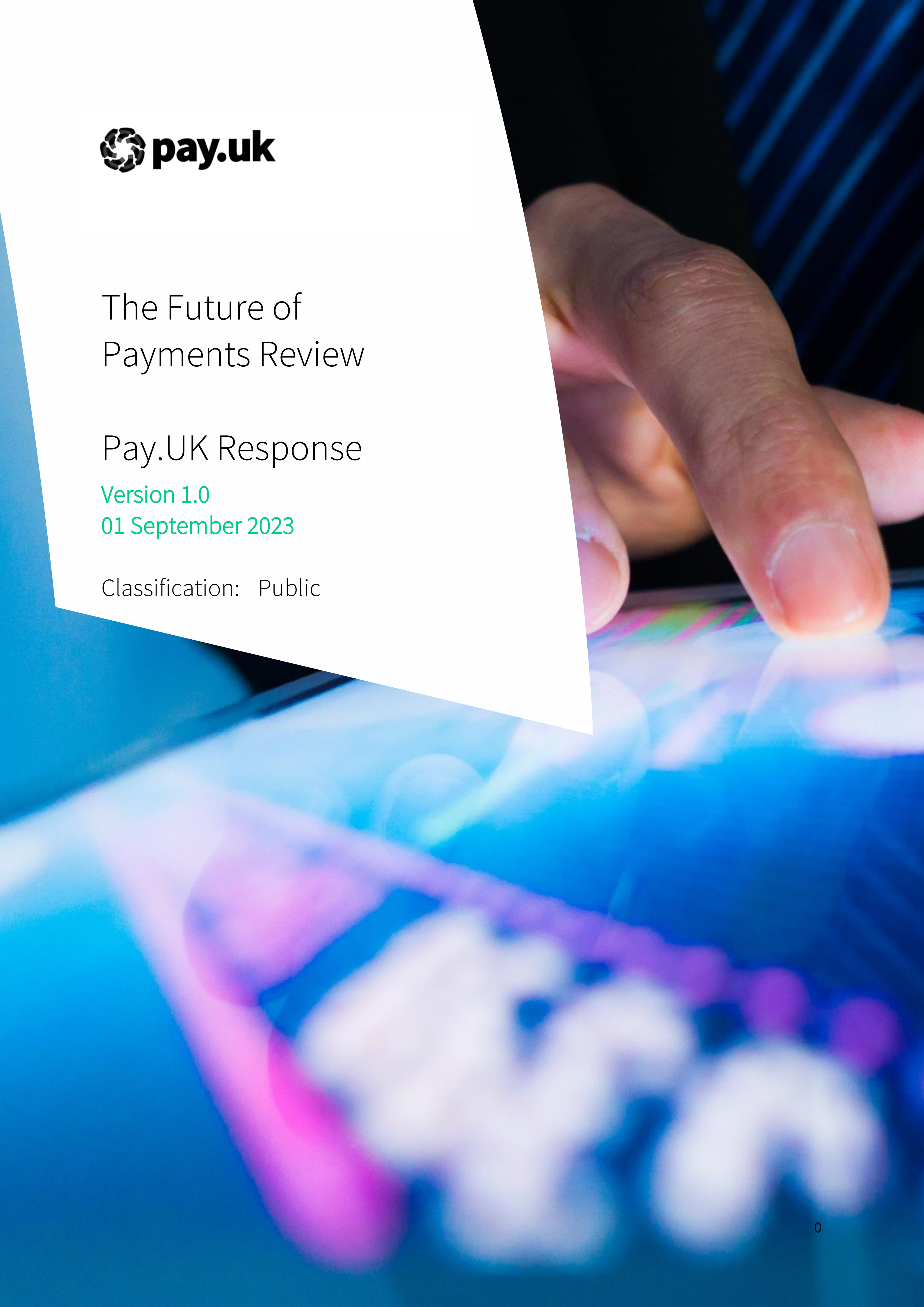

The Future of Payments Review

Pay.UK Response

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Contents

1 Executive Summary

Pay.UK runs the UK's retail interbank payments operations: we enable billions of pounds of payments, safely and securely, every single day[1]. **Our purpose is to power payments, champion innovation and give the UK choice in how it pays.** We ensure that individuals and organisations in the UK can transfer money to others whenever they need to, quickly, safely and cheaply**.** At the same time, we are working to modernise the UK's national payments infrastructure through the New Payments Architecture (NPA) programme, which will deliver a payments platform that fosters innovation and competition. **Our vision is to be the smartest way to move money, now and in the future.**

Pay.UK welcomes this timely review and the opportunity it provides to set a consolidated and coherent set of public policy priorities for UK payments. We are pleased that it will make recommendations building from - not replacing - the NPA.

Fully predicting user's future needs for payments is difficult. We know though that choice, simplicity and safety will always be key drivers: People will not adopt new payment methods if they are not at least as convenient, secure and accessible as their existing options. The Review could be particularly impactful if it were to focus on user outcomes, as this will allow the industry to use its collective expertise to develop appropriate solutions.

The UK is ahead of many nations in its adoption by consumers of digital forms of payment in place of cash – whether that be using the Faster Payment System to transfer funds directly to others in near-real time, or the widespread adoption of cards as a means of payment. This is positive, but it means that our starting point is different to other countries such as India and Brazil where successful proxy services have achieved high penetration in peer-to-peer payments. As in those countries, new products and services in the UK to further replace non-digital payments would need to be supported by (a) a compelling commercial case; (b) a significantly enhanced consumer experience or (c) regulatory intervention.

The payments ecosystem is becoming increasingly complex and the needs of end users (consumers and businesses) are constantly evolving; we need an ecosystem that is agile and responsive to change. The design of the NPA and role of Pay.UK support this.

[1] Detailed volume and value breakdown available in Annex

The NPA is designed as a thin core platform that creates space for market innovation and competition and we will manage access to the platform. The thin central infrastructure will enable the market to develop new products and services, moving away from the need for the central procurement of services. In our role we can then <u>facilitate</u> change by using our convening powers to bring interested stakeholders together; <u>enable</u> change by developing rules and standards that allow third parties to build new services or if required we can still <u>deliver / procure</u> change centrally. This new approach should help address some of the historical challenges of industry needing to move at the pace of slowest.

Key features of the NPA are:

- **Future proof**: It has the right architecture to provide the best possible security and a scalable platform. It will enable us to deliver on our first responsibility as a systemic risk manager while also supporting the growth in our volumes from innovation.
- **Faster**: Its real-time capability will enable more use cases, while maintaining flexibility and choice for those who require alternatives.
- **Helps to fight fraud**: The NPA will provide significantly enhanced capabilities to support the fight against fraud, helping to create a safer and more secure environment for all users
- **Enhanced data**: The adoption of richer data through the global messaging standard ISO20022 will open up significant opportunities to enhance existing services and create new offerings
- **Fostering innovation**: It will lower barriers to entry and offer enhanced functionality, making it easier for firms to connect in to our payments system and innovate. It will also provide new opportunities for firms to offer additional services as overlays on our core payment system
- **Interoperability with the Digital Pound**: If the Digital Pound goes ahead, we expect the NPA to be the natural point of contact between central bank and commercial bank digital money, helping to support the Bank's monetary and financial stability mandate.

Our strategy of platform leadership is how we describe the need for us to manage the risks in payments, but also to leverage the NPA to enable the UK to address some of the key payments policy challenges it currently faces – such as the pre-eminence of card payment systems in retail transactions, combatting fraud and the need for ever more resilient and secure systems

The answers below are informed by our relevant research programmes, and engagement with the public sector, payments and banking industry and with end user advocates. We thank the team for your engagement to date and are ready to engage further with the review team as your thinking develops.

2 Call for Input: Questions and Answers

2.1 What are the most important consumer retail payment journeys both today and in the next 5 years? E.g. paying a friend, paying a bill, paying businesses for goods and service, in the UK or internationally etc…

Pay.UK runs the UK's retail interbank payments operations, which include the Bacs Payment System (Bacs), the Faster Payment System (FPS) and the Image Clearing System (ICS). We also deliver a variety of services relating to payments, such as the Current Account Switch Service, Confirmation of Payee and Request to Pay. Until March 2023, we operated the mobile proxy service PayM. We set out in the Annex a summary of PayM and lessons learnt.

Our operation of this infrastructure plays an important role supporting the UK economy. Our technology, rules and standards, plus associated controls and policies, combine to give us a powerful payments platform. We continually build on this platform, reinforcing our position of leadership in the payments market and beyond. At the same time, we are working to modernise the UK's national payments infrastructure through the NPA programme, which will deliver a modernised payments platform that fosters innovation and competition.

2.1.1 Current payment journeys

As the provider of the central payments network for non-card payments, we are agnostic as to how a payment is initiated and want to ensure that innovators can provide new payment services to be settled on our platform, provided that they meet the standards for resilience and security that are vital for effective payments networks. Pay.UK collects market research data tracking consumer payment usage and behaviour to identify and understand how different methods are used and levels of satisfaction among different categories of user. In particular, we have begun to use the lend of a series of "end user personas" as a means to track insights into consumer behaviour and preferences. The data from our most recent survey[2] indicates that the most important payment journeys for consumers today are as follows:

- **Bill payments (including utilities)**

  Here, the key considerations for consumers are convenience, efficiency and certainty. Direct Debits (DDs) are one of the two key payment products offered on our Bacs system. Currently, a significant portion of consumers use DDs to pay bills - 9 in 10 people have a DD paid monthly, and the

[2] Sources (Pay.UK): Payments Tracker Consumer Report (May 2023) and 'Strategic Trends: Retail Payments in a future world' white paper (Feb 2021)

overwhelming majority use them for regular bills and related recurring payments (mobile, streaming services etc). Standing Orders, which operate via FPS, are also a significant route through which bill payments are made, although a substantially lower portion of the population – 1 in 2 people – use them on a monthly basis. 'Card-on-file' payments are also used for subscription payments. We expect bill payments to remain a critical payment journey for the foreseeable future.

DD and Standing Orders are well established and widely accepted payment methods, which offer the convenience of a 'fix it and forget it' method of payment for regular bills, as well as, generally, straightforward cancellation via retail banking portals. The Direct Debit Guarantee, enshrined in law, ensures a very high standard of consumer protection when using this method. The NPA provides the opportunity to explore ways to evolve or enhance DD payment functionality to provide an even better experience to consumers.

- **In-person, retail goods and services**

There has been a marked shift in recent years from cash to cards, and this journey is increasingly dominated by contactless debit card payments (including through tech company wallets that run over card payment systems). These account for £17.4bn of transactions annually, with credit card and cash payments as alternatives. In particular, debit cards and cash are viewed as quick and convenient payment methods. Of the 83% of consumers who use a debit card, 75% who use cash and 54% who use a credit card, at least monthly, the majority of usage is for groceries whilst a significant portion will also use it for social activities – for example, food and drinks with friends.

- **Payments to and from friends and family**

Of the 60% of consumers who use FPS to transfer funds at least monthly, these are most frequently transfers between friends and family. Transaction speed is the primary motivator – particularly for younger consumers. The accessibility of these payments, which can be initiated easily via banking portals, without needing to download or subscribe to additional apps or services, also drive use. There is no sign that this journey will lose relevance and the NPA will facilitate an even more seamless and cutting-edge experience between friends and family because it will be faster, carry more meaningful data and enable innovators to provide enhanced services to consumers.

- **Online payments and shopping**

This is another critical payment journey, with a more diverse supporting infrastructure and set of options to consumers. Card payments (debit/credit), PayPal, digital wallets (that run over card payment systems) and Buy Now, Pay Later (BNPL) schemes all share significant portions of the journey. A critical differentiator here is the significance of borrowing funds and the impact of convenience and time on the choice of payment method. Account-to-account payments (A2A) may offer similar benefits for this payment journey and are explored in more detail in Question 3.

- **International payments**

These also represent an important payment journey, albeit less frequent than those already highlighted. 1 in 5 people have made an international payment in the last 12 months. Of those, 42% made these payments to friends and family whilst 24% made them for buying from overseas websites. Europe and the USA occupied the most frequent destinations of international payments, 33% and 19% respectively.

2.1.2 Medium-term developments

Our strategic priorities and our strategic roadmap[3] align with the Chancellor's vision to ensure the UK remains at the forefront of payments technology and delivers the next generation of world class retail payments. Fully predicting user needs for payments is difficult: we therefore need an ecosystem that is agile and responsive to change.

Technological innovation is opening up possibilities for the movement of value in online and offline settings, in ways that could make consumers' lives easier, and enhance the ability of businesses to manage their finances, reach new customers and markets, and grow. The UK needs to be ready to take advantage of these innovations. Our company is at the centre of an increasingly complex payments ecosystem, with a wider range of payment journeys and more institutions than only a few years ago – open access to systems continues to grow, enabling this innovation to prosper.

We expect the current journeys discussed above to remain important, with the impact of embedded finance BNPL payment schemes and other similar models emerging more strongly. BNPL can result in more, lower value payments rather than a shift in values. We also expect that consumers will want to use interbank payments for a wider range of payment journeys, facilitated by innovation from banks and fintechs, using open banking or proprietary Application Programming Interfaces (APIs). For example, A2A and variable recurring payments (VRPs) are likely to increase in usage and importance. These are discussed below, as part of the answer to Question 3, alongside the implications of a potential digital pound.

2.1.3 Future developments

Thinking more broadly, we see two trends that are likely to impact consumer payment journeys:

[3] https://www.wearepay.uk/who-we-are/strategy/

- The first of these is 'internalisation', which refers to the consolidation of multiple functions onto one platform by operating systems, social networks, banks and shopping platforms. Examples of where this has already started include WeChat and AliPay alongside Big-Tech platforms like Amazon, Apple, Twitter / X and Meta. These can operate as 'closed systems' with a need to transfer in funds, or by establishing a link to an underlying account via 'card on file' or open banking. These systems are likely to have a notable impact on payments between family and friends, and online shopping, where the added functionality will likely meet consumers' demand for payment journeys that are convenient and efficient.
- The second trend is the emergence of the subscription economy. This is where consumers are enabled to pay for what they use, when they use it, as opposed to purchasing a product outright – in other words, a move from ownership to renting. This is likely to impact consumer payment journeys in shopping, both online and in-person. VRPs, discussed below, may facilitate this trend as a convenient option to fulfil subscriptions. A prominent example where this trend has already been established, is in the world of music and film (Spotify and Netflix instead of purchases of CDs and DVDs) and it is emerging in the consumer automotive industry.

Further afield, virtualisation, the internet of things (IoT) and artificial intelligence (AI) all have significant potential to disrupt consumer retail payments journeys. For example, 'smart' appliances which can predict consumer purchasing habits and purchase items for them – like a fridge that orders milk when it runs out or a car that pays for a refuel when it runs low, both of which are already in production. We have included a table of some of the payment trends which we follow as an organisation in the Annex below.

2.2 For these journeys today, how does the UK consumer experience for individuals and businesses compare vs other leading countries? This is to be assessed for the quality of the experience and security as well as cost.

The UK is ahead of many nations in its adoption by consumers of digital forms of payment – FPS was the first system in the world to enable people to transfer funds directly to others in near-real time, and more recently the widespread adoption of cards as a means of payment has accelerated the UK transition from cash.

Research conducted for Pay.UK suggests that for most payment methods, 8 in 10 consumers in the UK are largely satisfied with the quality of their experience and the services and systems that are currently on offer do meet most of their needs. Our discussions with Payment System Operators (PSOs) in other countries also suggest a positive international reputation, with most of those PSOs closely monitoring developments in the UK, and perceiving the UK as a leader in real-time payments development and system modernisation. Consumers do not typically face direct costs for making payments in the UK and payment security has been improved with the introduction of Strong Customer Authentication (SCA).

Further developments will also provide increased protection for users of UK payments. For example, the Confirmation of Payee (CoP) overlay has been developed and rolled out across the UK, protecting millions from misdirected payments and certain types of fraud. In short, the overlay allows a payer to check that the name and business indication of the payee is the same as that held with the receiving bank or Payment Service Provider (PSP) and provide warning to payers about sending money when details are not consistent. We have also recently introduced the capability for Payer Name Verification to address the same issues for DD.

Other countries, like Australia, Brazil, India and Sweden, have also made significant inroads into innovative payment methods, impacting in particular payments journeys which are currently dominated by card and, to a lesser extent, cash in the UK. It is instructive to look at these and consider which aspects of their approach is relevant to the UK.

India

In India, the Unified Payments Interface (UPI) has driven a transformation in consumer and merchant payment journeys, away from cash to effortless transacting in digital payments. The UPI architecture is an open source API running as an overlay on the Indian instant payments platform, IMPS. It supports interoperability between different payment instruments including mobile wallets, cards and internalised systems. Key to the flow of authentication and authorisation of the UPI is its reliance on digital ID and biometric data. 95% of the Indian population has an Aadhaar number association with several digital ID products and a considerable amount of personal data like taxes, mobile phone connections, driving licence and bank accounts. Digital ID was crucial in facilitating the adoption of UPI. The already widespread adoption of digital payments in the UK and the different policy approach to digital ID are two crucial differences between India and the UK. Similarly, UPI was mandated by the Indian government – a different regulatory approach from that of the UK.

However, there are opportunities for UK customers to have access to similar seamless transactions across Pay.UK’s platform, for example through the development and growth of open-banking initiated payments. This could realise the benefits of reduced merchant payments costs, settlement speed and security without the requirement of a digital ID. Key to its success will be a sustainable commercial model supporting the full payment value chain and appropriate consumer protection.

Brazil

In Brazil, the emergence of the PiX payment scheme has seen a significant impact on consumer payment journeys. Where previously payments were made largely by cash or a minority through cards with high costs, PiX works by using unique identifiers linked to the recipient – this can be a phone number, email address or a QR code. The unique identifier simply needs to be scanned or entered into the sender's banking app from where they can process an instant transfer of funds. For P2P, payments can be sent to the recipient using their phone number – this is similar to the service which was developed in the UK: PayM, which we discuss further below and in Annex 3. However, in contrast to PayM, PiX was mandated by the central bank and includes rules about the user experience to be provided by PSPs to their customers.

The Central Bank of Brazil (BCB) mandated about 30 of the largest banks and fintechs to participate in PiX and keep it free of charge for individuals, creating a critical mass needed for the network effects of payments to flourish. There are now approx. 300 participants. PiX provides instant payments at no cost to payers, with low costs to PSPs. Although costs to merchant are not controlled by BCB, they are considerably lower than those for equivalent, slower card transactions.

Prior to the introduction of PiX and the UPI, both India and Brazil had a notable reliance on cash payments. This reliance does not exist in the UK and therefore, whilst learning can be taken from both jurisdictions, the commercial, consumer protection and technological challenges are not directly comparable.

Australia

In Australia, PayTo provides a new, digital way for real-time payments to be initiated by merchants – 'pull payments' as opposed to 'push payments'. Whilst PayTo allows for one-off payments it also offers an alternative to DDs by allowing customers to authorise, view and manage recurring payments directly through their banking app, providing consumers with greater control. Transactions flow through Australia's New Payment Platform (NPP) and allow for instant clearing and settlement all the time, providing a more seamless experience for both the payer and payee. For the UK, both Request to Pay (RtP) and Variable Recurring Payments (VRPs) may have the potential to emulate the outcomes of PayTo in Australia. We are working with industry to refine RtP and work is underway under the Joint Regulatory Oversight Committee (JROC) process to develop the VRP proposition, which is currently largely used to sweep funds between accounts owned by the single consumer.

Sweden

In Sweden, Swish allows for real time transfer of funds through an app which links a users' phone number with their bank account. Although intended to facilitate transfer of funds between individuals, the low costs and instant transfer benefits saw this extend to retail payments and online payments. User can make payments by entering payee details, the amount and by scanning a unique QR code. The method has achieved considerable market penetration with over 80% of Sweden's 10million population using Swish. Parallels can be drawn between PayM in the UK and Swish although it is worth noting that Swish largely replaced transactions that were dominated by cash payments, so the starting points were not the same. We have annexed further information on PayM, including the lessons learned which we documented as part of its withdrawal in March 2023.

A common theme in these developments is the co-ordination and collaboration across industry required to ensure that technical solutions are developed that meet consumer needs and deliver leading payment journeys. The solutions need to be supported by a commercial model which incentivises a shift in behaviour by merchants, consumers and intermediaries. Where appropriate, this also needs to be supplemented by proportionate legislative or regulatory requirements – as the cases of India and Brazil most clearly demonstrate.

2.3 Looking at in-flight plans and initiatives across the payments landscape, how likely are they to deliver world leading payment journeys for UK consumers?

2.3.1 The NPA

While the payments infrastructure in the UK delivers a fast, secure and reliable selection of payment options to UK consumers, there are undoubtedly areas in which payment journeys can be made even more intuitive, safe and innovative for users. At its creation in 2018, Pay.UK inherited legacy technology that, although it delivered leading payment journeys, had limited capacity for future development and innovation.

We are secure in the delivery of our core role and have an ambitious outlook for our future. Our strategic priorities of platform leadership and product innovation are focused on achieving an open, sustainable, innovative and globally competitive sector. Supporting innovation in the interests of consumers is central to Pay.UK's strategy.

The NPA will deliver the future technology and infrastructure to provide the UK with the world's best payment platform for innovation. The new platform will also further reduce barriers to entry to the interbank payments system, opening up the opportunity for the broader market and ecosystem to develop new products. New players and existing firms will have better opportunities to develop innovations that will drive competition, create jobs and deliver economic benefits to the UK.

We believe that the NPA will deliver a number of key benefits for industry, end users and UK consumers including the following, some of which we expand upon below:

- **Future proof:** it has the right architecture to provide the best possible security and a scalable platform. It will enable us to deliver on our first responsibility as a systemic risk manager while also supporting the growth in our volumes from innovation.
- **Faster:** its real-time capability will enable more use-cases, while maintaining flexibility and choice for those who require alternatives.
- **Helping to fight fraud:** the NPA will provide significantly enhanced capabilities to support the fight against fraud, helping to create a safer and more secure environment for all users.
- **Enhanced data**: the adoption of richer data through the global messaging standard ISO20022 will open up significant opportunities to enhance existing services and create new offerings.
- **Fostering innovation:** it will lower barriers to entry and offer enhanced functionality, making it easier for firms to connect in to our payments system and innovate. It will also new opportunities for firms to offer additional services as overlays on our core payment system.
- **Interoperability with the digital pound:** if the digital pound goes ahead, we expect the NPA to be the natural point of contact between central bank and commercial bank digital money, helping to support the Bank of England's monetary and financial stability mandate.

The NPA will adopt the global messaging standard, ISO 20022, which will allow for more **data** to be provided to PSPs about the type and nature of their customers' transactions. This will open significant opportunities for banks and users to build a deeper understanding, improving existing services and creating new offerings to benefit the end user. For example, the richer data carried in a payment message could extend to providing the receipt for the payment. This would avoid the current problem of having to identify what a transaction is from a merchant reference, which is not always intuitive.

These benefits will encourage the payments industry to safely innovate on the NPA. Where our help is required, we will use our unique central position to support the industry to innovate. For example, the NPA will have the capacity for instant payments to be introduced in future, if these are required to support new use cases, such as Point-of-Sale transactions with instant certainty of settlement.

Pay.UK can play different roles – we can **facilitate** by using our convening powers to brings interested stakeholders together; we can **enable** by developing rules and standards that allow 3rd parties to build new services or, if required, we can still **deliver / procure** change centrally.

These new roles mean we are more than a traditional PSO – we have a broader stewardship / systemic risk manager role – which is illustrated by some of the initiatives mentioned below. This is a new and exciting role for us, which recognises the importance that central co-ordination plays in driving innovation in payments. It will enable the payments industry to better support businesses and enhance payments journeys for UK consumers. In turn it will also deliver an open, sustainable, innovative and globally competitive sector which will support the industry and the UK economy for many years to come.

2.3.2 Fraud

Effective fraud prevention is essential for delivering world-class payment journeys. In our position at the centre of interbank payments, we recognise the crucial role we must play in the fight against fraud. Our fraud programme takes a threefold approach - detection (prior to a transaction), prevention (during a transaction) and reimbursement (when a fraud has taken place). We're working to develop an Enhanced Fraud Data (EFD) API – a mechanism for sending and receiving PSPs to share specific attributes of end users' account and payment data. It will allow PSPs to scrutinise the data they receive, in order to detect (and reduce) high risk fraudulent payments.

Following the success of our CoP overlay service, we are now working to bring on board upwards of 300 organisations, both directly and via intermediate providers, to implement CoP by October 2024. This will ensure the delivery of world-leading experiences for a broader range of consumers. Similarly, the new shared liability for reimbursement for receiving and sending banks in instances of authorised push payment (APP) fraud will incentivise prevention and detection, as well as providing added protection for those who do fall victim to fraud.

ISO 20022 will also be an important tool in the fight against fraud. The new platform's data store will enable new overlay services that can detect and prevent fraud - in particular tackling APP fraud. Before we roll out the new platform, we are testing a fraud prevention overlay service that will subsequently open up innovative overlay opportunities for third parties to enhance existing fraud and financial crime management tools.

2.3.3 Account-to-account payments

The term “account-to-account payments” (A2A) is used to describe a transfer of funds directly between accounts without the use of a separate payment instrument, such as a card or cheque. The ability to use interbank payment methods for peer to business payments could have both functionality and cost benefits for merchants compared to cards, and could offer consumers a convenient alternative way of paying, for instance by integration into banking and wallet apps. The potential for these payments has been recognised by the Joint Regulatory Oversight Committee (JROC) for open banking. We are working with our customers, Open Banking and the JROC to lay the groundwork for these payments: their success will require collective action – we can provide the technology, rules and standards to enable their growth, others can provide innovative services and added-value to end users. The success of this venture will also require a sustainable commercial model and appropriate consumer protections in the event of fraud or disputes.

VRPs are a particular form of A2A that would allow consumers to authorise recurring payments from current accounts for variable amounts, for instance to pay bills. VRPs would serve a functional purpose similar to DDs, standing orders and card-on-file transactions.

VRPs are initiated by open banking third party payment service providers (TPPs) who send the transactions over Pay.UK’s interbank infrastructure (FPS now, NPA in future). VRPs could bring lower costs to merchants compared to card-on-file subscriptions and an improved consumer payment journey, because they offer the user more control. VRPs may also be useful for some DD users, although the exact functionality of commercial VRPs has not yet been determined by the ecosystem participants. It is also our intention to ensure that the functionality of DDs can evolve where this is needed to continue to meet end user needs. We are engaged in the work to develop VRPs as part of laying the ground-work for A2A more widely.

2.3.4 The digital pound

The Bank of England and HM Treasury have concluded that it is likely a digital pound will be needed in the future, driven, in particular, by the transition to a digital economy and the declining use of cash. The NPA is currently positioned to enable a high degree of interoperability between commercial bank digital money and the future digital pound. As the NPA will already be processing retail payments in commercial bank digital money, the potential for interoperability will make the NPA the natural point of contact between the two forms of currency and the architecture of interbank payments and digital pound payments, as well as any other systemic stablecoins that may emerge over time. The intention is not to develop competing retail payment systems, but to offer choice and flexibility to meet end user needs.

2.3.5 International payments

Currently, international payments for consumers can be relatively slow and the status of payments is not always clear, creating a confusing and potentially anxious experience for end users. In our market survey, one in five people made an international payment in the last 12 months. Our destination is to move from a national to an international payments operator, supporting trade and British businesses.

The NPA will operate using the international ISO 20022 data standard and in coming years we will continue to engage with the work on cross-border payments led by the Bank for International Settlements (BIS) on cross-border payments and build and develop the NPA as needed to enable users to make these international payments seamlessly, via interoperability with the emerging international solutions.

3 Annex

3.1 Item 1 – Value of payments across different Pay.UK systems

Payment Route	Volume	Value
FPS	In July 2023, FPS processed 383.4 million payments.	These payments amounted to a total of £326 billion for the month.
Bacs	In July 2023, Bacs processed 540.3 million payments.	These payments amounted to a total of £479 billion for the month.
ICS	In July 2023, ICS processed 9.9 million payments.	These payments amounted to a total of £15 billion for the month.

3.2 Item 2 – Future trends

Trend	What it means	What we expected	Has it?
Atomisation	Atomisation of payment size due to the subscription economy and machine-to-machine (M2M) revolution.	• Payments fragmenting into smaller values due to changes in demand and M2M communication, enabled by lower costs and automation • New business models emerging from this atomisation to contribute to exponential payments volume growth.	• Not completely: the subscription economy is growing strongly, but IoT and micropayments have not driven huge scaling.
Internalisation	Internalisation of value exchange between buyers and sellers on large commerce platforms.	• Increasing power of Big Tech platforms offering consumers and retailers new ways to interact, concentrating commerce by influencing payments, with their power and scale enabling them to bypass existing open payments infrastructure.	• Definitely: Big Tech has driven closed-loop marketplaces and extended across value chains.
Virtualisation	Virtualisation of currencies and the reduction in sovereign control.	• Advances in tokenisation and ledger technology enabling banks, governments and consumers to create and exploit virtual currencies • Virtual currencies enhancing or displacing existing payment solutions with faster processing, easier reconciliation and more transparent fees.	• Definitely: Huge innovation in cryptocurrency and stablecoins has exploded, forcing central banks to respond with Central Bank Digital Currencies (CBDCs).

Trend	What it means	What we expected	Has it?
Protection	Protection of increasingly interconnected and vulnerable financial systems.	• Increasingly interconnected financial systems being constantly under attack from ever more sophisticated criminal and state entities. • New regulations driving strong customer authentication to protect financial systems but no clarity about adoption by the market.	• Yes: An unprecedented combination of domestic and global crises has emboldened bad actors as never before.
Simplification	Simplification of financial and digital supply chains for business and government.	• New digital payments services helping to simplify financial management in corporate, small and medium-sized enterprises (SMEs) and government • Straight through processing and richer, structured payments data driving smarter payments to employees and across the supply chain.	• Yes: The use of APIs and the introduction of ISO 20022 is driving volumes both in the UK and internationally.
Democrat-isation	Democratisation of access to banking and payment infrastructures.	• Better access fostering an increase in competition and innovation from new entrants offering lower cost, faster and smarter payments • Open banking regulation mandating banks to share personal financial data, creating opportunities to develop new value and services.	• Somewhat: New fintechs and open banking players continue to emerge; APIs have potential to drive much more innovation.
Exploitation	Exploitation of personal data assets by consumers and organisations.	• Continued allegations of data misuse by tech companies leading to questions and challenges from consumers and regulators • Enterprises and central bodies seeking ways to create better ecosystems of personal data ownership and privacy.	• Yes: Strong UK government and regulatory pressure has been applied, but there is still much to do to create trust ecosystems.
Component-isation	Componentisation of the payment value chain into specialist, non-integrated roles.	• Open banking enabling componentisation in the value chain, alongside changing customer needs and expectations • New entrants, highly focused on doing one thing very well, disrupting horizontal niches and taking market share from large banks and PSPs.	• Somewhat: New fintechs and open banking players continue to emerge; APIs have potential to drive much more innovation.
Integration	Integration of disconnected buying and selling experiences across real and digital worlds	• Cross-channel integration helping merchants build closer customer relationships with customers by understanding purchasing behaviours • Cloud, mobile, social, AI and chatbot being used to drive greater	• Definitely: Big Tech has driven much of the innovation in this space as well as dominating the underlying value chain.

Trend	What it means	What we expected	Has it?
		personalisation and seamless experiences across touchpoints.	

3.3 Item 3 – PayM background and lessons learned

Paym was one of the early mobile payment options in the UK – it was launched in April 2014. At its peak, it was offered by most of the major banks and building societies in the UK. It has some strong design elements and provided direct benefits to end users. Nonetheless, during its lifespan, the Paym service faced some key challenges related to lack of awareness and brand recognition which led to low adoption and relatively high costs. In September 2022, Pay.UK announced that the service would close on 7 March 2023.

Paym was an industry led payments solution by the Payments Council. The service enabled end users to pay more easily using their mobile phone contact details. Paym attracted a large number (5.8 m) of registered users, but volumes declined from 2021. Usage dropped by 10% in 2021, and this trend continued in 2022 with a further decrease of 15% for the first five months, compared to the same time period in 2021.

Only a small number of registered users made frequent use of the service. This lack of ubiquity resulted in an increased likelihood that a newly registered user's first attempted payment would be unsuccessful, which in turn, according to research we commissioned, discouraged future attempts to use the service.

Initiatives to stimulate uptake were not successful – we identified some key challenges:

- Paym was expensive to join, due to the need for 'legacy' type infrastructure
- Paym was expensive for PSPs to use, at circa £1.20 per transaction
- PSPs found it challenging to deliver service enhancements
- Due to low volumes, PSPs did not see the benefits of promoting the Paym service
- Paym lacked brand recognition, with half of PSPs not using Paym branding
- Advances in alternative mobile payment solutions e.g. Payit which utilises open banking.

We have examined the lessons learned from this experience with a view to using them in the development of a new proxy-based service which we could facilitate on the NPA. We would be happy to share more detail with the Review Team if that would be helpful. At a high level, some key lessons relate to:

- **Functionality:** The proxy service was resilient, secure and widely offered by banks at its peak. However, its technical design was not agile and flexible to developments and some of the functionality around registration and switching was inconvenient.
- **Branding & Marketing:** its identity as a 'brand' and end user experience was not sufficiently controlled or publicised and different firms used different names for the service; user experience must be streamlined and uniform.
- **Governance:** the governance of Paym (as a subsidiary) delivered a robust and resilient solution, without sufficient eye to strategic and commercial opportunities for the development of the service; ownership of data needs to allow for monitoring and analysis of overall performance.
- **Commercial model:** the funding model for the service meant that it was viewed as a 'cost centre' rather than a commercial opportunity – better incentives are needed; also, commercial terms and supplier relationships were also not optimized to incentivise growth and development of the service.

As noted earlier, at its creation in 2018, Pay.UK inherited legacy technology. However, the NPA is designed in a manner such that it will address the issues around legacy infrastructure and its capacity for innovation. The lessons we learnt regarding the design of the service itself will be valuable in any future design of a P2P proxy-based overlay service.