

Annex 3 to Interim Report

Market review of scheme and processing fees

The supply of core
processing services
to acquirers

May 2024

Contents

Annex 3	The supply of core processing services to acquirers	3
----------------	---	---

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

Annex 3

The supply of core processing services to acquirers

- 3.1** This annex presents the evidence on competitive constraints that Mastercard and Visa face when supplying core processing services to acquirers. Our analysis draws on evidence from Mastercard’s and Visa’s submissions, their internal documents, issuers’ and acquirers’ responses to our information requests, and evidence from third-party service providers to acquirers and issuers.
- 3.2** The annex is structured as follows:
- **Defining processing services:** We review the Interchange Fee Regulation’s (IFR) definition of this term and the value chain of which it forms a part.
 - **The separation between scheme and processing activities:** We then examine the separation the IFR imposes between scheme and processing activities, and how Mastercard and Visa have implemented this.
 - **Competition for the supply of processing services:** Our analysis considers the providers currently available to acquirers and issuers in the UK, and the threat of entry by new providers.

Defining processing services

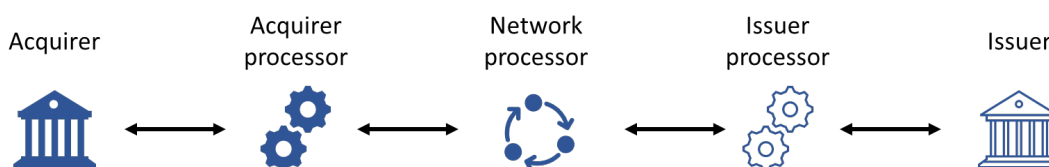
- 3.3** This annex uses the term ‘processing’ as defined in the IFR – as a synonym of ‘network processing’, except in the expressions ‘issuer processing’ or ‘acquirer processing’.
- 3.4** The IFR defines ‘processing’ as ‘the performance of payment transaction processing services in terms of the actions required for the handling of a payment instruction between the acquirer and the issuer’.¹ These services include three ‘core’ activities:
- **Authorisation:** Transporting authorisation requests, responses, cancellations, and advisement messages necessary to verify the identity of the cardholder, authenticity of the card, and availability of funds at the time of purchase.
 - **Clearing:** Exchanging financial transaction details between acquirer and issuer. This facilitates posting a cardholder’s account and reconciliation of the acquirer’s or issuer’s settlement position.
 - **Settlement:** Facilitating the exchange of funds on behalf of issuers and acquirers.²

¹ IFR, Article 2, definition 27.

² [X].

- 3.5** Processing activities can potentially include a number of value-added services (VAS), such as reporting and information services.³ Market participants also refer to processing as ‘network processing’, ‘interbank processing’ or ‘switching’.
- 3.6** Under this definition, processing services are different from ‘issuer processing’, which includes all the activities that make up the management of card payments by an issuer. This includes transmitting transaction data, verifying card details, and checking whether a cardholder account has sufficient funds or credit in order to approve payments.⁴
- 3.7** Processing in the IFR sense is also distinct from ‘acquirer processing’. An acquirer processor provides acquirers with technology that allows them to authorise transactions and receive transaction settlement information.
- 3.8** In other words, processing as defined in the IFR is an activity that sits at the centre of a longer value chain. It allows the transmission of information between acquirers and issuers. On the two sides of the transaction, this information can be handled by acquirer and issuer processors, although acquirers and issuers can also self-supply these services.⁵

Figure 1: The place of processing in the value chain



- 3.9** Except with respect to ‘on us’ transactions where the acquirer and the issuer are the same entity, an issuer or acquirer cannot unilaterally decide to change who processes a transaction between them and another acquirer or issuer. Instead, they will need to ensure that any proposed processing solution is available to both issuer and acquirer, and they must establish the needed bilateral or multilateral agreement that transactions between the relevant parties will be processed with the provider at issue.⁶

3 [REDACTED].

4 An issuer processor told us that issuers do not outsource their issuer processing demands to Mastercard or Visa, as the schemes do not supply the ‘suite’ of services required for an issuer’s needs. Mastercard and Visa are therefore not seen as competitors in issuer processing (call with stakeholder [REDACTED]). On the other hand, Visa submitted that fraud scoring solutions and authentication services offered by some issuer processors are comparable to solutions offered by Visa [REDACTED].

5 The ‘processing value chain’ can be further extended to include the ‘payment gateway’, i.e. the technology that captures, stores, and transmits card information to the acquirer, acting as an interface between a merchant’s website and the acquirer.

6 [REDACTED].

The separation between scheme and processing activities

3.10 The IFR introduced a separation between scheme and processing activities.⁷ Article 7 of the IFR states that:

Payment card schemes and processing entities:

(a) shall be independent in terms of accounting, organisation and decision-making processes;

(b) shall not present prices for payment card scheme and processing activities in a bundled manner and shall not cross-subsidise such activities;

(c) shall not discriminate in any way between their subsidiaries or shareholders on the one hand and users of payment card schemes and other contractual partners on the other hand and shall not in particular make the provision of any service they offer conditional in any way on the acceptance by their contractual partner of any other service they offer.

3.11 The separation between scheme and processing services came into force on 9 June 2016.⁸ Mastercard and Visa proceeded to change their businesses as follows:

Separation within Mastercard

3.12 Mastercard has a separate business unit within Mastercard Europe, called Mastercard Switching Services. Although it is housed within the Mastercard Europe legal entity, this unit has a separate management team, dedicated sales team and support functions (finance, legal, franchise, etc.), separate pricing, invoicing and rule books, and separate IT access rights and workspaces.⁹

3.13 Mastercard Switching Services handles authorisation, clearing and settlement, along with 'switch-only' (processing-only) VAS. These are VAS that can be offered if Mastercard processes a transaction but does not necessarily require the customer to use Mastercard.¹⁰

3.14 Mastercard's documents refer to the two separate units dealing with scheme and processing services as Scheme and Switch respectively.¹¹ [REDACTED].¹²

7 See also IFR recitals 32 and 33.

8 Further requirements, including limits on information exchange, separate profit and loss accounts, separate corporate organisation (workspaces, management and staff) and separate decision-making, entered into effect on 7 February 2018. See European Commission Press Release, [Competition: Commission welcomes new rules that benefit consumers by promoting more competition in processing of card payments](#), 18 January 2018.

9 [REDACTED].

10 [REDACTED]. The other categories of VAS are scheme-only VAS, which are relevant if Mastercard provides scheme services but do not require that the transaction is processed by Mastercard, and standalone VAS, which can be provided for any scheme regardless of transactions being processed by Mastercard or not.

11 [REDACTED].

12 [REDACTED].

Separation within Visa

- 3.15** Visa's operating model in Europe is based on legal separation between Visa Europe Limited (VEL) and Visa Technology and Operations (VTO), a US company and wholly owned subsidiary of Visa Inc. VTO handles the regulated pricing and strategic decision-making for domestic and intra-EEA processing. VTO and VEL each have independent employees, senior management, and decision-making bodies.
- 3.16** VEL operates the scheme and also supports and delivers other services. These include some non-strategic operational and technology elements of processing, such as supporting authorisation, clearance and settlement for domestic and intra-EEA transactions. VEL does not make pricing or strategic decisions on processing, and does not have access to processing sensitive information. VEL delivers these other services to its issuer and acquirer clients in accordance with VTO's pricing and strategic decisions for European processing.¹³
- 3.17** Consistent with Visa's obligations under the IFR, Visa's internal documents show that, [REDACTED]. In particular:
- [REDACTED].
 - [REDACTED].¹⁴

Competition for the supply of processing services

- 3.18** The separation between scheme and processing activities implemented by the IFR was aimed at introducing more competition in processing.¹⁵ Separation was intended to allow 'all processors to compete for customers of the schemes', with issuers and acquirers able to source scheme and processing services from different suppliers. For example, a payment originated from a Mastercard (Visa) payment card can in principle be processed by a non-Mastercard (non-Visa) entity.
- 3.19** This section examines whether this form of competition has emerged in the UK. We consider evidence both on current competition and on barriers to entry for new processors in the UK market.

Mastercard's and Visa's submissions

- 3.20** Visa told us that 'for transactions carried out by four-party card schemes, issuers and acquirers can have a choice of the payment processing infrastructure. They are able to make this choice independent of their choice of scheme, meaning that Visa's processing services are optional even for Visa Scheme payments.'¹⁶

13 VISA response to PSR questions dated 12 January 2022. [REDACTED].

14 [REDACTED].

15 See IFR, recital 33.

16 VISA response to PSR questions dated 12 January 2022. [REDACTED].

3.21 Mastercard told us 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 switching services from Mastercard. The customer remains free to agree whatever switching arrangement it sees fit, be that with Mastercard, or with competing providers of switch services.’ The only requirement is that issuers and acquirers agree to use Mastercard’s switch as the ‘switch of last resort’ to process transactions if other switch providers’ systems fail.¹⁷

Available choices of processor

3.22 In several countries competition in processing is separate from competition between schemes, but the evidence suggests that this has not so far been the case in the UK.

Evidence from Mastercard documents

3.23 A Mastercard document from November 2021 distinguishes [redacted].

- a. [redacted].
- b. [redacted].¹⁸ [redacted].
- c. [redacted].¹⁹

3.24 The UK is listed among the countries in the first group.²⁰ The same document shows that Mastercard processes [redacted] of its branded UK purchase transactions. The proportion is either lower or much lower in five other European countries: [redacted].²¹

3.25 Several documents show that Mastercard has been facing increasing competition on processing in some European countries. As far back as 2018, a document stated that ‘a top league of pan-European processors [had] emerged, in addition to domestic players, significantly broadening our competition’.²² A document from November 2021 states that [redacted].²³

3.26 A June 2022 document states that Mastercard should focus on growing its share of processing. It provides the following approaches:

- [redacted]
- [redacted]
- [redacted]²⁴

17 [redacted].

18 [redacted].

19 [redacted].

20 [redacted].

21 [redacted]. Mastercard processes almost all cross-border Mastercard branded transactions in every country (see [redacted]).

22 [redacted].

23 [redacted].

24 [redacted].

3.27 As part of this strategy, [REDACTED],²⁵ [REDACTED].²⁶ [REDACTED].

- [REDACTED]
- [REDACTED].²⁷

3.28 However, none of the documents we reviewed indicates Mastercard applied this strategy to the UK. In fact, the same document discussed in paragraph 3.23 states that, in countries in which [REDACTED].²⁸ [REDACTED].²⁹ This is also stated in a more recent document from June 2022 [REDACTED].³⁰ [REDACTED].

3.29 Finally, Mastercard told us that [REDACTED].³¹

Evidence from Visa documents

3.30 A Visa document from August 2017 noted some trends [REDACTED]:

- [REDACTED]
- [REDACTED]
- [REDACTED]³²

3.31 A document from 2020 considers the supply of processing services in several European countries. [REDACTED].³³

- [REDACTED].
- [REDACTED].
- [REDACTED].
- [REDACTED].
- [REDACTED].

3.32 Visa documents [REDACTED].^{34, 35} An internal document from May 2020 shows that [REDACTED]. The document also states that [REDACTED].³⁶

3.33 Finally, a document states that [REDACTED].³⁷

25 [REDACTED].

26 [REDACTED].

27 [REDACTED].

28 [REDACTED].

29 [REDACTED].

30 [REDACTED].

31 Mastercard response to PSR questions dated 19 September 2023. [REDACTED].

32 [REDACTED].

33 [REDACTED].

34 [REDACTED].

35 Visa's documents also indicate [REDACTED].

36 Domestic debit ATM transactions are not processed by the card scheme but by Vocalink, which is owned by Mastercard. [REDACTED].

37 [REDACTED].

Acquirers' views

- 3.34** We asked acquirers whether, for an acquirer who wished to offer UK merchants the ability to accept Mastercard-branded or Visa-branded cards, there were alternative providers that could be credibly used instead of purchasing Mastercard or Visa processing services. Only one of the 17 acquirers who responded to our information request indicated the existence of a credible alternative to Mastercard or Visa processing in the UK.
- 3.35** Thirteen acquirers³⁸ told us that they were not aware of any credible alternatives to Mastercard and Visa for processing transactions originating from their respective cards. One told us it considered the distinction between scheme and processing services to be 'in effect considered irrelevant'. Both types of services are required to provide acquiring services; both constitute a cost of providing merchant acquiring services, and the schemes do not provide an opportunity to negotiate the costs of either.³⁹
- 3.36** One acquirer told us that an option would be to 'go directly to the issuers', which would remove the need to pay processing fees to Mastercard or Visa. However, they observed the model would be technically far more complex and expensive to support, as the acquirer would need to connect to each issuer separately, whereas Mastercard and Visa provide connectivity with the global network of issuers.⁴⁰
- 3.37** Five acquirers mentioned the possibility of either Mastercard or Visa processing transactions that involve the other scheme's branded cards.⁴¹ However, four of them told us that they did not consider this solution either technically or financially advantageous.
- 3.38** One acquirer told us that the IFR's separation of scheme and processing businesses had opened up the opportunity for them to consider choosing either Mastercard or Visa as its single processor for transactions on cards from both schemes. The acquirer told us that there was no other provider (other than Mastercard and Visa) who entered the market as a processor, who offered a viable alternative. However, it explained that, while Mastercard and Visa have the ability to offer a single processor option, they would still need to route transactions back to the original card scheme associated with the card being processed. So, while a single processor approach would reduce the number of technical connections required to operate as an acquirer, the cost of processing would be greater.⁴²
- 3.39** A second acquirer made a similar argument, pointing out that if, for example, it used Visa to route transactions involving a Mastercard-branded card, Visa would still have to send those transactions through Mastercard to reach the Mastercard-issuing bank, adding expense and points of failure.⁴³
- 3.40** We note that these two acquirers referred to options they could adopt unilaterally, not to the possibility of moving to a different processor through an agreement with issuers.

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

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

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

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

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

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

3.41 Another acquirer told us Visa and Mastercard provide processing services to European banks and could theoretically process each other's transactions. However, they do not provide clearing and settlement services for those transactions, making the use of a single processor possibly worse than relying on Mastercard and Visa separately. An alternative could be some pan-European or domestic UK card processing centre, but both parties – issuers and acquirer – would have to purchase the services of the processing operator.⁴⁴

3.42 A fourth acquirer explained that, while it is not aware of any credible alternative providers for all processing services, it could theoretically use authorisation services from Visa and clearing services from Mastercard, or vice versa. However, this scenario would raise significant technical and commercial challenges. If an acquirer were to process Visa transactions for clearing via Mastercard, Mastercard would then need to push those Visa transactions through the Visa network for clearing. The acquirer thought this scenario unlikely to present any clear financial advantage for acquirers in the UK in the current ecosystem.⁴⁵

3.43 Visa also told us that [REDACTED].⁴⁶

Summary of the evidence

3.44 The evidence we have received indicates that, unlike some other countries, the UK currently has no network processor of Mastercard and Visa transactions other than those companies themselves. [REDACTED]. Acquirers operating in the UK do not consider there is a commercially viable alternative to processing services provided by the schemes.

Potential competition and barriers to entry

3.45 Even in the absence of alternative providers currently operating in the UK, Mastercard and Visa could still face competitive pressure if alternative processors could easily enter the UK market and offer a better or cheaper service. This sub-section considers the evidence on barriers to entry for alternative processors.

Evidence on the threat of entry

3.46 Mastercard told us that [REDACTED].⁴⁷

3.47 [REDACTED].

3.48 [REDACTED]. Visa told us that [REDACTED].⁴⁸ One acquirer who benefited from [REDACTED] told us [REDACTED].⁴⁹

3.49 Visa told us that, [REDACTED].

- [REDACTED]
- [REDACTED]⁵⁰

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

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

46 Visa response to PSR questions dated 19 September 2023. [REDACTED].

47 Mastercard response to PSR questions dated 9 November 2022. [REDACTED].

48 Visa response to PSR questions dated 9 November 2022. [REDACTED].

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

50 Visa response to PSR questions dated 19 September 2023. [REDACTED].

3.50 Visa [redacted]. However, Visa told us [redacted].⁵¹ [redacted].⁵²

3.51 To understand the prospect of entry in network processing, we had conversations with [redacted]. [redacted] is an issuer processor that is part of a group of companies that includes an acquirer; [redacted] operates both as issuer processor and as acquirer. [redacted]. All [redacted] companies told us they have no plans to start processing card transactions in the UK.⁵³

3.52 [redacted].⁵⁴

3.53 [redacted] told us that there are no specific technical or regulatory barriers to entering a new national market as a processor. However, there needs to be a clear business case for doing so. Specifically, it will have to achieve a large enough scale to offer competitive fees to issuers and acquirers, as processing costs for each transaction depend on the scale of operation. [redacted] told us that this scale is very difficult to reach. Typically, the decision to enter a new country as a processor is driven by the local banks' desire to use a different connection.⁵⁵ [redacted].⁵⁶

3.54 [redacted], which is part of a group of companies that includes an acquirer, explained to us that [redacted].⁵⁷ [redacted] also explained that it would be hard to demonstrate the value of this service to issuers.⁵⁸

3.55 Finally, [redacted], which is active both as an acquirer (and acquirer processor) and as an issuer processor, told us that it was not in a position to bypass Mastercard or Visa processing, not even when it was already present on both sides of the transaction.

Evidence on barriers to entry

3.56 We consider that issuers' and acquirers' inability to unilaterally decide to change who processes a transaction may constitute a significant barrier to entry for new processors. Any company wishing to enter the market as a processor would need to establish connections with a number of issuers and acquirers in order to have a viable business. Building and maintaining these connections would entail development and ongoing fixed costs from issuers and acquirers, which would be incentivised to incur them only if they expected to benefit from lower fees or a better service. The expected benefit would be proportionate to the volume of transactions processed by the alternative processor and would therefore depend on the number and size of customers that the new processor is able to attract on the other side of the market. In particular, acquirers would be interested in making the necessary investments only if they expected that some of the largest issuers would also join and re-route a significant share of their transactions.

51 Visa response to PSR questions dated 19 September 2023. [redacted].

52 [redacted].

53 Calls with stakeholders [redacted].

54 Call with stakeholder [redacted].

55 Call with stakeholder [redacted].

56 Call with stakeholder [redacted].

57 [redacted]. Call with stakeholder [redacted].

58 Call with stakeholder [redacted].

3.57 However, none of the issuers that responded to our information request saw any benefit in procuring core processing services in the UK from a supplier other than the operator of the corresponding scheme. They believed doing so would result in higher costs,⁵⁹ technical challenges,⁶⁰ increased complexity,⁶¹ and potentially operational risks,⁶² without providing any customer benefits.⁶³

3.58 The structure of the contracts with Mastercard and Visa also reduces issuers' incentive to switch part of their transaction volume to a different processor. In particular, net processing fees are often conditional on the volume of processed transactions, while large issuers tend to be charged zero net fees.

3.59 We received evidence on agreements between Mastercard and three issuers on processing fees.

3.60 In [redacted] were tiered and linked to the volume of transactions processed. The contract defines some performance levels [redacted], as shown in Figure 2. [redacted].⁶⁴

Figure 2 [redacted]

[redacted]

Source: [redacted].

3.61 In another agreement, Mastercard agreed to [redacted].⁶⁵

3.62 An agreement with a large issuer [redacted].⁶⁶

3.63 Visa documents show that the per-transaction fee charged to issuers may [redacted]. A Visa document dated July 2021 shows that, [redacted] as shown in Figure 3.⁶⁷

Figure 3 [redacted]

[redacted]

Source: [redacted].

3.64 [redacted] For example, as shown in Figure 4, [redacted].⁶⁸

Figure 4 [redacted]

[redacted]

Source: [redacted].

59 Stakeholder responses to PSR information request dated 11 January 2023. [redacted].

60 Stakeholder responses to PSR information request dated 11 January 2023. [redacted].

61 Stakeholder responses to PSR information request dated 11 January 2023. [redacted].

62 Stakeholder response to PSR information request dated 11 January 2023. [redacted].

63 Stakeholder response to PSR information request dated 11 January 2023. [redacted].

64 [redacted].

65 [redacted].

66 [redacted].

67 [redacted].

68 [redacted].

3.65 The largest issuers [REDACTED]. A document from 2020 mentions that, [REDACTED].^{69, 70}

3.66 Contracts linking the percentage rebates to the volume of transactions processed make it difficult for issuers to consider using a different processor for some of their transactions. If they did so, net processing fees for the transactions still processed by Mastercard or Visa could significantly increase. Some issuers responding to our information request mentioned incentives from Mastercard or Visa as one reason why switching to a different provider would be unprofitable.

- One issuer responding to our information request mentioned disproportionate cost and organisation bandwidth as the main driver for not switching.⁷¹
- Similarly, another issuer told us that the nature of its contractual arrangements is such that it can see no merit in splitting the scheme and processing services from the card scheme brands.⁷²
- Another issuer explicitly told us that if a decision was taken to move to a different provider, any change in volumes could lead to an impact on incentives received from their card scheme due to spend/transaction targets not being met.⁷³

3.67 Currently, Visa [REDACTED]. As stated in a Visa document, [REDACTED].⁷⁴ [REDACTED].⁷⁵

3.68 The initial investment in infrastructure, the need to get both sides of the market on board, and existing contracts that link issuers' fees with transaction volumes and effectively 'fee free' contracts for the largest issuers are likely to result in significant barriers to entry for new processors.

69 [REDACTED].

70 [REDACTED].

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

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

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

74 [REDACTED]. Visa response to PSR questions dated 19 September 2023. [REDACTED].

75 [REDACTED].

© The Payment Systems Regulator Limited 2024
12 Endeavour Square
London E20 1JN
Telephone: 0300 456 3677
Website: www.psr.org.uk

All rights reserved