Open Banking Payments Commercial Model

Industry Proposal for a Commercial Model for Wave 2 cVRP

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Executive Summary

The Government's National Payments Vision (NPV) seeks to establish Open Banking as a ubiquitous method for seamless account-to-account payments.[1] This initiative aims to enhance consumer and merchant choice, foster innovation, drive down payment costs, and ensure robust consumer protections.

In response to invitations from the Government and the FCA, UK Finance, supported by Deloitte, has developed an industry-led proposal for a sustainable commercial model for Open Banking Payments (OBPs) in e-commerce – also referred to as Wave 2 commercial variable recurring payments (cVRP). This report presents that proposal, following an Initial Findings discussion paper published in April 2025.[2] It should be noted that other cVRP operators are emerging in the market, and whilst this work will be available to them, they will develop their own commercial approaches.

The proposal was developed transparently with input from UK Finance Members and wider stakeholders, adhering to competition law. This involved a structured process, first outlined in the Initial Findings discussion paper, to assess commercial model options. The process included defining a 'value framework' of key criteria for a sustainable commercial model, identifying its possible dimensions, and assessing each option. Quantitative modelling of the payments market and engagement with merchants also ensured the commercial model's impact on consumers, merchants, Payment Initiation Service Providers (PISPs), and Account Servicing Payment Service Providers (ASPSPs) was thoroughly considered.

The Industry Proposal

The overall industry proposal is comprised of three parts described below. The proposal is consistent with our understanding of regulatory expectations [3] and the value framework for the commercial model developed by UK Finance Members. The proposal aims to put competitive pressure on payment costs, which will drive adoption by merchants, and reward those firms that most efficiently deliver OBPs.

[1] HM Treasury (2024), "National Payments Vision". Available at: National_Payments_Vision.pdf
[2] UK Finance (2025), "Open Banking payments commercial model For Wave 2 cVRP: Initial Findings". Available at Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings.pdf.
[3] Joint Regulatory Oversight Committee (2023), "Principles for commercial frameworks for premium APIs". Available at Principles for commercial frameworks for premium APIs - Joint Regulatory Oversight Committee; UK Finance (2025), "Open Banking payments commercial model For Wave 2 cVRP: Initial Findings". Available at Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings.pdf.

1. Dimensions of the commercial model

Potential commercial model dimensions were identified through benchmarking, stakeholder engagement, and analysis of existing Open Banking and comparable payment systems. The dimensions were assessed against the value framework's criteria, including sustainability, competitiveness, and fairness. Options failing to meet these criteria were dismissed after this assessment.

The industry proposes a sustainable commercial model for Wave 2 cVRPs with the following dimensions:

- A multilateral centrally set transaction fee, set by any operator, should be paid by the PISP, and received by the consumer's ASPSP for each successful transaction. The multilateral commercial model should not preclude firms from reaching bilateral agreements that are separate from the multilateral agreement with alternative transaction fees in which any operator has no involvement including facilitating, billing or providing dispute arrangements. The transaction fee should be levied on an ad valorem basis (% of transaction value) as it allows cVRPs to be competitive with other e-commerce payment types that also use an ad valorem fee structure. There should be no discounts for any PISP, nor an introductory fee period.
- Any operator should have the flexibility to modify the commercial model in future in consultation with industry, responding to actual usage and costs.
- Other fees (e.g., Faster Payment Fee, Operator fees) are expected to remain unchanged, and should be kept under review by Pay.UK and any operator(s).

2. Purchase protection

The purchase protection model for a given payment method significantly influences customer trust, ASPSP, PISP and merchant costs, and adoption. A range of options was considered specifically for Wave 2 cVRPs, balancing robust consumer protections with merchant cost-competitiveness, including models based on current debit card protection levels and Open Banking Single Immediate Payments (SIPs) protections. Following evaluation against the value framework, two high-level options were selected for the industry proposal. Each offers a distinct balance of purchase protection, and impact on merchant adoption and financial sustainability. The industry therefore proposes one of these two options:

- **'SIP+' model:** Consumers would not be able to access purchase protection from their ASPSP, except in the event of merchant failure. Consumers would continue to benefit from existing legal frameworks (e.g. protection from fraud) provided by merchants/PSPs under legal statute (e.g. Consumer Rights Act 2015).

- **'Debit card efficient' model:** Consumers would be able to access purchase protection from their ASPSP, similar to debit card purchase protections, with liability held by PISPs. These protections would need to be designed so that they reduce the costs to merchants of purchase protection compared with debit cards.

Any operator will need to consider further how each option should be designed (including liability attribution and the necessary features to reduce costs for merchants) and the impacts on commercial outcomes and consumer trust and adoption for each option.

3. Level of the transaction fee

UK Finance has evaluated potential transactions fee levels recognising the important impact these will have on merchant adoption, payment costs, and PISP and ASPSP returns. This work drew on a quantitative market model that simulated outcomes drawing on a mixture of public domain information, cost estimates provided by UK Finance Members and results from a survey of merchants.

While there are significant uncertainties around any such modelling, and a range of perspectives on the specific factors that influence market outcomes, the following emerged from the work and was robust to a number of sensitivity tests:

- There are paths to a financially sustainable commercial model, which depend on cost to deliver cVRP for ASPSPs and PISPs and whether cVRP fees would be competitive for the largest merchants. cVRP cost estimates were needed to determine whether transaction fees would enable ASPSPs and PISPs to recover delivery costs and achieve fair returns over time from providing cVRP. A wide range of cVRP cost estimates was provided by UK Finance Members.
- At the median of the cost estimates provided by ASPSPs and PISPs, there are transaction fee levels that allow for full cost recovery and fair returns through enabling substantial adoption among smaller and medium sized merchants. However, the total estimated market share for cVRPs is low in these scenarios.
- There are lower and more competitive transaction fee levels that would encourage further adoption, including by the largest merchants. Total estimated market share for cVRPs is significantly higher in these scenarios. At the median level of estimated costs, these fee levels would not support full cost recovery and fair returns for ASPSPs and PISPs. Achieving full cost recovery in these scenarios would necessitate that actual costs of delivery were lower than the median cost estimates, but still within the range of provided cost estimates.

The Industry Proposal is that UK Finance will share the detailed results of this modelling with UK Payments Initiative (and make it available to any other operators) to inform decisions on the transaction fee level.

Comparison with Wave 1 commercial model

The industry proposal for the Wave 2 cVRP commercial model is different to the proposal for Wave 1 cVRP. The latest proposed Wave 1 model would be consistent with an item fee of 3-6p per transaction, and no greater than 6p. There are no additional purchase protections proposed for Wave 1 cVRP given that the Wave 1 commercial model is currently intended for low risk use cases.

Next steps for the Wave 2 cVRP commercial model

This industry proposal reflects the views of UK Finance, informed by engagement with industry participants, merchants, and other stakeholders.

No decision or agreement has been reached regarding potential transaction fee levels for cVRP. This report, and the work undertaken in its preparation, are to facilitate discussion only, and further work will be needed to address legal risks associated with potential options and proposals.

UK Payments Initiative Ltd is expected to use this proposal to inform its decisions on the Wave 2 cVRP commercial model. This should include further work on:

- Providing legal certainty for any commercial model, which may require legislation or regulatory action.
- Validating and refining cost estimates and assumptions to determine the feasibility of a financially sustainable commercial model.
- Designing and costing purchase protection options, including selecting between the proposed 'SIP+' and 'debit card efficient' models.
- Collaborating with the industry on the governance of participation costs and requirements.
- Determining the transaction fee level, balancing merchant adoption with fair returns for PISPs and ASPSPs.

In concluding the report, some members have said that there will be different views on the best way to commercialise open banking payments, that the modelling is based on assumptions which may not hold true and there will be more than one operator in the market. Operator(s) will therefore have to consider and validate the analysis.

Report structure

The main body of this report is set out as follows:

- **Section 1** sets out the context of the industry proposal and the scope of work.
- **Section 2** describes the assessment approach that has been taken in the development of the industry proposal.
- **Section 3** elaborates on the dimensions of the commercial model, outlining the specific features and design choices that have been identified as part of the commercial model through analysis and engagement.
- **Section 4** presents the cVRP market model, detailing its methodology, key inputs, and the outcomes of the model. This section also explores sensitivities.
- **Section 5** summarises the overarching conclusions drawn from this work.

1. Context

The UK Government's National Payments Vision (NPV) recognises the significant role Open Banking could play in transforming the payments landscape in the UK.[4] Open Banking Payments (OBPs) are account-to-account payments made possible through leveraging Application Programming Interfaces (APIs), which allow authorised third-party providers to securely access financial data from banks to initiate payments with the account holder's consent. It is hoped that providing more choice for consumers and merchants in how they make and receive payments can both increase innovation and place downward competitive pressure on the cost of payments more widely.

The NPV outlines several benefits of OBPs that could be received by different stakeholders. From a consumer perspective, OBPs offer the potential for enhanced security through robust customer authentication measures, which can mitigate elements of fraud risk and data breaches. Moreover, Open Banking gives consumers greater control over their financial data, allowing them to choose how and with whom their information is shared. OBPs also offer the potential for a simpler payment path for consumers compared to alternative payment methods. For example, consumers would not be required to input card details in online interfaces or share card details with merchants.

For merchants, OBPs offer faster settlement times compared to card transactions, which can often take several days to clear. This accelerated cash flow could empower merchants with greater financial agility and working capital optimisation. In addition, the potential impacts from reduced payment costs for merchants throughout the economy could result in downward pressure or alleviate upward pressure on price levels.

1.1 The existing Open Banking Payments landscape

Since 2017, nine current account providers in the UK have been mandated by the Competition and Markets Authority (CMA) to enable their customers to carry out specific forms of OBPs called sweeping variable recurring payments (sweeping VRPs)

[4] HM Treasury (2024), "National Payments Vision". Available at: National_Payments_Vision.pdf

and single immediate payments (SIPs),[5] with the legal framework for these payments being set out in the Payment Services Regulations 2017.

Both sweeping VRPs and SIPs are instant payments enabled by Faster Payments rails. SIPs are direct bank-to-bank payments between consumers and merchants and make up 92% of all OBPs in the UK.[6] SIPs are used for different use cases including charitable donations, tax payments, and e-commerce in a limited range of sectors.

Sweeping VRPs, also known as “me-to-me” payments, are payments made by a consumer between their own accounts, for example to pay off a credit card or move money into a cash savings account.[7] Unlike SIPs, sweeping VRPs cannot be used for e-commerce purchases.

While OBPs are growing in the UK, the objective of the UK Government, as outlined in the NPV, is to further develop Open Banking. This is to enable more seamless account-to-account payments between consumers and merchants using a form of OBPs called commercial variable recurring payments (cVRPs). cVRPs allow merchants to initiate 1-click and recurring payments from a customer’s account within agreed limits, eliminating the need for the authentication step required in SIPs for each transaction.

The development and launch of cVRPs is expected to be achieved incrementally. cVRPs for a limited number of low-risk use cases (known as Wave 1) will be launched as a first step. These low-risk use cases include payments to regulated financial services, regulated utilities sectors, and to local and central government. A commercial model for Wave 1 payments has already been proposed by Open Banking Limited.[8]

In this context, UK Finance is working with Members to consider what a commercial model should look like for ‘Wave 2 cVRPs and beyond’, namely, cVRPs for e-commerce use cases.[9] These Wave 2 use cases for e-commerce are defined as all transactions made by a customer using a merchant's customer-facing website or application, on a mobile phone or computer, for all potential sectoral use cases of cVRPs outside of the Wave 1 use cases (which are utilities, rail companies, regulated financial services, e-money institutions, government sectors, and charities).[10] Wave 2 use cases and beyond involve cVRPs adoption by online merchants, expanding to

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[5] CMA (2017), “Retail Banking Market Investigation”. Available at: CMA decision on Roadmap completion

[6] Open Banking Limited (2024), “Open Banking Impact Report”. Available at: Latest Impact Report shows strong growth and the power of payments - Open Banking

[7] UK Finance (2024), “Commercial Variable Recurring Payments Model Clauses”. Available at: UK Finance - Variable Recurring Payments Report.pdf

[88] Open Banking Limited (2025), “Summary paper: Commercial Model for Variable Recurring Payments – Wave 1”. Available at: OBL-Commercial-Model-for-VRPs-Wave-1-summary-paper-April-2025.pdf.

[9] This commercial model is specifically being developed for cVRP use cases and not for other OBPs use cases outside of e-commerce cVRPs.

[10] This includes both payer-in-context/one-click and payer-out-of-context/recurring payments.

similar use cases as card schemes. Unlike the current SIP user experience, cVRPs would not require the consumer to re-authenticate through their bank app for every single transaction that they make with a certain retailer. This is expected to lead to a more streamlined process at checkout for Open Banking transactions. As part of this work, UK Finance is also coordinating with Open Banking Limited to ensure a consistent approach to commercial models between Wave 1 and Wave 2. For avoidance of doubt, we don't foresee UK Payments Initiative Ltd having two separate commercial models and MLAs once wave 2 is introduced, albeit there may be different centralised prices for different uses.

1.2 Scope of work

The focus of this work, as set out in the Terms of Reference (see Initial Findings discussion paper[11]) is to develop and propose a sustainable commercial model for Open Banking Payments (Wave 2 cVRPs) that supports the NPV's ambition for seamless account-to-account payments as a ubiquitous payment method.[12] The work aims to propose a commercial model that drives favourable consumer outcomes, is competitive with other payment types for merchants, is financially sustainable and enables fair returns to Payment Initiation Service Providers (PISPs) and Account Servicing Payment Service Providers (ASPSPs).[13]

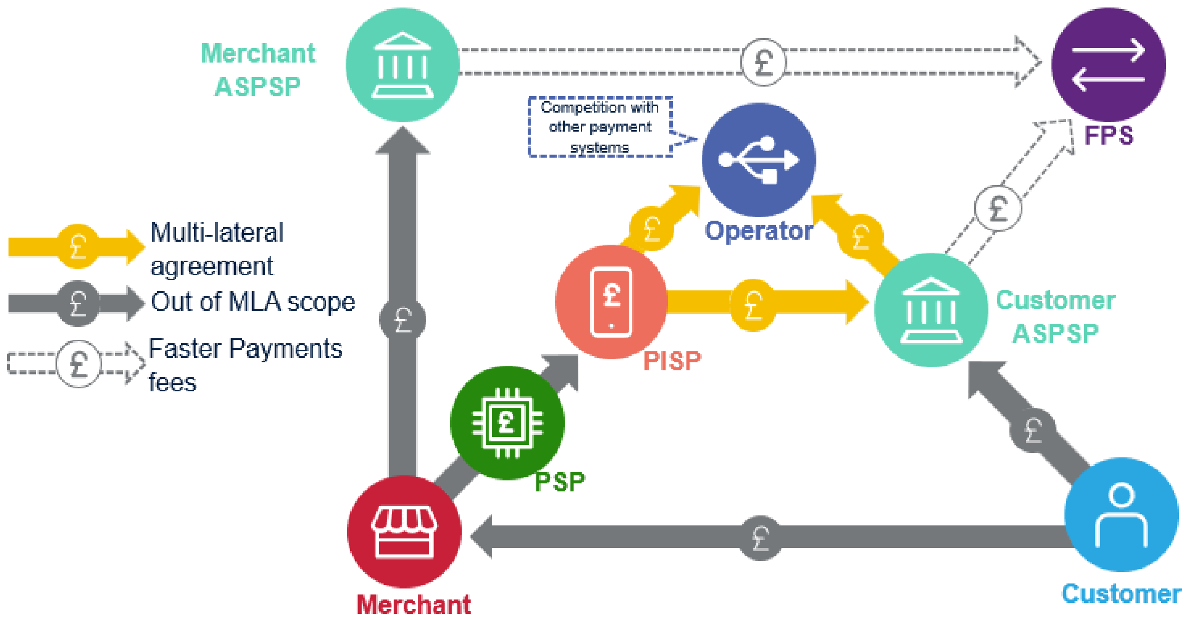
The commercial model includes the transaction fees that are paid to ASPSPs by PISPs and any operator charges that each party must pay. The fees paid by ASPSPs to the Faster Payments Service are also considered within this work. The proposed commercial model is a multilateral agreement (MLA) commercial model between PISPs and ASPSPs. The MLA does not cover commercial agreements between ASPSPs and consumers, ASPSPs and business account holders, or between PISPs and merchants. See Figure 1 for the scope of the MLA.

[11] UK Finance (2025), "Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings". Available at: https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/open-banking-payments-wave-2-cvrp-commercial-model

[12] IBID.

[13] Note that the commercial model should not be confused with the quantitative cVRP market model, which was developed to assess the market outcomes of potential commercial model options. See Section 4.

Figure 1: Fees paid by participants in OBP and scope of MLA commercial model [14]



This report sets out the industry proposal for the Wave 2 cVRP commercial model, and explains the assessment and analysis that have been considered in reaching this proposal. This report follows from an Initial Findings discussion paper[15], which provides further detail on parts of this assessment.

The industry proposal aims to achieve a successful commercial model with high levels of usage, such that cVRPs become ubiquitous. An important determinant of usage is likely to be the adoption of cVRPs by ASPSPs. This work does not speculate on or evaluate specific mechanisms for achieving sufficient ASPSP adoption (whether through the financial incentives provided to PISPs and ASPSPs, regulatory mandates or in other ways).[16] This is in part because, while a well-designed commercial model with appropriate incentives is crucial for encouraging ASPSP adoption, other factors also play a significant role, such as:

- consumer demand for OBPs;
- the cost effectiveness of any operators;
- legal certainty and the risks of future legal challenge; and

[14] Note that this is a simplified diagram to illustrate the scope of this work. The costs that are excluded from the scope of the MLA will still form part the relevant cost stacks that have been constructed as part of the analysis

[15] UK Finance (2025), "Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings". Available at: https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/open-banking-payments-wave-2-cvrp-commercial-model

[16] This work will assume that all ASPSPs adopt cVRPs in the assessment and modelling of options.

- the assessment of any future risks associated with a new product.[17]

As a successful commercial model aims to support the NPV ambition of cVRPs as a ubiquitous payment method, this work assumes that all ASPSPs adopt cVRPs. This assumption is critical for the assessment of the commercial model options as it will have an impact on cVRP volume estimates under different scenarios.

1.3 Open Banking Operators

UK Payments Initiative Ltd was established in late 2025, as part of efforts to facilitate the timely implementations of Wave 1 cVRPs in Q1 2026, followed by Wave 2 cVRPs. Other cVRP operators are emerging in the market and each one will develop their own commercial approaches.

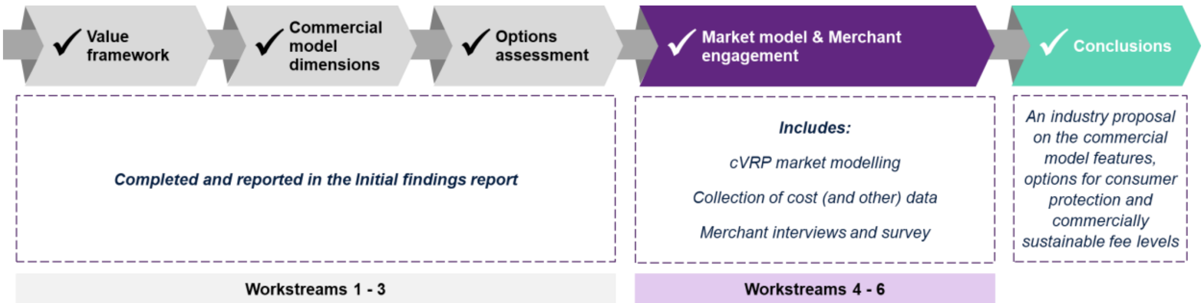
[17] Risk taking in the Financial Services sector takes account of the rulings of the Financial Ombudsman Service and the needs of parties to observe the requirements of the Consumer Duty.

2. Assessment approach

The aim of this work is to propose a sustainable industry led commercial model for cVRPs. This analysis follows a structured assessment approach, which is informed by:

- **Government policy documents** – aligning with current policy guidance such as the National Payments Vision, the Future of Payments Review, and the Joint Regulatory Oversight Committee (JROC) Open Banking roadmap;
- **International benchmarks** – incorporating best practices and lessons learned; and
- **Stakeholder consultation** – gathering insights from UK Finance Members and industry experts, including via interviews and surveys, to ensure industry relevance and practicality.

The assessment approach includes six workstreams. Further detail on workstreams 1-3 can be found in the Initial Findings discussion paper.[18]



1. **Value framework development** – defining the assessment criteria that form the value framework. These criteria are used to assess each commercial model dimension and how well each dimension choice delivers the commercial model objectives set out above and in the Terms of Reference (see Initial Findings discussion paper).
2. **Commercial model dimensions** – identifying the dimensions or features of a potential commercial model and clearly setting out the available choices for each dimension.

[18] UK Finance (2025), "Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings". Available at: https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/open-banking-payments-wave-2-cvrp-commercial-model

3. **Options assessment** – applying an objective assessment of each dimension choice against the criteria of the value framework and screening out dimension choices to generate a short-list.
4. **cVRP market modelling** – quantitatively modelling the cVRP market under the commercial model dimensions and evaluating key metrics such as cost recovery, market share, and merchant adoption rates. This allows for the assessment of the potential financial sustainability of cVRPs at different fee levels and under different commercial model dimensions.
5. **Merchant engagement** – engaging with merchants through interviews and a survey with a focus on understanding their willingness to pay for cVRP, their preferences for different purchase protection models, and the corresponding payment thresholds. The survey also yields data to corroborate the assumptions used in the market modelling.

Throughout each workstream, each participant confirmed that they considered and met their obligations under competition law.

2.1 Value framework development

The industry proposal has been informed by a value framework developed to enable consistent and objective assessment of future commercial model options, establishing clear criteria for success and sustainability. Its development involved reviewing the Government's NPV and JROC's pricing principles for cVRP,[19] with initial criteria refined through an extensive review of consultation responses, policy debates, whitepapers, and stakeholder opinions from regulators, government bodies, industry associations, FinTechs, PISPs, and ASPSPs. Following consultation with UK Finance Members and incorporation of their feedback, the framework distinguishes between three "necessary" criteria, essential for a financially sustainable model, and "secondary" criteria, which are desirable for refining design and enhancing robustness, all while carefully considering impacts on stakeholders within the value chain. The finalised criteria and detailed methodology are included in the Initial Findings discussion paper.

[19] Joint Regulatory Oversight Committee (2023), "Principles for commercial frameworks for premium APIs". Available at Principles for commercial frameworks for premium APIs - Joint Regulatory Oversight Committee.

2.2 Commercial model dimensions

The initial analysis generated a long list of potential commercial model options. This was created through a benchmarking and comparative analysis approach, examining existing Open Banking and similar payment systems in international jurisdictions, as well as models from other markets like telecoms and app stores, alongside insights from industry stakeholders and Deloitte experts. This process identified nine distinct commercial model dimensions, comprising five 'setup dimensions' covering foundational elements such as governance and basis of fee calculation, and four dimensions specifically addressing the structure of transaction fees between ASPSPs and PISPs. The comprehensive long-list of potential commercial models was then formed by combining the various choices available within each of these nine dimensions, with industry stakeholder feedback on the proposed dimensions and choices iteratively incorporated to ensure stakeholder views were considered. More detail can be found in the Initial Findings discussion paper.

2.3 Options assessment

Following the specification of the criteria, dimensions and respective dimension choices, each dimension choice was individually assessed against the criteria of the value framework. This structured approach was designed to ensure that the commercial model options could be assessed in a consistent and objective way. A scoring matrix was used to capture how each dimension choice is expected to meet (or not expected to meet) the criteria. The scoring results informed whether a dimension choice would be retained on the short-list of commercial model options and resulted in a refined short-list of dimension choices for further consideration.

2.4 cVRP market modelling

The industry proposal is informed by a cVRP market model. This is a quantitative analytical model designed to inform consideration of options for the commercial model of cVRP and specific transaction fee levels, through estimating the impact on the desired outcomes. The model uses data and assumptions to simulate the adoption and penetration of cVRP in e-commerce transactions. Data on costs has been collected from ASPSPs and PISPs as an input into the model. It is recognised that results are sensitive to these cost estimates and assumptions about consumer behaviours and merchant adoption, which have been tested and are reported in further detail in Section 4.3.

The cVRP market model estimates the market outcomes (merchant adoption, payment share and cost recovery) at a range of fee levels. Other sensitivity and scenario tests are conducted to test the sensitivity of the results to the modelling assumptions and the input data on costs.

2.5 Merchant engagement

Direct engagement with large e-commerce merchants forms a critical part of the cVRP market analysis. Four large merchants and two large acquirers were interviewed in depth. In addition, a survey of large merchants was conducted, which was responded to by merchants accounting for around 7% of e-commerce volumes. The topics explored with these merchants include their views on existing payment methods, the requirements they have for OBPs and their willingness to pay for OBPs under different purchase protection models. Insights gathered from merchants have been used for validating the underlying cVRP market modelling assumptions, such as projections of market share, merchant adoption, and cost.

3. Dimensions of an OBP commercial model

There are many dimensions to a potential multilateral commercial model for OBPs – specifically Wave 2 cVRPs. For each of these dimensions, there are different choices as to how a commercial model may operate. Combining these choices in different ways creates a long list of options. In this work, the dimensions identified and the respective choices under each dimension are assessed and screened using the value framework (with detailed conclusions of this element of the work reported in the Initial Findings discussion paper[20]), cVRP market modelling, and stakeholder and merchant engagement. Following this assessment, commercial model options are identified and presented in this section.

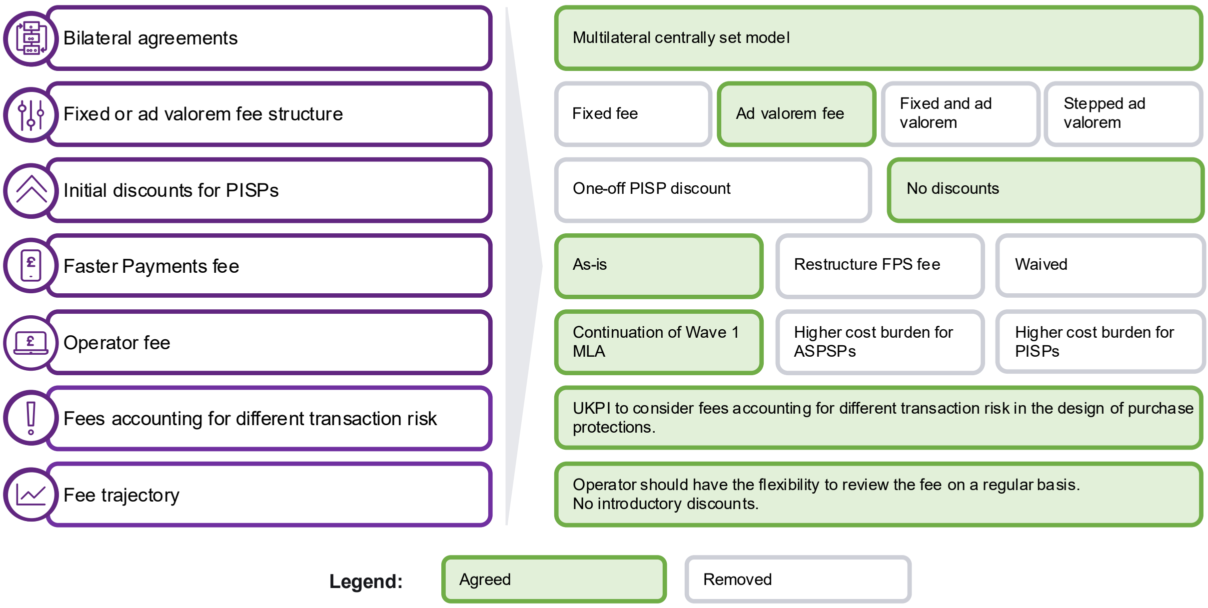
3.1 Dimensions of a commercial model

There are several dimensions of a sustainable multilateral commercial model that have been identified, each of which is associated with several options. The process for determining the dimensions was set out in the Initial Findings discussion paper. This involved benchmarking and a comparative analysis of other relevant commercial models. This included research into existing Open Banking and similar payment systems in international jurisdictions, and assessment of the dimensions that varied across the models reviewed as well as consultation with industry stakeholders.

Figure 2 shows the set of dimensions determined to be relevant for the commercial model for cVRPs and highlights the industry proposal for choices within each of the dimensions. The dimensions and choices have been refined following the publication of the Initial Findings discussion paper in April 2025. Figure 2 excludes purchase protection and the fee level, which are important dimensions of a commercial model discussed further in subsequent sections.

[20] UK Finance (2025), “Open Banking Payments Wave 2 cVRP Commercial Model Initial Findings”. Available at: https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/open-banking-payments-wave-2-cvrp-commercial-model

Figure 2: Dimensions of a commercial model



The industry proposal for each dimension is listed below. The final decision on all options will be taken by the each Operator.

Bilateral agreements

This dimension describes which party sets the transaction fee between PISPs and ASPSPs, and whether there is flexibility for participants to reach bilateral agreements entirely separate to any multilaterally agreed commercial model.

Industry proposal: *Multilateral centrally set model*

A 'multilateral centrally set model' means that a transaction fee is set by any operator. The model would neither preclude, encourage nor require, any party to enter bilateral discussions or negotiations as a prerequisite before the multilateral centrally set rate is available. It is recognised that there are some clear advantages to a multilateral model, but allowing for other bilateral agreements entirely separate from the multilateral agreement on a centrally set rate gives increased flexibility for participants. It is recognised that there are potential inefficiencies in negotiating with many individual counterparties.

Fixed or ad valorem fee structure

This dimension describes the basis of the fee which PISPs pay to any operator and ASPSPs receive from any operators for the services provided for each transaction.

Industry proposal: *Ad valorem transaction fee.*

An ad valorem transaction fee is a percentage fee of each transaction (as opposed to a fixed nominal pence fee per transaction). The industry view is that an ad valorem fee structure is most suitable for the cVRP payment method as it allows cVRPs to be competitive with other e-commerce payment types that also use an ad valorem fee structure.

Initial discounts for PISPs

This dimension considers whether to incorporate a discount mechanism to promote initial uptake of cVRPs and the different ways to design it.

Industry proposal: *No discounts.*

Ruling out discounts for individual PISPs maintains simplicity in the commercial model.

Faster Payments Fee

This dimension considers the central infrastructure fee or Faster Payments Fee (FPS) charged by Pay.UK to sending/receiving ASPSPs and whether an alternative fee structure should be recommended (e.g. ad valorem).

Industry Proposal: *It is recognised that the current Faster Payments Fee is expected to remain unchanged given system limitations. This should be kept under review..*

Discussion with Pay.UK has suggested that the Faster Payments Fee is likely to remain unchanged due to technical complexities of implementing alternative billing systems. While an ad valorem structure for FPS is desirable by the industry, to be consistent with the proposed ad valorem transaction fee, it is understood that internal Pay.UK systems could not currently facilitate this. Waiving or significantly reducing FPS fees could enhance competitiveness for cVRPs. However, Pay.UK have clarified that this would not be feasible given the ongoing task of expanding FPS capacity with increased cVRP volumes.

Operator fee

This dimension considers the level and allocation of any Operator fee for Wave 2 cVRPs between ASPSPs and PISPs and whether this should be aligned with plans for Wave 1.

Industry proposal: *Continuation of Wave 1 MLA.*

Discussion with OBL suggested that the UK Payments Initiative Ltd operator fee would initially be aligned with Wave 1 cVRPs, but it is recognised that it may be changed following a future review of the variable cost per transaction due to the larger anticipated volumes for Wave 2 cVRPs (compared with Wave 1 volumes).

Fees accounting for different transaction risk

This dimension considers choices for how the transaction fee may vary depending on the risk of the transaction, merchant or PISP involved.

Industry proposal: *Fees accounting for different levels of transaction risk should be considered further along with other features to reduce cost of consumer protections.*

The level of risk for a transaction may vary in terms of cost or liability accrued by PISPs and ASPSPs.[21] PISPs could reflect this risk in their pricing and onboarding decisions for merchants. In contrast, ASPSPs could not adjust pricing to reflect any variation in risk between PISPs or merchants. Instead, the transaction fee could be varied to reflect these cost differences for ASPSPs. This would allow ASPSPs to be remunerated for increased costs as well as providing incentives for PISPs and merchants to reduce underlying risk. As a mechanism to reduce the cost of consumer protections, possible variation of the transaction fee and how it would be implemented should be considered further alongside other features of the MLA to help minimise costs to merchants, PISPs and ASPSPs.

Fee trajectory

This dimension describes the trajectory of the fee over time, including whether it will be unchanged, follow a predetermined path, whether introductory discounts will be offered, or whether the fee will vary dynamically to achieve specific objectives.

Industry proposal 1: *No introductory discounts.*

Introductory discounts were considered as a mechanism to encourage adoption. However, it is recognised that long term investment in cVRP depends on a steady state price and a discount would introduce additional complexity into the commercial model.

Industry proposal 2: *flexibility to review fee regularly.*

There is uncertainty as to how the market for cVRP will evolve over time. Given this uncertainty, a change to the fee may be required and there should be the flexibility to decide when and how any changes are made in future. Any such changes to fee levels should be developed in a collaborative approach, through consultation with industry stakeholders.

[21] For example, costs and liabilities of a transaction may vary for a PISP due to difference in purchase protection required for different merchants and may vary for an ASPSP due to difference in the risk of fraud between different PISPs or merchants.

3.2 Purchase protection model

The purchase protection model to be developed for wave 2 cVRPs is expected to shape the adoption of cVRPs within e-commerce, subsequently determining which merchant types or market segments are most inclined to implement cVRPs. Purchase protection is defined as the protections offered beyond existing consumer protections set out in statutory requirements, addressing situations where consumers cannot resolve disputes directly with merchants.[22] A well-designed purchase protection model will be critical to ensure cVRPs will be competitive with other payment types.

Debit card schemes typically offer comprehensive purchase protections, primarily through chargeback rights. A chargeback allows a consumer's ASPSP to return funds to consumers for disputed transactions. This mechanism protects consumers against:

- **Fraudulent transactions** – cardholders are not liable for unauthorised transactions.
- **Goods and services not received** – protection is offered if goods / services are not delivered or not as described.
- **Faulty goods** – protection for faulty or damaged goods.
- **Cancellation and refund rights** – assistance provided in obtaining refunds for cancelled services or events (e.g. travel company failure).

While the customer's ASPSP processes the refund, it typically seeks reimbursement from the merchant's acquiring payment service provider, though some costs may remain with the customer's ASPSP.

Existing OBPs (sweeping VRPs and SIPs) offer limited purchase protections for non-fraudulent transactions compared with card schemes. However, authorised push payment (APP) fraud reimbursement requirements apply to these payments, meaning consumers are generally protected from APP fraud losses.[23]

The industry proposal is for purchase protections to be developed that are specific for cVRP, drawing lessons from existing models in the UK and internationally. UK Finance Members have considered a range of protection models with varying levels of purchase protections for consumers. Based on the assessment against the value framework, industry views and merchant engagement, two options are presented as

[22] GOV.UK, "Accepting returns and giving refunds: the law". Available at: [Accepting returns and giving refunds: the law - GOV.UK]

[23] APP fraud is a common type of fraud where users are manipulated into transferring money under false pretences. For example, fraudsters may impersonate family or friends of the victim and pressure them to transfer money to an account. Current legislations assigns APP liability to ASPSPs.

the industry proposal for consideration. One of two high-level options set out below should be used as the basis for the purchase protection model for cVRPs.

Each purchase protection option is set out below:

- **SIP+** – consumers would not be able to access purchase protection directly from their ASPSP for issues with cVRP purchases. Consumers would continue to benefit from existing legal frameworks (e.g. Consumer Rights Act 2015) and protections against fraud provided by merchants and payment service providers[24] under statute. Dispute mechanisms would exist for payment processing errors, with liability held by the relevant payment service provider. This option would include additional protections for merchant failure beyond those in current Open Banking SIPs, with liability for these specific protections held by the PISP.
- **Debit card efficient** – consumers would be able to access purchase protection directly from their ASPSP, similar to the process and protection levels provided by debit card chargebacks. The cost of these purchase protections is likely to be passed on and included in the costs borne by merchants. However, the cVRP protections can be delivered at lower costs for merchants compared with debit card chargebacks. In part, this is because cVRP inherently carries lower risk than debit cards, particularly regarding unauthorised fraud and stolen card details, as it is a push payment method.[25] In addition, cost efficiencies could be designed into this protection model through features such as enhanced data flows, more robust evidentiary thresholds for dispute initiation, and post-purchase cooling-off periods before disputes can be raised. This would offer merchants streamlined dispute risk management and mitigate risks and costs associated with fraudulent or excessive claims compared to current debit card chargebacks. The expectation would also be for this mechanism to be invoked less frequently due to the lower inherent risk and enhanced controls.

While the industry proposal sets out the principles of the different purchase protection models outlined above, work is underway by the UK Payments Initiative Ltd to determine comprehensive definitions and design features and the associated liability frameworks that may apply to both options. Liability for APP fraud sits equally with the sending and receiving ASPSP under existing regulation, but discussions are ongoing as to the relevance of this in the context of cVRPs. The liability for transaction discrepancies, for example some instances of fraudulent or inaccurate charges, is still

[24] Payment Service Provider includes both ASPSPs and PISPs.
[25] A push payment method is a financial transaction where the payer actively initiates and sends funds directly to the payee's account, unlike a pull payment method (e.g., debit card) where the payee initiates the collection of funds from the payer's account.

to be determined but this could sit with PISPs with the aim of aligning incentives with due diligence around merchant onboarding. The purchase protection model is to be designed with appropriate incentive mechanisms to drive down fraud and dispute costs for ASPSPs and PISPs. For instance, the commercial model could encourage and incentivise merchants to build protective measures into their customer journey (e.g. PISPs offering discounts to merchants with robust internal fraud prevention systems and dispute processes). Each operator will need to finalise and implement their chosen purchase protection model.

The commercial implications of each purchase protection model must be considered alongside other factors, such as liability attribution, reputational implications and consumer trust. The different protection models are expected to influence market outcomes in two ways:

- **Costs** – The SIP+ model is anticipated to be less costly per transaction than the 'debit card efficient' model, which would still be cost competitive with consumer protections for debit cards. This would lead to lower total merchant transaction costs under the 'SIP+' model at a given transaction fee level, potentially resulting in higher merchant adoption under 'SIP+'.
- **Consumer switching rates** – 'SIP+' offers lower levels of purchase protections than the 'debit card efficient' model and debit cards. Therefore, consumers may be less likely to switch from existing payment methods that offer higher levels of protection. This may result in lower usage of cVRP under 'SIP+' than with a 'debit card efficient' model for a given transaction fee.

These commercial impacts of both purchase protection models are explored in the cVRP market modelling (see Section 4).[26]

[26] Debit card chargebacks are estimated to cost 9p per transaction on average. The cost for the 'debit card efficient' model is assumed to be 6.3p per transaction (30% lower than debit card). The cost to provide 'SIP+' is assumed to be 0.8p per transaction. These cost estimates account for the increased liability for PISPs and do not include changes to ASPSP customer services costs. On average across all payment types, customers are assumed to be less likely to switch to cVRP with SIP+ protections in place compared to 'debit card efficient' protections. The approach to estimate costs associated with each purchase protection model is set out in section 4.1.

4. Market model of cVRP

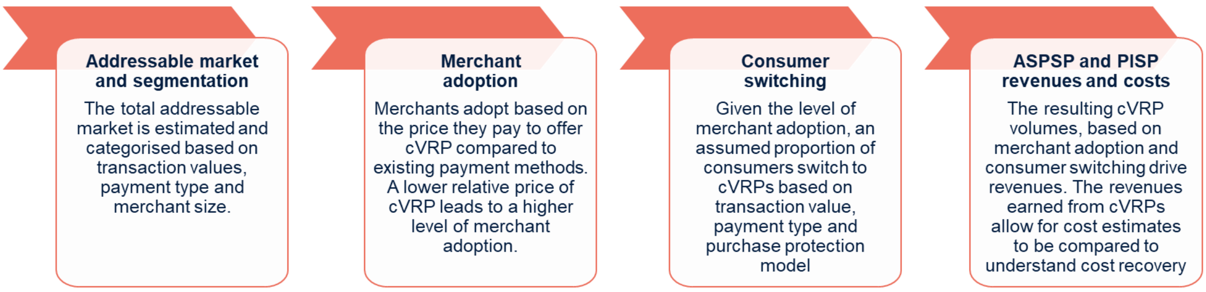
The financial sustainability of the cVRP commercial model is determined in large part by the volume of payments expected to be processed, and whether PISPs and ASPSPs can generate a fair return given their respective underlying costs. Determining the appropriate transaction fee level requires a reasonable expectation of the likely market outcomes across different fee levels. However, cVRP payment volumes and costs are uncertain. Therefore, to foster a better understanding of the impact of different transaction fee levels, a quantitative cVRP market model (or 'market model') has been developed that provides a reasonable expectation of market outcomes. Inputs to this model were gathered from UK Finance Members, merchants and wider stakeholders. The industry proposal is that the model outputs are used to inform a decision on the transaction fee level.

This section sets out the modelling approach and key modelling outputs.

4.1 Modelling approach

The modelling approach has been developed to inform a view on a future, hypothetical commercial model for cVRPs (Wave 2). Figure 3 illustrates the approach that underlies the cVRP market model.

Figure 3: cVRP market model approach



A range of different assumptions have been considered in the modelling, which include assumptions about the features of a potential commercial model, merchant and customer behaviour, and the costs incurred by ASPSPs and PISPs. The industry has shared a range of perspectives on these assumptions, which directly impact the modelled market outcomes. To present a broad consensus, a 'reference case' set of assumptions has been selected, providing a reasonable expectation of these market features and dynamics. This reference case is used as a baseline, while sensitivities test the impact of different modelling assumptions, accounting for the range of perspectives shared.

Addressable market and segmentation

The total size of the e-commerce market is a critical input for estimating the volume and total value of cVRPs in the future. The total e-commerce addressable market of all payment types is assumed to be c.5.5 billion transactions by 2031[27], equal to £456 billion of total market value.[28]

The addressable market is then segmented by payment type, transaction value, and merchant size, based on a combination of desk research and input from ASPSP and PISP records.

Merchant adoption

The decisions of merchants to adopt cVRP is a key determinant of volumes and an important outcome of the cVRP market model. The model simulates the merchant adoption of cVRPs accounting for the total cost to merchants for cVRPs, merchants' cost of alternative (existing) payment methods and price sensitivity of merchants that leads to adoption. It is assumed merchants decide to adopt only when a cost saving can be achieved, with more merchants adopting at larger cost savings.

The total cost to merchants for cVRPs consists of:

- An ad valorem transaction fee – a fee paid by PISPs and received by the consumer's ASPSP for each successful transaction, which cover the costs incurred by sending ASPSPs (including any operator and Faster Payment fees levied on the Sending ASPSP) plus a fair return;
- A Faster Payment Service (FPS) fee – a fixed (0.95 pence per transaction) amount paid by the merchant's ASPSP for receiving payment; and
- A PISP fee – a fee charged by the PISP to recover their costs and a fair return. This includes recovery of purchase protection costs, which vary by protection model and any operator fees levied on the PISP, a fixed amount (modelled at 1.8p per transaction) .

Merchant adoption is modelled for each segment of the addressable market to account for differences in transaction value, merchant size and the varying costs of alternative payment methods.[29] The addressable market is segmented for modelling purposes as follows:

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[27] The cVRP market model assumes that the payments market will grow over time, irrespective of cVRP adoption.
[28] UK Finance UK Payments Market report (2024) for 2023 figures.
[29] Merchant adoption refers to the percentage of transactions for which cVRPs are available to customers from their merchant, rather than the percentage of merchants that have adopted cVRPs. For example, a 30% merchant adoption means that merchants that represent 30% of e-commerce transactions offer cVRP as a payment option.

- **Large merchant and market segments** – Merchant adoption is modelled separately for a range of large business segments. These include the largest e-commerce retailer, travel, food delivery, grocery and subscriptions. Assumptions are made around the market share and average transaction value for these segments. Adoption decisions are assumed to be taken by a large business segment if the cost of processing existing transactions with cVRP would be lower than under alternative payment methods. Feedback from major payment providers and large merchants suggests that a saving of at least 20% would be required for very large merchants to consider adopting a new payment method.

  These very large merchants only adopt cVRP if the total cVRP cost to merchants is competitive – e.g. a large merchant would pay around 25p for a debit card transaction of £60 and the total cVRP cost to merchant would therefore need to be less than 20p (i.e. 20% less) for the merchant to adopt cVRP in the model.

  These merchants account for significant proportions of total e-commerce market volumes. This means that overall cVRP adoption significantly increases at specific total cVRP cost thresholds, where the largest merchants (largest e-commerce retailer, travel, food delivery, grocery and subscriptions) are assumed to adopt cVRPs.

- **Rest of the addressable market** – Remaining transactions in the addressable market are segmented by transaction value, merchant size and payment type. The model considers merchant adoption within each 'bucket', for example one 'bucket' is £10 transactions for medium-sized merchants with debit card as alternative payment method. The model calculates the cost of cVRPs compared to the alternative payment method for each bucket. A lower relative cost of cVRPs will result in a higher proportion of merchants in this 'bucket' that are modelled to adopt cVRPs.

For modelling purposes, costs to merchants other than the cVRP transaction fee are assumed to be the same pence per transaction for all transactions in the reference case. This assumes that PISPs either charge a fixed amount per transaction to a merchant, or that they charge a variable amount with the same average cost to the merchant.[30] This assumption is made based on input from PISPs that costs are mostly variable and based on the volume of transactions rather than value of transactions. An

[30] For example, if the total merchant transaction cost is assumed to be 10p per transaction, this could be a fixed cost of 10p for all merchant segments or an ad valorem cost of 20bps for a merchant segment with an average transaction value of £50 and an ad valorem cost of 5bps for a merchant segment with an average transaction value of £200.

alternative assumption of an ad valorem total merchant transaction cost is tested as a sensitivity in Section 4.3.

Consumer switching

Once merchants adopt cVRP as a payment method, resulting total cVRP volumes will depend on the proportion of consumers that then switch to this new payment method from alternatives. In the model, the extent to which consumers switch depends on the alternative payment method (e.g. credit, debit, digital wallet, etc.),[31] the transaction value, and the purchase protection model for cVRPs – with SIP+ assumed to yield lower consumer switching compared to debit card efficient all else equal.[32] The underlying assumptions are based on desk research and views from UK Finance Members. Figure 4 shows the proportion of customers that the model assumes switch to cVRP from other payment types when the choice is offered by the merchant.

Figure 4: Switching rates for £20-£100 transactions under both purchase protection models

	SIP+	Debit card efficient
Debit	12%	21%
Credit	3%	5%
Debit card-on-file	29%	50%
Credit card-on-file	7%	13%
Digital wallets	7%	13%

The combination of simulating merchant adoption and consumer switching results in an estimate of total cVRP volumes and market share of the total addressable market. The extent to which levels of purchase protection impact consumer switching is uncertain, so alternative switching rates were modelled as sensitivities through the low and high demand scenarios (as discussed in Section 4.3).

ASPSP and PISP revenues and costs

The revenues and costs associated with operating cVRP enable an assessment of whether PISPs and ASPSPs can expect to earn a fair return. Revenues and costs are estimated for a ‘typical’ ASPSP and PISP. A typical ASPSP is assumed to have 15% market share of cVRP volumes, while a typical PISP is assumed to have 20% market share.[33]

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[31]This accounts for broader competitive offering of cVRPs against alternative payment methods, encompassing aspects like cash rewards, consumption smoothing capabilities, and overall customer experience.
[32] Some customers may lack awareness of protections and so their behaviour may not be impacted by the level of protection under each purchase protection model. However, the market model assumes that some customers may learn about different purchase protections over time (e.g. through media coverage of different protections) and would behave differently under each purchase protection model..
[33] 15% market share for a representative ASPSP was chosen to represent one of the ‘big six’ UK banks. 20% market share for a representative PISP was chosen based on the assumption that there will be five PISPs competing in the market.

Over a ten-year period, revenues for both ASPSPs and PISPs are projected as a function of total transaction volumes and the revenue generated per transaction. For an ASPSP, revenue is derived from the ad valorem transaction fee and the total value of cVRP transactions it processes. For a PISP, revenue is calculated based on the assumed fee per transaction it charges for its services[34] and the volume of cVRP transactions it processes.

Costs for ASPSPs are calculated over a ten-year period using cost estimates provided by ASPSPs, assumptions around financing costs of upfront investments and the estimated volume of transactions. A range of estimates were provided by UK Finance Members as shown in Figure 5, which reflect the uncertainty in predicting the expected activities, investments and operating costs that will be required of ASPSPs to deliver cVRPs. These cost estimates have not been independently validated by UK Finance or Deloitte. The model uses median cost estimates as the reference case to calculate cost recovery levels.

Figure 5: ASPSP cost estimates for delivering cVRP

Costs	Unit	Low	Reference	High
Upfront costs	£/one-off	500,000	975,000	6,000,000
Fixed costs	£/year	50,000	625,000	1,200,000
Variable costs	pence/transaction	0.004	5	13

Costs for PISPs are also calculated over a ten-year period using the cost estimates provided by PISPs and the model's estimated transaction volumes. There were a range of estimates provided by UK Finance Members as shown in Figure 6 and median costs have been selected for the reference case. The cost structure for PISPs means costs are significantly driven by transaction volumes each year. These cost estimates have not been independently validated by UK Finance or Deloitte.

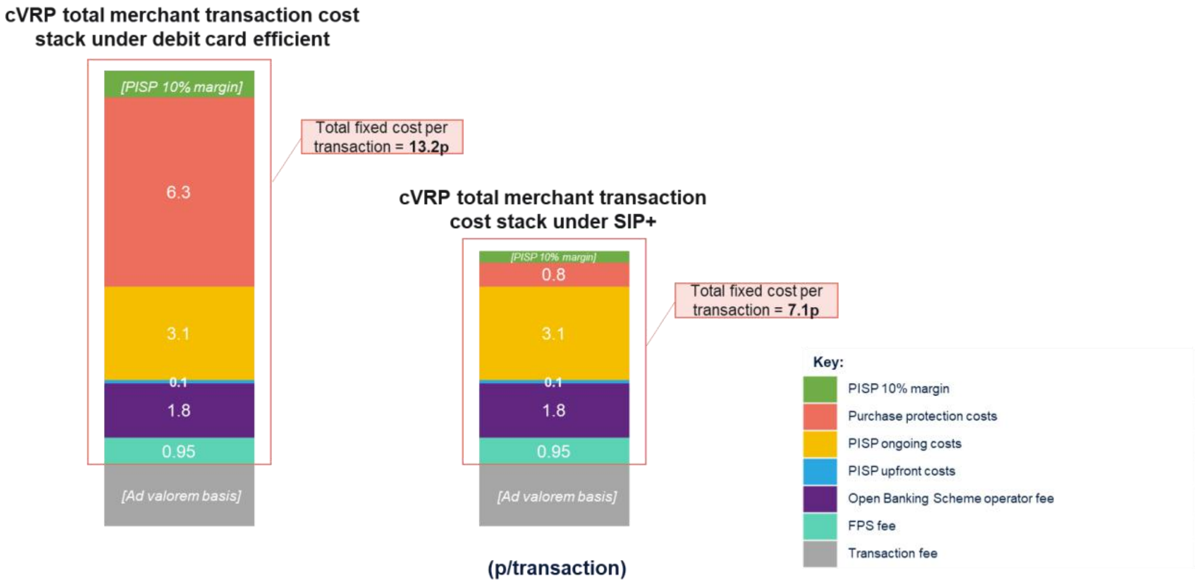
Figure 6: PISP cost estimates for delivering cVRP

Costs	Unit	Low	Reference	High
Upfront costs	£/one-off	442,000	506,000	1,000,000
Fixed costs	£/year	-	-	-
Variable costs	pence/transaction	1	3	10

Figure 7 shows the total cVRP costs to merchant in the reference case for the two purchase protection models. This includes the ad valorem transaction fee, FPS fee and PISP fees (with PISP fee including any Open Banking Operator fee, ongoing and upfront costs, purchase protection costs and an assumed 10% margin).

[34] This is equal to the total cVRP cost to merchants excluding transaction fee and FPS fee.

Figure 7: Total merchant costs under different purchase protection models



Reference case

The reference case is a modelling scenario comprised of commercial model dimensions selected such that the assumptions provide a reasonable expectation of market features and dynamics. This includes the assumptions regarding merchant and customer behaviour, and the median cost estimates provided by ASPSPs and PISPs as set out above. Additional dimensions of this reference case that affect the underlying modelling assumptions are detailed in Figure 8 below.

Figure 8: Dimensions of the reference case that affect underlying modelling assumptions

Dimension	Selection
Faster Payments Fee	The current Faster Payments Fee is not changed
Operator fee	Continuation of Wave 1 MLA
Fees accounting for different transaction risk	Transaction fee does not vary across risk groups
Discounts for PISPs based on volume	No volume-based discounts for PISPs
Fixed or ad valorem fee structure	Ad valorem fee structure

4.2 Merchant engagement

A sustainable commercial model requires competitive pricing, while providing fair returns for PISPs and ASPSPs, and achieves ubiquitous adoption of cVRPs, which depends on merchants' adoption decisions. Merchant's views on cVRP as a potential new payment method are therefore critical to the development of this industry proposal. To inform the industry proposal and the cVRP market model, UK Finance has engaged with merchants throughout this process. This includes reviewing existing insights collected by UK Finance Members[35], interviews with large merchants and a survey of large merchants. To understand key enablers of payment acceptance methods for Merchants, interviews were also held with a number of large acquirers.

Merchant and acquirer interviews

Merchants and acquirers were engaged in structured interviews to understand their views on cVRP and how they would decide to adopt cVRP in future. Merchants were selected from a range of e-commerce market segments. Views were provided confidentially and an aggregated summary is provided below.

- **User experience** – Merchants prioritise a smooth, intuitive, and non-redirected payment journey to maximise conversion rates and customer experience, valuing consistent user experience across banks for cVRPs/SIPs, and carefully balancing strong authentication with usability and cost implications.
- **cVRP cost** – Stakeholders expressed that pricing is crucial. Merchants critically evaluate the lifetime costs of new payment methods against potential benefits, requiring significant user uptake and significant cost savings or exceptional user experience benefits for adoption, with price sensitivities varying across merchants interviewed. Faster Payment System (FPS) fees and other fixed costs associated with a cVRP transaction were highlighted as a concern, particularly for lower value transactions.
- **Purchase protection** – Merchants face a key challenge balancing robust purchase protection with the costs and complexities of chargebacks and fraud, with some finding the current card model burdensome due to 'friendly fraud'. While some merchants would require comparable protection to existing card schemes for new payment methods, acknowledging that UK consumers may expect higher protection levels than in other markets, others view chargebacks as a significant cost.
- **Technical challenges and payment integration** – Merchants require seamless integration and reliable performance from new payment methods, with universal bank support and consistent operation being prerequisites for adoption. Concerns remain regarding variable Open Banking API uptime, impacting SIP adoption, and the robustness of cVRP infrastructure during peak demand.

[35] Insights from Token's VRP Industry Survey Report 2024 have been considered. Source: Token.io, 2024

- **Adoption and market penetration of cVRPs** – Merchants consider the existing market penetration and future growth potential of a payment method, requiring high bank coverage for cVRPs to ensure broad accessibility. They also assess the maturity and successful implementations of new methods, noting varying market priorities and the potential for younger demographics to drive adoption.

UK Finance survey

UK Finance commissioned a limited survey of a selection of large merchants, This survey aimed to build on the findings of the merchant interviews and establish views on current payment methods, merchants' willingness to pay (and sensitivity to price) for cVRPs under varying protection levels, and to understand factors that influence merchant decisions regarding cVRP adoption. Responses were received from merchants collectively representing approximately 7% of total e-commerce transaction volumes.[36] The findings from this survey have been used to refine and validate the assumptions around merchant adoption in the cVRP market model.

The results presented below capture these merchants' high-level views on existing Open Banking Payments and cVRP.

- Merchants' top concerns with adopting cVRPs consistently include:
  - costs of integration and usage;
  - reliability/failure rate ('payment conversion rates'); and
  - consumer trust gaps.
- Merchants stated a preference for the same or similar purchase protection provisions as current Open Banking Payments.
- Better or smoother customer experience and cost savings on payment fees are key drivers of cVRP adoption.
- Merchants view ad valorem payment processing fees as:
  - fairer for the industry;
  - more cost efficient; and
  - easier to plan and propose.

[36] This figure was calculated based on merchant self-reported approximate annual total e-commerce transactions.

- Merchants noted key barriers to using existing Open Banking Payments include:
    - non-suitability of SIP payments (e.g. subscription-based or out-of-session transactions);
    - integration costs; and
    - a lack of technology roadmaps and prioritisation.
- If cVRP was widely accepted, merchant adoption would be influenced by:
    - opportunity for early adoption and competitive advantage;
    - viability at scale; and
    - clarity on the regulatory approach.

4.3 Modelling results

This section outlines the results of the quantitative cVRP market model based on the reference case assumptions set out in Section 4.1.

Some scenarios have been identified to show the market outcomes that can be reasonably expected for a given transaction fee and purchase protection model. Each scenario is defined by a specific transaction fee (measured in basis points, bps) and the corresponding additional cost to merchants. This additional cost includes PISP fees (which incorporate purchase protection costs, depending on the selected model), FPS fees, and any operator fees.

For each scenario, the following market outcomes are estimated:

- **Merchant adoption:** The proportion of transactions where cVRPs are feasible as a payment method. For example, 30% merchant adoption indicates that cVRPs are available as a payment option for 3 out of 10 transactions.
- **Market share:** The proportion of e-commerce transactions conducted via cVRPs. This depends on the estimated merchant adoption and the extent of customer switching where cVRP is made available by merchants.
- **Cost recovery:** The extent to which ASPSPs and PISPs generate sufficient revenue from cVRPs to cover their costs over a 10-year period, including upfront, ongoing, and variable costs. This includes initial financing costs and a 10% return on investment for both ASPSPs and PISPs.

In turn, the **ten scenarios** set out below are each **defined by a specific transaction fee, an additional charge to merchants to cover PISP and FPS fees, and a specified purchase protection model.**

The scenarios are presented under the following headings:

- **Full cost recovery scenarios:** Scenarios that achieve full cost recovery for both ASPSPs and PISPs at the median of cost estimates provided.
- **Ubiquitous adoption scenarios:** Scenarios that achieve increased merchant adoption, with more participation from the largest merchants.

Full cost recovery scenarios

Cost recovery is important for the financial sustainability of cVRP and enabling fair returns for ASPSPs and PISPs.[37] This incentivises investment in innovation and maintaining and improving the service provided to merchants and consumers.

The analysis identifies scenarios where full cost recovery is achieved at the median level of cost estimates provided, allowing for a 10% margin for both ASPSPs and PISPs. These scenarios specify the transaction fee and the additional PISP and FPS fees required under two purchase protection models:

- 'SIP+' purchase protection model: Under this model, the additional cost to merchants for PISP and FPS fees is 7.1p per transaction. This includes the cost of providing SIP+ protections.
- 'Debit card efficient' purchase protection model: Under this model, the additional cost to merchants for PISP and FPS fees increases to 13.2p per transaction. This higher cost reflects the inclusion of enhanced purchase protections comparable to those offered by debit cards.

Full cost recovery at the median level of cost recovery provided for both PISPs and ASPSPs would occur at 21 bps under SIP+ and either 11bps or 23 bps under debit card efficient protection models.[38]

All three scenarios lead to relatively low merchant adoption and market share as the largest merchants do not adopt cVRP in these scenarios due to relatively high costs per transaction. However, among other merchants (i.e. excluding the largest e-commerce retailer, groceries, food deliveries, travel and subscriptions) adoption would be more significant, amounting to a substantial share of their volumes – 49% under SIP+, 42% under debit card efficient at 11 bps and 35% under debit card efficient at 23 bps.

[37] ASPSP costs account for upfront investment costs, fixed annual costs, and variable costs over ten years and PISP costs account for fixed annual and variable costs, as no upfront costs are assumed. The cost recovery calculated accounts for these costs as well as a 10% margin for both ASPSPs and PISPs

[38] For the 'debit card efficient' purchase protection model two transaction fee levels were identified that achieve full cost recovery. This is because at a lower bps fee level (11bps), the average cVRP transaction value is significantly higher compared to the average transaction value at 23bps, generating sufficient revenues for ASPSPs.

Figure 9: Modelling outputs for scenarios with full cost recovery for ASPSPs and PISPs

Transaction fee	Additional cost to merchant incl PISP & FPS fees	Cost to merchant for a £50 transaction	Merchant adoption (by volume)	Market share (by volume)	Average transaction value	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
'SIP+' purchase protection model							
21 bps	+ 7.1p	18p (35 bps)	26%	3%	65	103%	100%
'Debit card efficient' purchase protection model							
11 bps	+ 13.2p	18.7p (37bps)	18%	3%	133	104%	100%
23bps	+ 13.2p	25p (49 bps)	11%	2%	77	101%	100%

Ubiquitous adoption scenarios

Achieving ubiquitous adoption of cVRP is key to realising the ambition of the NPV. Given this, an alternate set of scenarios achieves ubiquitous levels of merchant adoption. This is mainly because merchant and consumer adoption is measured by transaction volumes rather than the number of merchants, and so adoption rates are significantly influenced by the participation of the largest merchants (e.g. the largest merchant segment in the market model represents more than 35% of total volumes). In these scenarios, the cost of cVRP is competitive for these large merchants who therefore adopt cVRP.

Under the SIP+ purchase protection model, the market model estimates that ubiquitous adoption (90%) can be achieved at a transaction fee of 10 bps, with an additional cost to merchants of 7.1p per transaction to cover PISP and FPS fees. This results in a total cost to merchants of 12p (24 bps) for a £50 transaction. However, while this scenario achieves full cost recovery for PISPs (100%), ASPSPs are only able to recover 50% of their costs (based on the median cost estimate). Although revenues for ASPSPs in this scenario are lower than the median costs estimated by most providers, they are within the range of costs estimated by ASPSPs, suggesting cost recovery is achievable.

Under the 'debit card efficient' purchase protection model, ubiquitous adoption (78%) is only achieved at very low transaction fees of 5 bps. This is because of the high additional cost to merchants of 13.2p per transaction to cover PISP and FPS fees due to the cost of the 'debit card efficient' purchase protection. This results in a total cost to merchants of 15.7p (31 bps) for a £50 transaction. While PISPs achieve full cost recovery (100%) under this scenario, ASPSPs would recover only 25% of their costs at the median cost estimate. Revenues for ASPSPs in this scenario would be below the range of costs estimated by all ASPSPs, suggesting cost recovery is not achievable without increases to revenues.

Figure 10: Modelling outputs for scenarios with ubiquitous adoption

Transaction fee	Additional cost to merchant incl PISP & FPS fees	Cost to merchant for a £50 transaction	Merchant adoption (by volume)	Market share (by volume)	Average transaction value	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
‘SIP+’ purchase protection model							
10 bps	+ 7.1p	12.1p (24 bps)	90%	13%	57	50%	100%
12 bps	+ 7.1p	13.1p (26 bps)	89%	12%	56	60%	100%
15 bps	+ 7.1p	14.6p (29 bps)	88%	12%	55	76%	100%
‘Debit card efficient’ purchase protection model							
5 bps	+ 13.2p	15.7p (31 bps)	78%	18%	61	25%	100%

In the scenarios above, the choice of purchase protection model significantly impacts the additional costs to merchants and, consequently, the transaction fee levels required to achieve ubiquitous market adoption and cost recovery. Under the ‘SIP+’ purchase protection model, the market model estimates full PISP cost recovery is possible while achieving ubiquitous merchant adoption.

Under the debit card efficient model, ubiquitous merchant adoption and higher levels of ASPSP cost recovery can be achieved if PISPs are able to deliver cVRP at a lower cost per transaction than the median cost estimate provided. The scenarios in the table below show transaction fees of 10bps, 12bps and 15bps and the maximum PISP cost recovery that can be achieved while ensuring the largest merchants adopt cVRP. This would require PISPs to deliver cVRP at 11p, 9.5p or 8p respectively compared with 13.2p for full cost recovery. Although revenues for both ASPSPs and PISPs in these scenarios are lower than the costs that were estimated by most providers, they are within the range of costs estimated provided.

Figure 11: Modelling outputs for scenarios with different cost assumptions

Transaction fee	Additional cost to merchant incl PISP & FPS fees	Cost to merchant for a £50 transaction	Merchant adoption (by volume)	Market share (by volume)	Average transaction value	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
'Debit card efficient' purchase protection model							
10 bps	+ 11p[1]	16p (32 bps)	78%	18%	60	52%	83%
12 bps	+ 9.5p[2]	15.5p (31 bps)	86%	20%	57	60%	72%
15 bps	+ 8p[3]	15.5p (31 bps)	87%	20%	56	75%	61%

[1]*PISP ongoing and upfront costs were assumed to be positioned 21% below the median cost estimate. This assumption remains within the range of the cost estimates received.*
[2]*PISP ongoing and upfront costs were assumed to be positioned 35% below the median cost estimate. This assumption falls outside the range of the cost estimates received.*
[3]PISP ongoing and upfront costs were assumed to be positioned 50% below the median cost estimate. This assumption falls outside the range of the cost estimates received.

Overview of modelling outputs

All these scenarios are set out in the table below and highlight the sensitivity of the cVRP market model to variations in cost assumptions. The results demonstrate the need to balance achieving ubiquitous adoption and ensuring cost recovery for both ASPSPs and PISPs. Lower fees for merchants are necessary to drive adoption among merchants, particularly large retailers, but they also reduce the ability of ASPSPs to recover their costs. This challenge is more amplified with lower average transaction values, which reduce the cost recovery for ASPSPs at a given transaction fee level.

The scenarios show that there are paths to a sustainable commercial model, which depend on cost to deliver cVRP for ASPSPs and PISPs and whether cVRP fees would be competitive for the largest merchants. cVRP cost estimates were needed to determine whether transaction fees would enable ASPSPs and PISPs to recover delivery costs – and achieve fair returns – for providing cVRP. A wide range of cVRP cost estimates was provided by UK Finance Members.

There are transaction fee levels that allow for full cost recovery and fair returns (based on the median cost estimates provided by both ASPSPs and PISPs) while encouraging significant adoption among all but the largest merchants. However, total predicted market share for cVRPs is estimated to be low in these scenarios (≤3%).

There are lower and more competitive transaction fee levels that would encourage increased adoption, with more participation from the largest merchants. Total predicted market share for cVRPs is significantly higher in these scenarios (≥10%). At the median level of estimated costs, these fee levels would not support full cost recovery and fair returns for ASPSPs and PISPs. However, achieving full cost recovery in these scenarios could be achieved if actual costs of delivery were lower than the median – but still within the range of provided cost estimates.

Figure 12: Overview of modelling outputs for selected scenarios

Transaction fee	Additional cost to merchant incl PISP & FPS fees	Cost to merchant for a £50 transaction	Merchant adoption (by volume)	Market share (by volume)	Average transaction value	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
'SIP+' purchase protection model							
10 bps	+ 7.1p	12.1p (24 bps)	90%	13%	57	50%	100%
12 bps	+ 7.1p	13.1p (26 bps)	89%	12%	56	60%	100%
15 bps	+ 7.1p	14.6p (29 bps)	88%	12%	55	76%	100%
21 bps	+ 7.1p	17.6p (35 bps)	26%	3%	65	103%	100%
'Debit card efficient' purchase protection model							
5 bps	+ 13.2p	15.7p (31 bps)	78%	18%	61	25%	100%
10 bps	+ 11p[1]	16p (32 bps)	78%	18%	60	52%	83%
11 bps	+ 13.2p	18.7p (37bps)	18%	3%	133	104%	100%
12 bps	+ 9.5p[2]	15.5p (31 bps)	86%	20%	57	60%	72%
15 bps	+ 8p[3]	15.5p (31 bps)	87%	20%	56	75%	61%
23 bps	+ 13.2p	24.7p (49 bps)	11%	2%	77	101%	100%

Alternative assumptions

The above results provide a reasonable view of expected market outcomes under cVRP based on the reference case assumptions. The sensitivity of these market outcomes to alternative assumptions has also been considered, accommodating a range of perspectives offered by industry. The following sensitivities have been reviewed:

- **Tiered transaction fee,** aiming to reduce the costs of purchase protection by varying the transaction fee according to the risk of the transaction. As an approximation of this scenario, the transaction fee has been varied by the size of merchant (who have varying risk profiles).
- **A capped transaction fee of 50p**, aiming to facilitate higher-value transactions at a reduced cost, thereby potentially increasing merchant adoption.
- **A high demand scenario** where more merchants adopt at a given price level and higher volumes of customers switch to cVRP for a given level of merchant adoption.

- **A low demand** sensitivity, where fewer merchants adopt at a given price level and lower volumes of customers switch to cVRP for a given level of merchant adoption.
- **Ad valorem total merchant cost.** The PISP pricing strategy is not part of the MLA and does not form part of the commercial model design. However, it is useful to understand the impact of an alternative PISP pricing/business model insofar as it affects the outcomes of the cVRP market. This sensitivity tests the impact of a fully ad valorem total merchant transaction cost, although it is unlikely that merchants would face a fully ad valorem model given the volume basis of FPS and any operator fees, and PISP costs.

Figure **13** summarises the alternative assumptions at the 5bps transaction fee level, and Figure **14** shows the 15bps transaction fee level.

Figure 13: Table of sensitivities with a 5bps transaction fee

		'SIP+' purchase protection model						'Debit card efficient' purchase protection model					
Transaction fee		Additional cost to merchant incl PISP & FPS fees	Merchant adoption (by volume)	Market share (by volume)	Average trans. value (£)	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)	Additional cost to merchant incl PISP & FPS fees	Merchant adoption (by volume)	Market share (by volume)	Average trans. value (£)	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
Reference case	**5 bps**	**+7.1p**	**91%**	**13%**	**57**	**24%**	**100%**	**+ 13.2p**	**78%**	**18%**	**61**	**25%**	**100%**
Tiered Transaction fees	5 bps	+ 7.1p	92%	13%	57	18%	100%	+ 13.2p	78%	18%	61	19%	100%
With fee cap	5 bps	+ 7.1p	91%	13%	57	23%	100%	+ 13.2p	78%	18%	61	23%	100%
High demand	5 bps	+ 7.1p	95%	24%	58	26%	100%	+ 13.2p	81%	35%	63	27%	100%
Low demand	5 bps	+ 7.1p	87%	7%	59	23%	100%	+ 13.2p	75%	10%	61	24%	100%
Ad Valorem PISP pricing (15 bps)	5 bps	+ 15 bps	91%	13%	55	23%	100%	+ 13.2p	91%	21%	54	22%	100%

Figure 14: Table of sensitivities with a 15bps transaction fee

		'SIP+' purchase protection model						'Debit card efficient' purchase protection model					
Transaction fee		Additional cost to merchant incl PISP & FPS fees	Merchant adoption (by volume)	Market share (by volume)	Average trans. value (£)	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)	Additional cost to merchant incl PISP & FPS fees	Merchant adoption (by volume)	Market share (by volume)	Average trans. value (£)	ASPSP cost recovery (% of median cost estimates)	PISP cost recovery (% of median cost estimates)
Reference case	**15 bps**	**+7.1p**	**88%**	**12%**	**55**	**76%**	**100%**	**+ 13.2p**	**13%**	**2%**	**128**	**120%**	**100%**
Tiered Transaction fees	15 bps	+ 7.1p	90%	13%	57	59%	100%	+ 13.2p	18%	3%	134	117%	100%
With fee cap	15 bps	+ 7.1p	88%	12%	56	60%	100%	+ 13.2p	13%	2%	136	75%	100%
High demand	15 bps	+ 7.1p	90%	23%	56	81%	100%	+ 13.2p	15%	4%	132	154%	100%
Low demand	15 bps	+ 7.1p	84%	6%	55	69%	100%	+ 13.2p	10%	1%	126	85%	100%
Ad Valorem PISP pricing (15 bps)	15 bps	+ 15 bps	84%	11%	43	57%	100%	+ 13.2p	18%	3%	134	117%	100%

The sensitivities tested for these alternative scenarios reinforce the understanding of the cVRP market:

- Demand is defined in the model as a combination merchant responsiveness to adopt cVRPs at a given price and consumer switching behaviour. Higher/ lower demand enables more /less merchant adoption at a given transaction fee achieving a larger/ smaller market share.
- At 5bps, all sensitivities tested estimate ubiquitous merchant adoption of cVRPs with resulting market shares ranging between 7 and 34%. ASPSPs are not expected to generate sufficient revenue in any of these scenarios to exceed even the lowest level of costs estimated provided by ASPSPs.
- At 15bps, the sensitivities for a 'SIP+' purchase protection model show ubiquitous adoption across scenarios (including in the low demand sensitivity); whereas adoption with the 'debit card efficient' purchase protection achieves a maximum of 18% merchant adoption.
- A typical large ASPSP would need to achieve a level of cost that is 24% lower than the median cost estimate to achieve a fair return with 'SIP+' at 15bps.
- A typical large ASPSP is estimated to achieve a fair return with debit card efficient at 15bps in most scenarios except for low demand and fee capped transaction fees, which reduce ASPSP revenues.

5. Conclusions

This report has presented the industry proposal for a sustainable commercial model for cVRPs to achieve the National Payments Vision for seamless and ubiquitous account-to-account payments that provide greater choice, spur innovation and place downward pressure on costs. The industry proposal is that:

- A commercial model should use a multilateral centrally set ad valorem transaction fee paid by the PISP and received by the consumer's ASPSP, set by any operator and paid for each successful transaction;
- Purchase protections should be developed that are specific for cVRP and learn from the experience of other purchase protection models in the UK and elsewhere. The industry proposes that one of two high-level options is used as the basis for the purchase protection model for cVRP – debit card efficient or SIP+; and
- The decision on the transaction fee level should be informed by the market model developed with UK Finance Members.

UK Finance has evaluated potential transactions fees recognising the important impact these will have on merchant adoption, payment costs, and PISP and ASPSP returns. This work drew on a quantitative market model that simulated outcomes drawing on a mixture of public domain information, cost estimates provided by UK Finance Members and results from a survey of merchants.

While there are significant uncertainties around any such modelling and a range of perspectives on key assumptions shared, the following emerged from the work and was robust to a number of sensitivity tests.

There are a range of scenarios in which a sustainable commercial model with ubiquitous levels of merchant adoption could be achieved, but these will require the level of actual costs to deliver cVRP to be at the lower end of estimates provided by UK Finance Members. The industry proposal is not to identify a specific transaction fee level, but there are possible scenarios that could achieve a sustainable outcome.

The range of results presented highlights the importance of the costs of delivering cVRP for both PISPs and ASPSPs. Achieving full cost recovery in scenarios which lead to ubiquitous adoption would necessitate that actual costs of delivery are lower than the median cost estimates, but still within the range of provided cost estimates. Further work should be undertaken to validate and refine cost estimates and assumptions to determine the feasibility of a financially sustainable commercial model. The next steps towards a commercial model will be taken forward by UK Payments Initiative Ltd, who will be responsible for progressing Wave 1 and Wave 2 MLAs. As stated previously, we don't foresee two separate commercial models and MLAs once wave 2 is introduced.

UK Finance intends for this industry proposal to inform decisions regarding the commercial model for cVRPs, which will be made in due course by UK Payments Initiative Ltd (noting that other operators are emerging in market with different commercial approaches).

This is expected to include further work on:

- Providing legal certainty for any commercial model, which may require legislation or regulatory action.
- Validation and refinement of cost estimates and assumptions to determine how cVRPs can be developed at the level of cost that is consistent with the sustainable scenarios.
- The design and costs of purchase protection, including a decision on the selection of either the SIP+ or 'debit card efficient' models.
- Collaborating with the industry on the governance of participation costs and requirements
- Determining the level of transaction fee, balancing achieving merchant adoption and fair returns for PISPs and ASPSPs.