation.

- The governance reforms of Model 2 would significantly reduce the ability of the incumbent banks to influence innovation. However, this model does not provide broad access to external capital or a focus on shareholder value maximisation. This may not give VocaLink sufficient resources to finance innovation. Moreover, as independent directors are exposed to the downsides of risky innovations without sharing in the upsides, this model would reduce incentives to innovate. Furthermore, without the constraints imposed by external investors, VocaLink may be more likely to bid more aggressively for contracts than a normal commercial entity, which would hinder the development of competition.

- Model 3 provides the company with an injection of new equity capital and would entail the formalisation of a dividend policy. As such, it would enable the business to be capitalised on a more conventional 'arm's-length' basis, in contrast to the existing model whereby investments are financed from operating cash flow and retained earnings. Intuitively, this would be expected to increase focus on maximising shareholder value and generate improvements in competition, innovation, and access. However, the banks would still have overall control (including control over future capital calls) and would have both the incentive and the ability to run the company in their interests as customers rather than to maximise shareholder value. Indeed, in theory, there would be an added incentive for the banks to divert value from the new investors to promote their interests as customers.[59]

- Model 4 achieves the significant step of enabling ownership to be contested. The enabling of subsequent transfers of a controlling interest in the company provides a mechanism for increasing the performance of a company. If potential investors consider the company not to be delivering value commensurate with its potential, they are able to purchase a controlling stake and implement the strategic and management reforms that they consider are likely to maximise value.

  This model provides strong incentives for competition and innovation where this delivers value for customers (e.g. desired level of quality of service; competitive pricing): the company would have ongoing access to finance to support innovation and the financial return expectations of the new owners will remove the incentive for the company to bid more aggressively for contracts than other commercial entities. An advantage of the existing owners retaining a minority stake would be the retention of specialist knowledge at Board level, which potentially mitigates risks that may arise from transition to a different ownership structure.

- Model 5 would provide the clearest objective to maximise shareholder value by removing any conflict with the incentive for the main UK banks to promote their interests as customers. Full divestment provides a similar set of incentives to the model in which the existing owners retain a minority stake. An additional feature of the full divestment model is that it is a complete change from the previous structure, which may be perceived as providing better incentives for entry and competition.

[59] See La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. (2002), 'Investor Protection and Corporate Valuation', *The Journal of Finance*, **57**:3, pp. 1147–170.

Table 4.1 Model 1: Enhanced transparency requirements

Principles of good governance	Greater transparency over decision-making would act as a disincentive for the company to make changes that promote the interests of the shareholder banks over other users. There would be little impact on the incentive to maximise shareholder value. No market for corporate control.
Incentives for competition	Greater transparency over the Board's position on matters of strategic importance and commercially sensitive information would undermine the ability of VocaLink to be an effective competitor.
Wider access	Unlikely to be a significant increase in the incentive to provide wider access to non-owners.
Incentives for innovation	Some increase in incentives to innovate as the Board may be required to consider the needs of a wider group of users than the shareholder banks. Reduces the ability of individual banks to block innovations that strengthen their competitors as voting would be reported. Increased transparency would allow competitors to obtain more information on innovations and undermine VocaLink's ability to realise the full value of innovation. No access to external capital to finance innovation.
Reliability and resilience	Unlikely to be significant change in incentives for reliable and resilient systems.

Source: Oxera.

Relative to the current model, increased transparency requirements are unlikely significantly to strength or weaken incentives to provide reliable infrastructure and wider access. The company is less likely to undertake innovation as competitors would be able to obtain more information on investments and initiatives. This will also undermine the commercial viability of the company more generally and the ability of VocaLink to be an effective competitor.

Table 4.2 Model 2: Enhanced governance arrangements

Principles of good governance	Vesting more control in independent directors would reduce the incentive for the company to prioritise the interests of the shareholder banks over other users. The incentive to maximise shareholder value would be diluted, which risks the commercial viability of the company in a competitive environment. No market for change of ownership and corporate control.
Incentives for competition	Vesting more control in independent directors may place the interests of users ahead of the principle of shareholder value maximisation. This would hinder the development of competition by making the company likely to bid more aggressively for contracts than an entity subject to normal commercial constraints—i.e. delivering the required return on capital.
Wider access	Unlikely to be a significant increase in the incentive to provide wider access to non-owners.
Incentives for innovation	Some increase in incentives to innovate as the Board would consider the needs of a wider group of users than the shareholder banks. Removes the ability of individual banks to block innovations that strengthen their competitors. Independent directors would be exposed to the downside risks of innovation but not the upside benefits, which is likely to disincentivise innovation. No access to external capital to finance innovation.
Reliability and resilience	Unlikely to be significant change in incentives for reliable and resilient systems.

Source: Oxera.

Relative to the current model, enhanced governance arrangements are unlikely significantly to strength or weaken incentives to provide reliable infrastructure and wider access. A more independent Board may be more averse to risky and innovative investments than a Board with more direct accountability to shareholders and the interests of shareholders in realising the returns to successful risk-taking.

Enhanced governance through a more independent Board not primarily accountable to shareholders could lead to the company behaving less like a commercial entity. For example, the Board may direct the company to prepare contract bids that are attractive from the perspective of payment service providers but do not deliver the financial return that an entity subject to normal commercial constraints would require. This would not create incentives for new entrants to compete in the provision of payments infrastructure.

Table 4.3 Model 3: External equity capital is introduced; existing owners retain a controlling stake

Principles of good governance	New shareholders may provide a different perspective and bring broader experience to the Board. Increased incentive to operate as a commercial entity and maximise shareholder value. The company would be capitalised on a more conventional 'arm's-length' basis. New shareholders lack overall control and may have insufficient influence to effectively monitor management. The value of the capital raised would be discounted relative to the underlying value of the shares. This is because of the vulnerability of minority shareholders to the value of their stake being diverted to promote the interests of the majority shareholders. No market for change of ownership and corporate control.
Incentives for competition	The increased incentive to operate commercially and maximise shareholder value will enhance the ability of VocaLink to compete. The increase in resources to finance innovation will also enhance the ability to compete. The financial return expectations of the new owners will constrain the incentive for the company to bid more aggressively for contracts than other commercial entities. Banks would still have overall control and would have an incentive to divert value from the minority shareholders to promote the interests of the banks as customers—e.g. using the equity injection to reduce prices in future contract bids rather than to undertake value-generating investments.
Wider access	Increased incentive to provide access on terms that will grow overall revenue.
Incentives for innovation	Some increase in incentives to innovate as the minority investors would be expected to propose and support innovation that is expected to deliver at least the required return on capital. Dilutes the ability of individual banks to block innovations that strengthen their competitors. Provides a one-off capital injection that could be used to finance innovation.
Reliability and resilience	Unlikely to be significant change in incentives for reliable and resilient systems. Likely to be greater focus on the return on investment in system reliability.

Source: Oxera.

The introduction of external equity capital will provide financial resources for innovation. By improving the incentives for value maximisation, it is also likely to encourage innovation and to provide economic incentives to facilitate wider access. There will be stronger incentives to consider the commercial interests of the company relative to the interests of the shareholder banks when submitting contract bids, which improves incentives for new entrants to compete.

In terms of reliability, bringing in external equity capital will increase the focus on shareholder value maximisation. The extent to which this decreases the focus on system reliability depends on whether having reliable systems is a complement to, or in conflict with, shareholder value maximisation. External shareholders would be expected to focus more on the return on investment in system reliability rather than the absolute level of reliability. Nevertheless, the financial and reputational consequences of failing to achieve appropriate reliability standards are likely to mean that reliable systems are a necessity for delivering shareholder value. Reliability incentives may even be stronger when external equity capital is at risk.

Table 4.4 Model 4: External equity capital is introduced; existing owners divest to a non-controlling stake

Principles of good governance	The company would be controlled by owners with the incentive to operate as a commercial entity and maximise shareholder value. The company would be capitalised on a more conventional 'arm's-length' basis and decisions regarding distributing or raising capital would be made on the basis of shareholder value maximisation (minority investors would have pre-emption rights). New shareholders would have overall control and the ability to effectively monitor management. Creates a market for change of ownership and corporate control.
Incentives for competition	The increased incentive to operate commercially and maximise shareholder value will enhance the ability of VocaLink to compete. The ongoing access to resources to finance innovation will also enhance the ability to compete. The financial return expectations of the new owners will remove the incentive for the company to bid more aggressively for contracts than other commercial entities.
Wider access	Significant increase in the incentive to provide access on terms that will grow overall revenue. Some incentive to provide access to companies that compete with the banks, although moderated by the role of the banks as the single largest source of revenue for VocaLink and the role of the banks as minority investors.
Incentives for innovation	Significant increase in incentives to innovate as the new investors would be expected to propose and approve investments that are expected to deliver at least the required return on capital. Incentive to raise capital to finance innovation that is expected to deliver at least the required return on capital. Removes the ability of individual banks to block innovations that strengthen their competitors.
Reliability and resilience	Unlikely to be significant change in incentives for reliable and resilient systems. Likely to be greater focus on the return on investment in system reliability.

Source: Oxera.

Divestment that reduces the existing owners to a non-controlling stake will allow the company to operate independently of its current main customers. This will allow the identification, selection and financing of innovations that have the greatest potential to deliver value to all users of payments infrastructure. For example, this level of divestment would make it possible to form an investment committee that did not include any of the shareholder banks and could therefore undertake full scrutiny of investment proposals that involve sensitive client information. The incentive to maximise shareholder value would provide the company with similar incentives to competitors and new entrants when bidding for contracts, and thereby facilitate development of competition in the market for the provision of payment systems infrastructure.

A reduction of the ownership of the main UK banks to a non-controlling stake would deliver another significant benefit to corporate governance. It enables ownership to be contested and control to be transferred to a new set of owners. This 'market for corporate control' acts as a mechanism for improving the performance of the company.

An advantage of the existing owners retaining a minority stake would be the retention of specialist knowledge at Board level, which potentially mitigates risks that may arise from transition to a different ownership structure.

Table 4.5 Model 5: Existing owners fully divest

Principles of good governance	The company would be controlled by owners with the incentive to operate as a commercial entity and maximise shareholder value. The company would be capitalised on a more conventional 'arm's-length' basis and decisions regarding distributing or raising capital would be made on the basis of shareholder value maximisation. New shareholders would have maximum control and the ability to effectively monitor management. Creates a market for change of ownership and corporate control.
Incentives for competition	The increased incentive to operate commercially and maximise shareholder value will enhance the ability of VocaLink to compete. The ongoing access to resources to finance innovation will also enhance the ability to compete. The financial return expectations of the new owners will remove the incentive for the company to bid more aggressively for contracts than other commercial entities.
Wider access	Significant increase in the incentive to provide access on terms that will grow overall revenue. Some incentive to provide access to companies that compete with the banks, although moderated by the role of the banks as the single largest source of revenue for VocaLink.
Incentives for innovation	Significant increase in incentives to innovate as the new investors would be expected to propose and approve investments that are expected to deliver at least the required return on capital. Incentive to raise capital to finance innovation that is expected to deliver at least the required return on capital. Removes the ability of individual banks to block innovations that strengthen their competitors.
Reliability and resilience	Unlikely to be significant change in incentives for reliable and resilient systems. Likely to be greater focus on the return on investment in system reliability.

Full divestment provides a similar set of incentives to the model in which the existing owners retain a minority stake. An additional feature of the full divestment model is that it is a complete change from the previous structure, which may be perceived as providing better incentives for entry and competition.

4.4 Conclusions

The evaluation of the five models leads to the following conclusions.

Under all the models there is a strong incentive to maintain high standards of reliability due to the reputational and financial impact to the company of a system failure. The introduction of external equity capital would be expected to increase the focus on the return on investment in system reliability rather than on the absolute level of reliability. Although the way in which reliability is achieved is likely to vary across different models of governance and ownership, the viability of the business will remain dependent on achieving this objective.

Delivering good governance would be promoted by the existing owners divesting to a non-controlling stake and by the business being capitalised on a more conventional 'arm's-length' basis. This would provide normal commercial incentives to generate value. Divesting to a non-controlling stake also establishes a market for control of the company, which is not enabled by enhanced transparency, governance, or the maintenance of a controlling stake.

Competition is likely to be enhanced where the existing owners divest to a non-controlling stake. The incentive to maximise shareholder value and the ability to raise external capital will enhance the competitiveness of VocaLink. Conversely, models 1–3 are likely to have adverse effects on competition, for differing reasons. Enhanced transparency is likely to undermine the ability of VocaLink to be an effective competitor. The model where governance is enhanced and the model where a minority stake is divested may lead to VocaLink bidding more aggressively for contracts than a normal commercial entity; this may hinder the development of competition by making it harder for companies to enter the market.

All of the models facilitate non-discriminatory access to payment systems infrastructure.

Enhanced transparency and governance may aid innovation. However, the strongest increases in incentives to innovate are under the models where the existing owners divest to a non-controlling stake and the objective is to maximise shareholder value. In terms of the ability to innovate, the sale of a minority equity stake or reforms to governance and transparency do not provide ongoing access to finance for innovation.

The most suitable alternative models appear to be the two models where the existing owners divest to a non-controlling stake. An advantage of the minority stake model would be the retention of specialist knowledge at Board level, which potentially mitigates risks that may arise from transition to a different ownership structure. An advantage of the full divestment model is that it is a complete change from the previous structure, which may be perceived as providing better incentives for entry and competition.

To return to the key issue of ownership and governance reform as a way to mitigate the risks to VocaLink of the changing future payments market, the evaluation of the models against the objectives of improving competition, access, and innovation leads to two related conclusions.

First, further reforms to governance would be insufficient to achieve the objectives. Additional independence and transparency requirements may generate marginal benefits in access, but could have unintended consequences that actually harm the development of competition and incentives to innovate.

Second, there is a range of options around ownership reform, but only reforms that result in the existing owners reducing their equity interest to a non-controlling stake will increase the incentives for effective competition and innovation in the interests of a wider set of payment systems users, alongside other potential reforms to the market suggested by VocaLink's vision.

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VISA EUROPE

PSR CONSULTATION: Market Review into the ownership and competitiveness of infrastructure provision

1 EXECUTIVE SUMARY

1.1 Visa Europe welcomes the opportunity to provide comments in response to the Payment System Regulator's (the "**PSR's**") Interim report as part of its *Market review into the ownership and competitiveness of infrastructure provision* (MR15/2.2) (the "**Interim report**").[1]

The global payments landscape is evolving rapidly

1.2 We agree with the PSR that payment systems "*form a vital part of the UK's financial system*"[2], and are fundamental to the UK economy more broadly.

1.3 The payments industry has been characterised by unprecedented levels of dynamic change over the past decade. The rapid transformation has been precipitated by the evolution of information and communication technology. It has led to the emergence of new payment channels, new payment instruments, new market participants, and an increasingly global payment market. This scale and pace of change arguably distinguishes payment systems from other "traditional" regulated industries.

1.4 Alongside its *Market review into the supply of indirect access to payment markets*, this is the PSR's first major market review. It will potentially set a precedent for future work undertaken by the PSR. It is therefore imperative – for Visa, for the payments sector and for customers more broadly – that the PSR sets a high standard for its approach to regulation. Indeed, what is in the best interests of services users should be at the heart of both the PSRs competition and innovation objectives.

1.5 The PSR's approach and process should be driven by evidence and robust economic analysis, including a detailed understanding of the nature of harm and the variety and interactions between the underlying market imperfections; a well-evidenced assessment of potential interventions that effectively and proportionately address the problem; and a comprehensive impact assessment that encompasses the costs associated with the problem, and the potential costs and benefits of adopting the proposed remedies.

1.6 The consultation on the Interim report appears to be more focused on the PSR's proposed remedies than the interim findings. We believe that, given the extreme nature of a number of the proposed remedies, including the forced divestment of VocaLink, the PSR should have followed best regulatory practice and focused this consultation on its interim findings before putting forward any proposed remedies.

1.7 A robust approach to regulation is critical to ensure that any new intervention in the market purportedly in the interests of customers does not, in fact, have the opposite effect - stifling innovation in the UK payment system and leaving it to lag developments elsewhere in the world to the detriment of UK customers.

[1] The Interim report published on 25 February 2015.

[2] See paragraph 1.1: https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-ownership-competitiveness-infrastructure-interim-report-1.1.pdf

The structure of this response

1.8 The remainder of the response is structured as follows. In Section 2 we provide our general view on the findings outlined in the PSR's Interim report. In Section 3, we then provide feedback on each of the remedies proposed by the PSR. Section 4 provides concluding remarks.

2 GENERAL COMMENTS ON THE PSR'S FINDINGS IN ITS INTERIM REPORT

The PSR's approach should be driven by evidence and quantitative economic analysis

2.1 This is a major market review with potentially far-reaching implications for the UK payment system today and into the future. It is therefore crucial, in our opinion, that the PSR's approach and process reflects regulatory best practice.

2.2 Good regulatory practices, with a clear overarching regulatory framework, well-evidenced decisions and a proper process of consultation with stakeholders, should ensure that the sector continues to experience significant investment to the benefit of UK customers. Without this, we believe that there is a significant risk that regulatory interventions have a chilling effect on investment and innovation – ultimately to the detriment of customers.

2.3 Visa Europe has a serious concern that the current approach of the PSR does not currently fully accord with good regulatory practice, thereby introducing significant risks into the sector which, we believe, could ultimately be harmful to customers.

2.4 Our concerns are twofold. First, we are concerned that the PSR has not to date adopted a sufficiently ***robust analytical approach*** to this market review.

2.5 Typically, regulatory interventions are designed to address a specific market failure that, in the absence of intervention, will lead to an inefficient outcome and cause harm to customers. While interventions can avoid or mitigate these adverse outcomes and lead to substantial benefits to customers, they also create further distortions to competition and risk reducing the incentives to innovate, which may ultimately impose substantial costs on customers.

2.6 It appears, so far in its review of payment systems infrastructure, that the PSR has relied heavily on previous studies dating back to the turn of the century. Most notably, the Cruickshank Report is cited as evidence of a lack of competition in interbank payment systems, and as evidence that the current ownership and governance structure is a source of the perceived market failure. However, payment systems are dynamic and evolving markets subject to significant technological innovations, and it is our view that more up-to-date analysis that focuses on quantifying the harm caused to end customers is warranted. This is particularly important where the PSR is proposing highly intrusive measures such as divestment.

2.7 We welcome the PSR's clear articulation of the criteria that it imposes when deciding on potential remedies, including the effectiveness and proportionality of any potential remedy.

2.8 However, it appears difficult to assess the PSR's proposed options against these criteria without a full analysis of the evidence, including a robust assessment of the potential benefits to end users and the potential costs imposed on market participants. As set out in the Financial Conduct Authority's ("**FCA**") methodology for regulatory economic analysis titled *Economics for Effective Regulation*, the FCA is required to conduct a cost benefit analysis when consulting on new policy as part of its competition and legal obligations.[3]

2.9 In summary, any regulatory intervention inevitably comes with costs as well as benefits to services users, and ultimately, end customers. In our view, it is the regulator's duty to assess or weigh up these costs and benefits in deciding whether to proceed with an intervention. To date, we do not believe that the PSR has undertaken this analysis of costs and benefits fully and robustly. This has the potential to cause significant harm to customers. Equally, if not more importantly, **the regulator must be seen to operate in this manner**. Even the perception that a regulator might not adopt a full and rigorous analytical approach to assessing a proposed intervention in the market is likely to have a serious negative impact on market participant sentiment – potentially increasing costs of finance and undermining investment – ultimately to the detriment of customers.

2.10 This brings us to our second concern which relates to the ***process*** that has been adopted by the PSR for this market review.

2.11 The PSR's Market Guidance (PSR PS15/2.2) sets out a structured approach that the PSR should follow when carrying out a market review under the Financial Services and Banking Reform Act.

2.12 During the "*Analysis and interim report*" phase of a market review, the PSR states that it will:

- "*Assess how well the market is working for service users and any evidence of issues/market failures*
- *Assess extent of any service-user/consumer detriment*
- *Publish interim report outlining analysis, preliminary conclusions and, where practicable and appropriate, proposed solutions for addressing any concerns identified*"[4] (emphasis added)

2.13 We consider that the PSR has presented little evidence that any perceived competition issue has caused a significant detriment to service users, or end customers, and that the Interim report does not, in our view, contain sufficiently complete analysis of the underlying issues.

2.14 More importantly, given the highly intrusive nature of a number of the proposed market interventions, we would contend that it was not "practicable and appropriate" to outline proposed remedies before properly assessing and consulting on the preliminary conclusions reached by the PSR.

2.15 Before the PSR publishes its final report we would ask that it conducts a full and proper process including a comprehensive quantitative analysis of costs and benefits to customers of the proposed interventions.

[3] See page 3: http://www.fca.org.uk/static/documents/occassional-paper-13.pdf

[4] See page 6: https://www.psr.org.uk/sites/default/files/media/PDF/PSR_PS15_2.2_Markets_Guidance_0.pdf

3 SPECIFIC COMMENTS ON THE REMEDIES PROPOSED IN THE INTERIM REPORT

3.1 This section provides Visa Europe's high level view on each of the four remedies proposed by the PSR in its Interim report.

3.2 As noted above, we were surprised that the consultation questions in Annex 8 of the PSR's Interim report do not focus more on the PSR's interim conclusions and initial findings. We have chosen not to submit a response to the specific consultation questions, but have instead structured our response around each of the proposed remedies in Chapter 8 of the Interim report.

Remedy 1: Competitive procurement exercises

We support a competitive tender process for infrastructure services but would caution against imposing overly prescriptive requirements

3.3 Visa Europe broadly agrees that a competitive procurement process may go some way to addressing a perceived lack of competition in the market for interbank infrastructure, by ensuring that operators are better informed about alternative infrastructure services.

3.4 However, we would strongly caution against the PSR imposing overly prescriptive tendering requirements on interbank payment system operators. While we agree with the PSR that any competitive procurement process should be credible, open, fair, and based on best practice, the proposal put forward by the PSR represents, in our view, an unjustified regulatory intrusion.

3.5 In its Interim report, the PSR specifically states "*we do not see the provision of central infrastructure services in Bacs, FPS and LINK as a natural monopoly*".[5] However the requirements for procurement processes proposed by the PSR, which includes the condition that procurements must be monitored by an independent person, go significantly beyond even those stipulated for recognised natural monopolies.

3.6 It is important to recognise that overly prescriptive requirements will inevitably inhibit the flexibility of operators to design and run a process that best suits their requirements. This can impose substantial costs that need to be carefully assessed against the benefits of the intervention.

3.7 In our view, the PSR could effectively encourage competition by setting out general guidelines on best practice procurement processes. This would ensure that the procurement process was competitive, while limiting any regulatory intrusion and allowing operators some autonomy to design and run the process for what ostensibly should be a commercial decision making process. An intrusive and overly prescriptive procurement process such as that proposed in the Interim report risks leading to a sub-optimal market outcome, for example by stifling innovation or increasing risks in the system, which would be to the detriment of users of interbank payment systems, and ultimately, UK customers.

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[5] See paragraph 4.3: https://www.psr.org.uk/sites/default/files/media/PDF/MR1522-ownership-competitiveness-infrastructure-interim-report-1.1.pdf

Remedy 2: Interoperability

A full cost-benefit analysis is required to determine whether a common international messaging standard should be adopted

3.8 Visa Europe recognises that there are potential benefits associated with the adoption of common international messaging standards that have been adopted by interbank payment systems elsewhere in Europe. However we would also stress that there are potential drawbacks, and these should be considered by the PSR as part of a full cost benefit analysis before any decision is reached.

3.9 The majority of the payment systems in the UK – FPS, LINK and the global card systems – currently operate on an implementation of the ISO8583 standard. The proposal by the PSR to migrate interbank card systems to a new base messaging standard will not result in interoperability among payment systems in the UK.

3.10 Interoperability among interbank systems has been pursued elsewhere in Europe in order facilitate and lower the cost of cross border credit and direct debit transactions denominated in euros. In the UK, however, these cross border transactions represent a very small percentage of all transactions. Accordingly, there is unlikely to be significant direct benefit resulting from interoperability across interbank payment systems in the UK and in continental Europe.

3.11 Further, it is not clear from the evidence provided by the PSR that the current messaging standard is deterring potential providers from entering the market. According to the PSR, only one potential provider said that they would not be interested in competing for UK interbank payment systems unless the ISO 20022 standard was adopted.

3.12 Conversely, any migration would impose significant costs across the payment system, including for infrastructure providers, operators, and Payment Service Providers (PSPs). It is likely that these costs would be passed through, at least in part, to end customers. There is also a risk that standardisation could inhibit innovation by locking in a sub-optimal solution, and potentially increase the cost of transitioning to superior technologies in the future.

3.13 As noted by the PSR, several other forums are currently considering the business case for moving to common international standards. We are of the opinion that these assessments should be completed before the PSR makes a further decision. Even then, a decision should be subject to a full cost-benefit analysis.

Remedy 3: Ownership of VocaLink

A full cost-benefit analysis is required before PSPs are forced to divest their interest in VocaLink

3.14 In our view, divestment is a very extreme regulatory intervention that is rarely imposed by regulators.

3.15 We understand that the PSR considers the ownership and governance arrangements of VocaLink as a key reason for the lack of competition in interbank payment markets. Concerns were first raised in the Cruickshank Report in 2000, which found that there was a lack of competition and innovation in the money transition market, and noted that some of these problems could be traced to the governance of the UK payments systems. These concerns were echoed in other reviews such as the Office of Fair Trading Payment Systems Report in 2003.

3.16 However, the remedy put forward by the PSR – that direct PSPs should be forced to divest their interest in VocaLink – is, in our view, an extraordinary regulatory intervention that has not been subject to a proper assessment process, including a comprehensive and up-to-date quantitative analysis.

3.17 The evidence presented by the PSR to date does not, in our view, demonstrate a clear link between the ownership structure of VocaLink and harm to customers. Indeed, as discussed by the PSR in its Interim report, the current ownership structure creates important benefits for the interbank payment system in relation to stability, security and resilience. The PSR also acknowledges that stakeholders are generally happy with the services provided by VocaLink.

3.18 Further, in its report on Competition and Collaboration in the UK Payment Market commissioned by the PSR, London Economics concludes that "*the particular ownership structure of VocaLink does not appear likely to have significant detrimental effects on competition*."[6]

3.19 Given that the lack of supporting evidence and the severity of the proposed market intervention, we contend that the PSR should have conducted a full cost benefit analysis before announcing the proposed divestment of VocaLink. The announcement of the proposed remedy without analysis and evidence to support its findings imposes potentially significant costs on the owners of VocaLink because it places them in the position of a distressed seller. Were the case to be fully justified from an analytical standpoint, this cost or loss of value may be warranted. However, without a fully evidenced case, the PSR runs the risk of causing market participants to extrapolate from this particular proposal to fear further, potentially not fully evidenced, proposals by the PSR. As noted earlier, even the perception of such an approach by the regulator has the potential to impact negatively on the sentiment of market participants (for example in the way that investment decisions are made) in a way that is detrimental to customers.

3.20 We would ask that the PSR follows best regulatory practice for the remainder of the market review, including a full quantitative analysis of the costs and the benefits, before announcing any further decisions.

Remedy 4: LINK

3.21 ***We believe that there are further opportunities to remove barriers that are currently preventing competition***

3.22 Governance arrangements have been addressed to some extent with the announcement on 1 April 2016 that LINK and VocaLink have separated.

3.23 However, as noted by the PSR, the contract for LINK infrastructure services is between VocaLink and all 38 PSPs, which makes it difficult for individual PSPs to switch providers. We believe that the separation of LINK and VocaLink presents an opportunity to revise these contracting terms to allow individual PSPs to contract with alternative providers. In our opinion, this would encourage competition in the market for infrastructure services, and result in more efficient outcomes for customers while minimising regulatory intrusion.

[6] See page 28 here: https://www.psr.org.uk/sites/default/files/media/PDF/Create%20File%20page/london-economics-report-on-competition-and-collaboration-for-the-psr.pdf

4 **CONCLUSIONS**

4.1 This is a major market review with potentially wide-reaching implications for both efficiency and innovation in UK's interbank payment systems, and ultimately, the customers that rely on them.

4.2 We are concerned that the PSR has not adopted a sufficiently robust analytical approach or an appropriate process when conducting this market review. Given the extreme nature of a number of the proposed remedies, including the forced divestment of VocaLink, the PSR should have followed best regulatory practice and focused the consultation on its interim findings before putting forward any proposed remedies.

4.3 We would therefore ask that the PSR conducts a full assessment of the costs associated with the perceived lack of competition, and the potential costs and benefits of adopting the proposed remedies before announcing any further decisions or publishing its Final report.

4.4 Visa Europe looks forward to engaging further with the PSR in the future.

Response to the market review by the PSR

Market review into the ownership and competitiveness of infrastructure provision

Final

21 April 2016
Classification: Public
Version v1.0

Sound solutions, solid results

Management summary

Equens welcomes the opportunity to respond to the Market Review and broadly agrees with the principles in the report and the general direction of travel towards creating a more open and competitive UK Payments landscape.

We believe that the introduction of more credible competitors in the UK will increase innovation, value and affordability whilst also improving resilience and robustness. It will allow new services to be introduced by new entrants, who may introduce end-user innovations like e-Invoicing and other (mobile) digital services.

We would suggest that the best solution would be to emulate the multi-CSM SEPA model which is well established and best supports the aspirations laid out in the report. We feel this would offer the best opportunity to encourage multiple, proven, competitors to enter the market.

This response discusses the various areas which were requested in detail but we believe the following points will be key in creating the desired target environment.

- Improved interoperability with the use of common standards, based on ISO 20022, combined with the unpacking of vested Intellectual Property and UK specific functionality (Service User Numbers , the Sort Code Directory etc.) is an essential pre cursor to removing the barriers to credible competitors. Payment submission standards must also be common to ensure the type of wider ACH consolidation the interim report references.

- From an ownership perspective, we recommend a separation between the users of the services and the suppliers of the services. It is difficult to see how a competitor will bid for business successfully if the major customers are already effectively buying the service from themselves. Separation of ownership will also remove any potential reluctance for VocaLink to innovate in ways that might be seen as competing with their owners.

- Separating Faster Payments, the Bacs service and LINK and changing the ownership models for each would be a good first stage but, in our view, will not ultimately encourage more entrants to the market. The key is to combine this with much improved interoperability both ‘inter’ and potentially ‘intra’ scheme and to institute a multi CSM SEPA like model.

- Some form of market incentive may be needed to encourage the gradual tapering of payments volume from the current infrastructure provider.

- The report does not address VocaLinks’s Instant Payments capability, which could potentially be used as a competitive technology to Faster Payments and ultimately the other schemes.

- Different pricing models should be discussed perhaps based more on customer volume for example, to encourage competiveness. This also raises the question of scheme disintermediation leading to a more direct relationship between customer and supplier.

- A competitive and independent procurement process is essential but there must first be a high level of confidence that a different bidder could actually be successful in winning at least some percentage or discrete parts of the service, rather than simply being used as a ‘stalking horse’. If the tender process mandated a multi CSM approach then this would inevitably encourage more active engagement from interested and credible suppliers.

- The resilience and robustness that a multi CSM competitive landscape would provide should not be understated from a Business Continuity perpective. There is currently no viable backup to the Bacs or Faster Payment services.

In conclusion, Equens welcomes the report and broadly supports its findings. We look forward to engaging further with the PSR and supporting it in moving to a robust, flexible, innovative and competitive UK payments landscape.

[✂]

Content

1 Remedy 1: Competitive procurement process

Taken at face value the idea of an open procurement process appears to be a reasonably equitable approach to encourage more competition. The main issue from a commercial perspective is the substantial cost of bidding for this work set against the risk that potential bidders will be used to reach the situation where the status quo is maintained but at a lower price point. This was the case that was discussed in the report with the LINK RFI process.

It is essential therefore to build a high level of confidence that a different bidder could actually be successful in winning at least some percentage of a service or discrete parts of a service. Remedy 1 therefore, taken in isolation, would not neccesarily succeed in attracting sufficient interest from qualified participants in this market. It would be prefereable to look at Remedy 1 as part of a package of measures.

If interoperability was increased and the services which VocaLink currently supply where broken up into more constituent parts with a variety of ownership options and the need for a single winner – a monopolistic infrastructure supplier - was removed, there would be a real chance of a full competitive procurement process which would attract the right calibre of bidder.

1 Would this remedy be effective in addressing the problems we have identified?

As discussed above a full, transparent and independently run commercial procurement process could be effective but only within the context of some sort of guarantee that it was not simply a device to reduce the price point offered by VocaLink.

2 What are the relevant potential costs and benefits that we should consider?

If the commercial procurement was to be a success, it is our view that it would have to be part of a wider package of remedies. This will ultimately mean that an initial exercise will have to be undertaken to ensure that the various services which VocaLink currently supplies are capable of being presented in such a way as to encourage the maximum number of interested bidders.

This will have a cost implication and the question arises as to who would be responsible for this.

Any procurement on this scale will have a cost connected to it but the potential advantages of a real commercially competitive payments landscape would ultimately drive down cost, increase robustness and encourage innovation.

Any serious bidder will also incur substantial costs in replying to, what would inevitably be, a complex RFP. These costs could be reduced depending on the openness required by VocaLink with respect to any proprietary standards and Intellectual Property which may need to form part of any solution.

3 Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

A direct sale of a monopolistic infrastructure and services supplier would not solve the core issue of competitiveness and may, in fact , make it worse if a commercially focused company increased barriers to entry for new entrants / competitors. There is also the possibility that a new owner of a monopolistic infrastructure may decide, having won the contract on cost grounds, to scale back on the quality of the service being offered.

4 Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

As discussed earlier, rather than a completely alternative approach, we would suggest that a truly open, transparent and competitive process would only be effective when used in conjunction with ownership restructuring, improved interoperability, unbundling of services and shared Intellectual Property.

5 What implementation issues do we need to consider, including (but not limited to):

- Are the operators best placed to undertake the procurement exercise?
- The timing of the proposed procurement exercises.
- Would there be benefits and/or detriments if these processes were coordinated?

Are the operators best placed to undertake the procurement exercise?
If a multi CSM solution was to be adopted, then direct negotiations could be conducted between individual PSPs and accredited CSMs, rather than through a central scheme with common pricing.

In any accreditiation process, independence will be key to ensuring that innovative and creative solutions are not ruled out in the initial stages because of fixed historic processes within the commissioning body. It is essential that a variety of solution approaches are considered.

The timing of the proposed procurement exercises.
In our view, it would be beneficial for preliminary stages of the process to start as soon as possible to identify interested parties. This will also have the effect of demonstrating a real commitment for change on behalf of the current operators whilst helping to identify credible interested parties.

Would there be benefits and/or detriments if these processes were coordinated?
Separate procurement processes can be managed; however, we feel that this should be in the context of an overall co-ordinated framework to ensure transparency and avoid possible monopolistic bids for multiple services.

2 Remedy 2: Interoperability

1 Would this remedy be effective in addressing the problems we have identified?

We recognise that addressing interoperability is an absolute necessity to achieving healthy competition in the market. If multiple providers are to co-exist and provide central infrastructure services at the same time, in a SEPA like multi-CSM model, it is crucial to have a common set of governance agreements, operating rules, processes and technical messaging standards. Therefore, moving to the XML ISO20022 messaging standard would only be the first stepping stone in achieving interoperability in the UK market.

A set of additional operating rules and agreements would need to follow to ensure full interoperability between different providers of the central infrastructure services. Experiences in SEPA have shown that ensuring interoperability can be challenging if rules are left open to any interpretation by the individual PSPs, even within national borders.

We also recognise and agree that moving to ISO20022 standards will be beneficial for promoting competition for the market, as many potential players have this existing capability.

Payment submission must also be common, e.g. security/authorisation, network submission infrastructure, etc. For the Bacs service the use of SUN codes (Service Users Numbers) and the SCD (Sort Code Directory) for instance make the UK different, potentially preventing the wider ACH consolidation referenced in the interim report.

We therefore recommend that the PSR considers the broadening of the Interoperability scope to include the many lessons learned from implementing SEPA. The EACHA have published several documents and frameworks addressing interoperability in the SEPA zone that address these lessons. Additionally, we recommend that interoperability standards are mandated to ensure a PSP only needs to connect to one CSM to obtain reach within the UK.

2 What are the relevant potential costs and benefits that we should consider?

Moving to the global XML payment messaging standards will deliver the following potential benefits:

- More providers will be capable of offering a solution, ensuring enhanced capabilities and lower pricing;
- There will be increased opportunity for the sharing of best practice both by the UK and Internationally;
- Better connections to Europe and the rest of the world by adhering to common standards.

However, the introduction of ISO20022 messaging to the UK market would be significant. The Std18 message format is at the heart of UK payments processing for Bacs and Std18 messages are generated by tens of thousands of individual companies and passed directly to VocaLink.

Changing the messaging coming from tens of thousands of corporates will be a major change; the experience of the move to Bacstel-IP from Bacstel in the early part of the century demonstrated that getting corporates to upgrade their payments software needs strong direction and careful planning.

3 Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

Having a multi-CSM model enabled by interoperability (i.e. multiple providers at the same time, each PSP choosing its own CSM) has some potential issues that will need to be addressed:

- If not fully considered, interoperability could mean lower availability and reliability due to extra parties in the payment chain (although the presence of a second CSM will provide a more robust UK payments infrastructure overall);
- Credit risk mitigation, especially for FPS, needs to work across multiple CSMs;
- There could be possible differences in the end user experience, i.e. submission or reporting timelines, error validation, etc. However these differences should drive innovation and improvements in the end user experience;
- Operational procedures for tracking & tracing of payments would require additional engineering to avoid unnecessary complexity for end users.

4 Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

Use of message mapping / translation software would enable the translation from XML ISO20022 messages to the existing UK message standards and vice versa, while reusing the existing scheme processes and operating rules.

This alternative remedy might not be as effective as the full implementation of global standards, but it should be considered on the grounds of both cost-efficiency and implementation timelines. The impact of this remedy would be minimal on PSPs, which would simplify the overall implementation project.

If increased competition was needed in the short term, then this remedy could be an interim step ahead of full migration to ISO20022 messaging standards.

5 What implementation issues do we need to consider (including the length of a transition period)?

Switching the central infrastructure provider entails a substantial effort by all parties involved in the payments chain. First of all, the central implementation project will need to establish effective governance mechanisms so that all stakeholders are fully aligned in terms of planning, dependencies, testing, etc. Some of the key issues that may need to be addressed as part of the project are:

- Identification of community and PSP-specific features which are currently embedded in the existing central infrastructure and safeguarding their migration to the new infrastructure (e.g. Real Time Information (RTI) for tax reporting by UK employers);
- Ensuring end-to-end testing, including processing at sending and receiving PSPs;
- Implementation of new connections, gateway implementations and certificates;
- Identification of operational process changes at PSPs;
- Volume migration strategy with a period of parallel running of the old and new infrastructures while switching (especially for Faster Payments).

The implementation project might easily take a few years, considering the necessary change processes at PSPs, community and bank specifics embedded in the central infrastructure, as well as getting the required regulatory approvals.

6 Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?

Community and bank-specific processes and functionalities which are fully embedded in the core of the existing infrastructure and which cannot be easily added to the ISO20022 generic infrastructure solutions might form a barrier, especially if these specifics have been poorly documented.

Required regulatory approvals for the provision of the central infrastructure in the UK might require extensive additional investments by the providers in terms of ensuring compliancy with the UK specific rules and regulations, which are different or additional to the rules and regulations in the Euro zone.

3 Remedy 3: Ownership of VocaLink

1 Would this remedy be effective in addressing the problems we have identified?

Because the five largest VocaLink shareholders also currently control the overall strategy and decision-making of Bacs, FPS, and LINK we agree that this current structure could inhibit the PSR's statutory objectives.

We would therefore expect that a change in the current VocaLink ownership arrangements along with the progression of the other remedies would increase competition in the provision of central infrastructure services.

2 What are the relevant potential costs and benefits that we should consider?

We believe the following should be considered:

Potential benefits:
- Increased competition and innovation;
- Potentially reduced-costs.

Potential costs:
- If it is not strongly mandated and managed the change of ownership could disrupt VocaLink's management team from its operational delivery focus and also prevent new central infrastructure providers from wanting to invest in the UK market.

3 Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

If strongly mandated and managed we do not believe it would.

4 Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?

The divestment of a majority stake rather than complete change of ownership could be considered, e.g. prior to moving away from providing commercial banking services the Bank of England was a shareholder.

5 What implementation issues do we need to consider, including (but not limited to):
- Who should be required to divest their shareholding?
- Timing of the divestment
- What (if any) purchaser suitability criteria should be applied?
- What (if any) additional measures are required to ensure security and resilience?
- Should the divestment be full or partial?
- If partial, to what level should an individual PSP shareholding also be reduced?
- If partial, should the total shareholding held by PSP also be limited?
- Should changes to Board composition also be stipulated?

At this stage Equens feels that, until the target model is clear and unambiguous, it is too early to comment in detail as any ownership decisions will be heavily influenced by the final decision.

4 Remedy 4: LINK

1 Would this remedy be effective in addressing the problems we have identified?

As long as the separation of the common ownership of the functions of LINK from VocaLink and implementation of industry led governance changes remedy is supported by the other remedies identified by the PSR it should enable competition and hence innovation to be introduced in provision of the central LINK infrastructure.

2 What are the relevant potential costs and benefits that we should consider?

There would be virtually no cost to the separation of the common ownership of the functions of LINK from VocaLink nor should there be a cost in implementing industry led governance changes as both changes would be organizational akin to an office move.

The benefits though, if progressed in parallel with the other remedies, would enable the opportunity for competitors to introduce innovation in the services delivered across the UK ATM estate.

3 Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

We do not believe there would be any unintended consequences in progressing clear separation of the LINK scheme from the central infrastructure provider. This is based on the assumption that Remedy 3 will be progressed in parallel and that the separation would not therefore leave common PSP ownership of LINK and VocaLink.

4 Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

We do not perceive that there are any alternative remedies other than the clear separation of the LINK scheme from the central infrastructure provider. This separation is in line with the good governance arrangements established for other operators both in the UK and internationally.

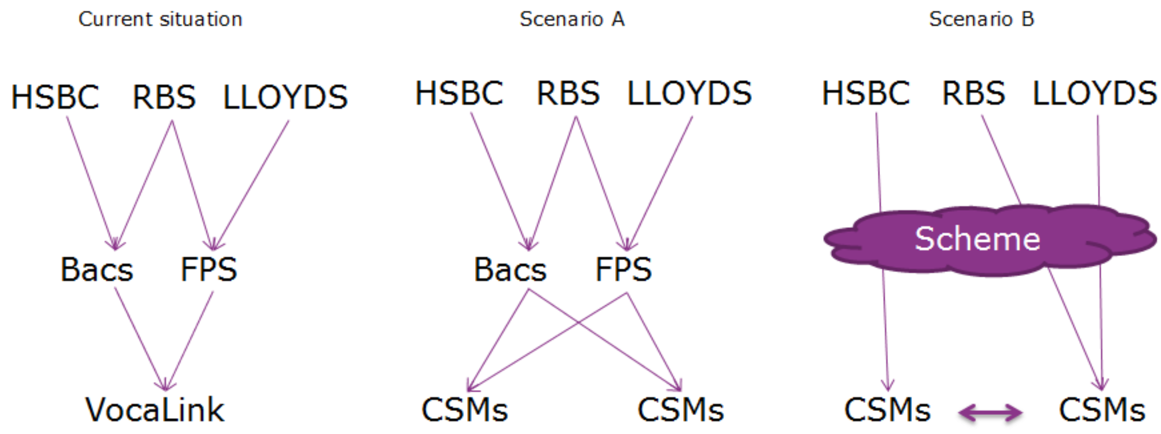
5 For the package of remedies as a whole

1 Would these remedies be effective in addressing the problems we have identified?

The PSR is suggesting a three step approach to introducing competition in the UK market; the divestment of the PSPs in VocaLink to remove any conflicting incentives, implementing a competitive procurement process to allow others to bid for the service provision and mandate interoperability through the use of standards. These steps would tend to favour a multi-CSM model.

We believe this package of remedies will make the UK market more competitive and will bring more innovation to the end-users, however, we may also be important for the PSR to consider an additional remedy concerning possible alternate contracting models.

Our understanding of the current contracting model is depicted below. Simplistically, each PSP contracts with the operator, e.g. Bacs and FPS, and the operator then contracts with VocaLink as their infrastructure provider/CSM.



A scenario could be envisioned where an operator, e.g. Bacs and/or FPS, would be mandated to contract with multiple CSMs to enable the distribution of volume across the CSM providers (scenario A in the above diagram). Alternatively, a second scenario (scenario B in the above diagram) might be that each PSP contracts directly with one or more CSM and the operator simply provides scheme governance. This second scenario (scenario B) is more in line with the current SEPA model (at least in the Netherlands).

2 How effective would the package be if one of the remedies above were excluded?

As stated above, we believe the multiple remedy approach proposed by the PSR is the right one. The remedies work well in unison and we believe excluding any one of the remedies will severely dilute the intended effect.

3 Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?

Other than those considered for each remedy there do not appear to be any additional costs that would materialise if the remedies are taken forward as a package.

4 Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?

We believe this the right approach and that specific consequences have been well covered both in the interim report and this document. We would not envisage any negative outcomes as long as the remedies are taken forward as a package.

5 Are there any alternatives remedy packages that would be equally effective but that would be less costly and/or intrusive?

In other communities, decentralized or bilateral based models have been implemented, which form an alternative to centralized models. In Australia, the New Payments Platform (NPP) is designed around a bilateral message exchange, utilizing a centralized settlement component provided by the National Central Bank.

In addition to the SWIFT based Australia solution, Blockchain also offers technology based alternatives which like many FinTech companies, Equens, is following closely with several sandboxes and pilots planned for this year to test the use of distributed ledger technology in areas such as settlement.

However, the use of Blockchain and distributed ledger technology operating at scale has yet to be proven and would not seem appropriate as a remedy at this stage.

6 What implementation issues do we need to consider (including timing)?

It would be beneficial if the PSR published a clear transformation roadmap to ensure it is signalling its intentions. We then propose that the sequencing of the remedies would be:

- Ownership
- Interoperability
- Procurement

The sequencing should be seen more as an emphasis rather than a linear progression as many activities will need to run in parallel.

We would, however, draw the PSRs attention to the specific implementation of ISO 20022 proposed by the Strategy Forum as the potential for a UK centric, enhanced data solution could reduce the desired level of interoperability.

Gateways

7	May the accreditation process for Bacstel-IP prevent other providers from entering the market?

Whilst the accreditation process may discourage new entrants in the market, it may still be necessary to ensure a strong and vibrant target competitive environment exists, where PSPs can move easily between CSMs.

Alternatively it could be seen as preventing innovation, as this protocol is based on historical necessity and appears to concentrate provision of accredited gateway products with a small group of providers.

NETS

After having reviewed the interim report on the ownership and competitiveness of infrastructure provision in the UK, we do not have any additional remarks. We still want to iterate our previous statements made in our meetings. So essentially that under the conditions (also mentioned by the PSR in the report)

- of an open process tendering process,
- no technological or structural barriers and
- the current vertical integration between provider and users is not an obstacle

we see no major barrier for entering the UK market.

We look forward to see the final result of the review and remain available for further consultation if required.

Kind Regards

[✂]

Bottomline Technologies Response to:

Interim Report: market review into the ownership and competitiveness of infrastructure provision MR15/2.2

Date: 21/04/16

Remedy 1: Competitive procurement processes

1. Would this remedy be effective in addressing the problems we have identified?
   Yes.
2. What are the relevant potential costs and benefits that we should consider?
   [✂]
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
   In terms of unintended consequences, this may put a halt on any planned work by the current operator on improving the performance or functionality of the existing infrastructure while the tender process is underway – such as improving functionality, upgrading operating systems, databases, change requests etc. If the new operator has to take on the old infrastructure (even for a short transitional time), technical debt of the old platform may prevent immediate efficiency / functionality gains.
   Accreditation services would need to be considered in the tender process.
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?
   No response
5. What implementation issues do we need to consider, including (but not limited to):
   o Are the operators best placed to undertake the procurement exercise?
   Yes, but they must consult with the organisations most impacted by any change to create the ITT – Service Users, PSPs, Gateway Providers, etc. The central infrastructure suppliers should not be involved in the process of designing the ITT.
   o The timing of the proposed procurement exercises.
   No response
   o Would there be benefits and/or detriments if these processes were coordinated?
   No response

Remedy 2: Interoperability

1. Would this remedy be effective in addressing the problems we have identified?
   From the point of view of a provider of gateways to corporates and PSPs and managed services for connectivity to Bacs and FPS for PSPs, a single standard would represent a considerable move forward for the UK infrastructure.
2. What are the relevant potential costs and benefits that we should consider?
   ISO20022 is the natural choice given its use globally, not just in SEPA, for example, SWIFT's Common Global Implementation (CGI) Group, is defining standards for use of ISO20022 in bank to bank and corporate to bank connectivity. Use of ISO20022 will allow for more reference data to be carried however, we do not believe the linking of payment data to

remittance or other financial documents held in the cloud, often described as 'Enhanced Data' is a major use case or reason to use ISO20022 – as this functionality is mature and already available in the UK from a number of providers – even within the limits of Bacs standard 18). The migration from old to new standards may not necessary need to a protracted programme, for Bacs, gateway providers already map customer data from proprietary formats to Standard 18 - a format rarely output by accounts packages, ERP, billing systems, payroll packages etc. It will take a considerable amount of time for such systems to output ISO20022, if they decide to at all.

A further potential benefit would be to move operational reports such as Bacs 'A' Services either to the corporate, or to the central infrastructure, away from legacy formats.

Bank systems will need to be equipped to pass all data end to end (i.e. out to the corporate), rather than truncating or omitting fields when they leave the bank's infrastructure.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
   Whilst gateway providers can easily assist corporates and PSPs with the straightforward like for like field mapping of a new service, uptake of use of extended data may take some time, as the costs to enhance the output from the systems mentioned above can be considerable.
4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?]
   No response
5. What implementation issues do we need to consider (including the length of a transition period)?
   Transition can be quick in terms of service users transmitting data to systems, as the gateway providers can provide a 'bridge' between old and new formats. Two years worked for migration from Bacstel and Bacstel-IP and we see this as a similar programme.
6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?
   No response

Remedy 3: Ownership of VocaLink

1. Would this remedy be effective in addressing the problems we have identified?
   [✂]
2. What are the relevant potential costs and benefits that we should consider?
   Value added services that incumbents offer (connectivity), management information, accreditation services, reference data (i.e. Industry Sort Code Directory, Direct Debit Originators (DDO) list) that complement the operation of the schemes should potentially be put out to tender too, rather than be part of the main ITT, allowing best of breed suppliers to supply these services. Enabling API access to these, pre-tender process would enable most of these services to be provided without the risk of service being degraded with the change of a supplier.
3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
   No response

4. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?
   No response
5. What implementation issues do we need to consider, including (but not limited to):
   No response

Remedy 4: LINK

Bottomline have no response on Remedy 4.

For the package of remedies as a whole

1. Would these remedies be effective in addressing the problems we have identified?
   Yes
2. How effective would the package be if one or more of the remedies above were excluded?
   As a gateway provider to corporates and PSPs, Remedy 1 and 3 would not work in isolation – divestment would have to occur before any competitive tendering. Remedy 2 could happen now without a change in ownership, and avoids any delay in either 1 or 3. We can't comment on the impact of 4.
3. Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?
   No response
4. Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?
   Delay to implementation of standards such as ISO20022 that are separate from ownership considerations.
5. Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?
   No response.
6. What implementation issues do we need to consider (including timing)?
   No response.

Gateways

7. May the accreditation process for Bacstel-IP prevent other providers from entering the market?
   No, it is absolutely necessary that solutions that connect to the service do not compromise the security of the Bacs service or the organisation that has purchased the solution. Testing of solutions ensures that Bacs receives clean and relatively error free data, ensuring efficiency of the service. Software approval also means the corporate or PSP buying a gateway or solution can be assured that their payments will be made when they want, without error.

Dovetail

Thank you for the interim report. We support the findings that have been made, but would like to raise the following comments on specific items raised:

1.19 b. Alongside enhanced operability, including a common international message set, this should be extended to include common network and communication standards along with security to ensure that infrastructure changes are not a detriment to movement between operators or schemes.

[✂]

dovetail

PAYMENT SYSTEM REGULATOR'S MARKET REVIEW INTO THE OWNERSHIP AND COMPETITIVNESS OF INFRASTRUCTURE PROVISION – INTERIM REPORT

FIRST DATA FEEDBACK

Introduction to First Data

First Data is a leading global payments processor and merchant acquirer, with 23,000 employees in 35 countries, serving customers in almost 118 countries on five continents. We have over 40 years of payment processing experience and in merchant acquiring.

We provide payment processing services to financial services customers including large, mid-tier and small card issuers in the United Kingdom. We also have fully-owned merchant acquiring businesses in the UK and Poland and joint ventures with bank partners in the UK, Ireland, Italy and the Netherlands.

As a company with a long history of providing innovative solutions in the payments space, we support thousands of financial institutions and merchants, large and small, in their management of domestic and cross-border electronic retail payments, whether these are by card, e-commerce or mobile payments.

First Data provides a comprehensive array of solutions, including debit, credit and prepaid card processing, card production, print and correspondence, customer contact, internet banking and bill payment, loyalty and marketing, risk and fraud management, data analytics and mobile commerce.

We also facilitate merchants to accept consumer payment transactions (e.g. credit, debit, stored value, contactless and loyalty cards) at the point of sale, whether those transactions occur at a physical world merchant, over the phone or by internet. First Data Europe Limited holds a payment institution licence under the Payment Services Directive and is a principal member of both Visa and MasterCard.

General Comments on the PSR's Interim Report

First Data welcomes the PSR's Interim Report on the ownership and competitiveness of infrastructure provision. We support payment industry regulation that promotes improved market access and fair competition.

In terms of the industry in general, we would make the following comments:

- [✂]
- We have no issues with the current payment infrastructure in terms of the day-to-day operations of our business and the BACS system provides a reliable solution for interbank payments and is used by almost all banks in the country.
- In terms of innovation, there might be scope to exploit BACS' technology and unrivalled access to bank accounts to bring more benefits to the industry and wider economy e.g. B2B payments, age verification, authentication and identification services.
- Economies of scale can generate savings through lower unit costs for payment system users. We fully appreciate the benefits of competition in payment services, especially in the provision of innovative payment solutions. However, multiple players providing the same service could produce the unintended consequence of increased costs to participants. It could also lead to fragmentation of services and reduced reach.
- We agree that innovation in the payments industry can often bring benefits to consumers and businesses. E-commerce and mobile payments have been a particular focus for innovation in recent years. One example of payment innovation in the UK is Paym, which was developed by VocaLink, one of the organisations covered in your Interim Report. Similar innovations – especially if they improve consumer protection or convenience – should be encouraged and supported.
- Changing ownership of payment system providers does not necessarily result in the benefits expected by the change. User ownership helps a self-policing mechanism whereas an alternative ownership structure might potentially require an administratively onerous regime to manage returns on capital. Moreover, the current approach allows the build-up of capital to cover central innovation projects with minimal administrative overhead as opposed to having to set up new administration for each new central innovation. As such, we would recommend that any change in ownership of infrastructure providers focuses on delivering a set of agreed-upon objectives to ensure that the objectives of any ownership change are met. We would also suggest that the strategic intent and motives of all prospective bidders are carefully vetted to ensure that the needs of all stakeholders continue to be met.

Experian

Experian has reviewed the interim report the Payment Systems Regulator has issued entitled the 'Market Review into the ownership and competitiveness of infrastructure provision' and are pleased to report that many of the comments and suggestions raised from our experience in the market have been encompassed in the interim findings. As such we broadly agree with the findings of the interim report.

A key concern for Experian related to the joint roles played by infrastructure providers in certain testing and approvals of payment standards which we have a concern may not be the most transparent and objective method of conducting such procedure. We are pleased to see that this concern has been included in the interim report.

Experian also recognises the benefits of moving to international standards, such as ISO20022, for payment messaging, Experian believes that implementing these richer data conduits is in the best interests of payment service users and welcomes the exploration by the Payment Strategy Forum of the benefits of such an exercise.

Experian will continue to closely follow the work of the PSR in this area and seek to input further, where relevant to do so.

[✂]

Response to the Payment Systems Regulator's Interim report on the Market Review into the Ownership and Competitiveness of Infrastructure Provision

YourCash Limited is aware that any potential remedies to issues brought up in the Payment Systems Regulator's (PSR) interim report on the market review into the ownership and competitiveness of infrastructure provision, must be effective in any payment systems market structure that may develop in the future. YourCash has put forward the following comments.

First remedy: Competitive procurement exercises

The YourCash view is that the PSR remedies do not accurately reflect the costs of change, the potential disruption of a switch in supplier and the risks this involves for the industry. The business envisages the costs of change would be high and it is not surprising that the tendency of decision makers would be to favour incumbent suppliers particularly where service is good. Cost is not everything in the decision making process.

The cost element of the central provider is small in relation to total transaction costs and hence is not where significant savings to Members can be achieved and hence whilst competitive procurement is important it is not the most important element.

It is important to have a competitive process to ensure there is sensible value created but the central infrastructure service has to be as much about robustness and availability as well as costs.

We would question the Link Scheme capability with a small number of staff to genuinely run a full competitive procurement process and we are also not sure that is necessary.

Second remedy: Interoperability

YourCash would agree with the PSR that adopting a common standard would be a useful process and would potentially lead to a more competitive tendering process in future years and would potentially drive significant benefits.

To be weighed against this are the costs of change and who bears these costs in changing the current model.

The costs of moving to a new standard may mean that existing Members choose to move to competing schemes. This will undermine the LINK scheme and hence any proposed changes to standards will have to be discussed and agreed with Members along with their desire to change.

Third remedy: Ownership of VocaLink

The common shareholdings in Vocalink and those controlling the LINK Scheme can and may produce a conflict of interest.

YourCash has not seen any conflicts of ownership in practice however the retention of weighted voting at NMC means those controlling the LINK Scheme and Vocalink could use this control to prevent change.

[✂]

Fourth remedy: LINK

The separation of the LINK scheme from Vocalink is in place however the lack of financial resources and capital for the LINK scheme means that it cannot contract in its own right.
Contracts being entered into are with central suppliers, scheme and ALL members. That has to change and Members should not be contracting with the central infrastructure provider and should be free to join and leave the LINK Scheme.
Joint liability in contracts means that Members cannot easily switch schemes leading to barriers to exiting the Scheme.

CARDTRONICS

Dear Sirs,

Please find below our responses to your proposed remedies:

Remedy 1: Competitive Procurement Process

[✂]

Remedy 2: Interoperability

A common messaging standard would prove to further ensure that the barriers to entry for other infrastructure providers be minimised. [✂]

Remedy 3: Ownership of Vocalink

[✂]

Remedy 4: LINK

LINK has now separate from Vocalink and is operating under a new independent board. [✂]

Best regards,

[✂]

To: Payment Systems Regulator

From: Payments UK

21/04/2016

PAYMENTS UK'S RESPONSE TO THE PAYMENT SYSTEMS REGULATOR'S CONSULTATION 'MARKET REVIEW INTO THE OWNERSHIP AND COMPETITIVENESS OF INFRASTRUCTURE PROVISION INTERIM REPORT'

1 INTRODUCTION

We welcome the opportunity to respond to the Payment Systems Regulator's (PSR) consultation on its interim report and provisional findings for its Market Review into the ownership and competitiveness of infrastructure provision.

Payments UK is the trade association launched in June 2015 to support the rapidly evolving payments industry. Payments UK brings its members and wider stakeholders together to make the UK's payment services better for customers and to ensure UK payment services remain world-class.

Payments UK's main roles:

- To be the payments industry's representative body: providing an authoritative voice in the UK, Europe and globally, and working with stakeholders to share payments knowledge and expertise.
- To be a centre for excellence: supporting the UK payments industry to provide world-class payments, building on the experience, thought-leadership and project delivery expertise behind award-winning initiatives such as Paym, the Current Account Switch Service and Faster Payments.
- To deliver collaborative change and innovation: working on behalf of our members to benefit customers and UK plc, ensuring their needs are understood and met, both now and in the future.

Our response relates to remedies numbered 1 and 2 (see appendix) and the underlying analysis. We have decided not to respond to the specific questions provided and will instead provide some general and specific comments on these two remedies. We will continue to work alongside industry to assist the PSR in the next steps of their market review. We are not providing any comments on remedies 3 or 4.

Payments UK 2 Thomas More Square London E1W 1YN

A Company incorporated in England No 6124842.
Registered Office as above

2 OUR RESPONSE

2.1 General Comments

Payments UK is supportive of competition in the payments industry in respect of remedies 1 and 2. However this should not come at the cost of the stability or integrity of the payment systems. We believe that the economic regulation of the payments industry and the powers given to the PSR can help to deliver effective competition and promote innovation for the benefit of UK consumers, businesses and the economy. Moreover, it is in the interest of the UK, the payments industry and its users that the payment systems remain safe, reliable and resilient. It is on this basis that we broadly support the overall aims of the review to promote a competitive and innovative market and we consider that concentrating on remedies 1 and 2 will be of most benefit in achieving these aims, providing that the economic case is fully made, there is no detriment for payment system users, the changes are implemented in the correct order to deliver the desired strategic outcomes and there is a robust, well-designed procurement strategy.

We note that the Lipis Advisers' report shows that the UK's payments systems rank among the best in the world and that they do not, comparatively, lack innovation. The proposed changes by the PSR will have a significant impact on the industry in terms of cost of change, and also lock up significant change capacity. Therefore, Payments UK believes we need to be clear that the steps taken will produce significant benefit from the intended outcomes and will not compromise the industry's stability or resilience. In order to achieve these outcomes, we believe that the following principles should be considered:

- **Ensuring the approach taken aligns with the longer term strategy and that decisions are prioritised and sequenced correctly**:
    - Through the PSR and the Payments Strategy Forum (PSF) (in addition to change driven by European legislation including PSD2), there are a number of significant changes to the industry being considered. An overview view needs to be taken of all strategic initiatives under consideration, their relative priority and interdependency to ensure that they are implemented in a logical order and do not result in sub-optimal tactically orientated changes.
    - We are interested to understand how the timing and direction of this review will align with the recommendations of the PSF. We note that several strategic initiatives being considered by the PSF work streams would alter, or at least impact the recommended remedies in this report. We are concerned of the risk of misalignment between decisions of a strategic nature and the timings proposed in this review. Strategic direction ought to be agreed in advance of the procurement and award processes. If, for example, the Simplifying Access to Markets Working Group concludes that industry should move to a more consolidated payment system model (with fewer payment schemes) for retail based payments, then we believe that logically this would happen prior to (or at least as part of) a procurement exercise. Otherwise there is a risk of unnecessary duplication of cost and complexity for all users.
    - In the context of sequencing and timing, we believe that the success of any future procurement is dependent on the implementation of consistent, unified, open international standards, particularly in the message space, such as ISO 20022.

We consider that without this, any procurement exercise will be likely to have a much more limited appeal to the supplier community. Work that Payments UK has led on international payment standards includes an implementation approach to carefully manage the adoption of users, based on centrally agreed rules that deal with translation and co-existence between technical formats.

  - There is a need for a central body, neutral of commercial interest, to facilitate the development and maintenance of a common set of open standards for the UK payments market to ensure harmonisation of adoption across the PSO landscape. Although we would assert that the business case for migration of each PSO to a new standard, such as ISO 20022, needs to be considered separately as the benefits and timing will likely be quite different, as indeed will the impact on end users. Attached is analysis that we shared with HM Treasury in 2014 on the advantages and disadvantages for all stakeholders.

- **Ensuring that the procurement strategy and process meet the desired outcomes**: Any new procurement process for nationally critical UK infrastructure must be backed up by detailed and thorough economic analysis, and be based on hard evidence rather than perception. Before any decision is taken, we would expect to see publication of this analysis by the PSR alongside its final report. This needs to quantify the costs and benefits, and explore issues such as the interaction between low price and competition, length of contracts, investment and innovation.

  If the economic evidence gathered by the PSR fully supports a competitive procurement process then we would like to see the development of a clear procurement strategy that explores the risks and opportunities associated with different procurement options, including the agency or agencies, such as any future operator, that design the process, own it and make the final decision.

  Any procurement process will need to be undertaken in a way that guarantees the desired outcomes and safeguards against unintended consequences. Ideally, the process should be led by the industry and:

  - Guard against any unintended consequences, for example additional cost for participants (including duplication and fragmentation), instability issues, imposing barriers to entry to new market participants or reducing interoperability.
  - Be based on best practice procurement design following the example of other markets where similar competitive processes have been recently completed, such as Australia or the United States.
  - Be designed in such a way that balances the interests of all involved stakeholders. For example, it may be appropriate to have an independent review mechanism in place to oversee the market testing and award process.
  - Be designed as a single common process for procurement across all services to avoid complexity, duplication and inefficiency.
  - Be able to demonstrate through pre-procurement market testing the overall economic and innovation metrics that could be realised. This will ensure that the cost of impact on all stakeholders will be significantly outweighed by the benefits.

- Be based on a credible timetable that allows for the development of a common set of standards and documentation necessary for other providers to compete against the incumbent.

- **Ensuring a full appraisal is given to all risks associated with any change to critical payments infrastructure:**
  - Any change comes with its own risks but these must be considered against the evidence of detriment and the assessment of benefits to be gained – emphasising the need for a solid economic analysis as the basis for any decision taken.

2.2 Responses to individual remedies

Remedy 1

Payments UK is supportive of the PSR's ambitions to make the ownership of payments infrastructure work even more effectively for the benefit of the end user. We agree in principle that this could be achieved by the provision of cheaper, more efficient and innovative service offerings. However, as a first step we believe that clarity is needed on the future strategic direction of the development of the UK payment systems, particularly on the issue of simplification[1], before committing the industry to run the procurement exercise. It would be most effective and efficient to make the two steps in sequence, rather than duplicate the procurement exercise before and potentially as part of the simplification exercise.

As we state above we would like to see the detailed economic analysis and hard evidence. If this case is made, then we would like to see the development of a procurement strategy that ensures the procurement process is undertaken in a way that guarantees the desired outcomes and safeguards against unintended consequences. As we state above, we would like to see a procurement process that is independent and free from undue interest. We think that any such process would require an independent mechanism in place to oversee it and any subsequent decision-making on a supplier. There needs to be confidence that by undertaking the procurement process there will be a net cost-saving and clarity over the timescale in which it will be realised.

In terms of the procurement process and outcome, we are mindful that there are a number of other issues that should be considered as part of the review, specifically there are a number of ways to procure ownership and regulate a single provider market. Payments UK would welcome evidence that the proposed competitive procurement model is the most efficient way of achieving the aims outlined by the PSR, and the alternative agencies such as any future operator, that can undertake the procurement design and award process.

Remedy 2

Any successful network business depends on common standards; they are an enabler of interoperability, efficiency and to help ensure a consistent user experience in a service or innovation. Payments UK agree that the lack of common international message standards in the UK may provide disincentives for new market entrants.

[1] "Impact on competition from a simplified governance arrangement for the retail payments system schemes" (February 2016).

Payments UK sees a common technical messaging standard for the majority of the PSOs, chiefly ISO 20022, as an aspiration for the UK payments industry and this is articulated in our policy related to the standard[2]. Given the global nature of payments and the trend towards ISO 20022 and its adoption, namely in the SEPA region, US, Australia and Canada, we would advocate this as the messaging standard of choice. This would also be in line with other investments the UK has made regarding infrastructure e.g. the Cheque Image Clearing Service, the Current Account Switch Service and the Cash ISA Transfer Service which are all based on ISO 20022. However, there would need to be a clear realisation of the business drivers before adoption.

Payments UK supports the adoption of a common messaging standard as an enabler to deliver agreed industry innovation and change, not as a deliverable in its own right; therefore the industry must be clear that the cost of investment and the necessary process to see this brought to market is supported by a robust benefits case that fully takes into account the impact on payment system users.

Any migration and adoption of ISO 20022 for UK electronic payments must avoid:

i. detrimental impact to the integrity of the payments infrastructure
ii. introducing uncontrolled risks
iii. detrimental customer/end-user impact, what-ever the segment of customer
iv. imposing barriers to entry for new market entrants (challenger banks, agency banks, and solution providers)
v. divergences as far as possible with Europe (SEPA) and other global adoptions of ISO 20022 pertinent to the customers of the UK payments infrastructure
vi. divergences in the technical and operational documentation and to ensure as far as possible common implementation documentation that is freely and publically available without restriction.

The case for migration to ISO 20022 for each of the existing PSOs should be considered independently of each other in the context of the ultimate aims of increased interoperability and improving competition in the supply of payment infrastructure services. In the case of Bacs, the value of migrating to ISO 20022 solely to cater for all Bacs services and functionality needs to be considered thoroughly. The technical architecture should also be considered as a whole and whether this currently would enable greater competition, even if based on ISO 20022. Our estimates suggest that there may be in excess of 40 ISO 20022 messages that would need to be developed to replicate the current Bacs architecture.

In the case of LINK, there is currently no evidence to support a move to ISO 20022 would increase interoperability or improve competition in the supply side. ISO 20022 is not widely used in the ATM network environment and a shift to ISO 20022 could hinder competition rather than stimulate it and potentially dilute the possibility for interoperability. A migration to ISO 20022 for LINK should be predicated on a shift in the cards and ATM sectors towards the standard so the UK is in line with international trends.

Payments UK advocates a phased migration to ISO 20022 rather than a big-bang implementation. Coexistence between legacy formats and ISO 20022 would be preferable but only for a limited and

[2] Payments UK ISO 20022 Policy: That for any future change or innovation that is a catalyst for investment by the collaborative UK payments industry must consider the opportunity to invest in ISO 20022; making ISO 20022 the default choice.

finite time frame during migration. Payments UK would advocate a shorter rather than longer migration time to reduce associated costs to industry related to coexistence. However, a shorter timeframe should not be at the expense of risk to end-users. The timetable would form a component part of the procurement strategy.

Data manipulation via translation services can always provide technical interoperability between legacy formats and ISO 20022. However, if translation services were possible the data is not easily enriched and therefore the benefits could be lost. It is vital to investigate further the potential impact, risk and potential dilution of value of protracted use of translation software in the long term. Payments UK accepts that during a period of coexistence between ISO 20022 and existing formats, translation services should be employed to help manage the complexity of ensuring that all PSO participants can send and receive data irrespective of the message standard used. Such translation services may be deployed by the payment system service provider centrally or by other service providers through payment integration software. However, the choice of translation service and the full extent and scope of that service should be left to the market to decide, as it is a competitive issue with specific technical requirements that vary per institution. It is vital that the required coexistence rules are consistent across all ISO 20022 deployments. Criteria will need to be developed to understand if and when the industry would set an end-date for the use of translation software and by who to ensure proper industry planning and deployment.

There is a need to have clear business rules and specific UK implementation guides (IGs) to foster greater interoperability when implementing ISO 20022. There would be a need for a central body to facilitate the development of a harmonised and consistent set of publically available UK ISO IGs to ensure consistency and avoid divergence of implementation across the different Payment System Operators. All transactions to and from UK electronic payments must be compliant with these IGs. Payments UK has developed a Standards Collaboration Framework (or SCF), to act as an authoritative source of documentation related to technical standards in the UK payments market. The Framework is a library of standards that enables technical mappings between formats as well as message standard development. This may be one option to consider as part of any implementation strategy. Payments UK is also in the process of developing a common message implementation guide for ISO 20022 in the UK market that may prove valuable for any initiative to ensure market wide consistency to aid with user accessibility to this vital information.

Additionally, any adoption of ISO 20022 as an enabler of competition and greater interoperability in the infrastructure market should also seek to enable other strategic industry initiatives as far as possible, to ensure reusability, e.g. access to infrastructure and enhanced data. As well as messaging standards, it is important to note that adoption or migration to international standards in the identifier and security space may also be necessary to achieve greater interoperability as well as greater competition in infrastructure supply.

Payments UK believe that any decision to migrate the PSO's to a common messaging format should be aligned with the recommendations of the PSF's Standards Strategy work-stream.

2.3 Additional comments

Payments UK would like to make some overarching comments in relation to remedies 1 and 2. Firstly,

in relation to the PSR's work as it relates to decisions of the PSF and formation of the strategy, we would welcome clarity on the timelines of ongoing work given the dependencies with the issues and remedies proposed in the interim report. Specifically, it seems that the timelines of the Market Review and the PSF's strategy do not fully align, as the PSF is due to publish its draft strategy in July, ahead of a final publication in October, which will cover the issues of both simplification and standards (clearly relevant in the context of this Market Review). Yet the PSR is due to publish its final report on the MR in summer 2016. The two pieces of work are relevant to one another and we would welcome confirmation that these dependencies are recognised and how the PSR plans to manage them.

Secondly, we would like to emphasise the importance of making decisions based on solid evidence and analysis, including a full appraisal of all associated risks. Any change to critical payments infrastructure comes with its own risks but these must be considered against the evidence of detriment and the assessment of benefits to be gained.

Stakeholder Matrix – APPENDIX B

		INDUSTRY							CUSTOMERS			
		Banks (incumbents)	Agency Banks	Challenger Banks	New Entrants	Payment Schemes	Infrastructure Providers	Regulators	Large Corporates	SMEs	Government	Individual Retail Customers
ADVANTAGES	Leverage any experience or investment made in ISO 20022	✓	✓			✓	✓		✓			
ADVANTAGES	Defined investment lifecycles/IT refresh programs	✓	✓	✓	✓	✓	✓		✓	✓	✓	
ADVANTAGES	Future-proofs UK payments infrastructure against global trends	✓	✓	✓	✓	✓	✓	✓				
ADVANTAGES	Potential to facilitate Payments Roadmap objectives	✓				✓						
ADVANTAGES	Alignment of domestic payment systems	✓	✓	✓	✓	✓	✓	✓	✓			
ADVANTAGES	Decreased number and complexity of interfaces	✓	✓	✓	✓		✓	✓	✓			
ADVANTAGES	Single message format, improving STP	✓	✓	✓	✓	✓	✓	✓	✓		✓	
ADVANTAGES	Reduced maintenance costs	✓	✓	✓	✓	✓	✓	✓				
ADVANTAGES	More flexible programming language	✓	✓	✓	✓	✓	✓		✓			
ADVANTAGES	Use of reusable data components	✓	✓	✓	✓	✓	✓		✓			
ADVANTAGES	Greater potential for value added services (receive or offer), such as cash management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ADVANTAGES	More/better structured remittance data alongside a payment	✓	✓	✓	✓		✓		✓	✓	✓	
ADVANTAGES	More harmonised domestic and global interoperability	✓	✓	✓	✓	✓	✓	✓	✓			
ADVANTAGES	Easier compliance with increased regulation (E.g. character sets and extended data)	✓	✓	✓	✓	✓	✓	✓	✓			
ADVANTAGES	Easier access to payment systems	✓	✓	✓	✓		✓	✓	✓		✓	
DISADVANTAGES	Significant implementation costs if implementation timescale is too aggressive	✓	✓	✓		✓	✓	✓	✓			
DISADVANTAGES	Changes to established processes	✓	✓	✓		✓			✓			
DISADVANTAGES	ISO 20022 is a payments infrastructure issue involving a complex stakeholder set, across which a business case is very difficult to construct, i.e. collective action problem	✓	✓	✓		✓			✓			
DISADVANTAGES	Cost with long ROI period	✓	✓	✓					✓			
DISADVANTAGES	End to end testing risks	✓	✓	✓		✓	✓	✓	✓			
DISADVANTAGES	Destabilisation to payments integrity if timescale is too aggressive	✓	✓	✓		✓	✓	✓	✓			
DISADVANTAGES	Investment in ISO 20022 will divert resources that could be used for other collaborative projects	✓	✓	✓		✓		✓	✓			
DISADVANTAGES	Increasing European and International regulatory compliance based on ISO 20022	✓	✓	✓	✓	✓			✓			
DISADVANTAGES	Ad-hoc implementations of ISO 20022 to cater for emerging requirements (e.g. richer data/cheque imaging)	✓	✓	✓	✓	✓			✓			
DISADVANTAGES	ISO 20022 becomes regulated domes[illegible]	✓	✓	✓	✓				✓			

3 APPENDIX 1

Remedies

1. Competitive procurement exercises are undertaken before current contracts for central infrastructure services come up for renewal, or at the next break clause in a contract.
2. Enhanced interoperability, including a common international message standard, for FPS, Bacs and LINK. It further notes that the Payments Strategy Forum will examine the type of message standard to be adopted and the simplification of rules.
3. Divestment by shareholder PSPs of their interest in VocaLink.
4. Measures that separate common ownership of the functions of LINK from VocaLink and implement industry-led governance changes.

ISO 20022 for UK Payments Industry

The following are common advantages and disadvantages for all stakeholders.

Advantages

The core advantages or strengths identified of ISO 20022 adoption for the UK payments industry are:

- ISO 20022 allows for the alignment and rationalisation of the UK payment systems, leading to the simplification of back office systems, reduction in complexity and cost and reduce associated documentation
- It is a single messaging format that cuts across markets and banks, allowing for greater interoperability
- A common messaging format will reduce data manipulation and increase STP and automated reconciliation as well as reducing error
- It allows for the exchange of more/better structured remittance data with payments

Other advantages include:

- End-users may leverage any experience or investment they have already made in ISO 20022 functionality or technology as it is rolled out across global services and systems, e.g. due to SEPA or other internal investment
- Many end-users have defined investment cycles and IT refresh programs that ISO 20022 functionality could be pitched within
- It decreases the number and complexity of interfaces with payment systems
- It drives down cost associated with maintaining different national data formats and related IT standards
- XML is the dominant language for programming applications and is more easily integrated with back office systems and is more flexible to accommodate change
- ISO 20022 uses a data dictionary with reusable components, which means that it can be reused in different business contexts, reducing cost and time to market
- It improves control over the payment initiation process
- ISO 20022 is payments agnostic, therefore optimising data interoperability, reducing the impact of central payment system outages
- ISO 20022 future proofs the UK payments infrastructure against global trends

Disadvantages

The core disadvantages or threats identified of ISO 20022 adoption the UK payments industry are:

- It could result in destabilisation to payments integrity if the implementation timescales are too aggressive
- Adoption of ISO 20022 could result in significant implementation costs, both human and technological, particularly if timescales too aggressive

- Investment in ISO 20022 will divert resources that could be used for other collaborative projects

<u>Other disadvantages include:</u>

- ISO 20022 adoption would require a change to current, well –established processes and technology
- Full STP requires integration and process on the customer side too.
- There may be significant costs with a long return on investment period
- Implementation could incur end-to-end testing risks
- ISO 20022 is a payments infrastructure issue involving a complex set of stakeholders, across which a business case is difficult to construct

<u>Risks:</u>

- There is still likely to be ad-hoc implementations of ISO 20022 domestically for green-field projects
- There is a risk that ISO 20022 becomes regulated domestically, thus forcing implementation to be in a shorter than desirable timescale, with less control over the implementation options

ISO 20022 for Incumbent Banks

Advantages

The core advantages or threats identified of ISO 20022 adoption for incumbent banks are:

- ISO 20022 has the potential to enable a variety of Payments Roadmap objectives such as Cheque Imaging, Richer Data and Challenger Access, due to the nature of open standards and ISO 20022's capability for extended functionality and data
- A common messaging format reduces a Financial Institutions architectural complexity
- It reduces restoration costs of the central infrastructure
- ISO 20022 generates greater potential for Value Added Services and therefore an enhanced customer proposition
- It improves cash management due to more transparency of timely and accurate account reporting, reducing the cash conversion cycle
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation
- It is a future orientated standard, with widely accepted and accessible technology from a
    - competitive vendor market

Disadvantages

- Full STP requires integration and process on the customer side too
- Sunk costs of legacy systems
- Incumbent banks may have to develop internal systems to be able to make remittance information available to clients
- However, incumbent banks are increasingly likely to have to comply with European and
    - International regulation based on ISO 20022, meaning they will continue to invest in ISO
    - 20022 functionality through regulatory impuls

ISO 20022 for Agency Banks

Advantages

The main advantages or strengths identified of ISO 20022 adoption for agency banks with a sponsor arrangement to access the payment infrastructure (in addition to the above) are:

- Common and consistent user experience irrespective of sponsor bank
- Potentially reduces barriers to entry into the payments systems
- It reduces restoration costs of the central infrastructure
- It improves cash management due to more transparency of timely and accurate account reporting, reducing the cash conversion cycle
- A common messaging format reduces a Financial Institutions architectural complexity
- ISO 20022 generates greater potential for Value Added Services and therefore an enhanced customer proposition
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market
- It reduces the complexity and application development time required to manage
    - payments architecture, allowing for more time and resource for innovation

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for agency banks with a sponsor arrangement to access the payment infrastructure (in addition to the above) are:

- Limited transaction history using ISO 20022
- Full STP requires integration and process on the customer side too.
- Sunk costs of legacy systems
- Agency banks may have to develop internal systems to be able to make remittance information available to clients
- However, agency banks are increasingly likely to have to comply with European and
    - International regulation based on ISO 20022, meaning they will continue to invest in ISO
    - 20022 functionality through regulatory impulse

ISO 20022 for Challenger Banks

Advantages

The main advantages or strengths identified of ISO 20022 adoption for challenger banks who have already invested in core payment infrastructure (in addition to the above) are:

- Common and consistent user experience irrespective of sponsor bank
- Potentially reduces barriers to entry into the payments systems
- A common messaging format reduces a Financial Institutions architectural complexity
- It reduces restoration costs of the central infrastructure
- It improves cash management due to more transparency of timely and accurate account reporting, reducing the cash conversion cycle
- ISO 20022 generates greater potential for Value Added Services and therefore an enhanced customer proposition
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation

ISO 20022 future proofs the UK payments infrastructure against global trends

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for challenger banks who have already invested in payments infrastructure are:

- Limited transaction history using ISO 20022
- Full STP requires integration and process on the customer side too.
- Sunk costs of legacy systems
- Challenger banks may have to develop internal systems to be able to make remittance information available to clients
- However, challenger banks are increasingly likely to have to comply with European and
  - International regulation based on ISO 20022, meaning they will continue to invest in ISO
  - 20022 functionality through regulatory impulse

ISO 20022 for New Entrants

Advantages

The main advantages or strengths identified of ISO 20022 adoption for new entrants who have yet to invest in core payment infrastructure but are considering doing so are:

- They may be investing in green field technology, therefore cost and risk is minimised as they are only need to invest in one format
- Potentially reduces barriers to entry into the payments systems
- A common messaging format reduces a Financial Institutions architectural complexity
- It reduces restoration costs of the central infrastructure
- It improves cash management due to more transparency of timely and accurate account reporting, reducing the cash conversion cycle
- ISO 20022 generates greater potential for Value Added Services and therefore an enhanced customer proposition
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation
- ISO 20022 future proofs the UK payments infrastructure against global trends

Disadvantages

The main disadvantages or risks identified of ISO 20022 adoption for new entrants who have yet to invest in core payment infrastructure but are considering doing so are:

- New entrants are increasingly likely to have to comply with European and International regulation based on ISO 20022, if they enter the UK payments market
- There is still likely to be ad-hoc implementations of ISO 20022 domestically for green-field projects

ISO 20022 for Payment Schemes

Advantages

The main advantages or strengths identified of ISO 20022 adoption for the UK electronic payment schemes are:

- ISO 20022 has the potential to enable a variety of Payments Roadmap objectives such as Cheque Imaging, Richer Data and Challenger Access
- They have defined contractual renegotiations with their respective infrastructure providers, therefore there is the opportunity to include ISO 20022 functionality
- It drives down cost of maintaining the central payments infrastructure
- ISO 20022 creates a more level playing field, potentially reducing the barrier to payment systems for infrastructure providers and vendors
- ISO 20022 generates greater potential for Value Added Services and therefore enables greater innovation within the central payments infrastructure
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation
- Current payment schemes do not have the functionality to cater for emerging requirements from Large Corporates, e.g. the necessity to identify the Ultimate Debtor/Receiver in a transaction (in a Shared Service Centre model)
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for the UK electronic payments schemes are:

- Full STP requires integration and process on the customer side too.
- Implementation could incur end-to-end testing risks
- Sunk costs of legacy systems
- However, the payments industry is increasingly likely to have to comply with European and International regulation based on ISO 20022, meaning they will continue to invest in ISO 20022 functionality through regulatory impulse

ISO 20022 for Infastructure providers/vendors

Advantages

The main advantages or strengths identified of ISO 20022 adoption for infrastructure providers/vendors are:

- ISO 20022 creates a more level playing field, reducing the barrier to payment systems for infrastructure providers and vendors
- ISO 20022 generates the ability to offer a greater variety of enhanced and enriched commercial services, including extended remittance alongside a payments, in a consistent format
- It drives down cost of maintaining the central payments infrastructure
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market. There are more 'out-of-the-box' solutions based on ISO
    - 20022.

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for infrastructure providers /vendors are:

- Full STP requires integration and process on the customer side too.

Notes

Global vendors have made significant investment in ISO 20022 technology and functionality, particularly in the SEPA region. Many European vendors have become ISO 20022 'native', where out-of-the-box ISO 20022 solutions are available due to SEPA requirements. Rationalising the payment schemes around a common messaging standard lowers the barriers of entry to the UK payments market, as vendors do not need to create bespoke UK solutions to cater for legacy formats. They are able to utilise technology they already have available and are using. This lowers costs for global vendors as well as reducing cost for UK implementation.

ISO 20022 for Regulators

There are a variety of domestic regulators with varying policy objectives, e.g. financial stability (BoE), competition (PSR)

Financial Stability and Integrity – BoE, HMT and PSR:

Advantages

- ISO 20022 allows for the alignment and rationalisation of the UK payment systems, leading to the simplification of back office systems, reduction in complexity
- It is a single messaging format that cuts across markets, banks and infrastructures allowing for greater interoperability
- A common messaging format will reduce data manipulation and increase STP and automated reconciliation as well as reducing error
- It decreases the number and complexity of interfaces with payment systems
- It drives down cost of maintaining the central payments infrastructure
- ISO 20022 is payments agnostic, therefore optimising data interoperability, reducing the impact of central payment system outages and a single point of failure

Although there are advantages related to Financial Stability, there are a number of risks:

- It could result in destabilisation to payments integrity if the implementation timescales are stringent
- ISO 20022 adoption would require a change to current, well –established processes and technology
- Adoption of ISO 20022 could result in significant implementation costs, both human and technological, if the timescales are stringent
- Implementation could incur end-to-end testing risks, potentially putting at risk integrity and stability

Competition – HMT and PSR:

- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market
- ISO 20022 future proofs the UK payments infrastructure against global trends and allows the UK to remain competitive in the global market
- A common messaging format potentially reduces barriers to the UK payments market for new entrants and vendors

- Although there are advantages related to Competition there are a number of risks:

- Adoption of ISO 20022 could result in significant implementation costs, both human and technological, particularly if timescales too aggressive, potentially stifling the ability to offer competitive services
- Sunk legacy costs and increased investment in payments infrastructure may heighten barriers to the payments systems

Innovation – HMT and PSR:

- ISO 20022 generates greater potential for Value Added Services
- It reduces the complexity and application development time required to manage payments architecture, allowing for more time and resource for innovation

- Although there are advantages related to Innovation, there are a number of risks:

- Investment in ISO 20022 will potentially divert resources that could be used for other collaborative projects

ISO 20022 for Large Corporates

Advantages

The main advantages or strength identified of ISO 20022 adoption for large corporates are:

- It improves cash management due to more transparency of timely and accurate account reporting, reducing the cash conversion cycle
- Greater choice due to enhanced customer proposition from a broader variety of FI's and vendors
- They have defined investment cycles and IT refresh programs that ISO 20022 functionality could be pitched within
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for large corporates are:

- Sunk costs of legacy systems
- Large corporates may have to develop internal systems to be able to make use of remittance information
- However, large corporates are likely to have to comply with European and International regulation based on ISO 20022, meaning they will continue to invest in ISO 20022 functionality through regulatory impulse

ISO 20022 for SME's

Advantages

The main advantages or strength identified of ISO 20022 adoption for SMEs are:

- Greater potential of Value Added Services, e.g. Cash Management
- Greater choice due to enhanced customer proposition from a broader variety of FI’s and vendors
- It allows for the exchange of more/better structured remittance data with payments
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for SMEs are:

- SME´s is very unlikely to be ever directly faced with ISO 20022 – their interfaces will be format agnostic, e.g home/office banking solutions, ERP, etc

ISO 20022 for Government (as a user)

Advantages

The main advantages or strength identified of ISO 20022 adoption for Government as a user of the UK payment systems are:

- More streamlined processes for DWP emergency payments, as easier access to payments systems
- Facilitate Government's electronic payments to its suppliers of goods and services
- Greater flexibility and choice when dealing with multiple F.I's as reduces need for customisation
- Greater potential of Value Added Services, e.g. Cash Management
- Greater choice due to enhanced customer proposition from a broader variety of FI's and vendors
- It allows for the exchange of more/better structured remittance data with payments(Richer Data)
- It is a future orientated standard, with widely accepted and accessible technology from a competitive vendor market

Disadvantages

The main disadvantages or threats identified of ISO 20022 adoption for Government as a user of the UK payments systems are:

- Government is very unlikely to be ever directly faced with ISO 20022 – their interfaces will be format agnostic, e.g office banking solutions, ERP or via their banking providers, therefore there direct implementation can be minimised.

ISO 20022 for Retail Customers

Advantages

The benefits of ISO 20022 to the mass market of retail customers is less obvious and likely to be felt indirectly through the services offered to them by their bank which would compete to bring innovations to the market which leverage the extended data capability of ISO 20022. It is likely they will be largely concealed from the risks of implementation.

PSR 15/2.2 Interim Report: Market review into the ownership and competitiveness of infrastructure provision

6th April 2016

[✂]

Issue	Comment	Reasoning
GENERAL STANCE Directionally, AIRFA supports the initial recommendations of the draft report – i.e. • There is a strong perception that there is insufficient competition - price, service quality, SLAs. • Incestuous relationship between PSPs and Vocalink needs to be broken up • There should be greater encouragement for new	Supported	This has been articulated by regulatory and Government observers supported by the FCA and PSR activities and work to date, market feelings and market studies and is supported by our own experiences.

potential operators in UK, from the UK, Europe and internationally. • Greater transparency so that new / potential operators can truly understand PSP requirements in the UK • There should be faster adoption of ISO20022 as this should be beneficial for increased competition; however, the use of message translators between different message formats, means that ISO20022 is not seen as critical.		
GOVERNANCE Significant change will be required in the UK in terms of governance, ownership, transaction messaging, competitive tenders and reviews. Today, the existing Banks members/owners apply strict banking disciplines to the governance and infrastructure – such as the enforcement of AML / PoTA / DTA disciplines that can often be seen as restrictive by potential new entrants and anti-competitive rather than meeting the requirements of UK and EU legislation. It is evident that that this may not even be understood and appreciated by the banks themselves; and has certainly not been an issue that has been used with any conviction by the existing PSPs in the PSR circles. It is critical that protection of the UK payments infrastructure is delivered to ensure that the UK maintains its leadership in	Omission	This aspect of system Governance must be included and built-in to the thinking in the evolution of a 'different market' moving forward.

all aspects of cutting-edge and marketing-leading payments. New entrants to the market will need to understand the full spectrum of governance issues, protect against risks and adopt full risk-management processes, as well as have applied between them, and upon them proper monitoring, reviews and regulation.		
RISK MANAGEMENT Due to the close relationship of PSPs and operators in the UK, many risks have been "informally" mitigated/addressed. With increasing the number of players in a more competitive, complex, transparent and open environment, risk management must be kept at the top of mind to ensure risks and exposures are identified, quantified and mitigated by whatever means. This will require more formal identification, agreements and actions to address potential as well as actual risk issues. Removing barriers to entry will lead to more industry participants, greater price competition, service quality and SLAs. Protecting the UK payments system for inherent and unforeseen risks should not be compromised solely on the basis of increasing competition and making it easier for new PSPs, operators, etc. from entering the UK market. In other parts of the market where innovation is encouraged, we have often seen the complete removal of risk management measures that have led to the collapse of businesses when things have gone wrong.	Direction	The PSR must ensure that applications for 'membership' to payment schemes are validated with appropriate levels of due-diligence / screening rather than allowing the desire for innovation and competition to overwhelm the need for proper reviews of the suitability of applicants to become PSPs. There is a real danger that new entrants may not understand the exposures, risks, legal requirements and controls that should be adopted. Historically, this would have been recognised and addressed by bank sponsors to the payment schemes. Going forward, new entrants will be expected and required to manage themselves. In particular the tenants of the AML laws must be adopted and be understood in all cases: i.e.

		- Customer KYC - ALL transaction monitoring for exceptions - Regular Customer Risk Reviews - SARS reporting
RISK OVERSIGHT There needs to be a 'risks awareness and understanding', measurement, and management strategy and stream of work within the PSR. This should impose risk decisioning controls upon all 'members / users' of PSPs now and in the future to ensure: a) That sufficient exposure calculation and capital adequacy assessment, financial cover for exposures, and an understanding of the risks involved. b) That adequate customer due diligence is undertaken by all 'direct' PSPs as is required by the member banks today in order that this is not compromised in the 'name of' removing barriers to entry. c) That the requirements of the AML / PoTA / DTA are observed by and enhanced by PSPs once the newer PSPs no longer can rely upon the complexities of transactional monitoring and customer identification required and undertaken by the existing 'bank' members of the schemes. d) That a review / policing and fine / reporting mechanism is in place to ensure compliance / risk management and governance is maintained by all PSPs at all times.	Requirement	Measures and monitoring must be established centrally to ensure observance of the above.

e) In these important areas, that governance and audit by the PSR is not limited to 'sampling'; but carried out on all transactions and all customers as required by the various legislation. This will protect the UK payments infrastructure in the future in a way that has left it protected through the 'closed' smaller group of participants in payment systems in the past as these restrictions have led to the inherent protections being enforced by the existing banks, both formally and informally, (and often perceived as restrictions to newcomers and innovation etc.)		

LYDDON CONSULTING SERVICES LIMITED

PSR MARKET REVIEW INTO THE OWNERSHIP AND COMPETITIVENESS OF INFRASTRUCTURE PROVISION

INPUT TO STAKEHOLDER CONSULTATION

Introduction

Lyddon Consulting Services is specialist consultancy in international banking, focusing on matters related to the core domain of Payments and Cash Management. That leads to market change aspects such as the Euro and SEPA, as well as Payment Services Directive, Anti-Money Laundering Directives, and regulations around cards, mobile, eMoney and mandatory information in funds transfers.

We are currently engaged by two organisations operating in this space and attach our feedback into this process, which accords with the views we have given to those two organisations. We say this because it is possible that they may respond direct as well and in a similar vein, assuming they have accepted our views and also decided it is in their interests to make a response.

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Lyddon Consulting Services Ltd

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Questions and responses, set under each proposed remedy

Remedy 1: Competitive procurement processes

1. Would this remedy be effective in addressing the problems we have identified?

Possibly, but it could also cause significant detriments. Changing the infrastructure for a payment system is infinitely more complicated and requires the coordinated efforts of many more market actors than, say, altering the franchisee on the East Coast Main Line.

Users have migration costs and efforts imposed on them, without a business case. This was the lesson of the SEPA migration for a vast numerical majority of users, mitigated by the adoption of "Additional Optional Services" (enabling the mimicking of the legacy schemes through the SEPA Schemes but at the cost of diversity) and by translation services (enabling users to continue to use legacy data formats in their own systems).

As a generality we are of the opinion that detriments identified in this Market Review point to the market for payments being closed, and then the reason for this closure is attributed to ownership of the infrastructure. In our view the biggest single cause of market closure is the issue of whether or not a Payment Service Provider is permitted a Settlement Account or not. This major issue has not been given its due weight in the PSR's report. The Bank of England is having a review of their policy, with no certainty that it would be changed, and yet that one change would dissolve issue after issue: many more PSPs would become scheme members and would have their voice heard in the forums of the scheme companies, and in turn would be eligible to be Vocalink shareholders and have their voice heard in the related forums. This would go a long way to offsetting any issues of perceived lack of responsiveness, openness to innovation and so on.

2. What are the relevant potential costs and benefits that we should consider?

If the provision were to be put out to tender on a basis that would satisfy a need for regularity, the contract term could not exceed five years. Each bidder will then be needing to recover their bidding and implementation costs over a quite short period, with a negative impact on the price to the end-user. The overall implementation costs of a switch of infrastructure provider could be very large indeed, and Payment Service Providers might well baulk at having to share them.

There could be no certainty that the infrastructure could be switched without any effect on end-users – see SEPA.

A regularly-moving contract would in our view have the exact opposite effect of encouraging service innovation.

To recover costs, the infrastructure provider would not invest in new functions once the contract was won.

To ensure the ability to re-tender at the next rollover, the buyer (the scheme company) would not want to embed functions that were proprietary and involved IP that the infrastructure provider might own.

To ensure the practicability of migration to a new provider, all parties – including Payment Service Providers – would want to ensure that the functionality was generic.

Regular competitive tendering risks reducing the investment that the parties will want to make in real value, and causing the schemes to lapse into a lowest common denominator mode, which is what has happened with the SEPA core schemes. Countries have either preserved the added-value in their legacy schemes via AOS, or are now rebuilding it in other ways, meaning the bigger banks are doing it themselves, and the smaller ones are being left just with the core functionality.

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

If there are four or five schemes and each is bidding out its infrastructure provision every five years in a way that fulfils the PSR's criteria for a genuinely competitive tender, there could be either a major migration happening every year, or a series of high-risk Big Bangs. The risks could be mitigated by introducing as much commonality as possible in the operation of the schemes and in the interface with PSPs, e.g. by separating out all tables and reference databases, and by having all data exchange in ISO20022. Nevertheless, the scenario of a perpetuum mobile will be unappealing to a business in which stability is paramount.

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?

Separating out all tables and reference databases, and by having all data exchanges in ISO20022.

The Bank of England altering its policy and allowing all licenced PSPs to have a Settlement Account as a matter of course. The rationale for their current policy – that only banks with a Reserve Account and who are part of the Reserves system can have a Settlement Account – is based on the idea that the banks in the Reserves system have enough current accounts that a change in the BoE Base Rate feeds through into the customer account terms and therefore into the real economy.

The Bank of England has not changed the Base Rate for n years so that policy is outmoded. In addition it wishes to foster more competition, meaning it should not exclude/inhibit new entrants in this way. If the new entrants are successful, current account provision will be spread over far more market actors, and the BoE will need those market actors to be part of the Reserves system in orde for their policies to have any effect.

5. What implementation issues do we need to consider, including (but not limited to):
o Generally?

PSPs and end-users being constantly made to plan for disruptive change, for possibly marginal benefits to their business.

o Are the operators best placed to undertake the procurement exercise?
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o The timing of the proposed procurement exercises.

As stated, a poor choice between separate exercises leading to perpetual change, or Big Bangs involving high risk.

o Would there be benefits and/or detriments if these processes were coordinated?
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Remedy 2: Interoperability

1. Would this remedy be effective in addressing the problems we have identified?

Yes, in our view it would deliver the greatest direct benefits, would not be seen by market actors as either retrograde, marginal or unnecessary, and would deliver ancillary benefits, such as:

- more consistent business processes between payment schemes, increasing competition between the schemes for payment traffic
- easing future migrations
- replacing Sort Codes and the UK Basic Bank Account Number with BIC and IBAN, of which there is no shortage and which every PSP could have without the issues raised in this Market Review and in the one on Indirect Access
- bigger payload of remittance data
- Ultimate Debtor/Ultimate Debtor functions, which are required both by large corporates and by smaller PSPs who do not have their own sort code: currently these smaller PSPs have to populate the UK payment messages using the remittance data fields for beneficiary and remitter data, leading to less efficient payment handling
- access to the ancillary set of messages available under the SWIFT Exceptions and Investigations service and used in SEPA for the R-messages (Rejection, Return, Reimbursement etc)
- easing compliance with future regulations such as the EU Regulation on information accompanying funds transfers, under which UK domestic payments are permissible to be done as IBAN-only

2. What are the relevant potential costs and benefits that we should consider?

See above for benefits. Costs would be substantial but one-time, and with the proven SEPA technological methodology to work off (albeit that the SEPA business methodology demonstrated shortcomings – described below – which should act as learning points for the UK).

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
--

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?
--

5. What implementation issues do we need to consider (including the length of a transition period)?

SEPA only got properly into gear when the EU passed the SEPA Migration End Date Regulation in late 2012, demanding an end date of February 2014 – postponed to August 2014 and only achieved then thanks to certain 'safety valves' that have weakened SEPA's integrity. We believe it is essential and beneficial for the UK to study the positives and negatives from the SEPA Migration experience.

The Payment Strategy Forum's role in examining message standards – foreseen on page 6 of the PSR's report – needs to be carefully controlled to make sure that the proponents of blockchain do not exercise undue influence over its outcome.

6. Are there any other aspects of the technical standards or other rules (besides common messaging standards) that may act as barriers to entry for potential infrastructure providers?
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Remedy 3: Ownership of VocaLink

1. Would this remedy be effective in addressing the problems we have identified?

The PSR report proves that the UK payments market model <u>differs</u> from the market models of several privatised industries in the UK.

The Lipis Associates report proves that the market model of UK payments <u>differs little</u> from that of the payments markets in other countries, but at the same delivers a very positive verdict on functionality: that the UK is near or at the front of payments offerings generally.

Taken together, there is <u>no proof</u> that a change in market model such as a change in Vocalink's ownership would take the UK forward.

At the same time much is made of SEPA without drilling into:

- that SEPA remains many markets with individual flavours, caused by the 'safety valves' permitted by the SEPA Migration End Date regulation…
- these allowed payment schemes considered (by the national market itself) to be vital to the national market, thus allowing schemes like the Ricevuta Bancaria ('RIBA') in Italy to persist *sine die*
- they also allowed national communities to agree a filling for fields in the ISO20022 format – those left in White in the EPC's message usage guides - that was specific to their market but not used by other markets either at all or in the same way: this is called 'AOS' or Additional Optional Services
- national communities, acting through their national banking associations, have been the definers of the AOS, representers of the continuing need for 'schemes vital to the national market', and selectors of the infrastructure to be used
- Lipis Associates rightly point out that Belgium is an anomaly, almost the only country that did not re-appoint its domestic ACH as its SEPA-compliant CSM
- Finland's position is an anomaly in a manner that does not come out as clearly in the Lipis Associates report, namely that the retail banking market is highly concentrated on just one bank: Nordea. Nordea is a full member of Euro Bankers Association and Clearing Company (which runs EURO1, STEP1 and STEP2), and the next tier of Finnish banks are EBA members too. Finland never had a direct debit scheme of significance: business-to-consumer debts

were and are managed via an Electronic Bill Presentment mechanism through each bank's customer eBanking tool. This leads to the customer agreeing to pay by making a credit transfer, in full or in part, at once or over a period. The process is extremely similar to that proposed by Payment UK/World Class Payments in their recent proposal paper 'Request to Pay'. In the context of 'Infrastructure' it is important to take away that Finland only requires Credit Transfer Initiation and Reachability, and Direct Debit Reachability – but not Direct Debit Origination. Finland defined just one piece of national AOS – the tax payment date – and another piece of AOS that has subsequently been adopted into the main EPC scheme – the ISO Corporate Reference.

- Hence STEP2 is a completely adequate infrastructure solution for Finland's needs, but might well not be for the needs of other national communities. STEP2 has established itself as (i) the leading interconnector for cross-border SEPA payments initiated in national infrastructures like SIBS and Iberpay and with endpoints in others like Equens (ii) the leading infrastructure for cross-border SEPA payments between its member banks…
- …but less as an infrastructure-of-choice for national communities.
- as a result SEPA can in no way be regarded as an example where there are multiple infrastructures for the same service in the same market
- at most it can be regarded as an example of several national markets in parallel supporting a scheme in multiple instances with 90-95% commonality between the instances: a much less impressive role model for the UK to follow
- SEPA's greatest problem at present is the automation of the R-messages, particularly those sent under the Core Direct Debit scheme, and this is leading to higher costs and inefficiency than was experienced in the equivalent national schemes pre-SEPA.

2. What are the relevant potential costs and benefits that we should consider?
--

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?

As Lipis Associates point out, Vocalink supports what can be termed a 'fat' ACH, in two ways:
- services supportive of the automation in the PSPs of the day-to-day handling of payments, such as Direct Debit return items – a particular problem in SEPA
- overlay services such as CASS and Paym

These have significant value and should not be subjected to a give-up in order to simply to alter the UK payments market model to become more like other market models. These are exactly the kind of functions that bidders for 5-year contract might either (a) not agree to take over; or (b) want to have share of the IP in so that they could continue to earn on what they had invested even if they were no longer the infrastructure for the scheme any longer; or (c) charge a premium price for developing these functions on their infrastructure – which would feed through to the Payment Service Providers and then to the end-users.

A principle of SEPA – that no customer should experience a reduction of functionality – was a good one, even if resulted in both AOS and the retention of one-country-only schemes like RIBA. In the UK there is no need to give up functionality to achieve harmonisation with other countries.

Instead, through ISO20022, it should be possible to achieve a harmonisation between UK schemes but on a high level of functionality – at the very least today's functionality plus capabilities in ISO20022 format that cannot be accommodated in Standard18, SWIFT MT, or the versions of ISO8583 in use at FPS and LINK.

7. Is there an alternative remedy that would be equally effective but would be less costly and/or intrusive?

Adoption of ISO20022 and separation of tables and databases needed by all UK schemes, including CHAPS and Cheque&Credit.

5. What implementation issues do we need to consider, including (but not limited to):
o General

Since Voca (who then only ran BACS) and LINK originally made a joint bid to be the infrastructure behind FPS, it is to be expected that Vocalink's IT topology for running the FPS makes use of BACS and LINK components behind the scenes. By extension it can be assumed that Vocalink operates components that service all three schemes. There will not be a self-contained BACS operation, with all tables and databases independently established, nor a self-contained FPS nor a self-contained LINK operation. The PSR report does not touch this issue. It may not even be feasible to unbundle the provision behind one of the schemes, that is unless a prior and specific unbundling project were undertaken.

It is possible that certain components could be running on very old technology and that considerable effort and cost might be required to move to an environment where it was possible for another company to take over the infrastructure provision for one scheme without taking over all of them.

The issue of ownership of the intellectual property of these facilities would have to be addressed since, if Vocalink were to be sold, the sale price required by existing shareholders could vary considerably depending upon the ownership and valuation of these assets.

The ownership of Vocalink itself is not central to this practical issue. Requiring ownership changes at the Vocalink level might detract from a focus on making practical alterations to the arrangement and ownership of assets that are currently run by Vocalink, a focus that could lead to more beneficial outcomes for the market model than simply altering who owns Vocalink.

o Who should be required to divest their shareholding?
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o Timing of the divestment
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o What (if any) purchaser suitability criteria should be applied?
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o What (if any) additional measures are required to ensure security and resilience?
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o Should the divestment be full or partial?
--

o If partial, to what level should an individual PSP shareholding be reduced?
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o If partial, should the total shareholding held by PSPs also be limited?
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o Should changes to Board composition also be stipulated?
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Remedy 4: LINK
1. Would this remedy be effective in addressing the problems we have identified?
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2. What are the relevant potential costs and benefits that we should consider?
--

3. Would this remedy give rise to unintended consequences and how might these be prevented or mitigated?
--

4. Is there an alternative remedy that would be equally effective but that would be less costly and/or intrusive?
--

For the package of remedies as a whole
1. Would these remedies be effective in addressing the problems we have identified?

Not necessarily; focus should be on interoperability, unbundling and getting a policy change at the BoE on Settlement Accounts. The ownership of Vocalink is an academic point when measured against those three, and might not alter market conditions even if it were done.

The PSR's evidence does not prove the case for a change in Vocalink's ownership. The evidence suggests that the UK is well-served in terms of functionality, and is in line with other payments markets as regards the market model.

2. How effective would the package be if one or more of the remedies above were excluded?

Equally effective if the ownership of Vocalink was excluded, but the unbundling of Vocalink IT topology and separation of tables/databases are important enablers.

3. Are there any relevant potential costs and benefits of the package as a whole (other than those considered above under each remedy) that we should consider?
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4. Are there any unintended consequences of the package as a whole (other than those considered above under each remedy) and how might these be prevented or mitigated?

Yes: see responses to earlier questions.

5. Are there any alternative remedy packages that would be equally effective but that would be less costly and/or intrusive?
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6. What implementation issues do we need to consider (including timing)?
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Gateways
7. May the accreditation process for Bacstel-IP prevent other providers from entering the market?

We do not agree with the PSR's positive opinion regarding Gateways, which has led to this one sole question about Gateways in the consultation.

Gateways are a technical access issue, and presuppose that all necessary business-model enablers exist in good order. We do not consider this to be the case, and no doubt there will be many questions raised by PSPs in their responses to the PSR's interim report on their market review on Indirect Access.

Efforts by scheme companies to promote direct technical access will only be effective if:

- the Bank of England alters its policy on allowing PSPs to have Settlement Accounts, without which they cannot be a direct member of any payment scheme except LINK
- an account balance at the Bank of England is qualified as an allowable manner for Payment Institutions and eMoney Institutions to safeguard customer monies
- Sort codes are more readily available to new PSPs – or rather if IBAN+BIC are adopted, over which there is no shortage
- New PSPs with Settlement Accounts are given the same access to intraday liquidity facilities as are banks that are members of the BoE Reserves system

BL/15.4.16

PAYMENTS SYSTEMS REGULATOR INTERIM REPORT 25-2-16 of INVESTIGATION INTO COMPETITION & OWNERSHIP OF INFRASTRUCTURE PROVISION
Further submission of the Campaign for Community Banking Services (CCBS)

Having studied the Interim Report, CCBS remains concerned that the access needs, and competitive choice of provider, by **all** end users, as required by the legislation, of payments systems are still not being adequately addressed in the Conclusions and Remedies, particularly physical access by vulnerable individuals, small businesses and 'third sector' organisations.

The background was set out fully in our acknowledged e mail submission of 7 January 2015.

it is relevant that LINK Scheme management made a lot of progress in the first half of last year on what they called a Shared Branch Proposition (White Label or LINK Branded) but this is paused indefinitely because of lack of support from the scheme owning banks and delays in any outcomes from a governance review which **(7.32)** would now seem to be further delayed.
Although the LINK proposition was not everything an organisation like ours wanted, it was the best on the table and used technology very similar to the branch sharing capability used by credit unions across the USA (unlike UK credit unions, very similar to retail banks in scale and offering) which we studied there in 2009, and its lack of progress is to be regretted. Over reliance on the post office network by the big banks, although post offices do have a role in ours and LINKs' proposals, is potentially dangerous as the branches being closed are larger and serving bigger communities.
The Treasury and Department of Business initiative of the coalition government called upon the banks (3 February 2015) to "think further about shared service models in addition to the one being developed with the Post Office" and to report accordingly. **The Post Office model has not been adequately delivered and there is no evidence of meaningful work being undertaken by the industry on alternatives; meanwhile branch closures have escalated with 681 in 2015, leaving a further 177 communities with no bank at all and 129 with no choice of provider. The pattern continues in 2016.**

The established industry, which shares this common problem, could accelerate the rate of branch closures if an alternative model of a neutral transaction based outlet was available to put into in hundreds of sites thus opening up, on our figures (on the CCBS website www.communitybanking.org.uk under REPORTS) cost savings between the Big 4 of up to £1 bn per annum and guaranteeing access to transactional banking and choice of provider for **all** sectors.

Accordingly **REMEDY 4 (8.28)** needs to be accelerated and widened in its provision to include a specific mandate to Link Scheme Limited to progress the shared branching work to pilot stage as planned and as a matter of urgency.

[✂]
1 April 2016