



Pay.UK 2021 Annual Self-assessment Against the Principles for Financial Market Infrastructure

Covers the operation of the Bacs Payment System, Faster Payment System and Image Clearing System as at end-June 2021

8 September 2021





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Introduction to the PFMI self-assessment

The CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs) are the international standards for systemically important financial market infrastructures (FMIs), such as payment systems, central securities depositories, and central counterparties. The PFMIs are issued by the Bank of International Settlements' Committee on Payments and Market Infrastructures (CPMI) and the International Organisation of Securities Commissions (IOSCO). They were first issued in 2012 to update and harmonise the previous sets of standards.¹ If adhered to, the PFMIs help to ensure that FMIs (including payment systems) are robust, resilient, and positioned to withstand financial shocks.

As a recognised payment system operator (PSO), Pay.UK is currently required by its macroprudential regulator, the Bank of England (BoE), and specifically the Financial Market Infrastructure Directorate (FMID) within the BoE, to complete a PFMI self-assessment on an annual basis.

This document is Pay.UK's third annual self-assessment against the PFMIs and provides details of how Pay.UK is performing against the PFMIs as at end-June 2021. This document was provided to FMID in September 2021. A public version will be published on the Pay.UK website shortly thereafter.

As well as providing transparency to FMID and broader stakeholders, the self-assessment offers Pay.UK a useful opportunity to assess its operations, risk frameworks, and performance.

This self-assessment report is comprised of three sections:

- **Section A: What is Pay.UK?** – This provides a summary of Pay.UK, its legal and regulatory framework, the three payment systems it operates, its participants, and the New Payments Architecture (NPA) Programme.
- **Section B: Summary of ratings and changes since the 2020 self-assessment** – This provides an overview of the PFMI rating criteria, the ratings Pay.UK has assessed as applicable this year, and a summary of changes in those ratings compared to the 2020 self-assessment.
- **Section C: Principle by principle analysis** – This provides a detailed summary of the ratings and explanations for all the principles that are applicable to Pay.UK. The responses have been provided in accordance with the key considerations detailed against the relevant principles.

¹ For details, please see: https://www.bis.org/cpmi/info_pfmi.htm.

Section A: What is Pay.UK?

Pay.UK Limited (Pay.UK) runs the UK's three interbank retail payment systems: (i) the Bacs Payment System (Bacs); (ii) the Faster Payment System (FPS); and (iii) the Image Clearing System (ICS).

Pay.UK's vision is *'to be the leading retail payments authority, delivering best in class infrastructure and standards for the benefit of people everywhere'* and its core purpose is *'to support a vibrant UK economy enabling a globally competitive payments industry through the provision of robust, resilient, collaborative retail payment services, rules and standards for the benefit, and meeting the evolving needs, of all users'*.

Pay.UK was incorporated in July 2017 as a not-for-profit company limited by guarantee. Pay.UK is governed by a Board of Directors and run on a day-to-day basis by a CEO and an executive management team.

Prior to the creation of Pay.UK, the three payment systems were operated by three independent companies. In May 2018, Pay.UK acquired Bacs Payments System Limited (BPSL) and Faster Payments Service Limited (FPSL). In July 2018, this was followed by Pay.UK's acquisition of UK Payments Administration (a services company) and the Cheque and Credit Clearing Company Limited (C&CCC), operator of the paper cheque system, which was replaced by the Image Clearing System (ICS). The operation of the central infrastructure (CI) for Bacs, FPS, and ICS is outsourced to Vocalink (since 2003 for Bacs, 2008 for FPS, and 2016 for ICS).

Pay.UK's legal and regulatory framework

Bacs and FPS are payment systems *recognised* by HM Treasury in accordance with Section 184 of the *Banking Act 2009*. As a result, Pay.UK's operation of both payment systems is subject to macroprudential regulation by FMID.

Bacs, FPS, and ICS are all *designated* by HM Treasury in accordance with Section 44 of the *Financial Services (Banking Reform) Act 2013*. Consequently, Pay.UK's operation of these systems is subject to economic regulation by the Payment Systems Regulator (PSR).

Pay.UK is also subject to competition laws, specifically the *Competition Act 1998* and *Enterprise Act 2002*. The PSR has concurrent competition powers along with the Competition and Markets Authority (CMA). The Financial Conduct Authority (FCA), which also has concurrent competition powers, may also intervene in some circumstances.

Bacs, FPS, and ICS have all been designated for settlement finality purposes under the *Financial Markets and Insolvency (Settlement Finality) Regulations 1999*.

Overview of the Bacs Payment System, Faster Payment System, and Image Clearing System

Bacs, FPS, and ICS are all deferred net settlement (DNS) payment systems. In DNS systems, payments are accumulated and netted either throughout the day or once per day and then settlement of the net amount takes place. This means that the clearing and settlement of payments are conducted separately. While clearing will happen in the CI for each payment system, the values owed by each Direct Participant (DP) are netted together by Vocalink with final settlement occurring at the BoE over the Real-Time Gross Settlement (RTGS) infrastructure in central bank money. Settlement occurs between one and three times a day depending on the payment system. Pay.UK maintains contracts with Vocalink for each payment system and with the BoE as the settlement service provider (SSP).

All three systems work on a pre-funded basis. This is where all DPs hold a cash deposit sufficient to cover their own net transactions in a segregated account at the BoE. DPs which are banks, hold Reserve Collateralisation Accounts, whereas non-bank payment service providers (NBPSPs) hold Settlement Collateralisation Accounts.² These deposits underpin the net flows of payments between each DP and will only ever be used to settle the obligations of the DPs in the event of operational or financial difficulties. The existence of pre-funding removes credit risk (between DPs) from the settlement process.

The Bacs Payment System

Bacs processes automated bulk retail payments via Direct Credits and Direct Debits. Through Direct Credits, Bacs is used for processing payments, notably salaries and welfare payments. Through Direct Debits, Bacs is used to process scheduled consumer payments for services such as utilities, insurance, mortgages, and subscriptions.

Bacs operates on a three-day processing cycle. On the first day the originating organisation (e.g. the payer or biller) inputs the payment items it wants to submit. A Direct Credit or Debit payment item is a transaction, containing the payment amount, credit and debit account details, as well as the originator and submitter details (the submitter may be a bureau acting on behalf of one or more third-party originators). Files are submitted under encryption into the CI and are then authenticated.

On the second day the CI routes the payments to receiving DPs who apply these to the destination accounts. Where a paying PSP is not a Bacs DP they will receive their output files via their sponsoring DP. At the end of day two, transactions between all DPs are totalled, and the final net position for each Bacs participant is settled in RTGS.

On the third day, the paying payment service providers (PSPs) apply debits and credits to the relevant payment accounts by no later than 09:30. There is one Bacs settlement cycle each working day at 09:30 and this settles the values calculated at the end of day two.

² For more details, please visit <https://www.bankofengland.co.uk/payment-and-settlement>.

There are 27 DPs in Bacs. Pay.UK has numerous contractual arrangements, rules and agreements with each of the Bacs participants, which are listed in the table below. For simplicity we refer to these throughout this document as ‘Bacs contractual arrangements and rules’.

Bacs Settlement Agreement	Defines the procedures whereby settlement of payments is effected between participants’ RTGS accounts.
Deed of Charge	A deed between participants and the BoE, which creates a charge over any balance in a participant’s pre-funding account, to ensure that settlement can complete in the event of a failure by any participant.
Bacs Payment System Participation Agreement	Enables an applicant to become a DP and defines the rights and obligations of participation, including compliance with the Bacs Rules.
Liability Pooling Agreement	Specifies the liability caps and priorities between the parties for services provided under the agreements collectively known as the ‘Transaction Documents’.
Participant Services Agreement	An agreement between each participant and Vocalink (as CI provider) for the provisions of services as detailed in the Framework, Development, and Marketing Agreements.
Participant Trade Mark Licence	Defines the conditions under which participants may use the Trade Marks of the System Operator.
Direct Debit Recall Agreement	Enables Pay.UK (as Bacs PSO), and its participants in exceptional circumstances, to restrict a Paying PSP’s right to use the Direct Debit Unpaid Process and to amend the Direct Debit Scheme Rules accordingly.
Single Settlement Trust Deed	Used by non-bank PSPs utilising the ‘own fund’ participation model, which sign a trust deed, instead of a deed of charge.
Bacs Rules	Sets out operational rules and also incorporates by reference the other Bacs operational documents.

Over 400 indirect PSPs access Bacs via agency arrangements through one or more DPs. There are also approximately 750 Commercial Bureaux and approximately 60 Accredited Facilities Management Providers that provide Bacs access to organisations using Bacs Direct Credit and Direct Debit. The Accredited Facilities Management Providers facilitate more than 30,000 organisations to collect Direct Debit and around 50,000 organisations have direct payment submission access to the Bacs Payment System.

In 2020, 6.5 billion Bacs transactions were processed at a total value of £4.9 trillion.³ Almost 90 per cent of UK adults have at least one Direct Debit commitment with 73 per cent of household bills paid this way.⁴

³ Source: <https://www.wearepay.uk/wp-content/uploads/Annual-Summary-of-Payment-Statistics-2020.pdf>.

⁴ Source: https://www.bacs.co.uk/documentlibrary/bacs_service_principles.pdf.

The Faster Payment System

FPS is a real-time payment system that enables mobile, internet, and telephone payments (up to a system limit of £250,000) to move quickly and securely, 24 hours a day. It takes typically just a few seconds for a Faster Payment to move between different banks' customer accounts. FPS supports the following payment types, which are all credit (push payments): Single Immediate Payments; Forward Dated Payments; Standing Order Payments; Direct Corporate Access allowing corporates to submit bulk Faster Payments; and Returns. While Faster Payments clear almost instantly, net settlement between DPs occurs over RTGS three times each working day at 07:00, 13:00 and 17:00.

There are two types of participants specific to FPS: (i) Directly Connected Settling Participants (DCSPs); and (ii) Directly Connected Non-Settling Participants (DCNSPs). DCSPs connect directly into the CI to send and receive payments in real-time, 24 hours a day. DCSPs set their own transaction limits and hold their own settlement accounts in RTGS. DCNSPs also connect directly into the CI to send and receive payments, but use a sponsoring participant (i.e. a DCSP) for settlement, using that DCSP's settlement account in RTGS.

FPS has 37 DPs (inclusive of both DCSPs and DCNSPs). Pay.UK has numerous contractual arrangements, rules, and agreements with each of the FPS participants, which are listed in the table below. For simplicity we refer to these throughout this document as 'FPS contractual arrangements and rules'.

DCS Participation Agreement	Enables an applicant to become a DP in FPS and defines the rights and obligations of participation (there is also an equivalent DCNSP Participation Agreement).
FPS Accounts Agreement	Defines the procedures whereby settlement of payments made via FPS is effected between participants' RTGS accounts.
Deed of Charge	A deed between participants and the BoE, which creates a charge over any balance in a participant's pre-funding account, to ensure that settlement can complete in the event of a failure by any participant.
Single Settlement Trust Deed	For non-bank PSPs utilising the 'own fund' participation model, which sign a trust deed, instead of a deed of charge.
FPS Rules	Sets out operational rules and also incorporates by reference, the FPS Procedures, Security Code of Conduct, and other operational documents.

In addition to the DPs, some 400 institutions access FPS via agency arrangements through one or more DPs.

In 2020, FPS processed 2.9 billion payments, an increase of 17 per cent from 2019, at a total value of £2.1 trillion.⁵

⁵ Source: <https://www.wearepay.uk/wp-content/uploads/Annual-Summary-of-Payment-Statistics-2020.pdf>.

The Image Clearing System

ICS enables images of cheques (and credits) to be exchanged between UK banks and building societies for clearing and settlement. The system was launched in October 2017 and the previous paper clearing system for cheques was decommissioned in October 2019. The introduction of ICS has significantly expedited cheque processing. As well as clearing sterling cheques, ICS processes bill payments and other credit items, accompanied by cash or cheques.

ICS operates a two-day processing cycle. On the first day, the collecting DP (e.g. the bank of the cheque's payee) will receive the cheque or cheque image from the payee, and will create or use this image to make a submission to the paying DP (e.g. the bank of the cheque's payer). This submission will contain important information in the message (such as request to pay and instruction to pay data), which will enable the paying DP to make a payment decision.

On the second day, the paying DP will decide on whether or not to pay and will submit the decision, which the collecting DP uses to apply credit to the cheque payee's account (if the decision is to pay).

Running settlement positions are applied on a continuous basis via the CI during the two-day process. Net settlement between DPs occurs in RTGS on the second day at 16:30.

There are 20 DPs in ICS. Pay.UK has numerous contractual arrangements, rules and agreements with each of the ICS participants, which are listed in the table below. For simplicity we refer to these throughout this document as 'ICS contractual arrangements and rules'.

ICS Admission Agreement	An agreement to comply with the ICS terms and conditions and offer to become an ICS participant.
ICS Settlement Framework Adherence Agreement	Defines the procedures whereby settlement of payments made via ICS is effected between participants' RTGS accounts.
ICS Settlement Interbank Settlement Adherence Agreement	Deals with inter-bank settlement matters not dealt with through the ICS Settlement Framework Agreement.
ICS Deed of Charge	A deed between participants and the BoE, which creates a charge over any balance in a participant's pre-funding account, to ensure that settlement can complete in the event of a failure by any participant.
ICS Manual	Sets out operational rules and also incorporates by reference the other ICS operational documents.

ICS processed 188 million cheques in 2020, a decrease of 8 per cent from 2019, at a total value of £231 billion, a decrease of 28 per cent from 2019.⁶ While the use of cheques has been declining for some time, the decrease from 2019 to 2020 was starker due to the Covid-19 pandemic.

⁶ Source: <https://www.wearepay.uk/wp-content/uploads/Annual-Summary-of-Payment-Statistics-2020.pdf>.

Current direct participants in Bacs, FPS, and ICS

At end-June 2021, there were 27 DPs in Bacs, 37 DPs in FPS, and 20 DPs in ICS

Direct participant	Bacs	FPS	ICS
The Access Bank Ltd	✓	✓	✓
AIB Group UK	✓		✓
Atom Bank PLC	✓	✓	
Bank of England (as Participant and SSP)	✓		
Bank of Ireland UK PLC			✓
Bank of Scotland PLC	✓		
Barclays Bank PLC	✓	✓	✓
Barclays Bank UK PLC	✓	✓	✓
BFC Bank Ltd		✓	
CitiBank, N.A.	✓	✓	
Clear Bank	✓	✓	✓
Clydesdale Bank PLC	✓	✓	✓
The Co-Operative Bank PLC	✓	✓	✓
Coutts & Company	✓		
Credec Ltd		✓	
Ebury Partners UK Ltd*		✓	
Elavon Financial Services DAC		✓	
Habib Bank Zurich PLC			✓
HSBC Bank PLC	✓	✓	
HSBC UK Bank PLC	✓	✓	✓
LHV		✓	
Lloyds Bank PLC	✓	✓	✓
Lloyds DCNSP*		✓	

Direct participant	Bacs	FPS	ICS
Metro Bank	✓	✓	
Mettle Ltd (provided by PrePay Solutions)		✓	
Modulr	✓	✓	
Monzo Bank Ltd		✓	
National Westminster Bank PLC	✓	✓	✓
Nationwide Building Society	✓	✓	✓
Northern Bank Ltd	✓	✓	✓
PayrNet Ltd	✓	✓	
PrePaid Financial Service Ltd		✓	
PrePay Technologies Ltd* (trading as PrePay Solutions)		✓	
Revolut		✓	
Royal Bank of Scotland PLC	✓		✓
Santander PLC	✓	✓	✓
Spectrum Payment Services Ltd		✓	
Squareup Europe Ltd		✓	
Starling Bank Ltd	✓	✓	✓
Tandem Bank Ltd		✓	
Transferwise Ltd (known as Wise)		✓	
TSB Bank PLC	✓	✓	✓
Turkish Bank (UK) Ltd	✓	✓	✓
Virgin Money PLC	✓	✓	✓

* Directly connecting non-settling participants

Pay.UK's other services

Pay.UK also delivers a range of 'managed services' including Paym (which facilitates the initiation of payments using the mobile number of a payee rather than their full bank account details), and the Current Account Switch Service (which enables bank customers to automatically transfer all their payment arrangements from an existing current account to a new current account with a different PSP).

Pay.UK also provides the Bank Reference Data (BRD) service. The BRD service holds key information required to transfer funds in the Bacs, FPS, and ICS systems, and CHAPS (operated by the BoE). BRD holds details of the systems each PSP participates in, whether as a DP or an Indirect Participant, including each PSP's unique bank code identifier, sort code(s), and the system each sort code is used in. This information is used to determine which PSP settles a sort code with each system, helps validate payment instructions, and creates extracts including the sort code directory.

PSPs must be registered by Pay.UK on the BRD as participants in one or more systems. If a PSP participates in more than one system, their participation type does not need to be the same for each system. A DP can register its own bank offices, or the bank offices of an Indirect Participant, to use one or more of the services offered under that system. DPs are responsible for ensuring the accuracy of their records in the BRD and can apply amendments to the system directly, or via Pay.UK, depending on the activity.

The BRD service is part of the Bacs infrastructure, and benefits from the same control environment, including resilience, continuity, security, integrity, and risk and audit, both at Pay.UK and Vocalink. BRD is discussed in our response to Principle 17 in this self-assessment.

New Payments Architecture

Alongside operating the existing three payment systems, Pay.UK is working to deliver the New Payments Architecture (NPA), which is the new conceptual model for the future development of the UK's shared retail payment infrastructure. The NPA will drive accessibility, competition and innovation, and enable the delivery of new services. The NPA was conceived and recommended by industry through the Payments Strategy Forum Blueprint published in December 2017.

Pay.UK has been working on agreeing requirements for and procuring a core clearing and settlement capability that will underpin an ecosystem of participants and service providers. The PSR is currently undertaking a consultation process on narrowing the scope of the initial contract for delivery to those NPA services that will provide an enhanced immediate payments service and enable FPS transactions to move to the NPA. The PSR is also consulting on the appropriate way to secure this contract. We are currently engaging with the PSR and the wider industry on this consultation process.

Further details on the NPA can be found at www.wearepay.uk. Please refer to the PSR website for details of the PSR's consultation process: www.psr.org.uk.

Covid-19 pandemic situation

Since the Covid-19 pandemic started in March 2020, Pay.UK and its CI partner Vocalink, have made use of their business continuity arrangements to maintain the robustness and resilience of the payment systems. This has remained our priority throughout the pandemic, including through a prioritisation review of our other initiatives at the onset of the pandemic.

Publicly available documents

All the contractual arrangements and rules listed above for each payment system are made available to Pay.UK DPs and prospective DPs. Pay.UK also publishes an annual report outlining its activities. The Pay.UK Participant Advisory Council and End User Advisory Council also publish annual reports.

Section B: Summary of ratings

Of the 24 PFMI, 17 apply to Pay.UK (as a PSO).⁷ Pay.UK has assessed itself against each of these principles and assigned a rating according to the definition guide set out below.

The assessment ratings

Ratings	Rating definitions
Observed (Green)	The FMI observes the principle. Any identified gaps and shortcomings are not issues of concern and are minor, manageable and of a nature that the FMI could consider taking them up in the normal course of its business.
Broadly observed (Yellow)	The FMI broadly observes the principle. The assessment has identified one or more issues of concern that the FMI should address and follow up on in a defined timeline.
Partly observed (Amber)	The FMI partly observes the principle. The assessment has identified one or more issues of concern that could become serious if not addressed promptly. The FMI should accord a high priority to addressing these issues.
Not observed (Red)	The FMI does not observe the principle. The assessment has identified one or more serious issues of concern that warrant immediate action. The FMI should therefore accord the highest priority to addressing these issues.

As both Bacs and FPS are ‘recognised’ payment systems under the *Banking Act 2009*, Pay.UK is required to self-assess for the two systems. Although ICS is not ‘recognised’, Pay.UK has nonetheless included ICS in the self-assessment given: (i) it is an opportunity for Pay.UK to undertake a useful review of how it operates all three payment systems; and (ii) it provides stakeholders with an holistic view of how Pay.UK operates its business.

For 10 principles, we have provided separate ratings for each system because Pay.UK adopts system-specific approaches. For the remaining seven principles, a single rating has been provided, given that Pay.UK operates a combined approach across the business in these areas (for example, governance). This approach will allow Pay.UK’s stakeholders to clearly delineate differences in ratings across the payment systems.

The self-assessment has been completed by the Pay.UK executive (as a cross-organisation initiative), followed by discussion, challenge, and approval by the Pay.UK Risk Committee and Board. The table below provides a summary of Pay.UK’s self-assessment ratings.

⁷ Principles 6, 10, 11, 12, 14, 20, and 24 are not applicable to Pay.UK.

Pay.UK's self-assessed ratings against the PFMI

Principles	Bacs	FPS	ICS
1 – Legal basis*	Observed	Observed	Observed
2 – Governance	Broadly observed		
3 – Framework for management of risks	Broadly observed		
4 – Credit risk	Observed		
5 – Collateral*	Observed	Observed	Observed
7 – Liquidity risk*	Observed	Observed	Observed
8 – Settlement finality*	Observed	Observed	Observed
9 – Money settlements*	Observed	Observed	Observed
13 – Participant-default rules and procedures*	Observed	Observed	Observed
15 – General business risk	Observed		
16 – Custody and investment risks	Observed		
17 – Operational risk*	Broadly observed		
18 – Access and participation requirements*	Observed	Broadly observed	Observed
19 – Tiered participation arrangements*	Broadly observed	Broadly observed	N/A
21 – Efficiency and effectiveness	Broadly observed		
22 – Communication procedures and standards*	Observed	Observed	Observed
23 – Disclosure of rules and key procedures*	Observed	Observed	Observed

*These principles have been assessed for each system separately rather than at Pay.UK level.

Summary of rating changes since the 2020 self-assessment and principles rated less than fully observed

Where Pay.UK has sufficiently improved performance against the PFMI criteria, we reflect this in assigning ratings that may be higher than previous years' self-assessment. We are also not averse to assigning lower ratings than in previous years should we conclude that, as at the reference point for a particular year's self-assessment, we should make improvements against the criteria. While previous self-assessments are useful references, we strive to ensure our ratings are accurate reflections for our performance, and provide guidance on areas we should focus on in the forthcoming year.

Rating changes

Two of the principles have had rating changes compared to Pay.UK's 2020 self-assessment:

Principle 2 – Governance

Pay.UK has assessed itself as being broadly observed against Principle 3, which is a change from 2020 when we rated ourselves as being observed. Pay.UK has the documented and disclosed governance arrangements as required by the PFMI principle, which help ensure that Pay.UK supports the robustness, resilience and efficiency of our payment systems. Following the previous PFMI assessment, the Board identified the need to move to a 'new phase' of Pay.UK governance, making some adjustments to support the organisation in the next stage of its development. In early 2021 Pay.UK commissioned a third-party review of corporate governance which confirmed the Board's view and identified several areas in which governance could be enhanced to make it more effective. Pay.UK has assessed this principle as broadly observed while we are implementing these measures. The path to 'observed' is to successfully implement the transition plan to address the areas for enhancement.

Principle 15 – General business risk

Pay.UK has assessed itself as being observed against Principle 15, which is an improvement from 2020 when we rated ourselves as broadly observed. In 2020 Pay.UK achieved its risk capital target ahead of plan, and so we consider that we fully meet this principle. Pay.UK will continue to monitor its risk capital on an ongoing basis.

Principles rated less than fully observed

In addition to the two principles discussed above, Pay.UK has rated itself as broadly observed against five other principles.

Principle 3 – Framework for the comprehensive management of risks

Pay.UK has assessed itself as being broadly observed against Principle 3, which is unchanged from 2020. Since 2020, Pay.UK has enhanced the areas of required maturity in our Enterprise Risk Management Framework (ERMF), including implementing: proactive risk identification and assessment, guided by risk appetite/tolerance across the business; clearly defined strategic level risks, which are owned and monitored throughout the organisation; and a clear governance and escalation route for risk reporting in Pay.UK. While these enhancements to the ERMF have been fully developed throughout the organisation, there are some final aspects to deliver against the ERMF workplan, which are due for completion at the end of 2021, and so we have decided to rate ourselves as broadly observed. The path to achieve observed next year is to ensure that the remaining enhancements to the ERMF are completed and implemented as planned.

Principle 17 – Operational risk

Pay.UK has assessed itself as being broadly observed against Principle 17. In 2020 separate system ratings were used and all three were broadly observed (the change in approach is to reflect that, under the ERMF, the three systems are utilising the same suite of operational risk control processes). Pay.UK has strong operational risk management processes to enable the organisation to identify and mitigate the operational risks that could impact our operation of the three payment

systems. As discussed with respect to Principle 3 above, we are continuing our programme to enhance and improve our risk framework, and therefore assessed ourselves as broadly observed. The path to 'observed' is to ensure that the final enhancements to the ERMF are completed and implemented as planned, including the linking of operational and strategic risks.

Principle 18 – Access and participation requirements

Pay.UK has assessed itself as being broadly observed on Principle 18 for its operation of FPS, which is unchanged from 2020. While FPS has objective, risk-based, and publicly disclosed criteria that permit fair and open access, there is still some outstanding policy work regarding the FPS aggregator model, which we want to complete before rating ourselves as fully observed. The path to observed is to complete this outstanding policy work and implement any agreed changes.

Principle 19 – Tiered participation arrangements

Pay.UK has assessed Bacs and FPS as being broadly observed against Principle 19, which is unchanged from 2020. ICS does not have tiered participation and so we have assigned an N/A rating. While Pay.UK can identify and monitor the risks arising from tiered participation in each payment system, Pay.UK does not have clearly defined triggers for managing risks from tiering should the need arise. (However, at present, these risks are judged as low because Pay.UK does not have particularly tiered participation, given the increased access and de-tiering that has happened in recent years, and because prefunding arrangements help with the settlement risk that tiering can bring). The path to observed is to develop a tiering policy which will set out how Pay.UK should manage risks from tiered participation. We are committed to developing such a policy, but completing this work is subject to resourcing in light of other, higher priority projects.

Principle 21 – Efficiency and effectiveness

Pay.UK has assessed itself as being broadly observed against Principle 21, which is unchanged from 2020. While Pay.UK has the design, objectives and relationships with stakeholders to help ensure we are efficient and effective in meeting participant and market needs, our new set of KPIs, developed since 2020, can evolve further under our forthcoming new strategy. The path to observed is to leverage the enhanced clarity and specificity of our goals under the new strategy to further evolve the KPI set.

Section C: Principle by principle analysis

The following section provides a detailed summary of Pay.UK's ratings against the PFMI's that are applicable to Pay.UK. The responses have been provided in accordance with the key considerations detailed against the relevant principles.

Principle 1 – Legal basis

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.</i></p>	<p>Applicability: As the three payment systems operated by Pay.UK utilise separate contractual rules and agreements, individual ratings have been provided.</p> <p>Rating: This principle is observed for each payment system.</p> <p>Pay.UK is a private limited company registered in England and Wales. Its legal basis is achieved by Pay.UK being properly established in accordance with relevant laws and regulations for the jurisdiction in which it operates and having enforceable, appropriate and robust contractual arrangements and rules with Direct Participants (DPs) of the three Pay.UK payment systems. Pay.UK’s contractual arrangements and rules are clear, understandable, and consistent with the applicable laws and regulations under which Pay.UK operates.</p>
Key Considerations	Rationale
<p><i>1.1 What are the material aspects of the FMI’s activities that require a high degree of legal certainty?</i></p> <p><i>For example, rights and interests in financial instruments; settlement finality; netting; interoperability; immobilisation and dematerialisation of securities; arrangements for DvP, PvP or DvD; collateral arrangements (including margin arrangements); and default procedures.</i></p>	<ul style="list-style-type: none"> • Section A sets out the material aspects of Pay.UK’s activities as an FMI. As also noted in Section A, Pay.UK maintains a separate suite of contractual arrangements and rules for each of the three payment systems, and it is these arrangements and rules that provide a high degree of legal certainty for Pay.UK’s material activities. • These address the material aspects of payment system operations, including default procedures, responsibilities and liabilities of DPs, eligibility criteria for new DPs, withdrawal of DP rights, suspension and exclusion of existing DPs, and financial contributions of DPs. • A material aspect of Pay.UK’s activities is the continued provision of the CI for the three payment systems, provided by Vocalink. Currently, Pay.UK holds a number of contracts with Vocalink that are specific to each payment system. These contracts articulate a clear and enforceable legal basis, securing contractual certainty for Pay.UK as a service recipient.

<p>1.2 <i>An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulation.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s contracts, rules and procedures applicable to DPs are: <ul style="list-style-type: none"> ○ Enforceable (specific legal opinions are sought in relation to the enforceability of contractual arrangements and rules with participants established outside of the EU and, in light of Brexit, outside the UK). ○ Drafted, reviewed, and supported on an ongoing basis by both in-house lawyers and external legal counsel. ○ Signed by all relevant parties including, where appropriate, Vocalink, as supplier to Pay.UK of the CI and the BoE as supplier of RTGS for settlement. ○ Consistent with applicable English law and regulatory requirements. ○ Complemented by the rules of the relevant payment system and appropriate processes. <p>Consultation and review during 2019/2020</p> <ul style="list-style-type: none"> • A number of documents were novated from the former payment scheme companies BPSL, FPSL and C&CCC to Pay.UK Limited in 2019 and 2020 and the process is now complete. • In January 2021, the ICS Manual (part of the suite of contractual arrangements and rules) was updated to version 2.4 and made available to the public via the Cheque and Credit Clearing Company website.
<p>1.3 <i>An FMI should be able to articulate the legal basis for its activities to relevant authorities, Participants, and, where relevant, Participants’ customers, in a clear and understandable way.</i></p>	<ul style="list-style-type: none"> • All activities are articulated in a clear and understandable manner and via several media (legal documents, operational procedures, briefing notes, and face-to-face meetings) depending on the intended audience. • Pay.UK also operates a multitude of fora and committees (see Principles 2 and 21), which help Pay.UK articulate the legal basis for its activities in a more interactive manner. Consultation with relevant stakeholders is at the cornerstone of the majority of Pay.UK activities and encourages dialogue with wider stakeholder groups.
<p>1.4 <i>An FMI should have rules, procedures, and contracts that are enforceable in all</i></p>	<ul style="list-style-type: none"> • Bacs, FPS and ICS contractual arrangements and rules are all governed by English law, with jurisdiction in the English courts. All DPs must sign up to these before they are on-boarded and

relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.

as appropriate whenever these are updated.

- Pay.UK ensures the legal enforceability of its contractual arrangements and rules and other system documentation across the three payment systems. These documents hold adequate mechanisms for resolving challenges at system level (inter-participant disputes are also addressed in the system procedures) which materially mitigates the likelihood of challenges.
- The system documentation for each payment system is drafted in consultation with DPs, external legal advisers and is further reviewed by Pay.UK's in-house legal function.

Impact of Brexit and settlement finality

- One of Pay.UK's key controls for minimising systemic risk in its payment systems is the legally binding irrevocability of payments, provided for by the Settlement Finality Regulations ('SFR'). These are retained EU laws which were originally implemented in the EU Settlement Finality Directive ("SFD"). Following "Exit Day", in respect of EEA participants, their respective Member States' governments retain competency for applying the provisions of the SFD to their domestic institutions, which participate directly in third country systems (such as Bacs, FPS and ICS) and to collateral security provided in connection with participation in such systems. Recital 7 of the SFD affirms that it is up to Member States to apply the provisions of the SFD to their domestic institutions, which participate directly in third country systems, and to collateral security provided in connection with participation in such systems. The EU Commission is currently consulting on whether EU institutions that participate in third-country systems should be protected by the SFD. Pay.UK is monitoring the situation.
- As part of the EU withdrawal preparations, Pay.UK identified those DPs which participate in Pay.UK systems other than through UK-incorporated subsidiaries (for example by passported UK branches of EU/EEA incorporated entities and third countries), that are registered in Member States which have not transposed Recital 7 of the SFD into its domestic law.

Key consideration 1.5 is not applicable. The Pay.UK payment systems do not conduct their business in multiple jurisdictions; all business is conducted in the United Kingdom (UK). Pay.UK's operations are entirely conducted in the UK and it provides settlement for GB Sterling transactions in the UK. Pay.UK does not provide clearance and settlement for non-GB Sterling Transactions.

Principle 2 – Governance

Rating:	Broadly observed
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Summary	
<p><i>An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.</i></p>	<p>Applicability: This principle is applicable to the combined governance arrangements that Pay.UK applies to the operation of the entire company, including the three payment systems.</p> <p>Rating: Pay.UK has documented and disclosed governance arrangements that specify the roles and responsibilities of the Board and Board reporting committees. These arrangements, together with Pay.UK’s strategic objectives, risk framework and stakeholder inclusion, ensure that Pay.UK supports the robustness, resilience and efficiency of the payment systems it operates and broader UK financial stability.</p> <p>Following the previous PFMI assessment, the Board identified the need to move to a ‘new phase’ of Pay.UK governance, making some adjustments to support the organisation in the next stage of its development. In early 2021 Pay.UK commissioned a third-party review of corporate governance. The review, which was shared with the Bank of England in February, confirmed the Board’s view and identified several areas in which governance could be enhanced to make it more effective. One area, for example, is to rebalance some elements of decision-making between the executive and the Board, a second was the identification of some requirements for additional skills and experience to the Board and executive to help with the next phase of our work. Taken all together, this means that although our governance arrangements are clear and well-documented, there are areas where arrangements can be enhanced, and while we are implementing these measures, Pay.UK has assessed this principle as broadly observed.</p> <p>Next steps (path to ‘observed’): Pay.UK’s focus on strengthening Board and executive governance will continue. Pay.UK has put in place a transition plan to implement the review’s recommendations in an ordered timeline. The successful implementation of this plan will help us address the areas for improvement and bring us to being fully observed.</p>

Key Considerations	Rationale
<p>2.1 <i>An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s strategic objectives place a high priority on resilience (safety) and efficiency. There are six strategic objectives, listed below, which are publicly disclosed on our website (including via the Annual Report). These objectives help ensure that Pay.UK remains focused on our responsibilities and that we respond to the needs of stakeholders, and ultimately the public. <ul style="list-style-type: none"> ○ Robust and Resilient which means maintaining trust in the certainty, integrity and security of Pay.UK’s payments services as systemically important financial market infrastructures. ○ End User Focused which means ensuring the continued relevance, competitiveness and usefulness of the services Pay.UK provides as part of the UK payments ecosystem. ○ Agile and Innovative which means acting as a catalyst for change in the payments industry by realising opportunities, addressing threats, and supporting industry-wide initiatives. ○ Accessible which means promoting competition by supporting new entrants through comprehensive and consistent application and onboarding processes. ○ Efficient which means ensuring that Pay.UK’s payments services remain economically efficient and sustainable, while facilitating competition in both upstream and downstream services. ○ Excellent People which means attracting and retaining talented leaders and people who can deliver on Pay.UK’s culture, principles and values. • A strategic refresh is underway that will reinforce the primary focus of robustness and resilience of our infrastructure, as well as driving platform efficiency in support of the wider UK economy. • Pay.UK has policies in place to ensure appropriate consideration of the interests of participants; participants’ customers; relevant authorities; and other stakeholders. By way of example, there is the Decision-Making Policy, which sets out our approach to taking decisions in relation to the systems we operate (and includes stakeholder and end user engagement).

2.2 *An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, Participants, and, at a more general level, the public.*

- Pay.UK has documented governance arrangements that specify clear lines of responsibility. These will be refreshed as part of implementing the external governance review's recommendations to help ensure that the Executive Committee is fully empowered to take executive accountability.
- The Pay.UK Board has delegated specific matters to Board reporting committees and the CEO, with its reserved matters being clearly defined in the Board terms of reference. Further delegation of authority by the CEO to roles within the business is detailed in the Further Delegated Authorities Register.
- The Board has a number of committees, all of which have terms of reference setting out roles, responsibilities, delegated authority and reporting lines into the Board. These committees are listed below.
- As a result of the governance review undertaken in early 2021, these committees will change, with some being disbanded. This will facilitate a rebalancing of decision-making between the executive and the Board. Additionally, a number of executive committees have been set up to support the decision-making of the executive in the day-to-day management of the business. All legacy duties and responsibilities of the disbanded Board committees have been or will be re-allocated to either the Board (for strategic issues) or to the executive level committees and roles (for operational matters).
 - **Risk Committee** which is responsible for overseeing the effective management and reporting on Pay.UK's overall risk profile.
 - **Audit Committee** which is responsible for overseeing the integrity of Pay.UK's internal audit, external audit and internal control environment.
 - **Finance Committee** which is responsible for overseeing Pay.UK's financial affairs, advising the Board on the financial implications of any strategic initiatives and approving expenditure, and supporting the CEO and senior management in providing financial leadership.
 - **Nomination Committee** which is responsible for reviewing the structure, size and composition of the Board, ensuring that it has the necessary balance of skills, knowledge, experience, and diversity. In addition, it undertakes an annual review of the

	<p>chairmanship and composition of each committee or stakeholder group which reports to the Board.</p> <ul style="list-style-type: none">○ Remuneration Committee which is responsible for advising the Board on matters relating to the remuneration of Board members and the executive.○ NPA Programme Committee which is responsible for making decisions and providing both challenge and approval on issues affecting the design, build and delivery of the NPA. <i>This committee was disbanded in Q2 2021 (included here for completeness).</i>○ Managed Services Committee which is responsible for oversight of the company's product set beyond the core payment offerings covered by each payment system (please refer to Section A for a summary of the Managed Services). <i>This committee was disbanded in Q2 2021.</i>○ Legal, Governance and Standards Committee which serves as the guardian of the standards, contractual arrangements, and rules for the payment systems and managed services within Pay.UK's remit. <i>This committee was disbanded in Q2 2021.</i>○ Security subcommittee which ensures the effective management and reporting of threats and security management. <i>This committee was disbanded in Q1 2021 and its responsibilities and work brought back into the Risk Committee.</i>○ Other special purpose committees or councils may be set up and maintained as deemed necessary by the Board. <ul style="list-style-type: none">● A description of Pay.UK's Board and its committees is published on the Pay.UK website (alongside Guarantor details and Board minutes, redacted where appropriate). The Terms of Reference, meeting papers, and minutes for relevant Board and Board reporting committees are all provided to the Bank of England. The Board of Directors operates in accordance with Pay.UK's Articles of Association, policies, and good practice to confirm it is compliant with UK company law and any relevant codes of practice. Furthermore, the Board adheres to the principles in the UK's Corporate Governance Code and also the BoE's Code of Practice and Supervisory Statement relating to the governance of Recognised Payment System Operators.
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<p>2.3 <i>The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.</i></p>	<ul style="list-style-type: none"> • The roles and responsibilities of the Pay.UK Board are specified in its Terms of Reference. Please refer to Key Consideration 2.2. • Pay.UK is reviewing and making enhancements to its overall policy suite, by embedding controls, and developing a supported evidence-based policy effectiveness monitoring programme. • Pay.UK has procedures in place to identify and manage conflicts of interest. Board members are required to declare their conflicts of interest in the Board's Register of Interests. At every Board meeting, each Board member present must declare any direct or indirect interests in the proposed transactions or items to be considered at the meeting in accordance with Section 177 of the <i>Companies Act 2006</i> and the Company's Article of Association. • In addition to Board members, all staff are required to comply with Pay.UK Policy on Conflicts of Interest and the Corporate Governance Team advises both staff and their line managers when any potential conflict of interest is raised. • The Pay.UK Board reviews its overall performance annually. In 2020 the Board commissioned an external third party to run an effectiveness review of its performance and that of the Board reporting committees and executive. • In terms of reviewing the performance of individual Board members, the Chair and Senior Independent Director (SID) are responsible for carrying out and commissioning a review for each of the members (in addition the Chair has regular one-to-one discussions with each Board member). The SID is also responsible for reviewing the performance of the Chair.
<p>2.4 <i>The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).</i></p>	<ul style="list-style-type: none"> • The Pay.UK Board is comprised of qualified and suitable members including a diverse group of experienced independent non-executive members. C-suite members also attend and contribute to Board discussions. • There have been changes at Board level, including: a new Chair appointed in November 2020; the appointment of a new SID in January 2021; a new non-executive director (NED) representing the views of small participants and Fintechs in January 2021; a new independent non-executive director (INED) in January 2021; and a new NED representing the views of large participants in

	<p>May 2021. Further, one of the INEDs changed role to become a non-executive director in November 2020.</p> <ul style="list-style-type: none"> • The departure of the CEO in November 2020 led to the appointment of an interim CEO. A permanent appointment of a CEO was made after the 30 June assessment date. • The INEDs and NEDs on the Board are not involved in the day-to-day running of Pay.UK. INEDs, apart from their approved remuneration, do not have any material pecuniary relationship with Pay.UK. • As part of the governance review undertaken in early 2021, a new skills and capabilities matrix was prepared and completed to enable a full assessment of the capabilities of the Board, its future needs and to support succession planning. The annual performance review of the Chair was initiated in May 2021. • The Board and all Board reporting committees have access to subject matter experts (from the Pay.UK executive) who attend meetings and provide advice as needed.
<p><i>2.5 The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.</i></p>	<ul style="list-style-type: none"> • All management team responsibilities are clearly specified within role profiles. As well as the requirements for skills and knowledge, these profiles include behavioural requirements, to help ensure high levels of integrity. As previously discussed, this is an area which will be enhanced, as part of implementing the recommendations of the external governance review. • An assessment of the skills and capabilities of the Pay.UK executive team was undertaken as part of the governance review in 2021. • All 'C-Suite' appointments, other than that of the COO, are by the CEO with the involvement of specific Board directors with the necessary relevant experience. The CEO is responsible for bringing forward candidates for the endorsement of the Nomination Committee. When the COO became the interim CEO in late-2020 a number of transitional organisational changes were made. • In December 2020, management were able to obtain a base line view of Pay.UK non-financial internal controls supporting regulatory, legal and best practice obligations. The process concluded with thematic recommendations to enhance the control environment and enable evidence-based assurance. These recommendations will be reported to Risk Committee.

2.6 *The board should establish a clear, documented risk management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk management and internal control functions have sufficient authority, independence, resources, and access to the board.*

- The Pay.UK Board has approved the Enterprise Risk Management Framework (ERMF) as discussed under Principle 3. The ERMF assigns responsibilities and accountability for risk decisions as well as authority in times of emergency. The ERMF includes statements and policies on:
 - Risk-tolerance policy.
 - Responsibilities and accountability for risk decisions.
 - Decision making during incidents, crises, and emergencies.
 - Limits of authority.
 - The Chief Risk Officer (CRO) reports to the Risk Committee every other month on the top risks and threats facing Pay.UK and has 'unfettered access' to the Chair of the Risk Committee.
 - In 2020, the Compliance function (which reports into the CRO) changed its committee reporting line from the Legal, Governance and Standards Committee, to the Risk Committee.
 - Pay.UK's Internal Audit function provides a third line of defence within our risk framework. This function also owns the delivery of independent assurance to the Board.
- Risk Committee*
- RiskCo meets every other month. It is chaired by one of the INEDs. Minutes of RiskCo are copied to the Board and a committee report is presented at every Board meeting.
 - Given its responsibility for ensuring the effective management and reporting on Pay.UK's overall risk profile, RiskCo advises the Board on the setting of: the risk appetite and tolerance; risk identification, assessment, mitigation, and monitoring; risk breaches; internal controls; and oversight of the risk management function.
- Crisis management*
- The Board maintains overall responsibility for crisis management, but due to the practical realities of crisis resolution, does not have an 'in crisis' role, having delegated responsibility for crisis management to the CEO or the COO. They are entitled to take all such decisions relating to the operation of Pay.UK and its three payment systems as may be necessary to ensure that

	<p>the robustness and resilience of the systems is maintained (consulting with the Chair as soon as practical).</p> <ul style="list-style-type: none"> • Once a crisis has been resolved, the executive will report to the Board on the situation and allow the Board to review and make appropriate decisions moving forward.
<p><i>2.7 The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect Participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.</i></p>	<ul style="list-style-type: none"> • The Board utilises two advisory councils, the Participant Advisory Council (PAC) and the End User Advisory Council (EUAC), to provide it with input and advice to Pay.UK's strategy and decisions, thereby ensuring that they reflect the interests of Pay.UK's stakeholders. • These two councils enable the Board to remain sufficiently informed about the wider ecosystem and broader strategic issues and help to appropriately reflect the legitimate interests of Pay.UK's various stakeholders by understanding the separate views of end users and participants. • Members of the two councils are appointed based on their industry expertise and independent representation of their respective communities. • Decisions taken by Pay.UK can be disclosed to stakeholders through the two councils. As discussed under other key considerations, decisions are also disclosed to relevant stakeholders and the public through published (redacted) minutes, for example. • Pay.UK also runs a Participant Engagement Forum (PEF), which rather than being an advisory forum, is an information dissemination forum for discussing issues of common interest to Pay.UK participants and other industry stakeholders active in the UK's retail payments industry. The PEF focuses on operational issues, whereas PAC's focus is more strategic.

Principle 3 – Framework for the comprehensive management of risks

Rating:	Broadly observed
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Summary	
<p><i>An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.</i></p>	<p>Applicability: This principle is relevant to the <i>Enterprise Risk Management Framework (ERMF)</i> that Pay.UK applies to the operation of the three payment systems and the broader organisation and so a single rating has been applied.</p> <p>Rating: Pay.UK has an appropriate risk-management framework in place, including a risk policy and procedures. Since 2020 Pay.UK has enhanced areas of the ERMF. The work is being carried out in phases with clear reporting of progress to the Risk Committee and to Board. Key enhancements made in the past 12 months include: proactive business-wide risk identification and assessment, guided by risk appetite/tolerance; a clearly defined set of strategic level risks, owned and monitored across the organisation; and a clear governance and escalation route for risk reporting across Pay.UK, with risk owned by the business and with specific executive accountability.</p> <p>Whilst significant progress has been made to develop the ERMF, there are still some final aspects to deliver against the workplan, and so Pay.UK has assessed this principle as broadly observed.</p> <p>Next steps (path to ‘observed’): The ERMF workplan continues throughout 2021, with the current focus on operational risk management and the control environment. For example, the enhanced controls framework and the linkage of Level 3 risks to the top strategic risks, have been defined and successfully piloted in the Pay.UK Operations Directorate. They will be rolled out across the wider business during the second half of 2021. Pay.UK will consider itself fully observed against this principle when the final elements of the ERMF workplan have been completed and we confirm that the ERMF has been implemented as planned.</p>

Key Considerations	Rationale
<p>3.1 <i>An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.</i></p>	<ul style="list-style-type: none"> Pay.UK manages risk through the ERMF. The enhancements of the ERMF initially agreed by Pay.UK Risk Committee and the Board in 2020 Q1 that have been delivered include: <ul style="list-style-type: none"> Risk Appetite Statements: The Risk Appetite Statements are reviewed, updated and re-approved, as a minimum annually by Pay.UK’s Board, and as such are due for review by Board in Q3 2021. The existing risk governance arrangements allow for effective monitoring of the corporate risk profile. The statements are set against Pay.UK’s recognised risk impact areas (System Operations, Services, Finance, Legal & Regulatory and Reputation), which inform the tolerances set in the Risk Assessment Matrix that are linked to Risk Appetite Probability Impact Diagrams. These documents are reviewed and updated to ensure continuous alignment to the Risk Appetite Statements. Level 1 risks, which have at least one of the impact areas outside of appetite, result in approved actions being put in place to bring the risk profile within appetite. These are closely monitored through robust governance until completion of all actions. Risk Policy and supporting processes and procedures: The Risk Policy is reviewed and approved by Risk Committee as a minimum on an annual basis, and as such, was reviewed and re-approved by Risk Committee in March 2021. The policy is supported by procedural / guidance documentation, templates and tools, which are subject to ongoing review. Key Risk Indicators (KRIs): KRIs are aligned to the causes of the strategic risks and are monitored by the business and reported/escalated by exception via approved governance channels. A quality review has been undertaken of the KRIs by the second line risk function. Joint reporting of strategic risk KRIs and corporate KPIs takes place. A procedural guidance document and a ‘How To’ guide has been issued to support the business with KRI review and reporting. Enhanced risk governance with executive level oversight and challenge to Pay.UK’s strategic risks: Risk governance fora is in place at Pay.UK directorate level (Risk Operations Committee); executive level (Executive Risk Sub-Committee) and reporting to the Board (Risk Committee) to ensure robust and regular review and challenge of strategic and operational risks.

	<ul style="list-style-type: none"> • Risk management is aligned to the three lines of defence model (3LoD). The first line is accountable for identifying, owning and managing risks within Pay.UK. The second line risk function is responsible for the risk policies and ERMF and provides the first line with support, oversight and challenge. This is supported by a second line compliance function, which provides Pay.UK’s directors with assurance on Pay.UK legal and regulatory compliance, through a programme of compliance activity. In addition, a second line security function provides assurance and oversight of the effectiveness of security controls both within Pay.UK and Vocalink, and subject matter expertise in an advisory capacity to all areas of the business. Internal audit, the third line of defence, provides independent assurance on the effectiveness of the first and second lines of defence. • Following significant enhancements to the ERMF over the past 12 months, there is a need to develop its maturity from a foundational stage to a more robust stage. A number of further enhancements are in flight to achieve a more integrated and embedded ERMF, including a programme of first LoD education to enable risk management capability. The linkage of Level 3 Risks to the Top Strategic Risks and controls framework, which has been defined and successfully piloted in the Pay.UK Operations Directorate, will be rolled out across the wider business during the second half of 2021, along with supporting procedural guidance (please also refer to Principle 17).
<p>3.2 <i>An FMI should provide incentives to Participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.</i></p>	<ul style="list-style-type: none"> • For each of the three payment systems, participants are expected to comply with all of the documented rules and procedures. • Pay.UK monitors compliance and takes necessary enforcement action through its risk-based assurance participant programme. This ensures that participants discharge their responsibilities effectively and manage the risks that could impact the three payment systems or other participants, such as inadequate internal controls that could result in breaches against Service Line Agreements (SLAs), frequent and prolonged outages, or failure to settle. • Pay.UK monitors and manages participant performance against the respective scheme SLAs through regular meetings with each participant to discuss performance and any material matters or concerns documented in the monthly participant performance dashboards.

	<p>In addition, participants are required to self-attest on a regular basis to the effectiveness of the key controls that they have in place to mitigate risk to the payment systems and other participants, covering subjects including incident management, security, and business continuity. The responses and associated evidence are reviewed and challenged by Pay.UK as part of the participant assurance process.</p> <ul style="list-style-type: none"> • A formally-documented participant enforcement action process is used if it has been determined that a participant is not complying with the participation requirements and/or introducing risks to the payment systems and other participants that merit priority attention.
<p>3.3 <i>An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk management tools to address these risks.</i></p>	<p>Participant risk and concentration of participant suppliers</p> <ul style="list-style-type: none"> • Pay.UK’s Participant Risk and Concentration Risk dashboards have become integrated into the monitoring and reporting process. They are initially reported to Pay.UK’s Executive Risk Committee and then to the Board Risk Committee. • The Participant Risk Dashboard was enhanced in Q4 2020 to provide an enhanced view of the risk that participants pose to Pay.UK to enable informed decision making. Participant operational incident and compliance data is used to provide a singular view of significant risks emanating from participants using a scoring system. The data is then supported by narrative to inform on risk. The dashboard is also used to conduct trend analysis to inform on how the risks might develop over time. • The Concentration Risk Dashboard highlights where participants in the three payment systems use common providers (if one of these suppliers failed, there could be an impact on a number of participants). The dashboard provides information on participant use (and concentration of) the following types of providers: trust service providers; aggregators; software solution providers; and cheque processing providers, alongside core providers such as Vocalink and the BoE. Concentration is determined by volume of payments sent/received. The dashboard is supplemented with commentary on the concentration risks present and whether current mitigations are adequate.

Bank of England (RTGS) as settlement agent

- Pay.UK manages the risks that the BoE (and its provision of settlement services via the RTGS infrastructure) could pose as the settlement agent for the three payment systems.
- Pay.UK has a *Settlement Service Provider Agreement* with the BoE to provide settlement services for Bacs, FPS, and ICS, and for the provision of security custodian services for the participants (including their pre-funding accounts).
- Pay.UK holds quarterly meetings with the BoE to review any risks or issues that may be materialising.
- Pay.UK maintains oversight of the risks it bears from the BoE through the BoE's independently-produced ISAE3402 audit (which covers governance and accountabilities, business process integrity, security, operational stability and resilience, and change management).

Vocalink as central infrastructure provider

- Pay.UK regularly reviews the risks posed to the operation of its three payment systems from Vocalink as the CI provider.
- Pay.UK maintains contracts with Vocalink for each payment system. The contracts clearly set out provisions for availability requirements, how system changes are made, and incident management and escalation procedures. The contracts are supported by service manuals and user guides, which set out the day-to-day obligations and processes between the two parties.
- Pay.UK holds multiple regular meetings with Vocalink at various management levels, including with the vendor management teams, in which performance against the contract, change initiatives, incidents and problem resolution are tracked and reviewed. Pay.UK is currently reviewing these arrangements to make them less payment system-specific and more holistic in reviewing risk.

	<p>Systemic Risk (SR) Framework to manage systemic risk in line with regulatory obligations detailed by the BoE (Bank of England) in the PFMI</p> <ul style="list-style-type: none"> • Pay.UK is progressing a plan to develop an SR Framework which will form an enhancement to the current ERMF. The SR Framework will mature the current processes in place for the identification, analysis, mitigation and governance of systemic risk, e.g. horizon scanning; ERMF tools, techniques, and structure to enable risks to be viewed through an SR lens; and enhancing existing SR reporting (such as via the concentration, emerging, and participant risk dashboards). These enhancements will be supported by the issuance of SR procedures and guidance. • Pay.UK has developed its SR management approach, and commenced reporting of systemic risks to the executive committees via the dashboard reporting mentioned above.
<p>3.4 <i>An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.</i></p>	<p>Business continuity</p> <ul style="list-style-type: none"> • The Business Continuity Management Framework is being updated to ensure linkage with both wind-down planning and operational resilience regulatory commitments. <p>Recovery Plan</p> <ul style="list-style-type: none"> • Pay.UK developed a Recovery Plan in 2020. The plan details the mechanics to navigate through idiosyncratic, market-wide, and combined stress scenarios that may impact Pay.UK capital adequacy and liquidity. In addition, Pay.UK developed a new scenario – the Non-Financial Crisis – to model restrictions on economic activities resulting from events such as a global health crisis caused by a pandemic. The annual review of the Recovery Plan was approved by the Pay.UK Board on 10 February 2021. <p>Wind-Down Plan</p> <ul style="list-style-type: none"> • Pay.UK has developed a Wind-Down Plan which was approved by the Board on 12 May 2021 and has been shared with the BoE. The Wind-Down Plan is a key element of Pay.UK’s contingency

	<p>planning to ensure continuity of critical services and the orderly management of the winding down of the company during an event that would lead to the ceasing of Pay.UK operations.</p> <ul style="list-style-type: none">• Both the Recovery and the Wind-Down Plans are subject to annual review and re-approval through Pay.UK governance fora.
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Principle 4 – Credit risk

Rating:	Observed
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Summary	
<p><i>An FMI should effectively measure, monitor, and manage its credit exposure to Participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each Participant fully with a high degree of confidence.</i></p>	<p>Applicability: This principle is applicable to the combined approach that Pay.UK takes to managing credit exposure across the three payment systems.</p> <p>Rating: Pay.UK observes this principle.</p> <p>As a retail payment systems operator, Pay.UK is only exposed to a minimal amount of credit risk, which it monitors and manages on a regular basis. Credit risk between DPs within the three payment systems is managed well with more information set out below.</p>
Key Considerations	Rationale
<p>4.1 <i>An FMI should establish a robust framework to manage its credit exposures to its Participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.</i></p>	<p>Credit risk Pay.UK is exposed to</p> <ul style="list-style-type: none"> • Pay.UK is only exposed to a minimal amount of credit risk, directly linked to the following events: <ul style="list-style-type: none"> ○ DPs defaulting on the price per click (PPC) invoices. ○ DPs defaulting on invoices payable to Vocalink (the operator of the central infrastructure for the three payment systems) for which Pay.UK is liable. ○ Third party income not paid for the services Pay.UK delivers. This supplementary income is for rent and other support type of services (e.g. IT, Finance, HR, MI, and Secretariat) that Pay.UK provides for Open Banking, UK Finance, Swift, LINK, and EBA. • In 2020 Q4, Pay.UK conducted a stress-testing exercise (and repeats such a test annually), where severe but plausible scenarios were developed to assess the financial losses arising from credit risks. Pay.UK has also calculated the amount of financial resources required to cover the firm’s credit exposure. The outcome of both exercises was that credit risks, from a financial perspective, have an immaterial impact on Pay.UK.

	<ul style="list-style-type: none"> • Prior to the 2020 PFMI self-assessment, Pay.UK had increased the amount of its invoice income received via Direct Debit and continues to promote this as a method of payment where possible. Pay.UK has also tightened the monitoring of debtor reporting, which is reported to the Finance Committee monthly, and continues to maintain KRIs for credit risk. <p><i>Credit risk between participants in the payment systems</i></p> <ul style="list-style-type: none"> • Within the Bacs, FPS, and ICS payment systems, credit exposures arise between DPs (on a multilateral basis), and do not expose Pay.UK. These exposures are managed through prefunding arrangements, operated by using central bank money in the RTGS system. See Section A for further detail.
<p>4.2 An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.</p>	<p><i>Credit risk to which Pay.UK is exposed</i></p> <ul style="list-style-type: none"> • To assist in monitoring and measuring the credit risk relating to the collection of DP fees, the Pay.UK executive provides monthly debtors reporting, including aged debtors, to the Finance Committee. Volumes and risk capital are also monitored. • In 2020, Pay.UK achieved its Capital Reserve Target and in Q1 2021 updated its Financial Recovery Plan. The Financial Recovery Plan provides key recovery tools to address any deficit that may arise from a credit event. • Pay.UK’s financial resources are cash. These resources are readily accessible and able to be used to mitigate credit losses arising from participants in default or unpaid invoices from third parties. <p><i>Credit risk between participants in the payment systems</i></p> <ul style="list-style-type: none"> • The Pay.UK Operations Team receives alerts from the Bacs, FPS, and ICS payment system CIs when the effect of outgoing credits or incoming debits risks putting a DP’s net debit position above the value of cash lodged in RTGS as collateral in the case of default. Prefunding arrangements require additional cash collateral to be lodged by DPs – either in or out of hours – to ensure their debit cap is not breached. System-enforced hard debit cap arrangements mean the payment systems will not close with a DP’s net debit position above its collateralised cap. The system will immediately prevent FPS and ICS participants from exceeding their collateralised debit position while Bacs requires this to be remediated

	<p>by closedown on the day.</p> <ul style="list-style-type: none"> • Pay.UK also produces and reviews DPs' stress-testing data each month, which is provided to participants in individual stress testing reports. The stress testing examines whether DPs could withstand various stress scenarios, such as what would happen if a large participant defaults, and the effects of this on other participants.
<p>Considerations 4.3, 4.4, 4.5, and 4.6 are not applicable to Retail Payment Systems</p>	
<p><i>4.7 An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its Participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.</i></p>	<p>Credit risk Pay.UK is exposed to</p> <ul style="list-style-type: none"> • The Pay.UK Financial Recovery Plan documents the tools the firm has at its disposal to replenish its financial resources in periods of credit stress events. These include, but are not limited to: <ul style="list-style-type: none"> ○ Increasing the revenue streams income via an uplift in the PPC on an annual or biannual basis. ○ Reducing the cost base by suspending temporarily or discontinuing permanently non-critical or uncommitted costs. ○ A combination of the above. <p>Credit risk between participants in the payment systems</p> <ul style="list-style-type: none"> • The rules and procedures for the three payment systems address credit and other losses that may arise from a DP defaulting. • The prefunding arrangements fully cover all exposures for all DPs in all circumstances.

Principle 5 – Collateral

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI that requires collateral to manage its or its Participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limit.</i></p>	<p>Applicability: As DPs settle in each payment system separately, separate ratings have been applied against this principle.</p> <p>Rating: All three payment systems observe this principle.</p> <p>All DPs' settlement obligations for all three payment systems are covered by cash held in reserve at the BoE in RTGS (Pay.UK does not itself hold any collateral provided by DPs). Reserve limits are adjusted on an ongoing basis to match the actual and anticipated largest debit position for each DP. Accordingly, there are no credit, liquidity, or market risks inherent in the three payment systems, and therefore no need for 'haircuts' or concentration limits.</p>
Key Considerations	Rationale
<p>5.1 <i>An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.</i></p>	<ul style="list-style-type: none"> Pay.UK only permits DPs to hold cash reserves in Sterling at the BoE as collateral for the three payment systems. Should a DP default on its settlement obligations, this cash collateral will be accessed, and used by Pay.UK to ensure settlement proceeds.
<p>5.2 <i>An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.</i></p>	<ul style="list-style-type: none"> Given Key Consideration 5.1, there is no requirement for 'haircuts'.
<p>5.3 <i>In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable</i></p>	<ul style="list-style-type: none"> Given Key Consideration 5.1, there is no requirement for 'haircuts' or procyclical adjustments.

<i>and prudent.</i>	
5.4 <i>An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.</i>	<ul style="list-style-type: none"> • Given Key Consideration 5.1, there is no risk of adverse price effects or market conditions, and no risk to the ability to liquidate the collateral.
5.5 <i>An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.</i>	<ul style="list-style-type: none"> • Given Key Consideration 5.1, there is no scope for cross-border collateral to be used.
5.6 <i>An FMI should use a collateral management system that is well-designed and operationally flexible.</i>	<ul style="list-style-type: none"> • Each Pay.UK participant has an account at the BoE in RTGS.⁸ Within each DP’s RTGS account, there is an area reserved to hold collateral to cover its maximum debit position – the Prefunding Account. Its primary features are: <ul style="list-style-type: none"> ○ The minimum credit balance is set by Pay.UK once agreed with DPs and these funds cannot be accessed by the DP. ○ The minimum credit balance always matches or exceeds the DP’s maximum debit position, which is the highest debit amount that a DP can have at any one time. ○ The credit balance can be changed at the DP’s request, but not below the prevailing maximum debit position. ○ If a DP defaults on its settlement obligations, Pay.UK would liaise with the BoE and they would access the required amount from the Prefunding Account to meet this obligation. The subsequent day’s settlement obligations can be met this way by utilising remaining cash collateral until the Prefunding Account balance is exhausted, and this may result in the participant exclusion process being invoked.

⁸ The exception to this is the BoE in its role as a DP in the Faster Payment System. As the central bank it is considered to bring no credit risk. This is a separate role to the BoE’s role as Settlement Agent.

Principle 7 – Liquidity risks

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the Participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.</i></p>	<p>Applicability: This principle applies to Pay.UK as the operator of the three payment systems. While Pay.UK does not take on any liquidity risk as part of its operation of the three payment systems, as PSO it monitors, and puts in place requirements to manage liquidity risk between DPs. Given the requirements are codified separately for the three payment systems, separate ratings have been assigned.</p> <p>Rating: All three of Pay.UK’s payment systems observe this principle.</p> <p>Pay.UK’s contractual arrangements and rules provide the framework and legal basis to manage the liquidity risks which arise between DPs. All collateral is in the form of Sterling cash and is lodged with the BoE in RTGS. Settlement positions in each payment system are monitored by Pay.UK on an ongoing basis and DPs are made aware in advance of their settlement obligations.</p>
Key Considerations	Rationale
<p>7.1 <i>An FMI should have a robust framework to manage its liquidity risks from its Participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.</i></p>	<ul style="list-style-type: none"> In each of the three payment systems, liquidity risk arises if a DP is unable to fund a debit settlement position. The prefunding arrangements (discussed in Section A) guarantee settlement will proceed.
<p>7.2 <i>An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis,</i></p>	<ul style="list-style-type: none"> Bacs: End-of-day settlement positions for all DPs are collated daily. This enables Pay.UK to compile monthly stress-testing reports, which show DPs’ settlement positions in relation to their debit caps and its two threshold trigger points, for one-, two-, and three-day positions, though these are based on the overall position, not split by day. Each DP’s debit cap is set based

including its use of intraday liquidity.

on its anticipated highest debit position (highest debit amount that a DP can have at any one time). Pay.UK and DPs manage cap changes in relation to actual and anticipated debit positions. DPs are able to view their live net balances. The CI monitors for debit cap breaches on a 'trigger point' basis (i.e. each DP has two thresholds set – typically 65 and 95 per cent of their maximum potential debit balance, although this can vary by DP according to their individual profile) and system-generated emails alert Pay.UK and the affected DP should this occur. Pay.UK has set an additional threshold (Threshold 3) for each DP to provide early warning additional to the Threshold 1 and 2 alerts every 30 minutes.

- **FPS:** Settlement and funding flows are monitored through the CI. DPs' net settlement positions are instantaneous and monitored by Pay.UK Operations throughout the day. Settlement positions relative to Net Sender Caps (NSC) are monitored by the CI and highlighted to the relevant DPs, with positions updated live every few minutes and visible on the User Interface (to Pay.UK Operations and DPs). An additional alerting mechanism has been developed, independent of the DP-set Net Sender Threshold (NST) – which notifies participants when they surpass a certain per cent of the NSC – to provide early notification to Pay.UK that a DP's Net Settlement Position is increasing. Participants must add additional cash collateral in RTGS to increase their NSC if surplus funds are not already available.
- **ICS:** DPs are informed of their forecast settlement position as early as 12:30 am. Pay.UK maintains a dashboard displaying updated participant settlement balances and alerts DPs if they have exceeded 50 or 70 per cent of their cap utilisation. Due to the timing of settlement, DPs have sufficient time to increase their cap before the 15:30 cut-off (ahead of settlement in RTGS at 16:30). DPs are required to maintain sufficient funds in their pre-funding account to cover two days of settlement obligations. Stress-testing analysis on ICS assesses the previous positions, including intraday profiles; plausible future scenarios, including extreme but credible circumstances; and, credit and liquidity exposure of non-defaulting participants in the event of other participant defaults.

As Pay.UK does not need to maintain liquid resources of its own to support settlement, the key considerations 7.3 to 7.9 are not applicable.

7.10 *An FMI should establish explicit rules and procedures that enable the FMI to affect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its Participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.*

- Pay.UK has in place explicit rules and procedures that enable it to effect agreed settlement of payment obligations on time following any individual or combined default among participants.
- For all three payment systems, rules and procedures enable settlement to continue in the event of default of any DPs, as provided for by the Settlement Agreement and prefunding arrangements.

Principle 8 – Settlement finality

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.</i></p>	<p>Applicability: As the three payment systems operated by Pay.UK utilise separate contractual arrangements and rules, individual ratings have been provided.</p> <p>Rating: Pay.UK observes this principle for each payment system.</p> <p>Settlement finality is clearly defined within the Pay.UK contractual arrangements and rules. Bacs, FPS, and ICS have clear and certain points of final settlement.</p>
Key Considerations	Rationale
<p>8.1 <i>An FMI's rules and procedures should clearly define the point at which settlement is final.</i></p>	<ul style="list-style-type: none"> • Bacs: As defined in the Bacs contractual arrangements and rules, payments become irrevocable at 23:00 on day one of the Bacs cycle, although this can be extended at the discretion of Pay.UK in certain circumstances. The point of irrevocability of an individual payment is normally up to close down on day one. Settlement is final at 'settlement time' on the 'due date' which is 09:30 on day three of the Bacs cycle. • FPS: As defined in the FPS contractual arrangements and rules, the point of irrevocability of an individual payment is the moment a payment is submitted to the CI. After this point no payment can be reversed and the system has no revocation messaging capability. The point of settlement finality when a net settlement payment (as opposed to an individual payment) is irrevocable is at the point the payment (single amount) is recorded with the RTGS timestamp. • ICS: As defined in the ICS contractual arrangements and rules, ICS payments become irrevocable at the point where a request to pay ('RTP') pay decision is made and marked against the participant's running settlement position, although settlement takes place at 16:30.

<p>8.2 <i>An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.</i></p>	<ul style="list-style-type: none">• See Section A for details of settlement times for the three payment systems.• Pay.UK has contingency processes in place in the event that settlement cannot occur by the end of the value day (including seeking extensions and delaying settlement cycles in RTGS). The prefunding settlement model guarantees settlement between Direct Participants in all three payment systems.
<p>8.3 <i>An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a Participant.</i></p>	<ul style="list-style-type: none">• See Key Consideration 8.1.

Principle 9 – Money settlements

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.</i></p>	<p>Applicability: Bacs, FPS, and ICS each have different settlement frequency and times. Pay.UK has therefore applied three separate ratings against this principle.</p> <p>Rating: All three of Pay.UK’s payment systems observe this principle as final settlement occurs at the BoE over the RTGS infrastructure and in central bank money.</p>
Key Considerations	Rationale
<p>9.1 <i>An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.</i></p>	<ul style="list-style-type: none"> For all three payment systems, final settlement occurs at the BoE over the RTGS infrastructure in central bank money (see Section A for the specific times).
<p>Considerations 9.2, 9.3, 9.4 and 9.5 are not applicable to Retail Payment Systems</p>	

Principle 13 – Participant default rules and procedures

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should have effective and clearly defined rules and procedures to manage a Participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.</i></p>	<p>Applicability: As Bacs, FPS, and ICS each utilise separate contractual arrangements and rules, individual ratings have been provided.</p> <p>Rating: Pay.UK observes this principle for each payment system.</p> <p>The contractual arrangements and rules for all three payment systems clearly define the rules and procedures in place to manage a DP’s default without affecting the ability of the payment systems to continue operating. In the event of a default, with a DP in a debit position, the defaulting DP’s cash collateral would be accessed from its prefunding account (held in RTGS) and used to meet the settlement obligation.</p>
Key Considerations	Rationale
<p>13.1 <i>An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a Participant default and that address the replenishment of resources following a default.</i></p>	<ul style="list-style-type: none"> For all three payment systems, the relevant contractual arrangements and rules define default criteria (including insolvency, dissolution, and administration) and enable Pay.UK to act when a default is declared for a DP. This includes the blocking of payment messages and the removal of the DP’s participation in the relevant payment system. The BoE is able to access the defaulting DP’s prefunding account in RTGS to complete settlement. DPs must advise Pay.UK immediately once they become aware of any circumstance that may lead to them not meeting system eligibility requirements, including a default event. In the event of a DP’s default, Pay.UK will no longer benefit from the income that is generated via per click fees. Pay.UK’s capital reserves are designed to cater for any unexpected losses (including losses of income). Please see Principle 4.
<p>13.2 <i>An FMI should be well prepared to implement its default rules and procedures,</i></p>	<ul style="list-style-type: none"> Pay.UK has comprehensive internal plans that set out the roles, responsibilities, and authorities for addressing a default in FPS, Bacs, and ICS. Testing is in place throughout the year to ensure

<p><i>including any appropriate discretionary procedures provided for in its rules.</i></p>	<p>that all parties (Pay.UK, its DPs, and the BoE) are aware of the procedures required to fund and defund their prefunding accounts held in RTGS.</p>
<p>13.3 <i>An FMI should publicly disclose key aspects of its default rules and procedures.</i></p>	<ul style="list-style-type: none"> • Key aspects of the default rules and procedures are set out in the contractual arrangements and rules for the three payment systems. These are made available to existing and prospective participants (see Principle 23), and also on the appropriate website for each system, except where sensitive material is contained. All documents are reviewed on an annual basis (to include any changes made following testing – see Key Consideration 13.4).
<p>13.4 <i>An FMI should involve its Participants and other stakeholders in the testing and review of the FMI’s default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.</i></p>	<ul style="list-style-type: none"> • There is a comprehensive plan in place to test Pay.UK procedures for participant default in the three payment systems. Testing involves DPs, the BoE, and Vocalink as required, and is performed twice per year. Test results are reviewed to identify any changes that are necessary to Bacs, FPS, or ICS contractual arrangements and rules.

Principle 15 – General business risk

Rating:	Observed
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Summary	
<p><i>An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.</i></p>	<p>Applicability: This principle is applicable to the business risks that apply across Pay.UK and therefore a single rating has been provided.</p> <p>Rating: Pay.UK observes this principle. As discussed under Principle 3, Pay.UK operates an Enterprise Risk Management Framework (ERMF) which enables the organisation to identify, assess, monitor, manage, and report general business risks.</p> <p>In 2020 Pay.UK achieved its Risk Capital Target ahead of plan which provided additional justification to update this rating from broadly observed (as it was in our 2020 self-assessment) to observed. Pay.UK will continue to monitor its risk capital on an ongoing basis through the tools set out below.</p>
Key Considerations	Rationale
<p>15.1 <i>An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.</i></p>	<ul style="list-style-type: none"> • Pay.UK identifies regulatory, operational/system, technological, credit and financial risks, which could have financial implications to the organisation’s financial resilience. • The process for monitoring and managing Pay.UK’s general business risks aligns to the monitoring processes defined in the ERMF – see Principle 3. The monitoring of risk includes: <ul style="list-style-type: none"> ○ Monthly reviews of key risks including the review of RCSAs. ○ Monthly monitoring and reporting of KRIs. • Stress testing is used to quantify the potential financial losses arising from business risks, to determine the financial implications on the organisation’s capital and cash base, should an unexpected stress event crystallise.

<p>15.2 <i>An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.</i></p>	<ul style="list-style-type: none"> • In 2019 Pay.UK submitted its risk capital build plans to BoE. This plan provided that Pay.UK would achieve its target risk capital by the end of 2021. Pay.UK achieved this target by the end of 2020. • The approach to building the risk capital by Pay.UK was that its capital reserves must be at least: <ul style="list-style-type: none"> ○ Six months' worth of current non-discretionary operating expenses to deliver Pay.UK's payment services. ○ Sufficient to cover general business risks (including the risk of extraordinary one-time losses). ○ Sufficient funds to cover credit risk losses. ○ Sufficient funds for the development of the Pay.UK Recovery Plan (see Key Consideration 15.3). This Plan has been delivered as previously discussed. • Pay.UK holds these funds in cash in ring-fenced accounts with UK commercial banks.
<p>15.3 <i>An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover Participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.</i></p>	<ul style="list-style-type: none"> • Pay.UK has built a viable Recovery Plan. The Recovery Plan has taken into consideration tail business risks which, if crystallised, could result in the plan being triggered. These tail risks are extreme but plausible, and could threaten the organisation's financial resilience by significantly depleting risk capital reserves and, in extreme scenarios, requiring Pay.UK to recapitalise. In the most recent Recovery Plan the extreme, but plausible, scenarios included a pandemic scenario. • Pay.UK's objective is to build enough financial resources to enable the organisation to absorb extraordinary losses and be in a position to implement the Recovery Plan, should such action be needed. • Pay.UK has distinguished between the financial resources required to cover: (i) credit exposures and; (ii) the financial resources to cover for general business risks. The total risk capital reserves calculated is the sum of the two. • In 2021 Pay.UK submitted an updated version of its Recovery Plan to BoE. The key components are: <ul style="list-style-type: none"> ○ Recovery trigger framework: The Recovery Plan includes a framework of KRIs that are deemed appropriate and sufficient to monitor in order to detect early signs of financial

	<p>stress. Thresholds have been set against each KRI.</p> <ul style="list-style-type: none"> ○ Escalation framework: The Recovery Plan explains how the breach of one or more thresholds will trigger an escalation process, which will ultimately result in a crisis management body being convened to implement recovery actions. ○ Recovery Tools: The Recovery Plan also details the tools that Pay.UK has at its disposal to alleviate financial distress and return to business as usual. <ul style="list-style-type: none"> ● Pay.UK has a Wind-Down Plan which was reviewed and approved by the Board in May 2021 and has been provided to BoE. More information is found under Principle 3.
<p>15.4 <i>Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.</i></p>	<ul style="list-style-type: none"> ● Pay.UK's liquid net assets are in the form of cash with these assets ring-fenced in UK commercial banks. This cash is readily available to be used for the purposes of mitigating any losses. ● As part of KRI monitoring, Pay.UK reviews the credit rating of each of its bankers, to ensure that custody risk is being monitored and reported.
<p>15.5 <i>An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.</i></p>	<ul style="list-style-type: none"> ● Pay.UK has a range of tools, explained in the Recovery Plan, which may be used to raise additional capital if the current forecast levels were to fall below the amount needed. This is reviewed and updated on an annual basis (and was recently reviewed in 2021). ● The Pay.UK Board has approved both the risk capital reserve calculation and Recovery Plan. In periods of severe stress, where Pay.UK may be required to raise additional capital, the Board will be advised accordingly.

Principle 16 – Custody and investment risks

Rating:	Observed
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Summary	
<p><i>An FMI should safeguard its own and its Participants’ assets and minimise the risk of loss on and delay in access to these assets. An FMI’s investments should be in instruments with minimal credit, market, and liquidity risks.</i></p>	<p>Applicability: This principle is applicable to the combined approach that Pay.UK takes to managing its custody and investment risks, and to how the custody risks of DPs’ cash collateral is managed. Therefore, a single rating has been provided.</p> <p>Rating: Pay.UK observes this principle.</p> <p>Pay.UK has safeguarded its own assets by placing them within UK regulated commercial banking institutions. DPs’ cash collateral assets are held in central bank money in RTGS at the BoE.</p>
Key Considerations	Rationale
<p>16.1 <i>An FMI should hold its own and its Participants’ assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.</i></p>	<p>Pay.UK’s assets</p> <ul style="list-style-type: none"> • As noted under Principle 4, Pay.UK's financial resources are held as cash. • These amounts are ring-fenced from the cash sitting in Pay.UK’s operating current accounts and will only be used to mitigate business losses. <p>Direct participants’ assets</p> <ul style="list-style-type: none"> • Pay.UK does not hold any assets provided by DPs. DPs’ Sterling cash collateral assets are held, for pre-funding purposes, in central bank money in RTGS at the BoE. Assurance over robust accounting practices, safekeeping procedures and internal controls in RTGS is derived from: (i) primarily the BoE’s annual ISAE3402 audit of RTGS; and (ii) the BoE’s Annual Report.
<p>16.2 <i>An FMI should have prompt access to its assets and the assets provided by Participants, when required.</i></p>	<p>Pay.UK’s assets</p> <ul style="list-style-type: none"> • Pay.UK has contracts in place governing the operation of its accounts with UK regulated commercial banks. Pay.UK has prompt access to all its assets, which are held in cash operating and reserve accounts and are only accessible by authorised signatories.

	<p>Direct participants' assets</p> <ul style="list-style-type: none"> The nature and timing of access to DP assets (held for pre-funding purposes) for the three payment systems is governed by the contractual arrangements and rules.
<p>16.3 <i>An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.</i></p>	<p>Pay.UK's assets</p> <ul style="list-style-type: none"> Pay.UK monitors the credit rating of its bankers on a quarterly basis. Pay.UK intends to maintain its more diversified exposure across the new custodians as the risk capital reserves are maintained. <p>Direct participants' assets</p> <ul style="list-style-type: none"> For the three payment systems, cash assets (for pre-funding purposes) are held in central bank money in RTGS at the BoE.
<p>16.4 <i>An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its Participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.</i></p>	<ul style="list-style-type: none"> Pay.UK does not currently hold any other forms of investment.

Principle 17 – Operational risk

Rating:		Broadly observed
Summary		
<p><i>An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI’s obligations, including in the event of a wide-scale or major disruption.</i></p>	<p>Applicability: Under the overarching Pay.UK ERMF, the three payment systems operated by Pay.UK utilise the same suite of operational risk control processes, therefore a single rating has been provided, noting there are a small number of payment system-specific elements within this.</p> <p>Rating: Pay.UK’s operational risk management processes enable the organisation to identify and mitigate the operational risks that could impact its operation of the three payments systems. Pay.UK has resilient processes in place to ensure operational reliability and business continuity. Pay.UK is continuing its programme to enhance and improve our overall risk framework – the ERMF workplan (see Principle 3). In particular we are linking Level 3 operational risk to strategic risk, in order to give us improved line of sight between strategic, business, and operational risks. This linkage has now been defined and successfully piloted in the Operations Directorate and we will now roll it out to the wider organisation. Given there are still some final aspects to deliver against the ERMF workplan, Pay.UK has assessed this principle as broadly observed.</p> <p>Next steps (path to ‘observed’): Pay.UK will consider itself fully observed against this principle when the ERMF workplan has been completed, including the linking of operational and strategic risks, and we confirm that the ERMF has been implemented as planned.</p>	
Key Considerations		Rationale
<p>17.1 <i>An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.</i></p>	<ul style="list-style-type: none"> • Pay.UK has operational risk management processes in place that are used for managing the operational risks to the three payment systems. • Through the RCSA process, Pay.UK has identified the operational risks that could impact the three payment systems and Pay.UK overall. These risks include a CI outage, RTGS outage, and participant failure. Controls and owners have been identified that can respond to these risks. The risks and controls are reviewed on a monthly basis by the first LoD with second LoD support, oversight and challenge. These are fully documented and saved within the Pay.UK IT 	

	<p>network to provide an audit trail.</p> <ul style="list-style-type: none"> • Monthly risks reviews for strategic and operational risks are carried out across the business. The RCSA methodology for Level 3 operational risks has been documented and further enhanced in a number of areas including controls testing and Key Control Indicators. Additionally, in ensuring linkage between strategic and operational risks through controls and their monitoring, an enhanced risk assessment process is enabled. These have been piloted within the Operations Directorate and will be rolled out across the business by the end of 2021. Procedural guidance and documentation have been prepared to support this. • The Risk Team continues to provide 1-2-1 support and training sessions for colleagues to enhance corporate risk management capability. • Aside from the operation of the three payment systems (where the CI is operated by Vocalink), Pay.UK corporate operational risks (e.g. relating to internal IT, buildings etc.) are managed by specialist functions and reported through risk governance. The internal IT estate acquired by Pay.UK from the predecessor scheme companies required material investment. The IT estate continues to be updated and remediated with further investment. Further risks pertaining to changes within Pay.UK are managed through established change management principles and governance. • Controls are in place with collaboration between Vocalink and Pay.UK's Operations and other supporting teams to manage changes to the CI to ensure the smooth functioning of the payments systems. • As discussed under Principle 3, we are progressing a plan to develop a Systemic Risk Framework, which will form an enhancement to the current ERMF. This will improve our capacity to manage systemic risks across the ecosystem that could impact our operation of the three systems.
<p>17.2 <i>An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems,</i></p>	<ul style="list-style-type: none"> • Pay.UK has clearly defined roles and responsibilities, as well as processes and procedures for addressing operational risk (with the approach to managing operational risk approved by the Board). These are defined and documented in the Risk Policy and supporting procedural documents, and enhancements will be rolled out across the business in the remainder of 2021. • Pay.UK maintains an appropriate suite of human resources policies and controls to ensure its

operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

personnel are well-qualified and trained to operate the payments systems, and to meet the needs of the organisation. Controls and policies are also in place to manage staff retention, loss of knowledge and fraud prevention.

- While Pay.UK Board maintains overall responsibility for Pay.UK’s risk management, responsibilities for crisis management have been delegated to the Pay.UK Gold Incident Response Team, which is comprised of C-Suite members and subject matter experts (due to the practical realities of crisis resolution, the Board does not have an ‘in crisis’ role).
- Through the operational risk management framework, the risk posed by the global pandemic was identified and analysed, with an appropriate response initiated by the Pay.UK Gold Incident Response Team.
- Operational policies and procedures for each of the three payment systems are tested periodically as below:
 - **Bacs:** Systems, operational policies, procedures, and controls are reviewed (to reflect changes in people or processes), and tested (and audited) periodically (a controls review was introduced in 2020 Q1) and after significant changes. This includes the Bank Reference Data Service.
 - **FPS:** Systems and operational procedures, and controls are reviewed (to reflect changes in people or processes), and tested periodically throughout the year in either a live or test environment and in accordance with the contingency testing schedule as set out in the FPS Participant Procedures. A contingency testing table is also available for participants to view. This document shows the scheduled dates of planned testing and gives a post testing view on the success of the testing.
 - **ICS:** Systems and operational procedures, and controls are reviewed (to reflect changes in people or processes), and tested periodically throughout the year in either a live or test environment and in accordance with the contingency testing schedule. This document shows the scheduled dates of planned testing and gives a post testing view on the success of the testing. Additionally, any test plans are shared with participants by way of change requests.

<p>17.3 <i>An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s three payment systems each have clearly defined operational reliability objectives and policies. • For each payment system, the key operational reliability objectives are set out in the service levels required from Vocalink for the CI (SLAs covering availability and timeliness of input, processing, output, and settlement functionality). • Pay.UK monitors the Vocalink provision of service of the CI on a daily basis against these service levels. Pay.UK undertakes monthly reviews of the performance report provided by Vocalink, which includes any incidents and their impact on agreed service levels. Performance of the CI is also discussed with participants at regular Pay.UK participant groups. • The Bank Reference Data Service has clearly defined operational reliability objectives and is covered by the above monitoring arrangements.
<p>17.4 <i>An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s payment systems have scalable capacity and are generally well placed to handle increasing stress volumes. <ul style="list-style-type: none"> ○ Bacs: The Bacs capacity is 150 million items in one processing cycle which exceeds the peak daily volume of around 110 million items processed one day per month. The comparison of projected volumes to known system capacity is conducted on an ongoing basis with forecasts revised and updated. Forecasts are provided by Vocalink to Pay.UK monthly. ○ FPS: Vocalink operate a dual site process at 1500 transactions per second (TPS) split across two nodes – one at Harrogate and one at Dunstable. In the event that Vocalink needs to operate from a single site, which is frequently carried out during scheduled maintenance, Vocalink will operate at 750 TPS on the single site. There is a risk of the system exceeding the TPS available capacity, particularly when the CI is running on single sitenode. Peak processing is most likely during the Standing Order processing window (00.00 to 06.00 on banking days) when aggregated simultaneous demand of participant submissions results in a high TPS rate, including month end runs, dividend runs, and bank holidays (due to the longer weekend). There is a Pay.UK-driven project underway to deliver increased FPS capacity. ○ ICS: Based on peak hour performance requirements, Pay.UK’s service level objective is

	<p>to be able to process 440,000 transactions in an hour. The system is currently tested to process close to double this.</p>
<p>17.5 <i>An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.</i></p>	<ul style="list-style-type: none"> • Pay.UK has comprehensive information security policies that address the potential vulnerabilities and threats Pay.UK may face. • In addition, Pay.UK maintains oversight of the risks it bears from Vocalink as the prime supplier through the independently-produced ISAE3000 audit and Vocalink’s continuance of ISO27001 certification.
<p>17.6 <i>An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a widescale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in a case of extreme circumstances. The FMI should regularly test these arrangements.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s systems all have continuity plans that address the events that pose a significant risk of disrupting operations (see Principle 3). • For Bacs and ICS, Vocalink holds current ISO/IEC 22301:2012 business continuity management certification, and is contractually obliged to carry out business continuity testing annually which includes: <ul style="list-style-type: none"> ○ Transfer of the full Bacs and ICS services (including Bank Reference Data) from the primary to the secondary computer centre for an agreed period of live processing. This must be completed within four hours. ○ Two exercises to perform a switchover and switchback of the Bacs and ICS channels and map performance against the agreed SLAs. The channels, used to input to – and receive output from – the CI, are considered to be the key systems, and must resume operation within two hours. • RTGS has a full secondary site operation. The BoE can also activate the Market Infrastructure Resilience Service (MIRS), in the event of a complete failure of RTGS, which will allow settlement to proceed. MIRS is geographically remote from the BoE and is technologically independent.
<p>17.7 <i>An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other</i></p>	<ul style="list-style-type: none"> • Pay.UK identifies, monitors, and manages the key risks that participants and other entities may pose to it and the risks Pay.UK may pose to them (see Principle 3). The key risks brought by participants are default, significant error, or outage, and there are procedures in place to monitor and mitigate these risks. See Key Consideration 3.2. • Service and utility providers also pose risks to Pay.UK’s operation of the three payment systems.

<p><i>FMI</i>s.</p>	<ul style="list-style-type: none">• The FMI most likely to be impacted by an outage of one of Pay.UK payment systems is CHAPS. The risk Pay.UK brings to CHAPS is volume-based initially; an extended outage of FPS, for example, may cause participants and their customers to instead send credit payments (push payments) by CHAPS. Unavailability of Bacs for Direct Debits (pull payments) may lead to a further shift to the use of credit payments if, for example, utility companies call for push payments from their customers.• A CHAPS outage could cause more credit payments to be sent through FPS or Bacs, noting the limitations, e.g. that FPS transaction limits are lower than CHAPS, and Bacs (which has higher item limits) is not a same day processing system. This may also lead to unexpected settlement values, which would be managed through existing prefunding arrangements.• Pay.UK, the BoE (as PSO for CHAPS), and LINK (the ATM operator) participate jointly in the <i>Industry Incident Management Communication Framework</i> which allows the retail and wholesale FMIs to share information in the event an incident affects one or more of the Sterling payment systems.
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Principle 18 – Access and participation requirements

Bacs rating:	FPS rating:	ICS rating:
Observed	Broadly observed	Observed

Summary	
<p><i>An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.</i></p>	<p>Applicability: The three payment systems each have separate access and participation requirements and have therefore been assigned separate ratings.</p> <p>Rating: The Bacs and ICS payment systems observe this principle as they have objective, risk-based, and publicly disclosed criteria that permit fair and open access. FPS also has such criteria, but Pay.UK has rated this principle as broadly observed, because we have some outstanding policy work to complete regarding the FPS aggregator model.</p> <p>Next steps (path to ‘observed’): Pay.UK will complete the outstanding policy work and the recommendations will then be taken through Pay.UK governance. The implementation of any resulting changes would allow Pay.UK to rate this principle as fully observed.</p>
Key Considerations	Rationale
<p>18.1 <i>An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect Participants and other FMIs, based on reasonable risk-related participation requirements.</i></p>	<ul style="list-style-type: none"> Pay.UK has dedicated on-boarding managers and support teams for the three payment systems who actively engage with prospective participants. The on-boarding managers provide introductory information to outline requirements for the services (see Key Consideration 18.2) while also exploring potential participants’ requirements and needs. As reflected in the PSR Access Report 2019, and in the subsequent period, Pay.UK has had success in participants joining the systems (including a number of new NBSPs). Pay.UK is developing a streamlined access management process so the payment systems are accessible to participants in the simplest manner, commensurate with the underlying risks.
<p>18.2 <i>An FMI’s participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it</i></p>	<ul style="list-style-type: none"> Pay.UK continues to harmonise participation (and assurance) requirements across the three payment systems. During 2020 Pay.UK successfully implemented a new consolidated assurance programme across the three systems. This has allowed for a simplified and consistent process

serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.

for multi-system participants, whilst maintaining risk controls and standards, thereby supporting access to our systems.

- The requirements are commensurate with operating safely within the UK retail payments ecosystem and the associated risks.
- **Bacs:** Direct participation access requirements are stated on the Bacs website and are included in the contractual arrangements and rules. Current and prospective participants must:
 - Be an authorised Payment Service Provider (PSP) under the *Payment Services Regulations 2009*.
 - Hold a Sterling Settlement Account at the BoE, or be able to use a Sterling Settlement Account held by a Group Company at the BoE.
 - Either carry out business and operate an office in the UK or, where requested, provide an independent council / legal opinion which confirms that the payment service agreements are legally binding and enforceable in the jurisdiction where the prospective participant is domiciled, and which confirms any other matters so required, to ensure the safety, integrity and efficiency of the payment service.
 - Enter an agreement in respect of participation and of the settlement arrangements.
- **FPS:** Direct participation access requirements are stated on the FPS website. In accordance with the contractual arrangements and rules, current and perspective participants must:
 - Be an authorised Payment Service Provider (PSP) under the *Payment Services Regulations 2009*.
 - Hold a Sterling Settlement Account at the BoE or be able to use a Sterling Settlement Account held by a Group Company at the BoE.
 - Carry out their business and operate an office in the EEA.
 - Be able to comply on a continuous basis with the technical and operational requirements of the system.
 - Have, or be eligible to hold, at least one unique sort code.
 - Enter an agreement in respect of participation and of the settlement arrangements.
- **ICS:** Participation requirements are published on the Cheque and Credit website. In accordance with the contractual arrangements and rules, current and perspective participants must:

	<ul style="list-style-type: none"> ○ Be an authorised PSP under the <i>Payment Services Regulations 2009</i>. ○ Hold a Sterling Settlement Account at the BoE or be able to use a Sterling Settlement Account held by a Group Company at the BoE. ○ Carry out their business and operate an office within the EEA. ○ Have the ability to comply with the technical and operational requirements of the ICS. ○ Pay the costs associated with participation in the ICS as a participant.
<p>18.3 <i>An FMI should monitor compliance with its participation requirements on an on-going basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a Participant that breaches, or no longer meets, the participation requirements.</i></p>	<ul style="list-style-type: none"> ● For each of the three payment systems, DPs are expected to comply with all of the documented rules. ● Monitoring of compliance with these rules, and enforcement, is carried out by Pay.UK on a risk-basis, ensuring that participants discharge their responsibilities effectively and manage the risks that could impact the three payment systems or other participants e.g. avoiding mismanagement of internal controls that could result in breaches against SLAs, frequent and prolonged outages, failure to settle etc. ● Performance against the respective system SLAs is managed by regular meetings with each participant to discuss performance and any material matters as documented in the participant performance dashboards, which are produced and shared each month. In addition, participants self-attest on a regular basis to the effectiveness of key controls that could introduce risk to the three payment systems and other participants, such as in areas including incident management, security, and business continuity. The responses and associated evidence are reviewed by Pay.UK. ● A formally-documented participant enforcement action process is applied where it has been determined that a participant is not complying with the participation requirements and/or is introducing risks to the payment systems and other participants that merit priority attention.

Principle 19 – Tiered participation arrangements

Bacs rating:	FPS rating:	ICS rating:
Broadly observed	Broadly observed	N/A

Summary	
<p><i>An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.</i></p>	<p>Applicability: The three payment systems each have separate methods of identifying and monitoring risks from tiered participation and have therefore been assigned separate ratings, though as ICS does not have tiered participation an N/A rating has been assigned.</p> <p>Rating: Bacs and FPS broadly observe this principle. Pay.UK can identify and monitor the risks arising from tiered participation in each payment system, and has developed Bacs tiering reporting over the past year to support executive oversight, and to complement the existing FPS tiering reporting.</p> <p>Pay.UK does not, however, have clearly defined levers for managing risks from tiering should the need arise, but at present these risks are judged as low because Pay.UK does not have particularly tiered participation, given the increased access and de-tiering that has happened in recent years, and as prefunding arrangements remove any credit risk associated with tiering. Resolving the lack of levers has therefore been judged not to be high priority (against other work).</p> <p>Next steps (path to ‘observed’): Pay.UK needs to develop and approve a policy which defines the risks that can arise from tiered participation in the two systems, our appetite and thresholds, the levers available for managing such risks, and how these levers should be managed. We are committed to developing such a policy, however, as we have judged the risks to be low, and completing this work is subject to resourcing in light of other higher priority projects. We have held two internal workshops in 2021 H1 to improve our organisational understanding of the risks, which will support our eventual further work in this space.</p>

Key Considerations	Rationale
<p>19.1 <i>An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.</i></p>	<ul style="list-style-type: none"> • Pay.UK’s contractual arrangements and rules for Bacs and FPS enable it to gather information about DPs and their indirect participants in order to monitor and manage risks arising from tiered participation. • Bacs: Tiering analysis for Bacs was re-introduced in Q1 2021, having been suspended in 2018 when the then NPSO (now Pay.UK) acquired Bacs. This decision (which was discussed with the BoE in Spring 2018) was based on the difficulty in identifying the true risk position in respect of tiering, especially since some newer Bacs DPs participated with the sole purpose of offering agency bank services, which would likely breach any trigger points (should they be put in place). At the time, this was discussed with FMID, alongside a proposal for the then NPSO to undertake a review of tiering risk management approaches in a combined way across the three payment systems. • FPS: On a monthly basis, Pay.UK collects information on FPS volumes and values submitted by indirect participants from the relevant DPs (by extracting data from the CI). • ICS: There are currently no indirect participants in ICS and so Pay.UK only has a relationship for ICS with settling DPs. The ICS rules allow for indirect participants and so this position could change in future.
<p>19.2 <i>An FMI should identify material dependencies between direct and indirect Participants that might affect the FMI.</i></p>	<ul style="list-style-type: none"> • Bacs: This activity has been reintroduced for Bacs from Q1 2021, which will enable any material dependencies to be identified. • FPS: When volumes for indirect participants increase, Pay.UK discusses this with the indirect participant, including the merits of direct participation. • ICS: There are no material dependencies.
<p>19.3 <i>An FMI should identify indirect Participants responsible for a significant proportion of transactions processed by the FMI and indirect Participants whose transaction volumes or values are large relative to the capacity of the direct</i></p>	<ul style="list-style-type: none"> • See Key Considerations 19.1 and 19.2.

<p><i>Participants through which they access the FMI in order to manage the risks arising from these transactions.</i></p>	
<p>19.4 <i>An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.</i></p>	<ul style="list-style-type: none"> • Pay.UK currently reviews, and reports on, the risks arising from FPS tiering and re-introduced this reporting for Bacs from Q1 2021. • Pay.UK is currently limited in the action it can take to mitigate tiered participation arrangements, although prefunding removes the credit risk associated with tiering. • Notwithstanding that Pay.UK views the risks arising from tiering to be low, we plan to develop a tiering policy. Such a policy should define the risks that can arise from tiering, our appetite and thresholds, the levers available for managing such risks, and how these levers should be managed. We will pursue the development of such a policy when resourcing allows. We have, however, held two internal workshops in 2021 H1 to improve our organisational understanding of the risks that can arise from tiering, which will support our eventual further work in this space.

Principle 21 – Efficiency and effectiveness

Rating:	Broadly observed
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Summary	
<p><i>An FMI should be efficient and effective in meeting the requirements of its Participants and the markets it serves.</i></p>	<p>Applicability: As operator of the Bacs, FPS, and ICS payment systems, Pay.UK aims to be efficient and effective in meeting the requirements of participants and the wider market that the participants support. The approaches taken are delivered in a combined manner across Pay.UK and therefore a single rating has been provided.</p> <p>Rating: Pay.UK broadly observes this principle. Pay.UK has the design, objectives and relationships with stakeholders to help ensure we are efficient and effective in meeting participant and market needs. Since the 2020 self-assessment, we have developed a new set of KPIs, allowing the executive to better see key company performance measures and support management of the business. We are, however, (as mentioned under Principle 2) developing a new strategy which will provide enhanced clarity and specificity of our goals, and therefore allow our KPI set to evolve further.</p> <p>Next steps (path to ‘observed’): Pay.UK needs to further evolve the KPI set under the new strategy.</p>
Key Considerations	Rationale
<p>21.1 <i>An FMI should be designed to meet the needs of its Participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.</i></p>	<ul style="list-style-type: none"> • Pay.UK was designed with the core purpose ‘to support a vibrant UK economy enabling a globally competitive payments industry through the provision of robust, resilient, collaborative retail payment services, rules and standards for the benefit, and meeting the evolving needs, of all users’. It is this core purpose that underpins Pay.UK’s decision making. • Pay.UK’s governance arrangements help the Board to meet stakeholder needs. As discussed in more detail under Principle 2, Pay.UK has two advisory councils – the Participant Advisory Council and the End User Advisory Council (alongside the Participant Engagement Forum) – which help ensure that Pay.UK’s strategy and decisions reflect stakeholder (customer, end user and UK economy) needs. Pay.UK leadership also meet with participants on a regular basis to hear participant views and check we are delivering value-for-money services.

<p>21.2 <i>An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk management expectations, and business priorities.</i></p>	<ul style="list-style-type: none"> • As discussed under Principle 2, Pay.UK has six strategic objectives, which place high priority on resilience and efficiency. A corporate strategy refresh is underway that will reinforce the primary focus of robustness and resilience of our infrastructure, as well as driving platform efficiency in support of the wider UK economy. The new strategy will provide enhanced clarity and specificity of our goals, allowing us to focus on these goals across our organisation measuring progress, and course correcting where required. • Pay.UK regularly reviews Vocalink’s performance against agreed SLAs for each of the three systems and switching services. SLAs are agreed for key parts of the services, including availability, item processing, settlement, incident management, service desk responsiveness, and report production. Performance is reviewed monthly against the agreed SLAs, with a service credit regime in place for poor performance. • Pay.UK has, since 2020, developed a new set of KPIs which align to our strategic objectives and allow leadership to track progress. The KPIs have been embedded into our BAU reporting, allowing the executive to better see key company performance measures, and support management of the business. The company KPI report goes to ExCo monthly and the Board quarterly. • The new strategy will further evolve this KPI set, anchored against our strategic goals, providing further clarity and enhanced early warning indicators.
<p>21.3 <i>An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.</i></p>	<ul style="list-style-type: none"> • As discussed under Principle 2, the Board itself undergoes an annual third-party review of its effectiveness, and in 2021 there was an external governance review. The Board also regularly reviews the performance of the executive management. • Beyond this, our KPIs allow for regular reviews of how Pay.UK is achieving its objectives. Our engagement with participants also allows us to hear feedback on our efficiency and effectiveness.

Principle 22 – Communication procedures and standards

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<i>An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.</i>	<p>Applicability: The three payment systems each utilise a different standard and have therefore been assigned separate ratings.</p> <p>Rating: All three of Pay.UK’s payment systems observe this principle. The operation of payment systems relies on the transference of standardised structured electronic data.</p>
Key Considerations	Rationale
22.1 <i>An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.</i>	<ul style="list-style-type: none"> • Pay.UK sets out the obligations (rules) that apply to the DPs of each of the three payment systems. Part of those obligations is the mandatory use of a standard. • A standard is a specification (set by Pay.UK) that defines a fixed data boundary of a service, including the technical data interface and data exchange format between the DPs and the CI, for the three payment systems. • Pay.UK is accountable for setting best in class standards and has established the Standards Authority (SA) to undertake this responsibility. The SA is part of the Standards Directorate that reports to the Chief Transformation Officer and is accountable to the Pay.UK executive. • Currently, Bacs, FPS, and ICS each utilise a different standard. Each of these standards is fully specified and maintained by Pay.UK as part of the rules for the payment systems. <ul style="list-style-type: none"> ○ Bacs has used a standard format for the exchange of data since 1968 (given its age, the standard it uses is not aligned to an ISO standard). Since the standard is specific and proprietary, steps have been taken to understand how the current standard can be reviewed to allow connectivity to the BoE RTGS2 settlement system, which will be ISO 20022 based.

	<ul style="list-style-type: none">○ FPS utilises an internationally accepted standard (ISO 8583) that is open and accessible under ISO governance. Steps have been taken to provide specifications for the exchange of data between the FPS standard and ISO 20022 to enable interoperability. We maintain, however, our published position that we will not be providing a 'like-for-like' phase for migration to ISO 20022.○ ICS utilises a proprietary standard but it is based upon an internationally accepted standard (ISO 20022) that is open and accessible under ISO governance.
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Principle 23 – Disclosure of rules and key procedures

Bacs rating:	FPS rating:	ICS rating:
Observed	Observed	Observed

Summary	
<p><i>An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable Participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.</i></p>	<p>Applicability: The three payment systems each have their own rules and procedures and have therefore been assigned separate ratings.</p> <p>Rating: All three of Pay.UK’s payment systems observe this principle. Pay.UK maintains clear and comprehensive rules (and fee structures) which are fully disclosed to participants and prospective participants.</p>
Key Considerations	Rationale
<p>23.1 <i>An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to Participants. Relevant rules and key procedures should also be publicly disclosed.</i></p>	<ul style="list-style-type: none"> Pay.UK has adopted comprehensive procedures as highlighted under Principle 1. Contractual arrangements with participants require compliance with payment system rules. All documentation is available to all participants (and to applicants). Bacs: Pay UK reviews any proposed changes to Bacs rules and procedures with participants through consultations. The rules and procedures are referenced in contracts and are also available for review by participants. The list of guides and rules available to Bacs direct and indirect participants is available on the Bacs website (though login details are required owing to aspects of commercial sensitivity): https://www.bacs.co.uk/resources/pages/documentlibrary.aspx. FPS: Pay UK reviews any proposed changes to FPS rules and procedures with participants through consultations. FPS rules and procedures are referenced in contracts and are also available for review by participants’ legal departments. The list of system documentation is available on the FPS website: http://www.fasterpayments.org.uk/about/scheme-documentation.

	<ul style="list-style-type: none"> • ICS: Contractual arrangements and rules are publicly available on the website. Some operational documentation is only available to existing participants and prospective participants upon signing of a Non Disclosure Agreement. The list of documentation relevant to the ICS is published on the website: https://www.chequeandcredit.co.uk/contractual-framework.
<p>23.2 <i>An FMI should disclose clear descriptions of the system’s design and operations, as well as the FMI’s and Participants’ rights and obligations, so that Participants can assess the risks they would incur by participating in the FMI.</i></p>	<ul style="list-style-type: none"> • All existing Pay.UK participants have access to all rules, procedures, and operational documentation which include participants’ rights and obligations. Changes to the rules and procedures are managed via a consultation process through the appropriate committees.
<p>23.3 <i>An FMI should provide all necessary and appropriate documentation and training to facilitate Participants’ understanding of the FMI’s rules and procedures and the risks they face from participating in the FMI.</i></p>	<ul style="list-style-type: none"> • Pay.UK can provide the necessary training and explanations required for participants. Pay.UK is available to meet with all new applicants, or new staff of existing participants, to explain requirements as needed. • For Bacs, Pay.UK provides additional training to service users via the ‘Bacs masterclasses’ (enabling the sharing of subject matter expertise) webinar training and ‘e-learning from Bacs’ (a forum for shorter presentations with a wider reach).
<p>23.4 <i>An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.</i></p>	<ul style="list-style-type: none"> • Pay.UK discloses the costs of participating in each system on the respective payment system websites. Details of the fee structure are made available to existing and also prospective participants before they make the decision to join the system.
<p>23.5 <i>An FMI should complete regularly and disclose publicly, responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.</i></p>	<ul style="list-style-type: none"> • Pay.UK published the 2020 PFMI self-assessment on our website: https://www.wearepay.uk/wp-content/uploads/Pay.UK-PFMI-Self-Assessment-Jun-20.pdf. The 2021 self-assessment will also be published on our website. • Pay.UK also discloses transaction volume and value data on our website: https://www.wearepay.uk/factsandfigures/.

