

Annex 4 to Interim Report

Market review of scheme and processing fees

Optional services

May 2024

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Note: The places in this document where confidential material has been redacted are marked with a [✂]

Annex 4

Optional services

- 4.1** Mastercard and Visa offer a wide variety of services to their acquirer and merchant clients. This chapter considers the optional services supplied by Mastercard and Visa and whether the schemes face effective competitive constraint in the supply of these services to acquirers.
- 4.2** Before turning to this analysis, it is necessary to define optional services. The schemes each offered their own definition of optional services, which we set out below.
- **Mastercard** submitted that many of the services it offers are optional and acquirers and merchants can decide to accept or refuse them separately from Mastercard services in general. Acquirers and merchants have the choice to opt-out of a product/service where they do not perceive value, either because they have no need for that service or they have a preferred alternative solution.¹
 - **Visa** submitted that its clients have different customer propositions and levels of capability, meaning they make different choices about how to interact with the Visa payments network and which services to use. Visa therefore offers a range of optional services that complement its service offering.²
- 4.3** Based upon our work on this market review, we have broadly categorised their services in three categories:
- **Core scheme services** – are services which acquirers are obliged to purchase in order to participate in the card scheme.
 - **Core processing services** – are services which acquirers have to purchase if they want to use Mastercard or Visa for processing their card transactions. These core activities include authorisation, clearing, and settlement.³
 - **Optional services** – are services which are complementary to the core scheme and processing services. Acquirers are under no obligation to purchase these services and they are not strictly necessary for acquirers or merchants to accept card payments or to process them.

1 Mastercard submission, May 2022. [§<].

2 Visa response to PSR questions dated 9 January 2022. [§<].

3 Mastercard submitted that the fact that an issuer or acquirer has decided to issue or accept Mastercard cards does not require that issuer or acquirer to procure processing services from Mastercard. The customer remains free to agree whatever processing arrangement it sees fit, be that with Mastercard, or with competing providers of processing services. Mastercard does not consider core processing services as mandatory but, rather, as optional services (Mastercard submission, May 2022 [§<]). However, for the purposes of this analysis, we have assessed core processing services separately from optional services. Competitive constraints in the supply of core processing services are analysed in Annex titled 'The supply of core processing services to acquirers'.

- 4.4** We have not considered behavioural fees as part of our analysis in this annex. This is because, while behavioural fees may be considered optional in the sense that they can be avoided, they are designed to incentivise specific behaviours rather than be a complementary offering to the scheme's core services.
- 4.5** This annex is structured as follows:
- First, we set out our analytical framework.
 - Second, we summarise the evidence we have collected from stakeholders.
 - Next, we set out the optional services supplied by Mastercard and Visa which we have analysed in this annex as well as the criteria we have used to prioritise some optional services over others.
 - Finally, in our analysis section, we analyse the evidence for each of the Mastercard and Visa optional services we have chosen to prioritise.

Analytical framework

- 4.6** The competitive constraints that Mastercard and Visa face for optional services may not necessarily be the same as those they face for core services. It may also be the case that competitive constraints differ between each optional service depending on the alternatives available to acquirers and merchants.
- 4.7** We have considered whether Mastercard and Visa are subject to effective competitive constraints in the supply of the optional services they provide to acquirers and merchants. We are seeking to understand the extent of competitive constraints from two perspectives: (i) the choices available to acquirers and merchants in alternative to purchasing the optional services offered by Mastercard and Visa; and (ii) whether there is widespread countervailing buyer power among acquirers when it comes to negotiating the fees they pay for these optional services.
- 4.8** When considering the choices available to acquirers and merchants, we have taken account of whether the choice to use the service or not is taken by the acquirer or the merchant. We want to understand the choices that acquirers and merchants have available to them from two perspectives.⁴ First, we have considered whether there are functional substitutes or alternatives to the optional services supplied by Mastercard and Visa. These alternatives may come in three forms:
- A supplier could offer a service that is very similar or identical to the optional service supplied by Mastercard or Visa. This could include Mastercard supplying a service which is scheme-agnostic and competes with a Visa service (or vice versa).
 - An acquirer or merchant could take a different approach by using a different service (or services) provided by alternative suppliers which achieves the same outcome, or similarly meets the same needs, as the optional service provided by Mastercard and Visa.

⁴ We are also aware that, even in the case of optional services for which the choice is taken by the acquirers, in the broader context, merchants may be able to choose a different payment method in response to higher fees charged by Mastercard and/or Visa and passed through to them by their acquirer. However, for the purposes of this annex, we are focusing on the choices available to acquirers (and to merchants only if they can decide whether or not to use a specific optional service). The competition that Mastercard and Visa face from alternative payment methods is covered in Annex 1.

- An acquirer or merchant could self-supply its own service which achieves the same outcome or meets its needs in a similar manner as the optional service provided by Mastercard and Visa.

4.9 Second, we also want to consider to what extent acquirers and merchants have a choice about whether to purchase the optional services at all. In making this assessment, we consider the fact that some, or even most, acquirers or merchants do not purchase a given service is not in itself evidence of effective competitive constraints. It may be the case that some of these optional services are important only for merchants in specific sectors due to the business models they operate.

4.10 If the evidence suggests there are no (or very few) alternatives to the optional services supplied by Mastercard and Visa, this is likely to indicate that the firms face ineffective competitive constraints in the supply of these services. In this case, Mastercard and Visa may have the ability and incentive to charge higher prices or offer lower quality services to acquirers and merchants than would be the case under effective competition.

4.11 However, even in the absence of alternative suppliers, it may be the case that the schemes do face effective competitive constraint if acquirers or merchants have countervailing buyer power when negotiating with Mastercard and Visa. Some acquirers or merchants may be able to negotiate discounts, rebates, or delay proposed increases in fees for some optional services. If there is evidence that many of the acquirers or merchants are able to do this, the lower prices negotiated by acquirers/merchants may mitigate any potential harm in the market.

Evidence collected

4.12 To develop our analysis, we collected and analysed evidence from several sources. Specifically, we issued two Section 81 notices to Mastercard and Visa and two Section 81 Notices to acquirers. The first Section 81 Notice to acquirers was sent in January 2023 and considered competition across all of Mastercard and Visa's services.⁵ This Section 81 Notice sought to understand: (i) more about acquirers' relationships with Mastercard and Visa; (ii) what alternatives to Mastercard and Visa are available to acquirers in the UK; and (iii) what impact the changes to scheme and processing fees implemented by Mastercard and Visa since 2017 have had on acquirers in the UK.

4.13 The second Section 81 Notice was sent in November 2023 and asked more specific questions about the optional services discussed in this annex.⁶ This Section 81 Notice sought to understand optional services including:

- which optional services acquirers purchase from the card schemes and whether these services are used within acquirers' businesses or made available to merchant customers.
- whether or not acquirers and the card schemes both view particular services as optional.

5 We received responses from the following acquirers to our first Section 81 Notice: [REDACTED].

6 We received responses from the following acquirers to our second Section 81 Notice: [REDACTED].

- how particular optional services are used within acquirers' businesses and the need that these services fulfil for the acquirer or merchants (including whether or not they are using the optional service).
- the extent to which alternative provision of these particular optional services exists that could address the same business needs for the acquirer or merchants, and whether acquirers purchase optional service from the alternative providers.

4.14 In the 'Analysis of the evidence' section below, we have analysed each of the services and set out the evidence collected for each service. When referring to the evidence from the second Section 81 Notice sent to acquirers, we have referred to the purpose of the question when summarising responses. The questions we asked in the second Section 81 Notice to acquirers, as well as the purpose behind the questions, is set out below in Table 1.

Table 1 Questions in the second Section 81 Notice to acquirers and purpose of the questions

Purpose of the question	Question in Section 81 Notice
Alternatives available to acquirers	In the UK, are there any alternative services which could address the same business need? If so, indicate: (a) the names of these services; (b) the names of the providers of these services; (c) a short description of these services, if they differ from the service they are an alternative to.
Alternatives available to merchants	Please indicate, based on your knowledge, the alternative services that merchants could use instead of the optional services provided by Mastercard and Visa. Specifically: (a) the names of the services; (b) the names of the providers of these services; (c) a short description of these services, if they differ from the service they are an alternative to.
Implications for acquirers of not using the service	What would be the implications for your activity as an acquirer if you did not use the optional service?
Implications for merchants of not using the service	Please explain, based on your knowledge, what would be the implications of not using this optional service on the categories of merchants which commonly use this service.
Countervailing buyer power	In the last five years, for each of the optional services listed, please explain whether you have been able to: (a) negotiate reductions to the fees charged for these optional services; (b) obtain payments or funding from Mastercard or Visa which offset (partially or wholly) the magnitude of the fees charged for these optional services; (c) reject or delay any proposed increases in fees charged for these optional services.

Limitations of evidence

- 4.15** One limitation of our analysis is that we have not collected evidence from merchants, who ultimately make the choice about whether to use most of the optional services we are considering. Acquirers may be able to provide some insight as to how merchants use these optional services and the choices that merchants have available to them. However, we are cognizant that acquirers may not be fully aware of the choices available to merchants. Therefore, we have placed less weight on the evidence provided by acquirers for those services where the choice of whether to use the service or not is made by the merchant.
- 4.16** Our understanding of optional services evolved in the course of the review. This made it difficult for us to collect evidence from merchants.
- When commencing our analysis of optional services, we did not know which services were used by acquirers and which were used by merchants. Therefore, we could not be sure which stakeholder to gather evidence from.
 - Similarly, we did not know which types of merchants were the primary users of each service or whether the schemes targeted each service at specific types of merchants. If we had contacted merchants at that stage, there was a risk that we could have contacted the wrong type of merchant and misinterpreted their responses.
- 4.17** We therefore adopted what we considered a more proportional approach, asking acquirers about the alternatives available to merchants for those optional services that merchants can decide whether or not to use. We considered that, as acquirers make those optional services available to merchants, they might have a good understanding of what alternatives are available (or may provide those alternatives themselves).

Optional services offered by the schemes

Optional services offered by Mastercard

- 4.18** In order to create a list of the main optional services that Mastercard offers to acquirers, we started from data previously provided by Mastercard on the annual revenue it receives from individual acquirers broken down by processing or scheme fee category.⁷ Mastercard had indicated whether each fee category was mandatory or optional. The data provided by Mastercard included information on 41 optional services. The Payment Systems Regulator (PSR) chose to prioritise a narrower set of optional services. Among the fee categories that Mastercard indicated as optional, we excluded from our analysis of optional services any fee category where:
- Mastercard generated [redacted] in revenue in the year 2021. This does not preclude that Mastercard may not face effective competitive constraint on the supply of these services. However, we have excluded these services for the purpose of prioritisation.⁸

⁷ Mastercard response to PSR questions dated 14 and 16 February 2023 [redacted]. We asked Mastercard to include only the largest acquirers that provided services to UK merchants and together account for 95% of total value across all Mastercard transactions in 2021. Mastercard provided the PSR with [redacted].

⁸ We have excluded the following fees and services from our analysis because Mastercard generated [redacted] from these in 2021: [redacted].

- The PSR or Mastercard considered the fee as behavioural. For example, ‘Non-Compliance Fees’, which Mastercard classifies as being optional. (Mastercard generated [REDACTED] from ‘Non-Compliance Fees’ in 2021.) However, we consider this to be a set of behavioural fees, as they are designed to encourage specific behaviours.⁹ We have chosen to exclude behavioural fees because they are designed to elicit certain behaviour among acquirers or merchants rather than be a complementary offering to the scheme’s core services.
- We do not consider the associated service to be a payments-related service offered to acquirers, complementing the scheme’s core services. Specifically, we consider the following services should be excluded for this reason:
 - Mastercard generated [REDACTED] in revenue in 2021 from ‘Implementation’ services, which is a consultancy and marketing service offered by Mastercard rather than a service specifically related to payments or supporting acquirers’ payment operations.¹⁰
 - The Mastercard Wholesale Program generated [REDACTED] in revenue in 2021. This is a virtual commercial card program that is available to intermediaries in the travel sector. We believe this service operates as a cardholder/issuer service rather than an acquirer service.
- We already have evidence that Mastercard faces competition for the service and very few acquirers purchase the service. Brighterion is an Artificial Intelligence (AI) solution developed by Mastercard and internal documents provided by Mastercard shows it faces competition from several providers for this service.¹¹ Further, the data provided by Mastercard shows [REDACTED]. Therefore, we have excluded this service for the purpose of prioritisation. Mastercard generated [REDACTED] from the Brighterion service in 2021.

4.19 For the remaining optional services, we asked Mastercard to provide a description of these services, including an explanation of (i) the customer needs that the services respond to; and (ii) the types of transactions (where applicable) for which the service is typically used or the fee is charged.¹²

4.20 The list of optional services, as well as a description of these services, which Mastercard provided is presented below in Table 2.

9 We have excluded the following services and fees from our analysis because we consider them to be behavioural fees: Acquirer Processing Integrity, Non-Compliance Fees, and Transaction Processing Excellence.

10 The following provides more information on Implementation Services:
https://stage.perf.mastercardadvisors.com/content/advisors/en-us/about/implementation_services.html

11 A document produced for Mastercard by a third-party consultancy shows that Brighterion faces competition from several AI providers across Brighterion’s use cases, including AML, omnichannel fraud, credit risk management, early delinquency, and acquirer fraud (see [REDACTED]). Further, an internal document [REDACTED]. [REDACTED].

12 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

Table 2 Optional services provided by Mastercard

Account Status Inquiry	<p>Account Status Inquiry (ASI) is a service for merchants to validate the status of a card. The service works via a non-financial message and checks if the card is operational and if the card information is consistent (i.e. that the name, expiry date and CVC match the card number).</p> <p>The ASI service is used primarily to check accounts in advance of future Card-Not-Present (CNP) transactions. Merchants that use Card-on-File (CoF) payments or offer subscriptions are typical users of this service.</p> <p>Although less common, the service can also be used for card-present transactions. For example, ASI is used in some transport systems in Europe to validate card payments and some airport lounges use ASI to validate card credentials before entry.</p> <p>This is an opt-in service for acquirers. When ASI is offered from acquirers to merchants, its use is ultimately decided by the merchant.</p>
Acquirer Authentication Exemption Indicator	<p>Acquirer Authentication Exemption Indicator is a service that allows acquirers to request a Strong Customer Authentication (SCA) exemption by informing the issuer through use of an 'Acquirer Exemption Indicator' in authorisation or authentication flow. The Acquirer Authorisation Exemption Indicator was introduced in line with the exemptions set out in the Payment Services Directive 2 (PSD2) Regulatory Technical Standards. The exemptions include, but are not limited to: (i) low value payment transactions; (ii) merchant-initiated transactions; (iii) acquirer low-fraud and transaction risk; (iv) recurring payments; and (v) SCA delegation.</p> <p>The service is generally used for CNP transactions that meet any of the previous criteria and where the merchant decides to bypass SCA. The choice of whether to use the service is ultimately made by merchants.</p>
Address Verification Service and CVC2	<p>Address Verification Service (AVS) allows CNP merchants to verify a cardholder's billing address within the authorisation process. The merchant requests an AVS, which is sent to Mastercard through the acquirer. Mastercard sends it to the issuer in an address key format so the issuer can verify.</p> <p>CVC2 is a three-digit code algorithmically derived by the issuer and printed on the signature panel of cards. During checkout, the merchant may ask the cardholder for the CVC2 number and send it to the acquirer. The acquirer then sends it to the issuer (through Mastercard), which validates that the CVC2 entered matches the CVC2 number on the back of the card. All issuers are required to respond to CVC2 requests.</p> <p>This is an opt-in service for acquirers. When it is offered from acquirers to merchants, the choice of whether to use the service is made by merchants.</p>

Automatic Billing Updater	<p>Automatic Billing Updater (ABU) is a global platform that updates cardholder account data to reduce the number of CNP transactions being declined due to expiration date and account number changes. It automatically maintains the accuracy of customer card data, prevents disruptions to CoF payments and extends the life of recurring payment arrangements.</p> <p>Merchants are most likely to use this service when they offer recurring payments on cards.</p> <p>The choice of whether to use the service is made by merchants.</p>
Dynamic Currency Matching	<p>Dynamic Currency Matching allows merchants to segregate settlement activity by transaction currency (e.g., settle all euro transactions in euros, all US dollar transactions in US dollars, etc.).</p> <p>Customers may wish to settle transactions in various currencies for a number of reasons that may include hedging of foreign exchange (FX) risk and operational simplicity. The use of this service is predominantly cross-border transactions.</p> <p>The choice of whether to use this service is ultimately made by acquirers.</p>
Identity Solutions	<p>Identity Solutions includes a number of services for issuers, acquirers and merchants, enabling them to progress through the authentication process.</p> <p>Identity Solutions includes: (i) Identity Check, (ii) Smart Authentication Direct, (iii) Smart Authentication Stand-In, (iv) Ekata, and (v) Biometric Card. The Identity Check service, previously known as SecureCode, is Mastercard’s EMV 3DS authentication framework. These services are used for CNP transactions.</p> <p>Acquirers have the choice of whether or not to use the various Identity Solutions services. Similarly, the choice of whether to use Identity Check is ultimately made by merchants.</p>
Mastercom	<p>Mastercom is the Mastercard system for administering chargebacks and dispute resolution. It allows transactions that were not in fact initiated by the cardholder, or for which the service or product was not satisfactorily delivered, to be reversed (a ‘chargeback’). Mastercom also protects the merchant against invalid chargebacks.</p> <p>Mastercom defines a set of rules in the event that an issue arises.</p> <p>Mastercom fees are incurred on chargeback transactions, which may result from transactions of any kind.</p> <p>The choice of whether to use the service is ultimately made by acquirers.</p>

Multi-Currency Settlement	<p>Multi-Currency Settlement applies if the transaction currency does not match the acquirer's settlement currency and is not available as one of Mastercard's 30 regional settlement currencies.</p> <p>Customers can set their settlement currency for cross-border transactions based on criteria (for example, Bank Identification Number (BIN), Account Range, Interbank Card Association Number (ICA), etc.)</p> <p>Merchants can decide in which currency they want to settle transactions.</p> <p>The choice of whether to use the service is ultimately made by merchants.</p>
Pre-Authorisation	<p>A pre-authorisation is an authorisation for a transaction to be completed at a later time. They are used by merchants that do not know, at the time of the pre-authorisation, what the final amount of the transaction will be or if the transaction will indeed be completed (for example, it may later turn out that the product that has been ordered is not in stock).</p> <p>The service follows a similar logic as the ASI described above, but also authorises the transaction and holds the funds that will be necessary to complete the transaction. The service provides payment guarantee, while maintaining flexibility over the final billing amount.</p> <p>Pre-authorisations are commonly used by merchants (both Card Present and CNP) when the transaction amount is not clear at the point of presenting the payment method and when the merchant needs an upfront payment guarantee. Typical users of this service include hotels, travel agencies, car rental providers, airlines and petrol stations.</p> <p>This is an opt-in service for acquirers and, when it is offered from acquirers to merchants, its use is ultimately decided by the merchant.</p>
Reports	<p>Mastercard's reports are delivered through a web-based portal and are bespoke to each acquirer, based in most cases on their own transaction, event and billing data. The reports contain a wide range of information, for example:</p> <ul style="list-style-type: none">• aggregate key performance indicators (KPIs), such as a summary of authorisation parameters, which can help an acquirer understand why transactions are declined;• granular information (e.g., split by merchant), for instance information on which merchants used the ABU product; and• bespoke recommendation reports for acquirers. <p>The choice of whether to use the service is ultimately made by acquirers.</p>

4.21 Table 3 below lists the number of acquirers who used each of the optional services in 2021 as well as the revenue that Mastercard generated from each of these services in 2021.¹³

¹³ Mastercard response to PSR questions dated 14 February and 16 February 2023. [X].

4.22 Overall, [REDACTED]. We note that, when the choice of whether to use a service is ultimately made by merchants, we would expect most, if not all, acquirers to make the service available to their merchants.

4.23 Mastercard generates a wide range of revenues from its optional services with the [REDACTED] generating the lowest (known) revenue [REDACTED] and [REDACTED] generating the highest revenue [REDACTED].

Table 3 Mastercard optional services usage and revenue

Service name	Number of the largest [REDACTED] acquirers which use the service	Revenue generated in 2021
Account Status Inquiry ¹⁴	[REDACTED]	[REDACTED]
Acquirer Authentication Exemption Indicator ¹⁵	[REDACTED]	[REDACTED]
Address Verification Service and CVC2	[REDACTED]	[REDACTED]
Automatic Billing Updater	[REDACTED]	[REDACTED]
Dynamic Currency Matching ¹⁶	[REDACTED]	[REDACTED]
Identity Solutions ¹⁷	[REDACTED]	[REDACTED]
Mastercom	[REDACTED]	[REDACTED]
Multi-Currency Settlement ¹⁸	[REDACTED]	[REDACTED]
Pre-Authorisation	[REDACTED]	[REDACTED]
Reports	[REDACTED]	[REDACTED]

4.24 In addition, Mastercard submitted data which shows that different acquirers use Mastercard’s various optional services to varying degrees. For example, [REDACTED]. Mastercard submitted that this data demonstrates the competitive constraints that Mastercard faces in providing its optional services, as customers can supply services in-house, obtain services from competing vendors, or simply not take any of the services.¹⁹

14 [REDACTED] of the revenue generated by Account Status Inquiry is attributable to [REDACTED].

15 The revenue that Mastercard generates from this service comes under the heading ‘Other Revenue’. Mastercard generated [REDACTED]; however, we do not know how much of this can be attributed to the [REDACTED].

16 Note: this service does not specifically appear in the revenue data we have received from Mastercard. Therefore, we have taken the figures for ‘Currency Services’ which we believe Dynamic Currency Matching is a part of.

17 [REDACTED]. However, [REDACTED] have told us that [REDACTED]. Therefore, we have some concerns about the accuracy of Mastercard’s revenue data.

18 Note: this service does not specifically appear in the revenue data we have received from Mastercard. Therefore, we have taken the figures for ‘Currency Services’ which we believe the Multi-Currency Settlement is a part of.

19 Mastercard response to PSR questions dated 14 and 16 February 2023. [REDACTED].

4.25 We accept that the data demonstrates that different acquirers use the various optional services to varying degrees. However, these differences in optional service usage do not necessarily imply that Mastercard faces competitive constraints for these services. These differences may be a reflection of the acquirers' different customer bases. For example, some acquirers may have more merchants that operate subscription business models, which may lead to them having greater demand for the ASI service.

Optional services offered by Visa

4.26 Unlike for Mastercard, in the case of Visa we could not use previously submitted revenue data to obtain a list of optional services, as the data was not sufficiently granular for this purpose. We therefore asked Visa to provide a list of the optional services it sells to acquirers in the UK, as well as other information including on the optional fees it charges. We subsequently asked Visa to provide a description for a selection of these services.²⁰ In our request, we defined 'optional services' to mean those services that an acquirer, issuer, or merchant do not have to buy as a condition of participation in the card payment system.

4.27 The list of optional services provided by Visa was more granular in detail compared with Mastercard. In particular, Visa provided revenue data for individual reports whereas Mastercard provided revenue data for reports as a whole. We have chosen to analyse all of Visa's reports services, even for those reports where revenue is below £1 million, in order to make a comparison with Mastercard's Reports service. The only service we have excluded from our analysis for the purpose of prioritisation was Edit Package, which is a software service which [REDACTED].

4.28 The list of optional services, as well as a description of these services, which Visa provided is included below in Table 4.

Table 4 Optional services provided by Visa

<p>Account Verification</p>	<p>Account Verification (AV) is a service that uses a zero-value authorisation to determine that an account is valid and in good standing before a transaction takes place.</p> <p>The choice of whether to use the service is ultimately made by merchants.</p>
<p>Acquirer 3DS Authentication</p>	<p>3DS is a technology used by merchants and issuers to authenticate the identity of the cardholder with the issuer for CNP transactions.</p> <p>The Acquirer 3DS Authentication Request Fee is levied on transactions where an acquirer's merchant requests 3DS authentication to the Visa Directory Server.</p> <p>The choice of whether to use the service is ultimately made by merchants.</p>

²⁰ Visa response to PSR questions dated 27 September 2023. [REDACTED].

Address Verification Service	<p>Address Verification Service (AVS) is an authentication service that uses the authorisation process to verify that the billing address entered by the initiator of a transaction matches the address held by the card issuer.</p> <p>The choice of whether to use the service is ultimately made by merchants.</p>
TC33 Clearing and Settlement (CAS) Advice	<p>CAS Advice is a service that provides acquirers with transaction-level settlement details (including interchange) to support reconciliation, research, and billing. The reports are relevant to acquirers who use BASE II settlement (also known as Dual Message System or 'DMS' settlement).²¹</p> <p>The choice of whether to use the service is ultimately made by acquirers.</p>
SMS Raw Data and SMS Reports	<p>SMS Raw Data and SMS Reports are services that provide acquirers with transaction-level settlement details (including interchange) to support reconciliation, research and billing. The reports are relevant to acquirers who use Single Message System (SMS) settlement.</p> <p>The choice of whether to use the service is ultimately made by acquirers.</p>
TC33 POS Advice	<p>TC33 POS Advice is a service that allows acquirers to receive authorisation and authorisation reversal details in a BASE II TC33 format on a subscription basis.</p> <p>The choice of whether to use the service is ultimately made by acquirers.</p>
Visa Settlement Service Reports (VSS)	<p>VSS is a reporting service that provides clients with consolidated information on their net settlement positions.</p> <p>Default reports are provided free of charge. Fees are levied for certain types of additional reports.</p> <p>The choice of whether to use the service is ultimately made by acquirers.</p>
VTS Acquirer Authentication	<p>Visa Token Service (VTS) is a technology that allows ecosystem participants to secure payments by replacing sensitive account details with a unique digital identifier known as a token.</p> <p>The VTS Acquirer Authentication fee is levied on transactions where VTS is used to facilitate and/or verify authentication.</p> <p>The choice of whether to use the service is ultimately made by merchants.</p>

21 Dual message transactions have two stages: authorisation and settlement. Single message transactions combine authorisation and settlement into a single stage.

4.29 We also asked Visa to indicate, for each optional service, the revenue it generated in the 2022 financial year from the largest acquirers that provide services to UK merchants which together account for a high proportion ([redacted]) of total value across all Visa transactions.²² Table 5 below lists the number of acquirers who used each of the listed optional services in 2022 as well as the revenue generated from each of these services in the 2022 financial year.

4.30 Overall, [redacted] acquirers account for a high proportion ([redacted]) of the value across all of Visa’s transactions. For [redacted] of the optional services, at least [redacted] out of [redacted] acquirers purchased the service, while for [redacted] of the optional services [redacted] of the acquirers purchased the service ([redacted]). We note that, when the choice of whether to use a service is ultimately made by merchants, we would expect most, if not all, acquirers to make the service available to their merchants.

Table 5 Visa optional services usage and revenue

Service name	Number of the largest [redacted] acquirers which use the service	Revenue generated in FY2022
Account Verification	[redacted]	[redacted]
Acquirer 3DS Authentication	[redacted]	[redacted]
Address Verification Service	[redacted]	[redacted]
Reports, consisting of:	[redacted]	[redacted]
SMS Raw Data and SMS Reports	[redacted]	[redacted]
TC33 Advice	[redacted]	[redacted]
TC33 Clearing and Settlement (CAS) Advice	[redacted]	[redacted]
Visa Europe Settlement Service (VSS) Reports	[redacted]	[redacted]
VTS Acquirer Authentication	[redacted]	[redacted]

Source: PSR analysis based on Visa response to PSR questions dated 27 September 2023. [redacted].

22 Visa response to PSR questions dated 27 September 2023. [redacted].

Analysis of the evidence

Account Status Inquiry (Mastercard) and Account Verification (Visa)

- 4.31** Account Status Inquiry (ASI) is a Mastercard optional service for merchants to validate the status of a card via a non-financial message to check if the card is operational and if the card information is consistent. The choice of whether to use this service is ultimately made by merchants.
- 4.32** Account Verification (AV) is a Visa optional service that uses a zero-value transaction to determine that an account is valid and in good standing before a transaction takes place. The choice of whether to use this service is ultimately made by merchants.
- 4.33** We have assessed these services together as we believe they are equivalent services offered by Mastercard and Visa.

Mastercard's submissions

- 4.34** We asked Mastercard to indicate where UK acquirers could source alternative services for ASI.²³ Mastercard submitted that merchants have alternatives available to ASI, depending on their need. This is reflected in the variation in the use of this service across merchants. [REDACTED].²⁴ According to Mastercard, this partial uptake by merchants indicates they have the option not to use this type of pre-emptive account or transaction validation.
- 4.35** Mastercard also submitted that acquirers are not bound by the Mastercard network in their choice of measures to avoid risk ahead of CNP transactions. For example, a merchant could request proof of identity from the cardholder before registering a CoF. Similarly, a merchant could reduce the incidence of mistakes being made by the cardholder when registering a new card by requiring the cardholder to submit their details more than once. Where a merchant uses ASI to query active cards on file, they could instead contact their customers directly to request a confirmation that the card is still valid and requesting an update if necessary.
- 4.36** Finally, Mastercard submitted that merchants also have alternatives within the Mastercard network, such as using pre-authorisation.

Visa's submissions

- 4.37** Visa submitted that its AV service is one of many that exist in the payments ecosystem.²⁵ Many merchant service providers and acquirers offer upfront risk management and authentication services for transactions made in more 'traditional' CNP environments. Alternatives to Visa include: Riskified, Stripe, RSA, Broadcom, Modirum, Worldline, RiskShield, iSoft, Signifyd, Callsign, and NuData among others.
- 4.38** Visa also submitted that merchants can also choose to develop authentication capabilities in-house. Large firms in the technology and retail sectors can leverage direct consumer relationships to enter or expand into providing authentication services which compete with Visa.

23 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

24 [REDACTED].

25 Visa response to PSR questions dated 27 September 2023. [REDACTED].

Acquirers' responses to the PSR's Second Section 81 Notice

- 4.39** In response to our Section 81 Notice, nine out of ten acquirers told us they had purchased the ASI service and AV in the last 12 months.²⁶ The remaining acquirer told us it does not purchase these services, but the services are offered to its merchant customers and the cost is passed through.²⁷
- 4.40** When asked about the alternatives available to acquirers and merchants, none of the acquirers indicated there are any alternatives for themselves or merchants.²⁸
- 4.41** We further asked acquirers what the implications would be for the acquirer if they didn't use the ASI service. All acquirers mentioned that if the acquirer did not offer the service, merchants would either have increased friction or it would make the acquirer less attractive to merchants or both. Three acquirers noted that merchants would be unable to validate cards without processing a non-zero transaction.²⁹ Three acquirers explained that this could lead to an increase in fraud and higher decline rates.³⁰ Several acquirers noted that not using the service would make their business proposition less attractive.³¹
- 4.42** We also asked acquirers what the implications would be for the acquirer if they didn't use the AV service.³² All acquirers explained negative consequences of not using this service. Six acquirers noted competitive disadvantages from not using the service.³³ Three acquirers stated a risk of an increase in either decline rates and/or fraud risk.³⁴ Three acquirers explained that merchants would have to use alternative methods which would increase friction.³⁵
- 4.43** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the ASI service would be on the categories of merchants which commonly use the service.³⁶ Nine of the ten acquirers stated negative consequences for merchants. Two acquirers said fraud could increase.³⁷ Four acquirers explained an operational impact or friction for the merchant, for example through increased risk of non-payment.³⁸ One said that it could limit the ability of merchants to accept recurring and e-commerce payments.³⁹ One explained decline rates could increase.⁴⁰ Finally, two acquirers stated that merchants would be at a competitive disadvantage from not using the service.⁴¹

26 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

27 Stakeholder responses to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

28 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

29 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

30 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

31 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

32 PSR information request dated 27 November 2023. [REDACTED].

33 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

34 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

35 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

36 PSR information request dated 27 November 2023. [REDACTED].

37 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

38 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

39 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

40 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

41 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.44** We also asked acquirers to explain, based on their knowledge, what the implications of not using the AV service would be on the categories of merchants which commonly use the service.⁴² Nine acquirers said that not using the service would cause negative consequences for merchants.⁴³ Four acquirers explained there could be increased frictions to receiving payments because merchants would not be able to store cards for future payments or could risk non-payments.⁴⁴ Two said that fraud could increase.⁴⁵ One said that it could reduce merchant ability to accept recurring or CNP transactions.⁴⁶ Two said it would lead to a competitive disadvantage for merchants.⁴⁷
- 4.45** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delay increases to proposed fee increases for ASI or AV.⁴⁸

Analysis

- 4.46** The ASI and AV services use a zero-value authorisation to determine that an account is valid and in good standing before a transaction takes place, and allows CoF merchants to run checks on their stored payment credentials before they are used for payment. Visa submitted that many third-party merchant service providers and acquirers offer upfront risk management and authentication services for CNP transactions and that large merchants can develop their own authentication capabilities. However, Mastercard did not mention any of these potential alternatives for ASI. Further, it is unlikely to be feasible for the vast majority of merchants to develop their own authentication capabilities in-house.
- 4.47** Mastercard did not submit any third-party alternative providers of similar services to ASI. However, Mastercard told us that merchants can operate their businesses in a way which allows them to address their needs in a similar way to ASI.
- 4.48** We consider that alternative services within the Mastercard network (such as pre-authorisation) are not competitive constraints to Mastercard's optional services. In addition, we also note that while [REDACTED] of Mastercard's CNP transactions did not make use of ASI, it is not clear why this was the case. For these transactions, it may be the case that the merchant did not require the use of ASI or may have used an alternative service.
- 4.49** We do note in the case of both of these services that the choice of whether to use the service is made by the merchant and we have not obtained evidence from merchants to fully test the submissions made by the schemes.
- 4.50** Acquirers told us there are no alternatives to the ASI and AV services from both the perspective of acquirers and merchants, that there would be significant consequences for merchants if they did not use the service, and none of the acquirers have been able to secure discounts, rebates, or delays to proposed fee increases for both of these services.

42 PSR information request dated 27 November 2023. [REDACTED].

43 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

44 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

45 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

46 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

47 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

48 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

Acquirer Authentication Exemption Indicator (Mastercard)

4.51 The Acquirer Authentication Exemption Indicator is a service that allows acquirers to request a Strong Customer Authentication (SCA) exemption by informing the issuer through the authorisation or authentication flow. The choice of whether to use this service is ultimately made by merchants.⁴⁹

Mastercard's submissions

4.52 Mastercard did not suggest a specific alternative service. Rather, Mastercard submitted that merchants have a choice as to whether or not they want to make use of the SCA exemptions contained in PSD2.⁵⁰

Internal documents

4.53 There is some indication in the internal documents that [REDACTED].⁵¹

Acquirers' responses to the PSR's Second Section 81 Notice

4.54 In response to our Section 81 Notice, nine out of ten acquirers had purchased this service in the last 12 months.⁵² [REDACTED].⁵³

4.55 In the Section 81 Notice, we asked the acquirers whether there are any alternatives available to acquirers or merchants. None of the acquirers indicated there are any alternatives for themselves or merchants.⁵⁴

4.56 We further asked acquirers what the implications would be for the acquirer if they didn't use this service.⁵⁵ All ten acquirers mentioned negative consequences of not using the service. Five acquirers explained that friction would increase for some payment types as all remote transactions would need to be authenticated through 3DS.⁵⁶ Three of these said that there would be higher payment decline rates.⁵⁷ Three acquirers said there would be a competitive disadvantage from not using the service.⁵⁸

49 We have not been able to identify an equivalent service provided by Visa in this instance.

50 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

51 [REDACTED].

52 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

53 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

54 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

55 PSR information request dated 27 November 2023. [REDACTED].

56 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

57 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

58 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.57** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Acquirer Authentication Exemption Indicator would be on the categories of merchant which commonly use the service.⁵⁹ All acquirers mentioned negative impacts for merchants on not using the service. Seven acquirers explained that merchants would have increased frictions (due to the requirement to authenticate all transactions through 3DS) in accepting payments or a higher decline rate.⁶⁰ One acquirer said merchants which do not use this service would not be compliant with SCA rules under PSD2.^{61, 62}
- 4.58** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. Two acquirers told us that they have been able to negotiate reduced fees for Mastercard's Acquirer Authentication Exemption Indicator. [REDACTED].⁶³ [REDACTED]. Another [REDACTED], which has subsequently been renewed until [REDACTED].⁶⁴

Analysis

- 4.59** The Acquirer Authentication Exemption Indicator can be used by all merchants which are required to comply with SCA requirements. Mastercard submitted that merchants have a choice about whether to make use of the SCA exemptions under PSD2. However, we do not consider that subjecting all transactions to SCA is a competitive substitute to the Acquirer Authentication Exemption Indicator as this is likely to require the use of other Mastercard services.
- 4.60** None of the acquirers submitted that there are any alternatives to this service. However, the choice about whether to use the service is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them. The responses from acquirers indicate there would be significant implications for merchants if they did not purchase this service. We also note that two acquirers have been able to secure reduced fees for this service.

Mastercard Address Verification Service and CVC2 and Visa Address Verification Service

- 4.61** The Mastercard Address Verification Service (AVS) allows CNP merchants to verify a cardholder's billing address within the authorisation process, assessing if it matches the address held on file by the card issuer. The CVC2 is a three-digit code printed on the signature panel of cards which is used to validate a card during the checkout process. The choice of whether to use this service is ultimately made by merchants. The AVS and CVC2 are offered [REDACTED].

59 PSR information request dated 27 November 2023. [REDACTED]

60 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

61 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

62 We note that PSD2 is no longer applicable in the UK. However, PSD2 was implemented into UK law under the PSRs 2017. The SCA requirements are explained here: <https://www.fca.org.uk/firms/strong-customer-authentication> Where an acquirer refers to PSD2 in this annex, we assume they are referring to the PSRs 2017. The SCA requirements under the PSRs 2017 are explained here: <https://www.fca.org.uk/firms/strong-customer-authentication> The SCA requirements are explained here: <https://www.fca.org.uk/firms/strong-customer-authentication>.

63 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

64 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

4.62 The Visa Address Verification Service (AVS) is an authentication service that uses the authorisation process to verify that the billing address entered by the initiator of the transaction matches the address held by the card issuer. The service is typically used by merchants for CNP transactions such as e-commerce. The choice of whether to use this service is ultimately made by merchants. We note that this service is distinct from Visa's equivalent service to CVC2 (CVV2).⁶⁵

4.63 We have chosen to analyse these services together as they are both intended to verify that the billing address provided by the initiator of the transaction matches the address held on file by the card issuer.

Mastercard's submissions

4.64 We asked Mastercard to indicate where UK acquirers could source alternative services for the AVS and CVC2.⁶⁶ Mastercard submitted that AVS and CVC2 are additional layers of security for CNP transactions and can be substituted or complemented with other services that improve the fraud prevention capabilities of transactions.

4.65 Mastercard further submitted that there are several options provided by third parties and by Mastercard that acquirers and merchants could use to minimise fraud risks and are therefore alternatives to AVS and CVC2. Mastercard offer Ekata, Identity Check, NuDetect for Merchants, Trusted Device API, and SafetyNet among others. Competitors offering include Falcon, Featurespace, ai Corporation, Biocatch, Callsign, ThreatMetrix, IBM Trusteer, and Vital Signs. Credit reference agencies also support merchants and acquirers in cardholder screening to reduce fraud risk.

4.66 Finally, Mastercard submitted that AVS may also be used to reduce the risk of cardholders submitting incorrect address information during checkout. Merchants have several ways to address this issue, such as postcode finder APIs, requesting proof of address, and requesting address confirmation during checkout.

Visa's submissions

4.67 Visa submitted that its AVS service is one of many that exist in the payments ecosystem.⁶⁷ Many merchant service providers and acquirers offer upfront risk management and authentication services for transactions made in more 'traditional' CNP environments. Alternatives to Visa include: Riskified, Stripe, RSA, Broadcom, Modirum, Worldline, RiskShield, iSoft, Signifyd, Callsign, and NuData among others.

4.68 Visa also submitted that merchants can also choose to develop authentication capabilities in-house. Large firms in the technology and retail sectors can leverage direct consumer relationships to enter or expand into providing authentication services which compete with Visa.

65 Although we have not considered Visa's CVV2 service in our analysis, this service was mentioned by acquirers in response to our Section 81 Notice (see Table 6 in Annex A).

66 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

67 Visa response to PSR questions dated 27 September 2023. [REDACTED].

4.69 Finally, Visa submitted that digital payment front-ends have a large presence in retail purchases and also typically hold a lot of information about the person initiating the transaction. They can therefore also validate customer identity. For example, a customer making a payment using a mobile digital wallet can verify their identity by entering their biometric information on a mobile device, thus facilitating authentication.

Acquirers' responses to the PSR's First Section 81 Notice

4.70 In the Section 81 Notice, we asked acquirers whether there are alternatives available for acquirers that wish to offer UK merchants the ability to accept Mastercard/Visa cards, but want to use non-Mastercard/Visa providers where possible.⁶⁸ One respondent stated that for fraud protection tools, such as Identity Solutions/Identity Check, EMV 3DS, and CVC2, there are additional providers, but they are usually contracted out directly by the merchant.⁶⁹

Acquirers' responses to the PSR's Second Section 81 Notice

4.71 In response to our Section 81 Notice, nine out of ten acquirers told us they had purchased both Mastercard's AVS and CVC2 and Visa's AVS in the last 12 months.⁷⁰ The remaining acquirer told us it does not purchase these services, but the services are offered to its merchant customers and the cost is passed through.⁷¹

4.72 In the Section 81 Notice, we asked the acquirers whether there are any alternatives to the Mastercard AVS and CVC2 and Visa AVS services for acquirers. None of the acquirers indicated there are any alternatives for themselves.⁷² Similarly, we asked whether there are alternatives to the Mastercard AVS and CVC2 services for merchants.⁷³ One respondent indicated that Apple Pay and Google Pay may be alternatives to the use of Mastercard's Address Verification and CVC2 service.⁷⁴ This is because these digital wallets don't require the use of CVC2 and instead use biometrics and other factors to secure e-commerce payments. None of the acquirers indicated that there are any alternatives for themselves or merchants to the Visa AVS.⁷⁵

4.73 We further asked acquirers what the implications would be for the acquirer if they didn't use Mastercard AVS and CVC2 service.⁷⁶ All ten acquirers stated at least one of the following would happen if they stopped using the service: (i) there would be a negative impact on the acquirer competitiveness; (ii) fraud rates would increase; or (iii) decline rates would increase.⁷⁷ One acquirer said the schemes mandate that the CVC2 service is used in some industries, for example gambling.⁷⁸ Two acquirers stated that not offering the

68 PSR information request dated 11 January 2023. [REDACTED].

69 Stakeholder responses to PSR information request dated 11 January 2023. [REDACTED].

70 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

71 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

72 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

73 PSR information request dated 27 November 2023. [REDACTED].

74 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

75 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

76 PSR information request dated 27 November 2023. [REDACTED].

77 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

78 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

service would limit their ability to offer acceptance of ecommerce transactions to merchants.⁷⁹

4.74 We also asked acquirers what the implications would be for the acquirer if they didn't use the Visa AVS service.⁸⁰ All the acquirers said that not using this service would negatively impact them. Six acquirers stated that they would be at a competitive disadvantage.⁸¹ The remaining four acquirers, as well as two of the aforementioned six acquirers, explained that fraud could increase from not using the service.⁸²

4.75 Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Mastercard AVS and CVC2 would be on the categories of merchant which commonly use the service.⁸³ All acquirers stated this would be negative for merchants. Two acquirers explained there would be a competitive disadvantage to merchants not using the service.⁸⁴ Seven of the acquirers noted that the risk of fraud would increase for merchants.⁸⁵ Three acquirers explained that there could be increased decline rates.⁸⁶

4.76 We also asked acquirers to explain, based on their knowledge, what the implications of not using the Visa AVS would be on the categories of merchants which commonly use the service.⁸⁷ All ten acquirers explained consequences for merchants which do not use this service. Six acquirers said it could increase fraud risk.⁸⁸ Two acquirers said it would increase decline rates.⁸⁹ Two acquirers stated merchants would be at a competitive disadvantage if they did not use the service.⁹⁰

4.77 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts or rebates, or delay proposed fee increases for Mastercard's AVS and CVC2 or Visa's AVS.⁹¹

Analysis

4.78 Both Mastercard and Visa's AVS are used to verify that the details entered by the initiator of the transaction match the cardholder details held by the issuer during the authorisation process of CNP transactions with the intention of reducing fraud. We note that the decision about whether to use this service is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them.

4.79 Mastercard submitted that these services can be substituted or complemented with other services that improve fraud prevention, although we do not consider other Mastercard services to be a competitive constraint on the AVS and CVC2 service. Mastercard also

79 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

80 PSR information request dated 27 November 2023. [REDACTED].

81 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

82 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

83 PSR information request dated 27 November 2023. [REDACTED].

84 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

85 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

86 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

87 PSR information request dated 27 November 2023. [REDACTED].

88 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

89 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

90 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

91 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

submitted that there are several third-party options available to acquirers and merchants which can be used to minimise fraud.

- 4.80** Visa submitted that there are several third-party alternatives to its AVS service. For Visa's AVS service, acquirers which responded to our Section 81 Notice told us that there are no alternative third-party suppliers of services to acquirers which they could then offer to merchants, and separately they told us that there are no third-party alternatives which are sold to merchants directly which they are aware of. Visa also submitted that merchants can choose to develop their own authentication capabilities in-house, however we believe this would not be viable for the vast majority of merchants. This is because it is very unlikely that small merchants (which constitute the majority of merchants in the UK) will have the technical or financial capabilities to develop authentication solutions (or card payment solutions more widely) in-house.
- 4.81** In addition, Visa submitted that digital wallets and biometric information can facilitate authentication. The evidence we have collected as part of our wider review indicates that convincing consumers to use a payment method different from the one they prefer would generate friction in the transaction and would risk reducing sales conversion rates. Merchants are therefore limited in their ability to steer consumers towards using digital wallets as a way to avoid using the AVS service.⁹²
- 4.82** For Mastercard's AVS and CVC2 service, acquirers which responded to our Section 81 Notice told us that there are no alternative third-party suppliers of services to acquirers which they could then offer to merchants, and separately the majority told us that there are no third-party alternatives sold to merchants directly which they are aware of. One acquirer indicated that Apple Pay and Google Pay may be alternatives to Mastercard's AVS and CVC2 service for merchants. This requires merchants to steer cardholders towards this payment method which, as mentioned above, merchants have limited ability to do.
- 4.83** The responses from acquirers also indicate there would be significant implications for merchants if they did not purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

Automatic Billing Updater (Mastercard)

- 4.84** The Mastercard Automatic Billing Updater (ABU) is a service which automatically updates customer card data in order to prevent disruption to card-on-file payments and extends the life of recurring payment arrangements, i.e. subscriptions. The choice about whether to use the service is ultimately made by merchants.⁹³

Mastercard's submissions

- 4.85** Mastercard submitted that the ABU offers merchants the ability to keep their customers' payment registries up to date. Merchants have alternative options to this service.⁹⁴ For instance, since merchants hold information about when each of the cards on file will expire, they can contact customers prior to expiration requesting that their payment details be updated. Merchants can also enable customers to register multiple payment methods,

92 See Chapter 4, paragraphs 4.87 to 4.88.

93 Visa's equivalent service, Visa Account Updater, was not included in the list we received from Visa. As a result, we did not specifically ask acquirers about it. However, the service was mentioned as an additional optional service by acquirers in response to our Section 81 Notice. See Table 6 in Annex A on 'Additional Optional Services' below.

94 Mastercard response to PSR questions dated 2 October 2023. [X].

which means if a card expires, another registered payment method will automatically become the default.

Internal documents

4.86 Mastercard competitively assesses its ABU against Visa’s product (which we understand to be Visa Account Updater) in a couple of documents:

- One document indicates that Visa only enables acquirer access, while Mastercard enables acquirers, PSPs, and merchants to directly use its service.⁹⁵
- Another document indicates that [REDACTED]. Mastercard’s ‘ABU on the network currently in backlog’.⁹⁶

4.87 The comparisons that Mastercard makes with Visa’s equivalent product provide some evidence that the two products compete with each other.

Acquirers’ responses to the PSR’s First Section 81 Notice

4.88 We asked acquirers how they decide which scheme and processing services to purchase from Mastercard, which services to purchase from alternative suppliers, and which not to purchase at all.⁹⁷ One respondent told us that when deciding which services to purchase from Mastercard and which to purchase from alternative suppliers, it takes into consideration ‘whether or not a service is offered by an entity outside of networks (i.e. Mastercard Account Billing Updater)’.⁹⁸

Acquirers’ responses to the PSR’s Second Section 81 Notice

4.89 In response to our Section 81 Notice, nine out of ten acquirers told us they had purchased this service in the last twelve months.⁹⁹ The remaining acquirer told us it does not purchase this service, but the service is offered to its merchant customers and the cost is passed through.¹⁰⁰

4.90 In the Section 81 Notice, we asked the acquirers whether there are any alternatives for acquirers or merchants to the Account Billing Updater service. None of the acquirers indicated there are any alternatives for themselves or merchants in response to these questions.¹⁰¹

4.91 We further asked acquirers what the implications would be for the acquirer if they didn’t use the service.¹⁰² All the acquirers explained negative consequences of not choosing this optional service. Five acquirers stated that there would be a negative competitive impact from not using this service.¹⁰³ Six acquirers noted that decline rates would increase.¹⁰⁴ Three acquirers explained that this would increase frictions to merchants who accept

95 [REDACTED].

96 [REDACTED].

97 PSR information request dated 11 January 2023. [REDACTED].

98 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

99 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

100 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

101 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

102 PSR information request dated 27 November 2023. [REDACTED].

103 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED]

104 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

recurring transactions, potentially leading to acquirers manually contacting cardholders to update details and/or lost sales.¹⁰⁵ One acquirer noted that this is a mandatory service for acquirers and not offering it to merchants could lead to a breach of scheme rules.¹⁰⁶

4.92 Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Automatic Billing Updater service would be on the categories of merchants that commonly use the service.¹⁰⁷ Nine of the ten acquirers explained negative consequences to merchants for not using this service. Eight acquirers mentioned both increased decline rates and increased friction from merchants manually asking cardholders to update details.¹⁰⁸ One acquirer explained that merchants would be at a competitive disadvantage from not using the service.¹⁰⁹

4.93 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for Automatic Billing Updater.¹¹⁰

Analysis

4.94 The ABU is primarily used by merchants that wish to store customer card details on file, for example because they operate a subscription business or because they charge some sort of recurring payment. The choice about whether to use the service is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them.

4.95 Mastercard submitted that merchants have alternative choices available to them. However, we have not spoken to merchants to understand the viability or credibility of these alternatives. Mastercard's internal documents also show it compares its ABU service to Visa's equivalent Visa Account Updater service. It is not clear from the document whether ABU or Visa Account Updater are scheme-agnostic.¹¹¹ If the services are scheme-agnostic, Visa's Account Updater could potentially be a strong competitive constraint on ABU. If the services are not scheme-agnostic, then while Visa Account Updater may not be a direct competitor, it may act as a benchmark for Mastercard in terms of the quality of service or innovation that merchants expect from schemes in this area. In response to our first Section 81 Notice, one acquirer indicated that it may be possible for acquirers to purchase similar services to ABU from alternative providers, although the respondent did not indicate who these alternative providers are. No other respondent to the first Section 81 Notice, or the second Section 81 Notice, told us there are alternatives to ABU. The responses from acquirers indicate there would be significant implications for merchants if they did not purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

105 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

106 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

107 PSR information request dated 27 November 2023. [REDACTED].

108 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

109 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

110 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

111 Scheme-agnostic is where a service can be used in respect of both Mastercard and Visa transactions.

Dynamic Currency Matching (Mastercard)

4.96 Dynamic Currency Matching allows acquirers to segregate settlement activity by transaction currency, e.g. settle all euro transactions in euros, all US dollar transactions in US dollars, etc.¹¹² An acquirer told us that this is an optional service for acquirers which enables them to settle in their preferred regional settlement service based on the transaction currency.¹¹³ It is enabled whenever the transaction currency is configured for the settlement selection criteria on the acquirer's settlement profile. Once configured, the regional settlement services are dynamically applied based on the transaction currency of each transaction. A fee does not apply to transactions settling in the regional default settlement service.¹¹⁴

4.97 The decision about whether to use this service is ultimately made by acquirers.

Mastercard's submissions

4.98 Mastercard submitted that the default settlement in regional settlement currencies remains free of charge to all customers as part of the settlement service and fee.¹¹⁵ Mastercard customers can then choose to use Dynamic Currency Matching for all or a proportion of their transactions.

4.99 Mastercard submitted data which showed that [redacted] acquirers have chosen not to use the Dynamic Currency Matching service. Mastercard also submitted that [redacted], which it stated reflects that the shares of transactions included in the programme vary across acquirers.

4.100 Finally, Mastercard submitted that, more generally, when a customer wishes to obtain funds in a larger number of currencies, there are at least two additional levels of choice beyond Mastercard currency services to consider.

- One option is that acquirers have access to a range of providers of foreign exchange trading and hedging. Acquirers could then offer this service to their merchants in turn, e.g. through Dynamic Currency Conversion.
- If a customer still wishes to receive settlement from Mastercard in multiple currencies based on transaction criteria, they could also choose to bundle transactions of a certain type within Interbank Card Association Numbers (ICAs) and BIN ranges and settle these transactions in different regional settlement currencies. This would not attract a separate fee.

Acquirer responses to the PSR's second Section 81 Notice

4.101 In response to our Section 81 Notice, eight out of ten acquirers told us that they had purchased the Dynamic Currency Matching service in the last twelve months.¹¹⁶ In addition, one acquirer told us it does not purchase this service, but it is used for its acquiring business and the cost is passed through to merchants.¹¹⁷

112 Mastercard response to PSR questions dated 2 October 2023. [redacted].

113 Stakeholder response to PSR information request dated 27 November 2023. [redacted].

114 We have not been able to identify an equivalent service provided by Visa in this instance.

115 Mastercard response to PSR questions dated 2 October 2023. [redacted].

116 Stakeholder responses to PSR information request dated 27 November 2023. [redacted].

117 Stakeholder response to PSR information request dated 27 November 2023 [redacted]; call with stakeholder [redacted].

- 4.102** In the Section 81 Notice, we asked acquirers whether there are any alternative services which could address the same business need as Dynamic Currency Matching in the UK. None of the acquirers indicated there are any alternatives in response to this question.¹¹⁸
- 4.103** We further asked acquirers what the implications would be for themselves if they didn't use the service.¹¹⁹ Three of the acquirers told us that it would put their business at a competitive disadvantage as providing this service is seen as the industry standard in the market.¹²⁰ Three of the acquirers told us that they would have to undertake internal development work to amend their current set up, which they further stated may be costly.¹²¹ One acquirer told us that not using the service could result in higher settlement fees for merchants and less efficient processing of transactions.¹²² Two of the acquirers told us they would not be able to support merchants that want to process transactions for customers that do not use the same local currency as the merchant.¹²³ One acquirer, which told us it does not purchase this service, did not respond to this question.¹²⁴
- 4.104** We asked acquirers whether, for the services they have chosen not to purchase, it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider.¹²⁵ Only one of the acquirers which responded to the Section 81 Notice told us it does not purchase the Dynamic Currency Matching service. It told us this is because it has not identified a requirement for the service.¹²⁶
- 4.105** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for Dynamic Currency Matching.¹²⁷

Analysis

- 4.106** Mastercard submitted that it is free for acquirers to settle transactions in any of the 30 default regional currencies. Mastercard also submitted that [REDACTED]. We acknowledge that [REDACTED], however this may reflect the business model which an acquirer operates and the merchants it seeks to target. For example, some acquirers may choose not to target merchants which require settlement in international currencies.
- 4.107** For those acquirers which do choose to purchase this service, Mastercard submits that acquirers have options available to them to allow settlement in other currencies. However, none of the acquirers which responded to our Section 81 Notice mentioned these alternatives. The acquirers which purchased this service indicated that there would be significant implications for their business if they did not purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

118 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

119 PSR information request dated 27 November 2023. [REDACTED].

120 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

121 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

122 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

123 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

124 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

125 PSR information request dated 27 November 2023. [REDACTED].

126 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

127 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

Identity Solutions (Mastercard) and Acquirer 3DS Authentication (Visa)

- 4.108** Identity Solutions is a set of optional services provided by Mastercard and includes a number of services for acquirers and merchants. Identity Check is [REDACTED] service which is Mastercard's EMV 3DS solution and is intended to authenticate the identity of cardholders when undertaking CNP transactions. The Identity Solutions services are intended to ensure CNP payments remain secure while minimising the number of genuine transactions declined. Acquirers have the choice of whether or not to use the various Identity Solutions services. Similarly, the choice of whether to use the Identity Check service is ultimately made by merchants. In this section, we have considered the competitive constraint that Mastercard faces for its Identity Check service.
- 4.109** Acquirer 3DS Authentication is an optional service provided by Visa. This is Visa's EMVCo 3DS solution and is a technology used by merchants to authenticate the identity of a cardholder with the issuer for CNP transactions. [REDACTED]. The choice of whether to use the service is ultimately made by merchants.
- 4.110** We have chosen to analyse these services together as both services are intended to authenticate the identity of cardholders when undertaking CNP transactions. These two services are the schemes' respective solutions for implementing the EMV 3DS standard to meet SCA requirements in Europe.

Mastercard's submissions

- 4.111** Mastercard submitted that it offers a wide array of services and features to enhance the safety of transactions in its network.¹²⁸ Identity Solutions for acquirers refers to some of these services, but there are others as well. While the Payment Service Regulations 2017 mandate SCA for certain transactions, Mastercard stated that it does not mandate the services that can be used to comply with this. It is also the case that there are exemptions to SCA, such as for low-value or low-risk transactions.¹²⁹ Mastercard also submitted that it offers delegated authentication, which can be used for tokenised transactions. This means for example that transactions using digital wallets can be authenticated without using the Identity Check service.
- 4.112** Mastercard also submitted that its data shows that [REDACTED] of its CNP transactions between October 2022 and September 2023 were authenticated using Identity Check. This included transactions for which there was no SCA exemption applicable as well as transactions for which an SCA exemption was available. Acquirers and merchants can also make use of SCA exemptions. Between June and September 2023, around [REDACTED] of Mastercard's CNP transactions were initiated making use of SCA exemptions.¹³⁰ Mastercard submitted this shows that acquirers can use different ways of complying with PSD2 and manage risks and increase approval rates.

128 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

129 Exemptions to SCA include: (i) trusted payees (or whitelists); (ii) recurring transactions; (iii) low-value transactions; and (iv) low-risk transactions.

130 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

Visa's submissions

- 4.113** Visa submitted that merchant participation in 3DS is optional.¹³¹ Merchant service providers and acquirers offer 3DS capability to allow merchants to benefit from the security and convenience of 3DS in CNP environments.
- 4.114** Visa submitted that the 3DS service is one of a number of solutions that help participants authenticate transactions. Alternatives include:
- Using another method of secure authentication, such as biometric authentication provided by a digital front-end (e.g. Apple Pay or Google Pay) and validated by VTS.
 - Using risk analysis and risk management solutions offered by merchant service providers and acquirers to reduce the need for secure authentication. Paragraph 4.37 above lists the providers of risk detection services.¹³²
 - E-commerce merchants can also develop in-house capabilities to undertake secure authentication for CNP transactions.
 - Visa estimates that in 2022, less than [REDACTED] of e-commerce transactions on Visa-issued cards used Visa's 3DS service. Further, 3DS has been developed collaboratively with other industry players through EMVCo to create a standardised framework for the entire payments industry which any party can use to create and adopt its own service while maintaining interoperability. The use of the Visa Directory Server is not mandatory for Visa card transactions and in some markets (e.g. Spain and France), 3DS transactions are processed using alternative Directory Servers.

Visa's internal documents

- 4.115** An external report produced in January 2022 for Visa by an external consultancy sought to 'understand how [REDACTED]'.¹³³ Among other things, the report discussed [REDACTED].
- 4.116** The document states that '[REDACTED]'.¹³⁴
- 4.117** The document also notes that [REDACTED].¹³⁵ The document goes on to highlight [REDACTED]. The document notes that [REDACTED].

Acquirers' responses to the PSR's First Section 81 Notice

- 4.118** We asked acquirers how they decide which scheme and processing services to purchase from the schemes, which services to purchase from alternative suppliers, and which not to purchase at all.¹³⁶ One respondent told us that when deciding which services to purchase from Mastercard and which to purchase from alternative suppliers, it takes into consideration 'whether or not functionality is mandated by the networks (i.e., Mastercard Identity Check)' and separately 'whether or not the functionality is mandated by the networks (i.e. Visa 3DS)'.¹³⁷ This suggests that Mastercard Identity Solutions and Visa 3DS

131 Visa response to PSR questions dated 27 September 2023. [REDACTED].

132 These providers include Fico, SAS, Feedzai, Feature Space, and Brighterion. Acquirers such as Barclaycard and Worldpay also offer risk detection services known as Direct-to-Authorisation solutions.

133 [REDACTED].

134 [REDACTED].

135 [REDACTED].

136 PSR information request dated 11 January 2023. [REDACTED].

137 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

are not optional services from the perspective of the acquirer and are mandated by Mastercard and Visa respectively. Another respondent told us that it purchases EMV 3DS from Visa and went on to state that these services 'aren't available from alternative providers as they are directly linked to the flow of funds and from data relating to the specific scheme'.¹³⁸

4.119 We also asked acquirers whether there are alternatives available for acquirers that wish to offer UK merchants the ability to accept Visa-branded cards, but want to use non-Visa providers where possible.¹³⁹ One respondent submitted that for fraud protection tools, such as EMV 3DS, there are additional providers, but they are usually contracted out directly by the merchant.¹⁴⁰ None of the other acquirers indicated that there are alternatives to Visa 3DS service.

Acquirers' responses to the PSR's Second Section 81 Notice

4.120 In response to our Section 81 Notice, nine out of ten acquirers told us they had purchased both the Identity Solutions and Acquirer 3DS Authentication services in the last 12 months.¹⁴¹ The remaining acquirer told us it does not purchase these services, but the services are offered to its merchant customers and the cost is passed through.¹⁴²

4.121 In the Section 81 Notice, we asked the acquirers whether there are any alternatives to Identity Solutions and Acquirer 3DS Authentication services for acquirers and merchants. None of the acquirers stated there are any alternatives for themselves or merchants in response to these questions.¹⁴³

4.122 We further asked acquirers what the implications would be for the acquirer if they didn't use the Identity Solutions service.¹⁴⁴ All ten acquirers noted that it would cause negative consequences if they could not offer this service. Six acquirers stated that they would be at a competitive disadvantage if they did not use this service.¹⁴⁵ Of the other acquirers, two acquirers stated that decline rates would increase¹⁴⁶ and two acquirers stated this service is a regulatory requirement or it is an industry standard.¹⁴⁷ Two acquirers specified that this would impact ecommerce payments the most, however, they explained that the impact could be reduced if issuers agreed to exemptions on the requirements.¹⁴⁸ One acquirer explained that not using the Identity Solutions service would limit its ability to offer acceptance of e-commerce transactions to its merchants.¹⁴⁹

138 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

139 PSR information request dated 11 January 2023. [REDACTED].

140 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

141 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

142 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

143 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

144 PSR information request dated 27 November 2023. [REDACTED].

145 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

146 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

147 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

148 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

149 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.123** Similarly, we asked acquirers what the implications would be for the acquirer if they didn't use the Acquirer 3DS Authentication service.¹⁵⁰ All acquirers stated negative consequences from not using this service. Five acquirers said there would be a competitive disadvantage from not using this service.¹⁵¹ Five acquirers said that fraud or declines would increase.¹⁵² Five acquirers said that it would be against SCA or PSD2 rules to not use this service for some transactions.¹⁵³ Two acquirers said it could limit their ability to offer acceptance of e-commerce transactions for their merchants.¹⁵⁴ Two acquirers noted that payments could be completed if issuers apply exemptions.¹⁵⁵
- 4.124** We then asked acquirers to explain, based on their knowledge, what the implications of not using the Identity Solutions service would be on the categories of merchants which commonly use the service.¹⁵⁶ Eight of the acquirers mentioned that there would be negative consequences for merchants for not using this service. One acquirer stated that the merchant may potentially be placed at a competitive disadvantage due to the widespread use of the service.¹⁵⁷ Other acquirers explained specific reasons merchants would be disadvantaged. Four acquirers said fraud/chargebacks would be likely to increase.¹⁵⁸ Two acquirers explained that declines/payment abandonment would increase.¹⁵⁹ One acquirer said that merchants would have to stop accepting e-commerce payments.¹⁶⁰ Two acquirers explained that it would not be compliant with the SCA rules to not use the service.¹⁶¹
- 4.125** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Acquirer 3DS Authentication service would be on the categories of merchants which commonly use the service.¹⁶² Nine acquirers said there would be negative impacts on merchants not using the service.¹⁶³ Four acquirers said that it would not be compliant with SCA/PSD2.¹⁶⁴ Of these four, three said that fraud or declines could increase.¹⁶⁵ One acquirer said it could stop merchants from being able to accept CNP transactions while another said merchants would not be able to accept recurring transactions.¹⁶⁶ One acquirer said that without this service merchants could not authenticate transactions with 3DS.¹⁶⁷ Two acquirers explained it would leave merchants at a competitive disadvantage.¹⁶⁸

150 PSR information request dated 27 November 2023. [REDACTED].

151 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

152 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

153 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

154 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

155 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

156 PSR information request dated 27 November 2023. [REDACTED].

157 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

158 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

159 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

160 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

161 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

162 PSR information request dated 27 November 2023. [REDACTED].

163 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

164 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

165 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

166 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

167 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

168 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

4.126 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. Only one acquirer told us it had been able to obtain funding for Identity Check. [REDACTED].¹⁶⁹ [REDACTED].¹⁷⁰ [REDACTED].

Analysis

4.127 The choice about whether to use both of these services is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them.

4.128 Visa submitted that the 3DS service is one of a number of solutions that help participants authenticate transactions. However, none of these alternatives were mentioned by Mastercard. Visa submitted that biometric authentication which is validated by VTS is a potential alternative. However, we do not consider other Visa optional services to be a competitive constraint on Visa services. Further, this alternative requires merchants to steer customers towards biometric authentication. The evidence we have collected as part of our wider review indicates that merchants have limited ability to steer customers towards specific payment methods. Visa also mentioned potential alternatives offered by merchant service providers and acquirers, but none of the acquirers we spoke to mentioned these alternatives. Visa also submitted that e-commerce merchants can develop in-house capabilities, but we consider this is unlikely to be a credible alternative for the vast majority of merchants since smaller merchants are very unlikely to have the technical and financial capability to develop authentication solutions in-house. Finally, Visa submitted that Visa card transactions authenticated using 3DS are processed using alternative Directory Servers in other countries, but we do not believe this option is available to merchants in the UK.

4.129 [REDACTED]. However, we do not consider this to be a competitive constraint because, in this case, [REDACTED] service which is ultimately still supplied by Visa. Therefore, this service is not a competitive constraint supplied by a third party.

4.130 Mastercard submitted that it offers a wide array of services and features to enhance the safety of transactions on its network. However, we do not consider other Mastercard services to provide a competitive constraint to its Identity Solutions service. Mastercard also submitted that the existence of exemptions still leaves transactions for which exemptions do not apply and where SCA (but not Mastercard's Identity Solutions service) is therefore mandated. Moreover, it may be the case that merchants could benefit from using Identity Solutions, even for transactions which could be exempt. This may be because Identity Solutions shifts fraud liability away from the merchant. In addition, exemptions to SCA may also incur costs, e.g. through the Acquirer Authentication Exemption Indicator fee. In its submissions, Mastercard did not indicate any alternative services to Identity Solutions which are not supplied by Mastercard and are SCA compliant. Mastercard also submitted that its data indicated that acquirers use different ways of complying with PSD2 and manage risks and increase approval rates, but it did not explain how the data shows this.

169 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

170 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

4.131 Acquirer responses to our Section 81 Notices suggest that there are no alternatives to Identity Solutions or Acquirer 3DS Authentication, both from the perspective of acquirers and merchants. The responses also suggest that there may be significant implications for merchants that choose not to purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases. However, a respondent to our first Section 81 Notice stated that there are additional providers for 3DS, but they are usually contracted out directly by the merchant. We have not obtained evidence from merchants to confirm how widespread this practice is.

Mastercom (Mastercard)

4.132 Mastercom is the Mastercard system for administering chargebacks and dispute resolution. The choice of whether to use the service is ultimately made by acquirers.¹⁷¹

Mastercard's submissions

4.133 Mastercard submitted that issuers and acquirers can agree their own systems for managing disputes, which could include the appointment of a third party to assist them in the matter.¹⁷² Disputes in payments are broader than chargebacks. Many differences can be settled before engaging in a formal chargeback process. For example, if there is a dispute about the product or services purchased, then these are often resolved outside of the Mastercard network.

4.134 Mastercard further submitted that third-party vendors also offer a range of different services to reduce the incidence of chargebacks and the need for dispute resolution. Examples include: Accertify, Kount, Chargeback Gurus, Signifyd, FIS Global, Riskified, TSYS:PRIME Dispute Manager, Fiserv: Dispute Expert, Worldline: Chargeback management, Justt, and Midigator. These solutions aim to resolve chargebacks outside of the network's formal chargeback process.

Mastercard internal documents

4.135 A document from 2016 discusses Mastercard Dispute Resolution initiative, which it was developing at the time.¹⁷³ A slide in this document discusses [REDACTED]. It also goes on to say: [REDACTED]. The document also discusses the background to the launch of Mastercard's new Dispute Resolution initiative, explaining that Mastercom is a 'legacy product originating in 1988' and that Mastercard is 'executing a new chargeback strategy to remain competitive, address evolving industry needs, and preserve & grow market share and revenue'.

4.136 A 2020 document comparing Mastercard's services to [REDACTED].¹⁷⁴

171 Visa's equivalent service, Visa Resolve Online (VROL), was not included in the list we received from Visa. As a result, we did not specifically ask acquirers about it. However, the service was mentioned as an additional optional service by acquirers in response to our Section 81 Notice. See Table 6 in Annex A on 'Additional Optional Services' below.

172 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

173 [REDACTED].

174 [REDACTED].

Visa internal documents

4.137 A Visa internal spreadsheet titled [REDACTED].¹⁷⁵ [REDACTED].¹⁷⁶ [REDACTED].¹⁷⁷

Acquirers' responses to the PSR's First Section 81 Notice

4.138 We asked acquirers whether there are alternatives available for acquirers that wish to offer UK merchants the ability to accept Mastercard or Visa-branded cards, but want to use non-Mastercard and non-Visa providers where possible.¹⁷⁸ One of the respondents stated that chargeback processing can only be offered by the network.¹⁷⁹

Acquirers' responses to the PSR's Second Section 81 Notice

4.139 In response to our Section 81 Notice, nine out of ten acquirers told us that they had purchased this service in the last twelve months.¹⁸⁰ The remaining acquirer told us it does not purchase this service, but uses this service for its acquiring business and passes the cost through to its merchant customers.¹⁸¹

4.140 In the Section 81 Notice, we asked acquirers whether there are any alternative services which could address the same business need as Mastercom. One respondent stated that Verifi (which is owned by Visa) and Chargebacks 911 were both alternative services.¹⁸² The acquirer stated that it is not aware of any differences between these alternatives and Mastercom, but is also has no experience of using these alternatives. The remaining acquirers stated that there are no alternatives to Mastercom. We also asked acquirers whether there are, to the best of their knowledge, alternative services that merchants could use instead of Mastercom in the UK. Eight of the ten respondents told us that this service is not used by merchants and therefore did not provide a response to this question.¹⁸³ The remaining two acquirers stated that they are not aware of any alternative services.¹⁸⁴

4.141 We further asked acquirers what the implications would be for the acquirer if they didn't use the service.¹⁸⁵ Eight of the ten acquirers stated that their offering would be negatively impacted or customers would choose alternatives if the acquirer did not offer this service.¹⁸⁶ Of these eight acquirers, five said that acquirers could not manage chargebacks without the service.¹⁸⁷ One of these stated that the service is mandatory for acquirers.¹⁸⁸

175 [REDACTED].

176 [REDACTED].

177 [REDACTED].

178 PSR information request dated 11 January 2023. [REDACTED].

179 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

180 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

181 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

182 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

183 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

184 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

185 PSR information request dated 27 November 2023. [REDACTED].

186 Stakeholder responses to PSR information request dated 27 November 2023 [REDACTED]. The other two [REDACTED] made general statements that they use this service to manage chargebacks but did not explicitly state the impact of not using it.

187 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

188 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

Three of the ten acquirers suggested that they could operate without buying this service, albeit there would be greater friction when managing chargebacks.¹⁸⁹

4.142 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for Mastercom.¹⁹⁰

Analysis

4.143 Mastercard submitted that issuers and acquirers can agree their own systems for managing disputes, which could include the appointment of a third-party to assist them in the matter. A Mastercard internal document suggests that it does face some competitive pressure from third parties for its Mastercom service. However, we note this document covers Mastercard's global business and there is no indication of how much competitive pressure Mastercard faces specifically in the UK or whether competitive pressure varies substantially between countries.

4.144 One of the respondents to the first Section 81 Notice stated that chargeback processing can only be offered by the network. While this may be the case, this does not exclude that other mechanisms or options are available to acquirers to resolve disputes outside of the chargeback process. One of the respondents to our second Section 81 Notice stated that there are some third-party alternatives to Mastercom, including Visa's Verifi service.¹⁹¹ A Mastercard internal document shows that it compares its Mastercom service with Verifi and both schemes are investing in their respective services. This could show that Mastercard is responding to competitive pressures in the market to improve its product and does suggest that Mastercard sees Visa as a competitor. However, it should be noted that the remaining respondents to our second Section 81 Notice stated that there are no alternatives to the Mastercom service, and the respondent which suggested there are third party alternatives stated it had not used these alternatives itself.

4.145 The responses to our second Section 81 Notice also suggest there are significant implications for acquirers which do not purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

Multi-Currency Settlement (Mastercard)

4.146 Multi-currency settlement applies if the transaction currency does not match the acquirer's settlement currency and it is not available as one of Mastercard's 30 regional settlement currencies. The decision about whether to use this service is ultimately made by merchants.¹⁹²

189 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

190 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

191 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

192 Visa's equivalent service, Multi-Currency Settlement, was not included in the list we received from Visa. As a result, we did not specifically ask acquirers about it. However, the service was mentioned as an additional optional service by acquirers in response to our Section 81 Notice. See Table 7 in Annex A on 'Additional Optional Services'.

Mastercard's submissions

- 4.147** Mastercard submitted that this fee would only be applied if a UK merchant chooses to offer transactions to their customers in minor currencies which are not one of Mastercard's 30 regional settlement currencies.¹⁹³ In general, when a customer wishes to obtain funds in a larger number of currencies, there are at least two additional levels of choice beyond Mastercard currency services to consider.
- One option is that acquirers have access to a range of providers of foreign exchange trading and hedging. Acquirers could then offer this service to their merchants in turn, e.g. through Dynamic Currency Conversion.
 - If a customer still wishes to receive settlement from Mastercard in multiple currencies based on transaction criteria, they could also choose to bundle transactions of a certain type within ICAs and BIN ranges and settle these transactions in different regional settlement currencies. This would not attract a separate fee.

Acquirers' responses to the PSR's Second Section 81 Notice

- 4.148** In response to our Section 81 Notice, eight out of ten acquirers told us that they had purchased this service in the last twelve months.¹⁹⁴ The remaining acquirer told us it does not purchase this service, but uses the service within its acquiring business and passes the cost through to its merchant customers.¹⁹⁵ While Mastercard told us that the choice of whether to use this service is ultimately made by merchants, three of the eight acquirers which had purchased this service in the last 12 months told us they do not make this service available to merchants,¹⁹⁶ and a further two acquirers told us that this is a service for acquirers rather than merchants.¹⁹⁷
- 4.149** In the Section 81 Notice, we asked the acquirers whether there are any alternatives available to acquirers or merchants. None of the acquirers indicated there are any alternatives for themselves or merchants.¹⁹⁸
- 4.150** We further asked acquirers what the implications would be for themselves if they didn't use the service.¹⁹⁹ All of the acquirers noted that there would be a negative impact on their competitiveness or ability to offer products if they could not use this service.²⁰⁰ In particular, four acquirers said they would be unable to process or settle non-sterling transactions.²⁰¹ However, one of these acquirers explained that it does not support UK merchants to settle in other currencies.²⁰² Two acquirers explained that this would lead to a loss of foreign exchange revenue to the acquirer.²⁰³

193 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

194 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

195 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

196 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

197 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

198 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

199 PSR information request dated 27 November 2023. [REDACTED].

200 Five acquirers [REDACTED] stated a negative competitive impact. Six acquirers [REDACTED] stated that they would not be able to offer non-Sterling settlement. Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

201 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

202 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

203 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.151** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Multi-Currency Settlement service would be on the categories of merchant which commonly use the service.²⁰⁴ Of the four acquirers which offer this service to merchants and told us it is a merchant service, two said not using this service would expose merchants to foreign exchange risk,²⁰⁵ one said merchants would not be able to process transactions in non-local currencies,²⁰⁶ and one said merchants would be able to accept transactions in non-local currencies, but not be able to settle them.²⁰⁷
- 4.152** We asked acquirers whether, for the services they have chosen not to purchase, it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider.²⁰⁸ One acquirer told us it does not support Multi-Currency Settlement for merchants domiciled in the UK, so has no requirement for this service.²⁰⁹
- 4.153** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for Multi-Currency Settlement.²¹⁰

Analysis

- 4.154** Multi-Currency Settlement allows acquirers to settle transactions in currencies other than the 30 Mastercard regional currencies. None of the alternatives suggested by Mastercard in its submissions have been highlighted by acquirers as alternatives. Further, the acquirers which responded to our Section 81 Notice indicated that there would be significant implications if they chose not to purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

Pre-Authorisation (Mastercard)

- 4.155** A pre-authorisation is an authorisation for a transaction to be completed at a later time and is typically used by merchants that do not know, at the time of pre-authorisation, what the final amount of the transaction will be. This service is commonly used by car rental companies, automated petrol pumps, and hotels. The choice of whether to use the service is ultimately made by merchants.²¹¹

Mastercard's submissions

- 4.156** Mastercard submitted that merchants have alternative options within the Mastercard network that fulfil the same or all of this service's features. For example, merchants could use ASI to confirm the validity of the card's records, which would mitigate some of the payment risk to the merchant. Merchants could also charge the customer upfront and

204 PSR information request dated 27 November 2023. [REDACTED].

205 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

206 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

207 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

208 PSR information request dated 27 November 2023. [REDACTED].

209 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

210 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

211 Visa's equivalent service, Estimated and Incremental Authorisations, was not included in the list we received from Visa. As a result, we did not specifically ask acquirers about it. However, the service was mentioned as an additional optional service by acquirers in response to our Section 81 Notice. See Table 6 in Annex A on 'Additional Optional Services' below.

then, if necessary, process a partial refund or additional authorisation once the service has been delivered.

4.157 Mastercard further submitted that merchants which use pre-authorisation to manage payments risks have multiple alternatives depending on the characteristics of each business. For example, this could be through:

- Providing a checkout option instead, i.e. charging customers the exact amount for what they purchase;
- Limiting usage to a pre-set amount;
- Charging customers a deposit to cover expenses.

4.158 Finally, Mastercard submitted data which shows that the use of the pre-authorisation service varies significantly between different merchants, even those within the same merchant category. The data was presented for hotel, petrol station, and grocery merchants. It showed that some merchants are heavy users of the pre-authorisation service, for example [REDACTED], whereas other merchants in the same merchant category seldom use the service, for example [REDACTED]. Mastercard submitted that this confirms that merchants take different approaches to their use of the options available to them which we have described above.

Internal documents

4.159 A Mastercard document [REDACTED].²¹²

4.160 The same document shows that the pre-authorisation fee in the UK is [REDACTED]. The difference according to the document is [REDACTED]. Mastercard also comments in the document that ‘conditions are different from country to country (e.g. different practices, different structures, different competitive situations – e.g. the Mastercard processing share is very different in, say, the UK and Germany)’.²¹³

4.161 A separate internal document containing a planning session for 2023 indicates that [REDACTED].²¹⁴

Acquirers’ responses to the PSR’s Second Section 81 Notice

4.162 In response to our Section 81 Notice, nine out of ten acquirers told us that they had purchased this service in the last twelve months.²¹⁵ The remaining acquirer told us it does not purchase this service, but the service is offered to its merchant customers and the cost is passed through.²¹⁶

4.163 In the Section 81 Notice, we asked the acquirers whether there are any alternatives available to the Pre-Authorisation service for acquirers or merchants. None of the acquirers indicated there are any alternatives for themselves or merchants in response to these questions.²¹⁷

212 [REDACTED].

213 [REDACTED].

214 [REDACTED].

215 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

216 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

217 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.164** We further asked acquirers what the implications would be for the acquirer if they didn't use the service.²¹⁸ Seven acquirers stated that not using this service would negatively impact their acquiring business.²¹⁹ Three other acquirers stated that not using this service would lead to fines by the schemes for not adhering to the rules regarding final authorisation.²²⁰ Two of the acquirers noted the importance of the service in some industries and not offering the service could lead to loss of business among these merchants.²²¹ Two other acquirers noted it would not be able to support merchant transactions where the final transaction value is unknown.²²²
- 4.165** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the Pre-Authorisation service would be on the categories of merchants which commonly use the service.²²³ Nine of the acquirers mentioned negative consequences to merchants of not using the service. Three acquirers noted that merchants in sectors such as hotels, car hire, petrol stations, and e-commerce, where the final amount the cardholder must pay is unknown, may not be able to accept these transactions.²²⁴ Two acquirers noted that there would be increased risk of declines or funds not being paid.²²⁵ Two acquirers said merchants would have increased difficulty complying with scheme rules if they did not use this service.²²⁶ One acquirer explained that merchants would be at a competitive disadvantage from not using this service.²²⁷
- 4.166** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed increases in fees for this service.²²⁸

Analysis

- 4.167** Pre-authorisation is typically used by merchants that do not know, at the time of pre-authorisation, what the final amount will be. Thus, it is commonly used by hotels, car rental companies, and petrol station operators. The choice about whether to use the service is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them.
- 4.168** Mastercard submitted that merchants have alternative options within the Mastercard network which fulfil the same or all of the features of this service. However, we do not consider Mastercard services to be a competitive constraint on the pre-authorisation service.

218 PSR information request dated 27 November 2023. [REDACTED].

219 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

220 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

221 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

222 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

223 PSR information request dated 27 November 2023. [REDACTED].

224 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

225 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

226 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

227 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

228 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.169** The Mastercard internal documents indicate that [REDACTED]. We note that these differences in prices may be partly due to competition. The document adds that [REDACTED]. However, the document does not explain to what degree competition is a factor in pricing compared to the other factors listed in the document, i.e. different practices and structures.
- 4.170** The responses to our Section 81 Notice indicate that acquirers consider that they, and merchants, do not have any alternatives to this service and there are significant implications for merchants which choose not to use this service. As noted above, we have not tested with merchants the alternative choices available to them.
- 4.171** The responses to the Section 81 Notice indicate that none of the acquirers have been able to secure discounts, rebates, or delays to proposed fee increases. However, the internal documents provide some indication that [REDACTED]. While deals for larger or important merchants may provide some competitive constraint on Mastercard, we have not seen evidence of widespread countervailing buyer power – for example among smaller merchants – which would indicate strong competitive constraint on Mastercard. In addition, the internal document relates to Mastercard’s European business and [REDACTED].

Reports (Mastercard)

- 4.172** Mastercard delivers reports through a web-based portal to acquirers (the Reports service). These reports contain a wide range of information, but may [REDACTED]. The reports, in most cases, are based upon the acquirer’s own transaction, event, and billing data. The choice of whether to use the Reports service is ultimately made by acquirers.

Mastercard’s submissions

- 4.173** Mastercard submitted that customers can opt-in to receive specific reports which they believe will provide value to them. If no active decision is taken, they will not receive the report and will not incur the associated fee.
- 4.174** The insights provided in Mastercard’s reports are based on an analysis of a customer’s Mastercard transactions. As such, customers have the option to collect the same data themselves or from their processors and undertake the analysis themselves or seek third-party support in undertaking the analysis.
- 4.175** Mastercard expects that most customers will receive insights from third parties, either to complement Mastercard’s offering or as a direct alternative. Third parties which provide these services include RBR, Lafferty, as well as the acquirers themselves. These providers offer different service propositions, but all seek to provide data analytics and customer insight.

Acquirers’ responses to the PSR’s First Section 81 Notice

- 4.176** We asked acquirers whether there are alternatives available for acquirers that wish to offer UK merchants the ability to accept Mastercard-branded cards, but want to use non-Mastercard providers where possible.²²⁹ One of the acquirers which responded said there are alternatives to Mastercard’s reporting service, since acquirers could use their own data to create reports.²³⁰

²²⁹ PSR information request dated 11 January 2023. [REDACTED].

²³⁰ Stakeholder responses to PSR information request dated 11 January 2023. [REDACTED].

Acquirers' responses to the PSR's Second Section 81 Notice

- 4.177** In response to our Section 81 Notice, eight out of ten acquirers told us that they had purchased this service in the last 12 months.²³¹ One of the remaining acquirers told us it does not purchase this service, but uses the service for its acquiring business and passes the cost through to its merchant customers.²³²
- 4.178** In the Section 81 Notice, we asked the acquirers whether there are any alternative services which could address the same business needs as the Reports service in the UK. None of the acquirers indicated there are any alternatives in response to these questions.²³³
- 4.179** We further asked acquirers what the implications would be for themselves if they didn't use the service.²³⁴ Nine out of the ten acquirers mentioned that not using the service would harm their proposition or make them less competitive.²³⁵ Nine of the ten acquirers stated that not using this service would mean they would find it more difficult to accurately reconcile and identify transactions which incurred fees.²³⁶ One of these acquirers noted that they may be able to use internal reports, but these could not have an equivalent amount of data.^{237, 238}
- 4.180** We asked acquirers whether, for the services they have chosen not to purchase, it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider.²³⁹ One acquirer told us it does not purchase the Reports service because its business and its merchant customers do not require it.²⁴⁰
- 4.181** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services.²⁴¹ One acquirer told us it was able to obtain funding for its Merchant Billing Report [REDACTED].²⁴² The remaining acquirers told us they had not been able to secure any discounts, rebates, or delays to fee increases from Mastercard.

Analysis

- 4.182** The choice of whether to use this service is ultimately made by acquirers and Mastercard submitted that customers can opt-in to receive specific reports. Mastercard also submitted that customers have the option to collect the same data contained in these reports themselves. An acquirer which responded to our first Section 81 Notice stated that acquirers could use their own data to create their own reports.²⁴³ A different acquirer, which responded to our second Section 81 Notice, told us that they may be able to

231 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

232 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

233 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

234 PSR information request dated 27 November 2023. [REDACTED].

235 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

236 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

237 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

238 Another stakeholder [REDACTED] made general statement that they use the service for its intended use.

239 PSR information request dated 27 November 2023. [REDACTED].

240 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

241 PSR information request dated 27 November 2023. [REDACTED].

242 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

243 Stakeholder responses to PSR information request dated 11 January 2023. [REDACTED].

use their own internal reports, but these would not have the equivalent amount of data compared to Mastercard's.²⁴⁴

4.183 Mastercard also submitted that there are third parties which can provide reporting services to acquirers. However, none of the respondents to our second Section 81 Notice mentioned these third parties, or any other alternative service.

4.184 The majority of respondents to our second Section 81 Notice indicated that there would be significant implications if they did not use the Mastercard Reports service. Further, the majority of acquirers stated that they were unable to secure discounts, rebates, or delays to increases in fees from Mastercard.

SMS Raw Data and Reports (Visa)

4.185 SMS Raw Data and Reports are services that provide acquirers with transaction-level settlement details to support reconciliation, research, and billing. The choice of whether to use the service is ultimately made by acquirers.

Visa's submissions

4.186 Visa submitted that its SMS Raw Data and SMS Reports service is one of a range of tools that exist to support acquirers with their internal business operations, including reconciliation, treasury funds management, and billing.²⁴⁵ Acquirers typically undertake these activities in-house by leveraging their transaction data and commercial experience.

4.187 Visa also submitted that there is a range of third-party service providers in the market who support acquirers to analyse their transaction data. For example, RS2 provides reconciliation services for SMS transactions.

Acquirers' responses to the PSR's Second Section 81 Notice

4.188 In response to our Section 81 Notice, seven out of ten acquirers told us that they had purchased this service in the last 12 months.²⁴⁶ One of the remaining acquirers told us it does not purchase this service, but uses the service within its acquiring business and passes the cost through to its merchant customers.^{247, 248}

4.189 In the Section 81 Notice, we asked the acquirers whether there are any alternative services which could address the same business needs as the SMS Raw Data and Reports service in the UK. None of the acquirers indicated there are any alternatives in response to this question.²⁴⁹

4.190 We further asked acquirers what the implications would be for themselves if they didn't use the service.²⁵⁰ Six acquirers said that not using the service could negatively impact acquirers.²⁵¹ Two of the respondents did not provide a response, one of which told us

244 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

245 Visa response to PSR questions dated 27 September 2023. [REDACTED].

246 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

247 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED]; call with stakeholder [REDACTED].

248 Two acquirers [REDACTED] stated that they did not purchase this service.

249 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

250 PSR information request dated 27 November 2023. [REDACTED].

251 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

they do not purchase the service.²⁵² Three of the acquirers explained that this service is essential to use the Visa Direct service.²⁵³ One of these explained that the Visa Direct service is mandated for gambling merchants.²⁵⁴ In addition to these three acquirers, one other acquirer said it would be unable to service gaming merchants without this service.²⁵⁵ Two of the merchants said not using the service would be a competitive disadvantage.²⁵⁶ One acquirer said the service is essential to normal operations and it could not operate the business without it.²⁵⁷ There was only one acquirer which said that not using the service would have no impact on its business because none of its merchant customers require the service.²⁵⁸

4.191 We asked acquirers whether, for the services they have chosen not to purchase, it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider.²⁵⁹ Both of the acquirers which told us they did not purchase this service told us this is because they do not require it.²⁶⁰

4.192 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for this service.²⁶¹

Analysis

4.193 SMS Raw Data and Reports is a service where the decision about whether to use it is ultimately made by acquirers.

4.194 Visa submitted that acquirers have a range of options available to them to support their internal business operations. None of the acquirers that responded to our Section 81 Notice mentioned these alternatives. In addition, acquirers highlighted that there are significant implications if acquirers do not use the service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

TC33 Clearing and Settlement Advice (Visa)

4.195 TC33 Clearing and Settlement (CAS) Advice is a service that provides acquirers with transaction-level settlement details to support reconciliation, research, and billing. The choice about whether to use the service is ultimately made by acquirers.

252 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

253 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

254 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

255 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

256 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

257 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

258 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

259 PSR information request dated 27 November 2023. [REDACTED].

260 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

261 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

Visa's submissions

- 4.196** Visa submitted that the CAS Advice service is one of a range of tools that exist to support acquirers with their internal business operations, including reconciliation and treasury funds management.²⁶² Acquirers typically undertake these activities in-house by leveraging their transaction data and commercial experience.
- 4.197** Visa also submitted that acquirers can additionally choose to purchase optional CAS Advice reports to support their business operations or choose not to use Visa's CAS Advice service.
- 4.198** Finally, Visa submitted that there is a range of third-party providers in the market who support acquirers to analyse their transaction data. Some examples of these providers include Sage, Trintech, RS2, and Kani.

Acquirers' responses to the PSR's Second Section 81 Notice

- 4.199** In response to our Section 81 Notice, seven out of ten acquirers told us that they had purchased this service in the last 12 months.^{263, 264}
- 4.200** In the Section 81 Notice, we asked the acquirers whether there are any alternative services which could address the same business needs as the TC33 CAS Advice service in the UK. None of the acquirers indicated there are any alternatives in response to this question.²⁶⁵
- 4.201** We further asked acquirers what the implications would be for themselves if they didn't use the service.²⁶⁶ Three acquirers said that they do not use the service.²⁶⁷ One acquirer said it would not be able to operate its business,²⁶⁸ another said not using it would impact its service performance,²⁶⁹ and one acquirer said it stopped purchasing the service as it is no longer utilised.²⁷⁰ Of the remaining seven acquirers, three of these said that they would struggle to correctly bill interchange payments.²⁷¹
- 4.202** We also asked acquirers for each of the services they have chosen not to purchase, whether it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider. One acquirer explained that it does not purchase TC33 CAS Advice from Visa because it uses alternative data from its internal platforms and the Visa Analytics Platform.²⁷² The acquirer stated that it uses these alternatives due to the excessive cost of TC33 CAS Advice (circa £2 million per annum). [REDACTED]. Another acquirer explained that it does not purchase TC33 CAS Advice because it has built this ability within its own systems so does not require these reports.²⁷³

262 Visa response to PSR questions dated 27 September 2023. [REDACTED].

263 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

264 Three acquirers [REDACTED] did not purchase this service.

265 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

266 PSR information request dated 27 November 2023. [REDACTED].

267 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

268 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

269 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

270 Stakeholder response to PSR questions dated 08 February 2024. [REDACTED].

271 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

272 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

273 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

The remaining respondent stated they had not purchased the service because they did not require it.

4.203 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. [REDACTED].²⁷⁴ [REDACTED].²⁷⁵ [REDACTED].

Analysis

4.204 TC33 CAS Advice is a service where the decision about whether to use it is ultimately made by acquirers.

4.205 Visa submitted that the TC33 CAS Advice service is one of a range of tools that exist to support acquirers with their internal business operations. Visa also submitted that acquirers are free not to use the TC33 CAS Advice service and three of the acquirers which responded to our Section 81 Notice told us that they do not use this service.²⁷⁶ Two of these acquirers further clarified that they do not purchase this service because they are able to use their own internal data as an alternative.²⁷⁷ The remaining acquirer said it has not purchased the service because it is not aware of it and neither it or its merchants require it.²⁷⁸

4.206 Visa also submitted that there are a range of third-party providers in the market which support acquirers to analyse and better utilise their transaction data, although none of the acquirers listed these as alternatives to the TC33 CAS Advice service. We also note that one acquirer told us that it decided not to purchase this service as the cost of purchasing it was significantly higher than the service which it replaced.²⁷⁹

4.207 [REDACTED].²⁸⁰ [REDACTED].

TC33 POS Advice (Visa)

4.208 TC33 POS Advice is a service that allows acquirers to receive authorisation and authorisation reversal details on a subscription basis. The choice of whether to use the service is ultimately made by acquirers.

Visa's submissions

4.209 Visa submitted that payment intermediaries will sometimes authorise card transactions on behalf of the acquirer and subsequently share details of these authorisations (and reversals) with the acquirer.²⁸¹ The acquirer will supplement these details with further information from its own systems before submitting the transaction data to Visa for clearing.

4.210 Visa further submitted that there is a range of proprietary solutions, technical formats, and protocols that acquirers and payment intermediaries can use for this purpose. Visa's TC33 POS Advice is one of the many solutions that enables acquirers to receive authorisation and reversal details.

274 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

275 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

276 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

277 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

278 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

279 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

280 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

281 Visa response to PSR questions dated 27 September 2023. [REDACTED].

4.211 Finally, Visa submitted that in the UK, the service is only used for [REDACTED] of Visa card transactions (approximately [REDACTED] of UK transaction volume). Acquirers can and do use other solutions to receive authorisation and reversal details from payment intermediaries, including on Visa transactions. Visa notes that acquirers typically manage this activity in-house and Visa does not have visibility of the other solutions available.

Acquirers' responses to the PSR's Second Section 81 Notice

4.212 In response to our Section 81 Notice, four out of ten acquirers told us that they had purchased the service in the last 12 months.^{282, 283}

4.213 In the Section 81 Notice, we asked the acquirers whether there are any alternative services which could address the same business needs as the TC33 POS Advice service in the UK. None of the ten acquirers indicated there are any alternatives in response to this question.²⁸⁴

4.214 We further asked acquirers what the implications would be for themselves if they didn't use the service.²⁸⁵ Four acquirers did not respond to this question.²⁸⁶ One acquirer said there may be competitive disadvantages from not using this service,²⁸⁷ and another acquirer said not offering the service to merchants may place the acquirer at a competitive disadvantage due its widespread use.²⁸⁸ One acquirer explained that it would not be able to bill interchange payments correctly.²⁸⁹ One said it would not be able to match certain authorisations to clearing which could lead to authorisation/clearing mismatching and data integrity penalties.²⁹⁰

4.215 We also asked acquirers for each of the services they have chosen not to purchase, whether it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider. One acquirer explained that it does not purchase TC33 POS Advice because it has built this ability within its own systems so does not require these reports.²⁹¹ The remaining respondents stated they had not purchased the service because they did not require it.

4.216 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they have been able to secure discounts, rebates, or delays to proposed fee increases for TC33 POS Advice.²⁹²

Analysis

4.217 TC33 POS Advice is a service where the decision about whether to use it is ultimately made by acquirers.

282 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

283 Six acquirers [REDACTED] told us they did not purchase this service.

284 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

285 PSR information request dated 27 November 2023. [REDACTED].

286 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

287 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

288 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

289 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

290 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

291 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

292 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

- 4.218** Visa submitted that there are a range of choices available to acquirers as alternatives to the TC33 POS Advice service and that acquirers typically manage this service in-house. While acquirers did not suggest any alternatives to this service, only four out of ten acquirers have purchased this service in the last 12 months with the majority stating that this is because they do not require the service and one stating they have built this capability using their own systems.
- 4.219** Among the four acquirers that did purchase this service, none of the acquirers managed to delay proposed fee increases to the service.

Visa Settlement Service Reports (Visa)

- 4.220** Visa Settlement Service (VSS) Reports provide clients with information on their net settlement positions. [REDACTED]. The choice about whether to use this service is ultimately made by the acquirer.

Visa's submissions

- 4.221** Visa submitted that VSS is one of a range of tools that exist to support acquirers with their internal business operations, including reconciliation and treasury funds management.²⁹³ Acquirers typically undertake these activities in-house by leveraging their transaction data and commercial experience.
- 4.222** Visa is not aware of any third-party providers who are currently offering the same functionality to acquirers in the UK for Visa card transactions.

Acquirers' responses to the PSR's Second Section 81 Notice

- 4.223** In response to our Section 81 Notice, all ten acquirers told us that they had purchased this service in the last 12 months.²⁹⁴
- 4.224** In the Section 81 Notice, we asked the acquirers whether there are any alternative services which could address the same business needs as the VSS Reports service in the UK. One respondent stated that there are alternatives to Visa's VSS Reports. The respondent stated that it would in theory be possible to enter into bilateral agreements with issuers for settlement and therefore bypass the Visa Clearing and Settlement platform.²⁹⁵ However, the respondent noted this would require bilateral agreements with each bank, so would be impractical in practice.²⁹⁶ None of the remaining acquirers stated that there are any alternatives to the VSS Reports service in the UK.²⁹⁷
- 4.225** We further asked acquirers what the implications would be for themselves if they didn't use the service.²⁹⁸ Seven acquirers mentioned negative consequences from not using the service. One acquirer said that not offering this service to merchants may place the acquirer at a competitive disadvantage due to its widespread use.²⁹⁹ Six acquirers explained that they would not be able to manage funding and payments to clear and

293 Visa response to PSR questions dated 27 September 2023 [REDACTED].

294 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

295 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

296 We believe this may be an alternative to core processing services which is covered in Annex 3.

297 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

298 PSR information request dated 27 November 2023. [REDACTED].

299 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

settle transactions.³⁰⁰ Of these, four said that there is no alternative to this service for Visa transactions.³⁰¹

4.226 Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. None of the acquirers told us they had been able to secure discounts, rebates, or delays to proposed fee increases for this service.³⁰²

Analysis

4.227 Visa submitted that VSS is one of a range of tools that exist to support acquirers with their internal business operations, including reconciliation and treasury funds management. However, none of the acquirers proposed any viable alternatives to the service and the one acquirer which did suggest an alternative indicated it would be impractical to implement. Further, acquirers indicated that there would be significant implications for them if they did not purchase this service and none of the acquirers have been able to secure discounts, rebates or delays to proposed fee increases.

VTS Acquirer Authentication (Visa)

4.228 The Visa Token Service (VTS) allows ecosystem participants (e.g. merchants, acquirers, issuers) to secure payments by replacing sensitive account information with a unique digital identifier known as a token. A fee is levied where VTS is used to facilitate or verify authentication data sent by a digital front-end. The choice of whether to use this service is ultimately made by merchants.³⁰³

Visa's submissions

4.229 Visa submitted that [REDACTED] fees for using VTS to tokenise transactions in the UK.³⁰⁴ The VTS Acquirer Authentication Fee is levied on acquirers for transactions where VTS is used to facilitate or verify authentication data sent by a digital front-end.

4.230 Visa also submitted that the main alternatives to VTS include non-tokenised authentication methods. Many merchant service providers and acquirers offer upfront risk management and authentication services for transactions made in more 'traditional' CNP environments. Alternatives to Visa include: Riskified, Stripe, RSA, Broadcom, Modirum, Worldline, RiskShield, iSoft, Signifyd, Callsign, and NuData among others.

4.231 Visa also submitted that merchants can choose to develop authentication capabilities in-house. Large firms in the technology and retail sectors can leverage direct consumer relationships to enter or expand into providing authentication services which compete with Visa.

4.232 Visa also submitted that digital payment front-ends have a large presence in retail purchases and also typically hold a lot of information about the person initiating the transaction. They can therefore also validate customer identity. For example, a customer

300 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

301 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

302 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

303 We have not been able to identify an equivalent service provided by Mastercard in this instance.

304 Visa response to PSR information request dated 26 September 2023. [REDACTED].

making a payment using a mobile digital wallet can verify their identity by entering their biometric information on a mobile device, thus facilitating authentication.

4.233 Finally, Visa submitted that it has developed, in collaboration with EMVCo, an industry-wide standardised token framework. Any party can use this open framework to create and adopt its own token programme.

Internal documents

4.234 A report produced in January 2022 by an external consultancy for Visa sought to [REDACTED].³⁰⁵ Among other things, the document discussed [REDACTED].

4.235 The external report makes [REDACTED]. The VTS is a network token which anonymises customer account information with a unique digital identifier that cannot be easily used to commit fraud if intercepted or stolen. On the other hand, a provider token is a service offered by an individual acquirer which anonymises customer account information between the merchant and the acquirer.

4.236 The external report states that [REDACTED]³⁰⁶ [REDACTED].³⁰⁷

Acquirers' responses to the PSR's First Section 81 Notice

4.237 We asked acquirers how they decide which scheme and processing services to purchase from Visa, which to purchase from alternative suppliers, and which not to purchase at all.³⁰⁸ One respondent told us that it purchases EMV 3DS and card tokenisation services from Visa and went on to state that these services 'aren't available from alternative providers as they are directly linked to the flow of funds and from data relating to the specific scheme'.³⁰⁹

Acquirers' responses to the PSR's Second Section 81 Notice

4.238 In response to our Section 81 Notice, nine out of ten acquirers told us that they had purchased this service in the last 12 months.³¹⁰

4.239 In the Section 81 Notice, we asked the acquirers whether there are any alternatives available to the VTS Acquirer Authentication service for acquirers. None of the acquirers indicated there are any alternatives for themselves in response to this question.³¹¹

4.240 We also asked acquirers whether there are any alternatives available to the VTS Acquirer Authentication service for merchants.³¹² One respondent indicated that there are potential alternatives to Visa's VTS Acquirer Authentication fee.³¹³ The respondent stated that there are no third-party services merchants could use in order to get the benefits out of CNP transactions. Merchants have the option of managing their tokens directly in their payments environment by either using the acquirer's Token Management Service, or by going directly to the card issuer. However, the acquirer stated that going direct to the

305 [REDACTED].

306 [REDACTED].

307 [REDACTED].

308 PSR information request dated 11 January 2023. [REDACTED].

309 Stakeholder response to PSR information request dated 11 January 2023. [REDACTED].

310 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

311 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

312 PSR information request dated 27 November 2023. [REDACTED].

313 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

issuer is a significant technical burden and not viable for the vast majority of merchants. None of the remaining acquirers mentioned any potential alternatives for merchants to the VTS Acquirer Authentication service.

- 4.241** We further asked acquirers what the implications would be for the acquirer if they didn't use the service.³¹⁴ Seven of the ten acquirers noted negative impacts from not using this service. Of the remaining three, one acquirer does not purchase the service³¹⁵ and two did not provide responses.³¹⁶ Three acquirers explained there would be competitive disadvantages to not using the service.³¹⁷ One acquirer said that fraud and decline rates could increase.³¹⁸ One said it would be unable to support tokenised transactions for merchants.³¹⁹ One said it would have difficulty in correctly pricing tokenised transactions to merchants.³²⁰
- 4.242** Similarly, we asked acquirers to explain, based on their knowledge, what the implications of not using the VTS Acquirer Authentication service would be on the categories of merchants which commonly use the service.³²¹ Six acquirers explained issues for merchants which do not use this service.³²² Three said decline rates would be likely to increase.³²³ One said that merchants would be unable to offer tokenised transactions at the gateway level.³²⁴ One said that fees to merchants would increase, and merchants would be charged extra for not using the service.³²⁵ One acquirer said most merchants do not use this service because it is relatively new, but it expects usage to grow substantially over the next five years.³²⁶
- 4.243** We asked acquirers whether, for the services they have chosen not to purchase, it was because they, or their merchant customers, did not require the service, or because they purchased an equivalent service from an alternative provider.³²⁷ One acquirer which told us it did not purchase this service told us this is because [REDACTED].³²⁸
- 4.244** Finally, we wanted to assess the countervailing buyer power that acquirers have when purchasing optional services. [REDACTED].³²⁹ [REDACTED]. None of the remaining respondents told us they had been able to secure discounts, rebates, or delays to proposed increases in fees for this service.³³⁰

314 PSR information request dated 27 November 2023. [REDACTED].

315 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

316 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

317 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

318 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

319 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

320 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

321 PSR information request dated 27 November 2023. [REDACTED].

322 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

323 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

324 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

325 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

326 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

327 PSR information request dated 27 November 2023. [REDACTED].

328 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

329 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

330 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

Analysis

- 4.245** VTS Acquirer Authentication allows ecosystem participants to secure payments by replacing sensitive account information with a unique identifier known as a token. A fee is levied where VTS is used to facilitate or verify authentication data sent by a digital front-end. The choice about whether to use the service is ultimately made by merchants and we have not obtained evidence from merchants regarding the choices available to them.
- 4.246** Visa's internal documents, including externally produced reports, indicate that [REDACTED]. The document notes that [REDACTED]. Only one of the acquirers which responded to our Section 81 Notice suggested acquirer tokens as an alternative to VTS.
- 4.247** Visa also submitted that several third-party options are available to merchants for non-tokenised authentication methods and that large merchants can develop their own authentication services. One acquirer confirmed that merchants have the option of managing their tokens directly with the card issuer, but also stated this is not viable for the vast majority of merchants.³³¹
- 4.248** Visa also submitted that digital payment front-ends can also be used to validate customer identity – for example through a digital wallet. However, we consider that this would require merchants to steer their customers towards these payment methods, which may not be possible.
- 4.249** Visa submitted that there are third-party alternatives to VTS including non-tokenised authentication methods. However, we note that Visa did not explicitly state that these are alternatives to VTS Acquirer Authentication. The majority of acquirers which responded to our Section 81 Notices also stated that there are no alternatives to the VTS Acquirer Authentication service. As noted above, the choice of whether to use this service is made by merchants and we have not obtained evidence from this group. Therefore, we cannot rule out the possibility that merchants have alternatives available further down the supply chain.
- 4.250** The respondents to our second Section 81 Notice also stated that there would likely be significant implications for acquirers and merchants which do not purchase this service.
- 4.251** We also note that the majority of acquirers have not secured discounts, rebates, or delays to proposed fee increases. [REDACTED].³³²

331 Stakeholder response to PSR information request dated 27 November 2023. [REDACTED].

332 Stakeholder responses to PSR information request dated 27 November 2023. [REDACTED].

Annex A: Additional optional services

4.252 In addition to the optional services we analysed above, we asked acquirers whether Mastercard and Visa provide any other services which the scheme consider optional from the perspective of the acquirer and for which either: (i) the acquirer had spent more than £10,000 in the previous year; or (ii) the acquirer's merchant customers had collectively spent more than £100,000 in the previous year.³³³

4.253 The responses we received from acquirers are outlined below.

Additional Mastercard services

4.254 In response, six acquirers listed optional services in addition to those submitted to us by Mastercard.³³⁴ In total, these six acquirers listed 42 additional Mastercard services which Mastercard considers to be optional and met the above thresholds.

4.255 Having reviewed these submissions, we consider that not all of the services are necessarily optional. In particular, we consider the following are not within the scope of our analysis:

- One acquirer ([REDACTED]) listed 13 fees which we believe to be behavioural fees rather than optional services, as well as one service which we have chosen to deprioritise and one which is out of scope of our analysis;³³⁵
- One acquirer ([REDACTED]) listed seven fees which are outside the scope of our analysis;³³⁶
- Two acquirers ([REDACTED] and [REDACTED]) listed the MATCH (Mastercard Alert To Control High-Risk Merchants) service. Mastercard submitted that aspects of this service are not optional, thus we have not considered it to be optional;³³⁷ and
- Two acquirers ([REDACTED] and [REDACTED]) listed the Mastercard Payment Transactions service. This has been excluded from our analysis because we consider it is a real-time payments service rather than a card-based service and it is therefore out-of-scope of this market review.³³⁸

333 PSR information request dated 27 November 2023. [REDACTED].

334 The acquirers were: [REDACTED].

335 These were: (i) three fees are part of the 'Processing Integrity Program' which are charged for non-compliance with certain scheme requirements; (ii) Four fees which are part of the 'Transaction Processing Excellence Program'. These fees are designed to encourage or discourage certain behaviours; (iii) Excessive Chargeback Violation Assessment; (iv) GCMS Processed Message Rejects; (v) Data Integrity Monitoring Program; (vi) High Excessive Chargeback Merchant Violation Assessment; and (vii) MCC Miscoding fee. We have also excluded the [REDACTED], and the Strategy Program because this is a mandatory service.

336 These were: (i) The Acquirer Performance Development Assessment – which we consider to be a behavioural fee; (ii) The E-com Security and Quality Fund – which does not seem to apply to the UK; (iii) The Franchise Management Program Customer Remote Review – which we consider to be a mandatory service; (iv) Transaction Investigator – which we have already considered and chosen not to investigate further [REDACTED]; (v) [REDACTED] (vi) Strategy Program – which is a mandatory fee, (vii) [REDACTED].

337 Mastercard response to PSR questions dated 2 October 2023. [REDACTED].

338 One acquirer ([REDACTED]) also mentioned [REDACTED], which we have excluded because Mastercard generates [REDACTED] from the service. The same acquirer ([REDACTED]) also stated that the Mastercard Payments Transaction service is mandatory for merchants in the gambling sector, but optional for others. One acquirer ([REDACTED]) mentioned Merchant Advice Codes, which are part of the Transaction Processing Excellence program, which we have excluded because it is a behavioural fee.

4.256 In addition, some of the services mentioned by acquirers are a part of the services we have already analysed in this annex.³³⁹

4.257 Once we have excluded these services from the analysis and taken account of duplicates, the respondents have identified five unique additional Mastercard optional services. These are presented below in Table 6.

Table 6 Additional optional fees and services provided by Mastercard, as indicated by acquirers

Acquiring Dynamic Linking Validation Service Fee	This service is provided (and a fee is charged) to facilitate the processing of transactions that require delegated authentication (e.g. through Apple Pay), but are not authenticated through Identity Check.
Early Reconciliation Service Fee	A per-transaction fee for the Early Reconciliation Service.
Mastercard Cyber Security Merchant Fee	Cyber Secure is a program to create transparent cybersecurity information on bank and merchant online profiles. This includes an assessment of the cyber risk of all merchants with a public URL known to Mastercard, which acquirers are given access to.
Location Services Program Fee	The Location Services Program gives issuers and acquirers access to the location of all acceptance points connected to the Mastercard Network. Customers are charged a monthly fixed fee per active ICA (Interbank Card Association Number – unique identifier assigned to issuers, acquirers and other members by Mastercard), which allows for 100,000 API calls.
Instalments	Service giving merchants the ability to accept Mastercard BNPL (Buy Now, Pay Later) transactions.

Additional Visa services

4.258 In response to our Section 81 Notice, six acquirers listed 49 additional Visa services which Visa considers optional and met the above thresholds.

4.259 Having reviewed these submissions, we consider that not all of the services are necessarily optional. In particular, we consider that the following are not within the scope of our analysis:

- One acquirer ([redacted]) listed eight fees which we consider to be behavioural fees;³⁴⁰
- One acquirer ([redacted]) listed the System Integrity Fees Report, which we also consider to be a behavioural fee, and CBPS, which we consider to be out of scope;³⁴¹

339 These services are: Authentication Detail Report Bulk, Risk Acquirer Loss Data, and the Monthly Summarised Billing Report which are part of the Reports service.

340 Six fees that are part of the 'System Integrity Program'; the Secure Credential Integrity Fee; Visa Stop Payment Service (VSPS) Repeat Authorisation Decline Fee.

341 [redacted].

- One acquirer ([redacted]) listed the Secure Credential Fee CNP, which we also consider to be a behavioural fee;
- One acquirer ([redacted]) listed the Visa Merchant Screening Service (VMSS) Subscription Service, which we consider to be a mandatory service;
- Two acquirers ([redacted] and [redacted]) both listed Visa Direct.³⁴² This has been excluded from our analysis because we consider it is a real-time payments service rather than a card-based service and is thus out-of-scope of this market review. One acquirer ([redacted]) also listed the Visa Network Merchant Initiated Transaction Service, which we consider to be out of scope.³⁴³

4.260 In addition, some of the services mentioned by acquirers are a part of the services we have already analysed in this annex or are out of scope of our analysis.³⁴⁴

4.261 Once we have excluded these services from the analysis and taken account of duplicates, the respondents have identified 12 unique additional Visa optional services. These are presented below in Table 7.

Table 7 Optional fees and services provided by Visa, as indicated by acquirers

Estimated and Incremental Authorisations	This is used where the merchant does not know the final amount of a transaction. In these cases, the merchant must 'pre-authorise' the transaction.
[redacted]	[redacted]
Non-Local Currency Settlement Fee	The fee is applicable to acquirers settling in one non-local currency, specifically when the acquirer has chosen to settle with Visa in a currency that is different from the merchant country currency where the transaction was completed.
Card Verification Value 2 (CVV2) Fee	This is charged when a merchant wishes to confirm the Card Verification Value 2 details provided by the cardholder and validate these against those expected by the issuing bank.
Visa Account Updater (VAU)	VAU is a service that allows merchants (through their acquirers) to securely access updated account information for their customers. For example, when a card held 'on file' by a merchant (e.g., for a subscription) expires, the merchant can receive updated information through its acquirer on the replacement without having to request this from the cardholder.
Visa Analytics Platform	Visa Analytics Platform is a self-service, web-based analytics solution, providing Visa clients with payments data and insights.

342 One acquirer ([redacted]) also stated the Visa Direct service is mandatory for merchants in the gambling sector, but optional for others.

343 [redacted].

344 [redacted].

Visa Online Monthly Subscription	Visa Online (VOL) Monthly Subscription is a secure, internet-based communications channel for delivering information to clients for Visa products, systems, and services.
Visa Resolve Online (VROL)	Visa offers a range of chargeback management services. VROL offers Visa’s issuing and acquiring clients a way to access, manage and resolve disputes. It tracks the life cycle of a dispute online by ensuring that all the necessary documentation is available electronically from the initial transaction inquiry through to the receipt of the final rulings.
VBASS Access Fee	Bank Identification Numbers (BINs) are six-to-eight-digit numbers licensed to Visa by issuers. BIN Attributes provide information such as the BIN’s product issuer, licensed country, and more. The Visa BIN Attribute Sharing Service (VBASS) enables the sharing of BIN Attributes, whether directly from Visa or indirectly through an acquirer, processor, or other third parties. There are several fees that Visa may charge to acquirers providing merchants with up-to-date Visa BIN information, depending on the data shared and the mechanism used to provide it.
ADVT Testing	Acquirer Device Validation Toolkit (ADVT) is a legacy product that was designed to assist acquirers with the testing of card accepting devices and related chip infrastructure.
Dynamic Currency Conversion	<p>Visa operates the Dynamic Currency Conversion (DCC) programme, which allows acquirers to register their chosen DCC solution or provider with Visa. DCC solutions give cardholders the option to pay in their home currency (rather than local currency) when using their card abroad, thus helping cardholders to avoid foreign exchange fees.</p> <p>For example, DCC solutions can enable international cardholders in the UK to convert the transaction amount from sterling to their home currency to avoid foreign exchange fees. This is a service that is especially attractive to merchants with international customers/cardholders.</p>
Multiple FTSRE Fee	Visa rules state that members that process transactions through the International Settlement Service, the National Net Settlement Service, or the Area Net Settlement Service will be permitted only one fund transfer settlement report entity (FTSRE) per settlement currency, per settlement service. The Multiple FTSRE Fee will apply if a member has multiple FTSREs supporting multiple settlement currencies.

Analysis of additional optional services highlighted by acquirers

- 4.262** As mentioned above, acquirers identified a further five Mastercard optional services and 12 Visa optional services in addition to those that we have already identified. We asked acquirers whether (i) there were any alternative services that could address the same business need from the perspective of acquirers; and (ii) whether there are any alternative services that merchants could use instead of the optional services. The majority of respondents told us that there are no alternatives to these additional optional services provided by Mastercard and Visa.
- 4.263** There was, however, one exception. One acquirer highlighted Mastercard's Instalments service. The acquirer explained that this service gives merchants the ability to offer buy now, pay later functionality.³⁴⁵ The acquirer also explained that Klarna is an alternative service that could address the same business need.³⁴⁶
- 4.264** We also asked acquirers whether, in the last five years, they have been able to either: (i) negotiate reductions to the fees charged for optional services, (ii) obtain payments or funding which offset (partially or wholly) the magnitude of the fees charged for the optional services, or (iii) reject or delay any proposed increases in fees charged for optional services.
- 4.265** The majority of responses indicated that acquirers have been unable to achieve any of these in the last five years. There was, however, one exception to this as one acquirer managed to obtain a [REDACTED] discount for a group licence for Visa's Analytics Portal.³⁴⁷

345 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED].

346 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED].

347 Stakeholder response to PSR information request dated 27 November 2023 [REDACTED].

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