Payment Systems Regulator

Annex 10 to Interim Report

Market review of scheme and processing fees

Profitability

May 2024

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

1 Introduction

Introduction and purpose of this paper

1.1 The purpose of this Annex is to set out our analysis of profitability within this market review. We explain our approach to the profitability analysis of Mastercard and Visa, the analysis we have undertaken in order to come to our provisional findings on profitability, and how we have taken into account the various submissions we have received from parties in response to our profitability working papers, including confidential working papers (CWPs) provided to Mastercard and Visa in December 2023.

1.2 The analysis presented in this annex builds on our work since we published our terms of reference in October 2022.[1] In particular, we refer to the following:

a. The fully loaded UK P&L accounts prepared by Mastercard and Visa in response to our 9 November 2022 s81 notice requiring Mastercard and Visa to submit revenues and costs to us for their relevant UK operations (the November 2022 s81 information notice).[2]

b. Our February 2023 working paper,[3] and our September 2023 publication summarising stakeholder responses to it.[4]

c. Our December 2023 CWPs on profitability (margin analysis) and comparator benchmark margin analysis, and the responses provided by Mastercard and Visa in December 2023 and January 2024.[5]

d. Material provided to us by Mastercard and Visa over the course of this market review, including responses to queries raised in writing or on calls, and evidence gathered from other submissions and information notices.

1.3 This annex is structured as follows:

e. In Section 2 we set out our approach to the profitability analysis, including:

   1. the scope of our profitability analysis, in terms of the services covered by our profitability analysis and the time period we have considered

   2. how we have assessed the financial performance of Mastercard and Visa, including how we would expect common costs to be allocated (where this is applicable)

1 MR22/1.2 *Final terms of reference* (October 2022).

2 Mastercard response to PSR questions dated 21 November 2022 [✂].
Visa response to PSR questions dated 23 November 2022 [✂].

3 MR22/1.5 *Approach to profitability analysis working paper* (February 2023).

4 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023).

5 Mastercard response to PSR working papers dated 1 December 2023 and 18 December 2023 [✂].
Visa response to PSR working papers dated 1 December 2023 and 18 December 2023 [✂].

f. In Section 3 and 4, we identify profit margins for first Mastercard and then Visa for the relevant UK operations, including:

   1. an overview of the data we have used to assess financial performance and the resulting profitability information, including the fully loaded UK P&L accounts, European and global accounts
   2. how we have derived our view of the profitability of the relevant UK operations from this data including the challenges we have faced in doing so to date
   3. scheme submissions and our responses (and any relevant third-party submissions)
   4. our provisional conclusions on the profitability of the relevant UK operations of Mastercard and Visa

g. In Section 5, we assess whether Mastercard's and Visa's profitability is expected to change significantly in the short to medium term absent regulatory intervention

h. In Section 6, we undertake a comparator benchmarking analysis, identifying the profit margins of sufficiently similar companies to Mastercard's and Visa's relevant UK operations that operate in competitive markets, including:

   1. the approach to identify relevant comparators
   2. the selection of the comparators and their profit margins
   3. scheme and third-party submissions and our responses
   4. our provisional conclusions from the comparator benchmarking analysis

i. In Section 7, we set out our provisional conclusions, including a comparison of Mastercard's and Visa's margins for the relevant UK operations to the comparator benchmark margin.

2 Approach to the profitability analysis

2.1 In this section we set out the factors we have taken into account when selecting the method to assess the profitability of Mastercard's and Visa's relevant UK operations in this market review. We also set out the method we have chosen and some of the key challenges we have faced in undertaking the relevant analysis.

Context and background

2.2 In our market review, we are assessing market outcomes for the supply of scheme and processing services provided by Mastercard and Visa in the UK (the relevant UK operations). This includes an assessment of the profitability of the relevant UK operations of Mastercard and Visa, and how these have changed over time.[6]

2.3 Analysing profitability is a way of understanding the outcomes in a market, including whether the prices that companies charge are in line with their economic costs. This can therefore help us understand whether prices are inconsistent with the levels that we might expect in a competitive market.

2.4 We've provisionally found in our competitive assessment (see Chapter 4 in the interim report) that, on the acquiring side, Mastercard and Visa do not face effective competitive constraints in the provision of core scheme and processing services. In some optional services, alternative providers may provide varying degrees of constraint to Mastercard and Visa. However, as Mastercard and Visa can provide a one-stop shop solution for core and optional services, they are in a stronger position than alternative providers of optional services.

2.5 We are therefore interested in whether Mastercard and/or Visa earn profits higher than would be expected in competitive markets in the relevant UK operations (supernormal profits). This helps us to assess whether Mastercard and/or Visa are benefiting from the lack of effective competitive constraints. We note, however, that the absence of supernormal profits would not necessarily mean that Mastercard and/or Visa do not benefit from the lack of effective competitive constraints.

The method to assess profitability

2.6 A competitive market is likely to generate significant variations in profit levels between firms as supply and demand conditions change, but with an overall tendency towards levels of profit margins that reflect the cost of production including the cost of capital for those firms (regardless of the level of quality they provide). At particular points in time, the profits of some firms may exceed what might be termed the 'normal' level. Reasons for this could include, for instance, cyclical factors, transitory price or other initiatives, the fact that some

6 We noted in our terms of reference that this 'may include obtaining European data from Mastercard and Visa for cost attribution and reconciliation purposes in order to ensure our UK profitability analysis is robust.' (MR22/1.2 *Final terms of reference* (October 2022) paragraph 3.5).

firms may be more efficient than others and the fact that some firms may be earning profits gained as a result of past innovation. However, competition should put pressure on profit levels, so that they move towards profit margins that reflect the cost of production (including the cost of capital) in the medium to long run. A situation where profits are persistently above a fair margin (as defined in paragraph 2.58), that reflects the cost of production and captures the profits needed to remunerate investors at the cost of capital for firms that represent a substantial part of the market, could be an indication that prices may be higher than expected in a competitive market.

2.7 Commonly, a profitability analysis involves a consideration of the return on capital employed (ROCE) of the parties, and the comparison of these with a competitive benchmark, such as the weighted average cost of capital (WACC).

2.8 An alternative to a ROCE analysis, sometimes used where the economic capital employed is limited, is a comparator benchmark margin analysis. In this approach Mastercard's and Visa's earnings before interest and tax (EBIT) margins in the relevant UK operations are compared to a competitive benchmark margin. Unlike a ROCE analysis, this approach does not require explicit information on capital employed or assets that comprise it.

2.9 In our February 2023 working paper setting out our approach to profitability analysis (February 2023 working paper)[7] we said that we planned to assess profitability using operating profit margins and benchmark this analysis against suitable comparators. This was primarily because a ROCE approach requires an assessment of the value of a company's assets needed to undertake the relevant UK operations and:

a. A large proportion of assets are likely to be distributed between the UK and other geographies and there is not a clear and economically unambiguous way of allocating them.[8]

b. Global intangible assets are likely to be substantial, and may be difficult to reliably value and attribute to the UK.[9]

c. The data challenges are larger where assumptions will need to be made.[10]

2.10 In response to the February 2023 working paper, some stakeholders suggested that we should undertake a ROCE analysis, and we indicated that we would consider whether to do so.[11] We continue to keep an open mind about the potential utility of such work. However, we have decided to prioritise our existing evidence gathering and analysis on the margin-based approach. This is because we do not currently consider it proportionate to extend our analysis (and likely the timelines for this review) in order to supplement the benchmark margin analysis with a ROCE analysis, when taking into account the purpose of and weight we are placing on the profitability analysis in this market review. We will keep

7 MR22/1.5 *Approach to profitability analysis working paper* (February 2023).

8 We note in this context that this should not be interpreted to suggest that allocating assets to the UK (or estimating bottom-up replacement cost of UK assets) is impossible, but rather that this would require a number of assumptions and may be time and data intensive.

9 We note in this context that this should not be interpreted to suggest that valuing intangible assets is impossible, but rather that this would require a number of assumptions and may be time and data intensive.

10 We note in this context that this should not be interpreted to suggest that undertaking a ROCE analysis is impossible, but rather that this would require a number of assumptions and may be time and data intensive.

11 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023).

this under review and may consider supplementing our benchmark margin analysis with a ROCE analysis at a later stage.[12]

2.11 We thus set out in our February 2023 working paper, and September 2023 response,[13] our intention to focus on a margin-based approach when assessing the schemes' profitability. We explained:

- "there is a risk [that an asset-based approach, i.e. return on capital employed (ROCE)] may be an unreliable metric for the card schemes, due to their low asset bases, the number of assumptions needed on intangibles and cash, and the sensitivity of the results to those assumptions. In addition, we are not confident we can obtain robust UK asset information for Mastercard. If we can, we will consider using an asset-based approach at a later stage of the market review"[14]
- "the low asset base, the number of assumptions needed on intangibles and cash, and the sensitivity of the results to those assumptions, suggests the estimated ROCE may be an unreliable metric."[15]
- "A margin-based approach based on accounting rather than economic profits is likely to be more reliable for asset-light businesses, as in the case of Mastercard and Visa's low level of tangible fixed assets. Alongside difficulties in defining and attributing other assets (especially intangible assets) this means that an asset approach is likely to provide unhelpfully volatile results. We therefore plan to assess profitability using operating profit margins and benchmark this analysis against suitable comparators."[16]

2.12 Our work to date has therefore focused on this margin-based approach.

Assessing profitability using a benchmark margin approach

2.13 We have assessed the profitability of Mastercard and Visa in the following way.

a. We estimate the profit margins of Mastercard and Visa in their relevant UK operations
b. We compare the profit margins of Mastercard and Visa in the UK with the margins of sufficiently comparable companies operating in competitive markets

2.14 If the profit margins of Mastercard and/or Visa are persistently and substantially higher than those of comparable companies operating in competitive markets, this could indicate that Mastercard and/or Visa benefit from the lack of effective competitive constraints.

12 We note that a comparator benchmark margin analysis is not the only way to derive a competitive benchmark margin. It is also possible to derive a competitive benchmark margin from a ROCE analysis. Should we undertake a ROCE analysis at a later stage, we may also derive a competitive benchmark margin from such an analysis. This may result in a different benchmark margin compared to a benchmark margin based on a comparator analysis.

13 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) and MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023).

14 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 1.6.

15 MR22.1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.40.

16 MR22.1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.48.

2.15 In order to assess the profitability of Mastercard's and Visa's relevant UK operations, we need to obtain their profit figures.

2.16 We recognised in our February 2023 working paper that this could potentially be difficult for several reasons, including:[17]

a. Mastercard's and Visa's UK card schemes are parts of global businesses. They do not report profits on a UK basis externally. Current internal reporting for both schemes for the UK is based on revenues and direct costs only.[18]

b. Mastercard's and Visa's businesses in the UK include services unrelated to the scheme and to the processing of transactions which are therefore out of the scope of our market review. These services may use shared functions, platforms and costs. Revenues and costs from those services need to be excluded from the UK scheme and processing profits, but there are challenges in separating out this information.

c. The majority of the UK card schemes' costs are common costs relating to the global platform. The card schemes do not currently attribute these costs to the UK for internal reporting.

d. There are different ways that costs can be attributed to the UK operations of the card schemes, which means a number of reasonable approaches could be used.

e. We have not previously reviewed cost information in relation to the card schemes, and have yet to develop an understanding of the card schemes' cost drivers.

f. The revenue and cost information for our analysis will be based on accounting data. While this is a useful starting point for analysis, interpreting and understanding it requires care. For example, the attribution of value to goodwill and intangibles such as brands can be problematic when trying to compare assets, as the differences in the companies' methods of growth (organic versus acquisition) and accounting policies can affect the reporting of costs and asset values.[19]

2.17 Notwithstanding these challenges, we (supported by the schemes) said that they should not be insurmountable.[20,21] We also recognised in our February 2023 working paper that these challenges 'do not undermine the validity and importance of profitability analysis'.[22] As stated in the February 2023 working paper, we kept these issues in mind when choosing our analytical approach and continue to remain cautious when interpreting the results.

2.18 The schemes have subsequently provided us with their analysis of the profitability in their relevant UK operations in the fully loaded UK P&L accounts. We have noted that these estimates are sensitive to the cost allocation assumptions made and that there are some other aspects of the accounts that may understate the economic benefits that Mastercard and Visa derive from the relevant UK operations.

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17 MR22.1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.3.

18 [✂].
[✂].

19 For example, accounting valuations often require adjustments from accounting book values to economic values (or Modern Equivalent Asset Values).

20 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.55.

21 For example, we consider that whilst common cost allocations can be complex and require a number of assumptions, it should be possible to identify a range of possible cost drivers and to assess which ones are preferable for use in a market review over others.

22 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.4.

2.19 Since then it has become clear that the different ways common costs can be allocated can result in very different estimates of the profit margins of the relevant UK operations and that the fully loaded UK P&L accounts may understate the economic benefits Mastercard and Visa derive from the relevant UK operations.[23] This means considerable work is required in order to allocate common costs in a way which produces the most appropriate profit estimates for the purpose of our market review. We do not presently consider that it would be proportionate to undertake this work as part of this market review.

2.20 As a result, we have not been able to use the fully loaded UK P&Ls to reach a conclusive view of the precise level of margins that Mastercard and Visa earn in the relevant UK operations, other than to note that depending on assumptions made, the margins could be within a relatively wide range and the fully loaded UK P&L accounts are likely to understate the economic benefits Mastercard and Visa derive from the relevant UK operations.

2.21 We have therefore also taken into account other information sources that can be used to help understand the possible margins for the schemes' relevant UK operations. This is mainly the published European and global accounts (also considered in the February 2023 working paper) and internal documents commenting on profitability and the financial performance of Mastercard and Visa.

2.22 These data points, taken together, allow us to derive a range for the margins in the relevant UK operations of Mastercard and Visa. We consider that the resulting ranges provide a sufficiently robust basis (i.e. a basis suitable for the purposes of assessing whether market outcomes are consistent with a competitive market) for our view that there is an indication that margins (and as a result pricing) may be higher than expected in competitive markets. This is because, notwithstanding the shortcomings of the data gathered, taking relevant evidence in the round, the margins in the relevant UK operations are likely to be higher than in the fully loaded UK P&L accounts that Mastercard and Visa provided to us and higher than the margins for the benchmark comparators.

Frame of reference

2.23 For the purposes of this market review, Mastercard's and Visa's relevant activities are defined as the supply of scheme and processing services in the relevant geographical region (the UK) – ('relevant UK operations'). See paragraphs 2.2 to 2.16 in the interim report for a more detailed description of the scope of our market review.

Time frame

2.24 We set out in our terms of reference that we would collect data for the period of five years from 2017.

2.25 In our February 2023 working paper we set out that there are two conflicting considerations in choosing a time period for our analysis of the UK scheme and processing fees. A short time period reduces the number of observations over time and may not account for a full business cycle. In addition, any time period that did not start at least a year before March 2020 would not show the 'normal' commercial activities before the

23 See paragraph 3.35 for Mastercard and paragraph 4.40 for Visa.

period of COVID-19 restrictions. On the other hand, too long a time period creates excessive regulatory burden.[24]

2.26 Further, both Mastercard and Visa have highlighted difficulties they faced in retrieving detailed historical information.[25] For example:

a. In 2017 Visa completed re-organising its European entities to align with its global corporate structure.

b. [✂].

2.27 Thus we said in our February 2023 working paper that we would analyse profitability over a five-year period starting in 2017/18.[26]

2.28 We have not received any submissions in response to our February 2023 working paper or the CWPs that would have suggested a longer or shorter time frame than five years.

2.29 We have therefore analysed Mastercard's profitability over the five-year period of 2018 to 2022 for the purpose of this market review.[27]

2.30 We have analysed Visa's profitability over the five-year period of 2017/18 to 2021/22 for the purpose of this market review.[28]

Choosing the measure of profitability

2.31 We have estimated profit margins by reference to EBIT margins. Other margin estimates (Earnings Before Interest, Taxes, and Amortisation (EBITA) and Earnings Before Interest, Taxes, Depreciation, and Amortisation (EBITDA))[29] may be used as a cross-check. EBIT reflects most operational costs but excludes financing costs and as such best represents the economic benefits that a firm receives from its business activities, whilst being agnostic to a company's financing structure.

2.32 The above notwithstanding, we have previously noted that there is 'not much difference between EBITDA, EBIT and Profit Before Tax (PBT) for both card schemes' European accounts, and variations are consistent, because reported depreciation, amortisation and interest costs are relatively low compared to other operating costs'.[30]

2.33 With all the measures of profitability set out above, adjustments may need to be made to reflect differences in accounting compared to economic profits and to reflect the underlying business activities rather than non-operational items or extraordinary events. Such adjustments can, for example, include the removal of exceptional profits or losses (e.g. on business disposals).

24 See MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.58 and 3.59.

25 See further MR22/1.5 *Approach to profitability analysis working paper* (February 2023) Annex 1 paragraph 3.59.

26 See further MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.61.

27 See further MR22/1.5 *Approach to profitability analysis working paper* (February 2023) Annex 1.

28 Mastercard's financial year end is in December, hence the time-period covered spans the calendar years 2018-2022.

29 Visa's financial year end is in September, hence the time-period covered spans the period of October 2017 to September 2022.

30 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) Annex 1, paragraph 1.2, see also Figures 6 and 7.

Selecting the estimation method for EBIT profit margins

2.34 EBIT margins are the ratio between EBIT (operating profit) and revenues. For example:

a. Visa's operating profit[31] in its 2022 global accounts was $18.813 billion. Its net revenues were $29.310 billion. Dividing the figure for operating income by the figure for net revenues results in an EBIT margin of 64%.

b. Mastercard's operating profit[32] in its 2022 global accounts was $12.264 billion. Its net revenues were $22.237 billion. Dividing the figure for operating income by the figure for net revenues results in an EBIT margin of 55%.

2.35 For revenues we have used net revenues (which is equivalent to gross revenues less client incentives and/or rebates). This is consistent with how Mastercard and Visa predominantly report revenues (and how Mastercard reports its EBIT margins) in their fully consolidated audited global accounts, in line with US accounting standards. It is also consistent with how Mastercard and Visa present revenues in their published European accounts.[33] We said in our February 2023 working paper that gross revenues were not suitable for comparison purposes, because: (i) gross revenue information is not publicly available for some entities (e.g. Mastercard Europe); and (ii) the use of net revenues is consistent with relevant accounting standards and as such how comparators to Mastercard and Visa report their results.[34] We note that neither Mastercard nor Visa commented on this proposed approach in their responses to that working paper. Further, net revenues are based on the actual commercial agreements in the market.

2.36 We note, however, that our current approach includes a deduction for [✂].[35]

2.37 As a result, we have also performed, as a hypothetical exercise, an estimate of the EBIT margins that Mastercard and Visa derive from the acquiring side, effectively assuming that Mastercard and Visa operate a separate acquiring and issuing division within the overall relevant UK operations. For this hypothetical exercise we have taken the fully loaded UK P&L accounts provided to us by the schemes and assumed that the costs in the fully loaded UK P&L accounts are shared 50/50 between issuers and acquirers.[36]

2.38 EBIT margins can vary widely between companies and sectors. For example, in our February 2023 profitability consultation paper we noted that the average EBIT margin percentage across approximately 70 companies in the US IT sector over the five years to

31 Visa expresses operating profits as 'operating income' in its global accounts (Source: Visa Annual Report 2022, page 57).

32 Mastercard expresses operating profits as 'operating income' in its global accounts (Source: Mastercard Annual Report 2022, page 46).

33 Mastercard told us that in the published European accounts, certain incentives are treated as operating costs, consistent with Belgian accounting standards.

34 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) Annex 1, paragraph 1.7.

35 We also note that to the extent that rebates and incentives are upfront investments, an economically robust approach may involve smoothing them over their economic life and an assessment of whether these investments all relate only to scheme and processing services.

36 We note that there are also other ways to allocate costs between acquirers and issuers and that different allocation methods can result in different margins for the acquiring and issuing sides. We may consider this further in any future work.

2022, was 21%.[37] The range of EBIT margins within this sector (when excluding Mastercard and Visa) was 3% to 45%.[38] It is therefore more informative to compare the margins of Mastercard and Visa to a relevant benchmark of companies operating in competitive markets than to assess their margins themselves. We set out our benchmark margin analysis in Section 6 later in this annex.

Identifying and allocating common costs

2.39 Given that Mastercard and Visa do not publish audited financial statements specifically for the relevant UK operations, we need to allocate all relevant costs to the UK in order to estimate UK EBIT and the resulting EBIT margins.[39]

2.40 In our February 2023 working paper we identified four features that Mastercard's and Visa's UK P&Ls should satisfy in order to be of most relevance to our assessment of economic profitability:[40]

a. *Disaggregation and attribution*: We expected that the card schemes would need to disaggregate and attribute global, European and UK costs. We recognised that there would not be a uniquely correct way to do this.[41] We have requested that the schemes provide us with descriptions of individual costs and how they have been attributed to UK activities.

b. *Cost types:* We expected that information provided by the schemes would help us to identify which costs are genuinely fully fixed and/or common across jurisdictions, business lines or customer groups.

c. *Attribution drivers, cost allocation methods and reconciliation:* We expected that as well as the total European aggregate cost, we would also obtain total European attribution drivers and the UK-specific driver values and allocations. We expected that the schemes would reconcile the information provided to us to the published European accounts. This would allow us to see how the attribution of costs to the UK compares with Mastercard's and Visa's published financial statements.

d. *Sensitivity testing:* We expected the information we received would allow us to test sensitivities by changing cost attribution drivers, which will reveal the impact of attribution choices and provide a range of plausible scenarios.

37 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 4.25.

38 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) Table 13.

39 Mastercard told us that revenues for the UK are reported in the statutory accounts for Mastercard Europe.

40 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.53 to 3.55. We refer to these considerations in Sections 3 and 4 when we consider the cost allocations, whether it is likely that the cost allocation in the fully loaded UK P&Ls is based on a FAC basis using activity-based costing principles. See further paragraphs 3.9 and 4.9.

41 However, as we set out later in this annex, we consider that the starting point for cost allocations for the purpose of a market review should be activity-based costing principles.

2.41 We signalled in February 2023 that if the card schemes are unable to provide disaggregated data or if the data is unduly detailed, implausibly constructed, or presents other difficulties, we may consider using common costs as a percentage of revenue observed at the European level as an appropriate proxy for estimating an allocation of such costs to the UK business. In the absence of suitable UK level data, we would also consider the full European profit and loss accounts an appropriate proxy for UK scheme and processing fees.[42]

2.42 Given the global nature of Mastercard's and Visa's operations, it is likely that many of the costs incurred in running the relevant UK operations are either common with costs incurred in running similar operations in other jurisdictions, or common with costs incurred in Mastercard's and Visa's other operations in the UK. Therefore these common costs must be allocated.

2.43 There are three primary cost concepts, which use different approaches for allocating common costs:

a. Standalone cost – this is the cost that Mastercard and Visa would incur if they were only providing the relevant services in the UK. For example, data centre costs would be fully allocated to relevant UK operations, but would need to be significantly scaled down to account for the fact that the amount of data they would need to process and hold is only a fraction of the data that they are currently provisioned for. Using standalone costs can inform the upper bound of what could be viewed as the cost of providing the relevant UK operations.

b. Incremental cost – this is only the additional cost that Mastercard and Visa would incur by adding the relevant services in the UK to their suite of other services. This could include the variable costs of providing the services in the UK and may include additions to fixed costs that result from adding UK services. For example, an increase in the size of the data centre, and consequently an increase in the cost of the data centre due to the addition of the UK operations. Using incremental costs can inform the lower bound of what could be viewed as the cost of providing the relevant UK operations.

c. Fully allocated costs – under fully allocated costs, in addition to direct costs, a portion of common costs is allocated to the relevant UK operations. Here, an allocation methodology is used to assign common costs across all services that give rise to them. For example, data centre costs would need to be allocated to relevant UK operations, relevant services in other jurisdictions and any other service using the data centre in the UK or elsewhere. Using allocated costs would result in a level of cost that is between a standalone and an incremental cost estimate.

2.44 We consider that for the purpose of the profitability analysis in our market review, where we are seeking to understand the profitability of the UK card businesses and how these have changed over time, fully allocated costs is the most appropriate cost concept. This is, for example, because it allocates costs most meaningfully not only to the relevant UK operations, but also to the remaining non-UK operations of Mastercard and Visa and reconciles those costs to the total costs of all services provided by Mastercard and Visa.

42 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 3.55.

2.45 Allocating common costs using the fully allocated costs concept can be done using a variety of cost allocation methods. These can be:

a. Input-based – i.e. cost drivers are based on inputs to producing the product or providing a service, such as staff numbers, hours of time spent etc.

b. Output-based – i.e. cost drivers are based on what is produced, such as number of transactions, number of traders or consumers using the service etc.

c. Value-based – i.e. cost drivers are prices or revenues realised, such as net revenues.

2.46 In the context of a market review, a more appropriate methodology for allocating costs is either input-based or output-based, as either inputs (e.g. staff) or outputs (e.g. transactions) can give rise to costs to be incurred (e.g. help desk costs and data centre costs respectively).

2.47 Within this we would expect that an appropriate methodology for allocating costs is based on activity-based costing.[43,44] Under such a methodology, all activities required to provide a service are identified and divided into cost pools. Where these cost pools are shared across a number of activities, these are added to arrive at a total cost pool for each activity. These cost pools are then unitised by dividing the total cost pool for an activity with an appropriate cost driver (which could include an output measure like the number of cards in use, the number of merchants connected or the number of transactions).

2.48 Cost drivers are the (or a) reason for incurring a particular cost. For example, a cost driver could be an employee. If services have dedicated employees that support their provision (e.g. UK customer service having dedicated staff members), the total cost pool can be divided by the total number of employees in that cost pool (e.g. customer service spend divided by total full-time equivalents in customer service). Costs allocated to the relevant UK operations would then be calculated as the number of cost drivers – employees – used to provide the service multiplied by the unit cost – cost per full-time employee (FTE).

2.49 Cost drivers are also expected to vary across cost pools. For example, employee hours may be an appropriate cost driver for billing support, number of transactions may be appropriate for IT systems that carry them, and floor space may be appropriate for buildings housing staff or equipment.

2.50 We would expect that revenue is only used as a cost driver where no other cost driver can be identified, or where the information is not available to allocate costs across appropriately identified cost drivers. This is because revenue generated is a consequence of the cost that has been incurred, but it is not its cause. Further, allocating costs on the basis of revenue generated could over-allocate costs to services that are highly profitable, and under allocate costs to less profitable services. This could also lead to an over-allocation of costs for operations where competition is weaker resulting in higher prices compared to operations with strong competition. Where no other cost driver can be identified, or where the information is not available, we consider, in the context of our market review, that net

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43 For example, the regulatory accounts for BT Group are underpinned by activity-based costing. See: https://www.bt.com/content/dam/bt-plc/assets/documents/about-bt/policy-and-regulation/our-governance-and-strategy/regulatory-financial-statements/2023/accounting-methodology-documentation-2023.pdf.

44 Whilst we have considered the use of activity-based costing principles as the preferred approach to the allocation of common costs thus far in this market review, we may consider alternative approaches in the future, which could include a 'notional' licensing scheme. This may be appropriate where there is a fixed cost that needs to be recovered without an obvious activity driver. We note that IP is often licensed on a percentage of sales basis (or proxies for that).

revenues are preferable as a cost driver compared to gross revenues as gross revenues are less reflective of market information than net revenues.[45,46]

Our approach to obtaining estimates of profitability for the relevant UK operations

2.51 Ideally, our profitability assessment would be based on financial information for the relevant UK operations, where all relevant costs incurred and assets used are for the relevant UK operations and the only services provided are the relevant UK operations.

2.52 Alternatively, cost and revenues will need to be allocated. As set out above, this allocation would comprise the identification of in-scope revenues and directly attributable costs. Common cost would need to be allocated, for example, on a fully allocated cost (FAC) basis, and follow activity-based costing principles. We consider that allocating common costs on the basis of FAC is the most appropriate approach given that Mastercard and Visa are globally integrated payment firms.

2.53 Mastercard and Visa provide a number of products across multiple jurisdictions. We are particularly interested in whether Mastercard and Visa are able to earn profits higher than would be expected in competitive markets in the relevant UK operations. To assess the profitability of Mastercard and Visa in the relevant UK operations, it is important to identify and appropriately allocate revenues and costs to the relevant UK operations.

2.54 As set out above, Mastercard's and Visa's UK card schemes are parts of global businesses. They do not report profits on a UK basis externally and current internal UK reporting for both schemes is based on revenues and direct costs only. We therefore asked Mastercard and Visa to submit revenues and costs for the relevant UK operations to us in the form of fully loaded UK P&L accounts.

2.55 We have used the considerations set out above as a starting point for our assessment of whether the cost allocations performed by Mastercard and Visa in the fully loaded UK P&Ls are sufficiently reflective of the economic benefits Mastercard and Visa derive from the relevant UK operations. This then forms part of our assessment of whether the fully loaded UK P&L accounts provide a suitable basis to estimate margins for the relevant UK operations.

2.56 Given the challenges set out above we have also assessed whether European and global accounts could serve as a basis to estimate margins for the relevant UK operations.

2.57 We assess this in the following sections, first for Mastercard and then for Visa.

45 For example, gross revenues are likely to be more influenced by a company's sales and marketing (and associated pricing) strategy and therefore likely to be less closely linked to market information than net revenues. Net revenues are based on the actual prices agreed in the market and therefore, assuming competitive market conditions, all else being equal, are a more objective measure of the cost of production compared to gross revenues.

46 Nevertheless, should revenues need to be used as the allocation driver, the results should be interpreted with caution, e.g. they should only be used as a lower or upper bound estimate (or sensitivity) where there is the possibility that revenues may be impacted by a lack of effective competitive constraints.

The benchmark margin analysis

2.58 In a well-functioning market, we expect the EBIT margin should be sufficient to pay providers of capital a reasonable return and cover company taxes but no more. We expect that the magnitude of a reasonable return would vary based on how capital intense and risky the company's activities are. The EBIT margin that is required to service capital can be referred to as the 'fair margin'. When applying a benchmark margin analysis, it is therefore important that the risk profile and capital intensity of the comparable businesses are broadly similar to those of Mastercard's and Visa's relevant UK operations. It is more likely for this to be the case where the comparable businesses operate in broadly similar markets to Mastercard and Visa.

2.59 Where there is a lack of effective competitive constraints, companies can be incentivised to raise prices to a level above those that can be achieved in competitive markets. In such a scenario we would expect the EBIT margin to be higher than the fair margin, due to a feature (or features) of the market (such as a barrier to entry) that allows the incumbent firms to earn profits higher than this fair margin, without attracting entry or expansion. Profits more than the fair margin are commonly referred to as economic profits (or supernormal profits).[47] In other words, a firm in a competitive market would expect to make zero economic (or supernormal profits). The presence of persistent economic profits can be a product of a lack of effective competitive constraints.

Approach

2.60 To establish whether economic profits are present, Mastercard's and Visa's margins in the relevant UK operations can be compared with those of a comparable firm, that is considered to be operating in a competitive market. That is a market working well from a competition perspective, e.g. where there is limited market concentration[48] and an absence of other features indicating the lack of competitive constraints like markets with high barriers to entry. This is important as we are trying to establish whether the level of Mastercard's and Visa's profitability for the relevant UK operations is consistent with outcomes that would be expected in a well-functioning market.

2.61 In other words, a benchmark margin should be derived from:

a. companies operating in competitive markets and without a significant lack of effective competitive constraints,

b. comparators that have broadly comparable risk and capital intensity and operate in markets that are broadly similar to Mastercard's and Visa's relevant UK operations.

47 We note that zero economic profit does not mean zero accounting profit (e.g. as accounting profits would include returns on capital).

48 Market concentration would be considered to be present where market shares are concentrated among a small number of firms.

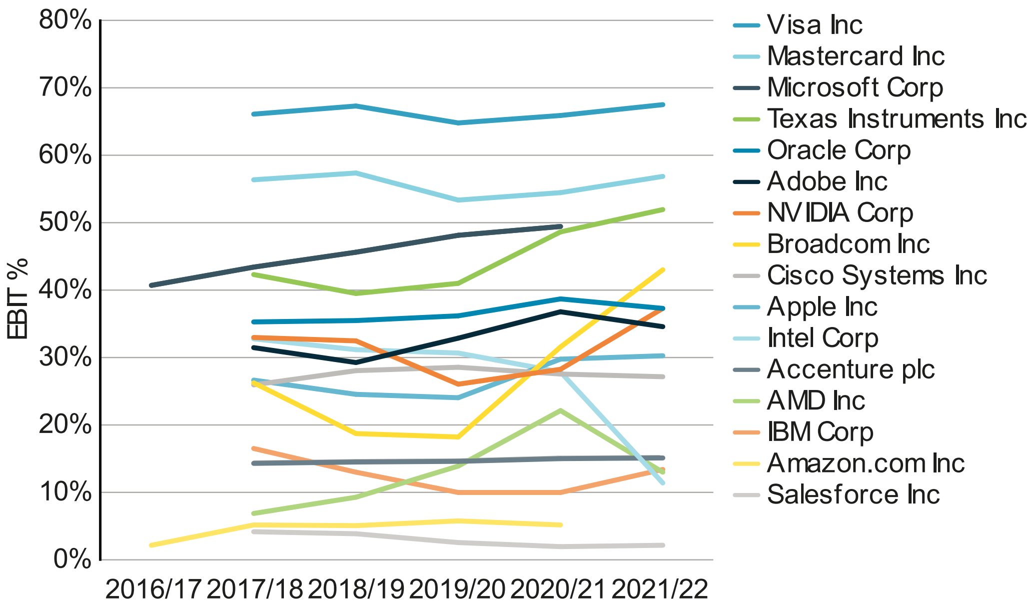
2.62 Once a suitable comparator or comparators have been identified and their EBIT margins established, we compare them to those of Mastercard's and Visa's relevant UK operations. If Mastercard's and/or Visa's margins for the relevant UK operations are significantly higher than the margins of comparators that are operating in competitive markets, this would indicate that Mastercard and/or Visa may be benefiting from a lack of competitive constraints to raise prices to earn economic profits.

Our February 2023 working paper

2.63 In our February 2023 working paper we performed some initial high-level comparisons between the margins of Mastercard's and Visa's global operations and those of other companies operating in similar industries. This included companies from the information technology (IT) and credit services sectors of the NYSE as we made the initial assumption that these comprised companies with similar business models.[49]

2.64 We noted that, for example, Mastercard's and Visa's global EBIT margins were above every other major NYSE listed IT sector firm in the US (see the Figure 1).[50]

Figure 1: EBIT for major NYSE IT sector companies[51] 2016/17 to 2021/22



Source: S&P Capital IQ/PSR analysis

49 MR22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 4.24.

50 In MR22/1.5 *Approach to profitability analysis working paper* (February 2023) we also set out the margins for comparators in the credit services sector. We have not repeated this information here.

51 This chart excludes American Express, for which S&P Capital IQ do not report an EBIT percentage. S&P Capital IQ report five year average Earnings Before Tax (EBT), excluding unusual items to be 22% between 2016/17 and 2020/21. (Source: MR22/1.5 *Approach to profitability analysis working paper* (February 2023), Figure 9, FN 62)

Stakeholder responses to our February 2023 working paper

2.65 In response to the February 2023 working paper, a number of stakeholders commented on the approach to selecting comparators.[52]

2.66 Respondents to our February 2023 working paper noted that comparators should be similar to Mastercard and Visa in risk profile, capital intensity, and stage in the business life cycle.[53] They also queried the:

a. use of NYSE-listed companies only

b. inclusion of companies that sell physical goods and provide credit to consumers

c. use of whole-of-firm margins rather than just those of operations comparable to payment systems

d. use of IT companies as they may not be in a competitive market[54]

2.67 No suitable comparator or comparators emerged from the respondents' comments, although one respondent said jurisdictions where Mastercard and Visa compete with strong domestic card schemes might provide a good comparator.[55]

2.68 In light of the responses and based on further analysis of the information available to us, we have refined our approach to selecting the comparators. Our analysis in February 2023 provided some initial high-level comparisons of Mastercard's and Visa's global operations indicating that Mastercard's and Visa's margins are relatively high. We have now undertaken a more detailed analysis to derive a comparator benchmark margin for Mastercard's and Visa's relevant UK operations. This included identifying comparators that operate in competitive markets and that share the closest similarities with Mastercard's and Visa's relevant UK operations. This is because, for example, many of the companies in the IT sector may have different business models to Mastercard's and Visa's relevant UK operations and may operate in a market where there is market concentration. This means that they may not be suitable comparators for the purpose of our market review. Similarly, many of the comparators in the credit services sector have different business models, for example, many earn a high percentage of their income through interest so their risk profile and capital intensity are likely to be different to that of Mastercard's and Visa's relevant UK operations.

2.69 We set out the results of our comparator benchmarking analysis in Section 6, after our assessment of Mastercard's and Visa's profitability.

52 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023) paragraphs 3.6 to 3.10.

53 See MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023) for a more comprehensive summary of the responses to MR22/1.5 *Approach to profitability analysis working paper* (February 2023).

54 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023) paragraphs 3.13 and 3.16.

55 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper* (September 2023) paragraphs 3.14 and 3.15.

3 Assessing Mastercard's profitability

3.1 In this section we set out our assessment of Mastercard's profitability in the relevant UK operations. We also set out how we have taken into account the submissions we have received from Mastercard in response to the CWP on Mastercard's profitability and our response to them.[56]

Datasets used to assess Mastercard's profitability

3.2 We have looked at the following data sources to estimate the profitability of Mastercard's relevant UK operations:

a. fully loaded UK P&L accounts submitted to us by Mastercard

b. Mastercard's published European accounts

c. Mastercard's global accounts.

3.3 Table 1 shows the unadjusted[57] EBIT margins from each of the datasets.

Table 1: Mastercard's UK, European and global EBIT margins (%)

Mastercard EBIT margins at UK, European and global level	2018	2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	**[✂]**
Mastercard Europe SA (as reported) – MES	17.3	27.0	25.3	26.0	27.7	**24.7**
Mastercard global	48.7	57.2	52.8	53.4	55.2	**53.5**

Source: Mastercard fully loaded UK P&L accounts, Mastercard European and global financial statements

3.4 Below we assess the suitability of each data source in turn and then set out our view of Mastercard's profitability in the relevant UK operations.

56 Mastercard response to PSR working paper dated 1 December 2023 [✂].

57 That is, the EBIT margins as reported in each dataset without any adjustments.

Estimating UK EBIT margins based on Mastercard's fully loaded UK P&L accounts

3.5 In response to our November 2022 s81 request [58] (as subsequently supplemented with 2022 data on 12 January 2024[59]), Mastercard provided us with fully loaded UK P&L accounts. The EBIT margins in these accounts are set out in the table below. [60]

Table 2: Mastercard's UK EBIT margins (%)

Mastercard EBIT margins at UK level	2018	2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	**[✂]**

Source: Mastercard fully loaded UK P&L accounts

3.6 Whilst we provided some guidance in our November 2022 s81 notice that all revenues and costs should be attributed on a consistent basis in the fully loaded UK P&L accounts, the accounts provided to us were based on allocation methods chosen by Mastercard. Mastercard's view was that its approach to attribution was consistent with the principles set out by us and with well-established methodologies such as the OFT (Office of Fair Trading) 2003 paper on analysing profitability.

3.7 Mastercard said that it had prepared the fully loaded UK P&L accounts based on a detailed cost allocation exercise which attributes indirect costs to the UK business based on relevant cost drivers.[61]

3.8 We have assessed whether the fully loaded UK P&L accounts provided by Mastercard reflect the considerations for the allocation of revenues and common costs set out in our approach section above.

3.9 Using the considerations set out in paragraph 2.40 above we have reviewed whether it is likely that the cost allocations in the fully loaded UK P&L accounts are based on a FAC basis using activity-based costing principles.

a. *Disaggregation and attribution* – In January 2023 we received descriptions of the cost allocations chosen from Mastercard.[62] These provided a relatively high-level overview and were not accompanied by the associated calculations. We received the relevant calculations on 12 January 2024 from Mastercard. The calculations provided information on how common costs are allocated to the fully loaded UK P&L accounts. The calculations provided limited information on how costs that were not related to scheme and processing services were removed from the common cost pool before they were allocated to the UK activities.

58 Mastercard response to PSR questions dated 21 November 2022 [✂].

59 Mastercard response to PSR 13 December 2023 working paper. [✂].

60 Mastercard only provided data for 2019–2022 in response to our section 81 requests (which was an agreed position given Mastercard's representations that it would find it difficult to present 2018 data consistent with data for 2019–2021).

61 [✂].

62 Mastercard response to PSR questions dated 9 November 2022 [✂].

b. *Cost types* – we asked Mastercard for information about incremental costs incurred in providing scheme and processing services. On 13 July 2023, we asked Mastercard a number of questions in relation to incremental cost estimates. On 1 August 2023 Mastercard provided a very limited response, reiterating its statement (expressed previously at a meeting on 20 July 2023) that it does not hold detailed information.[63]

c. *Attribution drivers, cost allocation methods and reconciliation* – Mastercard provided us with reconciliations between UK and global costs on 12 January 2024. We note that this reconciliation is relatively high level and, for example, does not allow us to assess what services Mastercard is providing other than the services in scope for our market review or whether all costs for these services have been removed from global costs before global costs are allocated to the UK. We also did not have sufficient information to assess the suitability of the allocation metrics chosen by Mastercard to allocate global costs to the UK for the purpose of this market review.[64]

d. *Sensitivity testing* – Mastercard provided us with its underlying calculations on 12 January 2024, which allowed us to undertake sensitivity analysis on the assumptions that were used to allocate revenues and common costs in the fully loaded UK P&L accounts.

Our assessment of Mastercard's fully loaded UK P&L accounts

3.10 We have performed a review of Mastercard's fully loaded UK P&L accounts to consider whether these are an appropriate reflection of the margins for the relevant UK operations for the purpose of our market review. We provisionally find that:

a. we currently do not have sufficient information to fully assess whether Mastercard's fully loaded UK P&L accounts can be considered a reliable reflection of the profitability of the relevant UK operations for the purpose of our market review,

b. the fully loaded UK P&L accounts may be understating the economic benefits Mastercard receives from its relevant UK operations.

3.11 This is because:

a. We would require more detailed information to assess whether the global cost base that is allocated to UK scheme and processing fees is free from costs that are unrelated to scheme and processing services (e.g. account-to-account payment services).

b. We would require more detail on how closely a chosen cost allocation metric correlates with how common costs are incurred in practice when providing scheme and processing services.[65]

c. Mastercard did not provide a detailed response to a question on the level of incremental costs of its UK operations for additional transaction values and volumes, other than stating that 'the nature of the business means that incremental costs will be limited, [✂]. We would also like to better understand the different incremental

63 Letter from Mastercard [✂] to the PSR, 1 August 2023. [✂]. Mastercard stated that 'the nature of the business means that incremental costs will be limited, but this not something that we quantify'

64 We note that we have not requested this information from Mastercard yet. Whilst we recognise that this information would allow a more detailed assessment of the appropriateness of the selected cost allocation metrics, we do not currently consider it proportionate or necessary to do so for the purposes of this market review

65 Mastercard has provided us with a number of examples, but not a full assessment, Source: Mastercard response to PSR working paper dated 1 December 2023 [✂]

costs of different services (for example, the difference in incremental costs between Card Not Present (CNP) transactions and other transactions).[66]

d. We identified a number of factors that indicated that the fully loaded UK P&L accounts do not include all relevant revenues and may over-allocate costs to the relevant UK operations.

3.12 We set out below examples of where we did not have sufficient information to fully assess the fully loaded UK P&L accounts and, where appropriate, why we think Mastercard's fully loaded UK P&L accounts may understate the economic benefits it derives from the relevant UK operations:

a. Mastercard told us that it allocates a significant proportion of its common costs on the basis of the number of processed transactions. The information on incremental costs provided by Mastercard implies that costs for incremental transactions are low.[67] There may therefore be more meaningful cost drivers for common costs than transaction numbers. This could, for example, be the total number of cards in issue or the number of merchants, acquirers or issuers connected.

b. Mastercard has a relatively high share of the credit card market in the UK (e.g. compared to its European share – see the Figure below). [68] In addition, the UK market is [✂].[69] It is plausible that costs on a per transaction basis in the UK may not be the same as for a market with a smaller overall size and/or where Mastercard has a smaller market share, given the low incremental unit costs of an additional transaction. To illustrate this in a different way, in competitive markets, larger market participants can often negotiate volume discounts, again suggesting a lower proportional (relative) allocation of common costs to larger markets.[70]

Figure 2 – Mastercard share of global, debit and credit card markets

[✂]

c. In most cases the information Mastercard provided in relation to cost allocations was not sufficiently granular to assess whether costs in the fully loaded UK P&L accounts are allocated taking into account activity based costing principles. For example, for Product and Services Indirect Expenses Mastercard told us that '*the expenses directly related to each specific product or service are allocated to the UK using keys connected with product usage and roll-out metrics in each country*'.

d. The EBIT in Mastercard's fully loaded UK P&L accounts has declined by [✂] (see the table below). This is despite net revenues having increased [✂] (and by [✂]).

66 Mastercard response to PSR questions dated 13 July 2023 [✂].

67 Mastercard told us that it 'has a high proportion of fixed costs, and the nature of the business means that incremental costs will be limited', Letter from Mastercard [✂] to the PSR, 1 August 2023. [✂].

68 [✂].

69 See paragraph 3.56c.

70 For example, if Mastercard bought technology services from a third party in competitive markets, it is highly likely that it would pay a lower unit cost for larger transaction volumes where the technology services have low marginal costs. Or, similarly, if the various countries that Mastercard is serving were buying wholesale services from Mastercard headquarters on an arm's length basis, we would expect the largest countries to be able to negotiate a better rate.

e. Mastercard told us that the main reason EBIT declined is because it [✂]. Mastercard also told us that the marginal costs of an additional transaction is low. We therefore consider it is possible that the cost of expanding into debit cards is significantly lower than implied by Mastercard's fully loaded UK P&L accounts. This is because the way Mastercard allocates common costs is to a significant extent based on transaction numbers with each transaction receiving an allocation of the full costs of providing scheme and processing services. From an economic perspective it is plausible that the additional transactions generated from the expansion into debit cards is much closer to the likely very low incremental cost of additional transactions. Thus the growing number of debit card transactions in the UK may incur very limited additional costs from an economic perspective.[71] Mastercard's internal documents support this view. [✂].[72] Further, we also consider it possible that some of the rebates and incentives provided may, from an economic perspective, be more appropriately allocated to future time periods (see more details below in paragraphs 3.20 to 3.22).

Table 3: Mastercard's UK EBIT (millions)

Mastercard EBIT at UK level	2019	2020	2021	2022
Mastercard fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]

Source: Mastercard fully loaded UK P&L accounts

3.13 Similar considerations to the above apply to the allocation of revenues to the UK activities. Whilst Mastercard has provided us with details of scheme and processing revenues in the fully loaded P&L accounts we have not received a detailed reconciliation of these revenues to the revenues in the European and global accounts in a format that would allow us to assess whether there are other revenues that are also related to scheme and processing services, but are not included in the fully loaded UK P&L.

3.14 We provisionally find, in particular, that the fully loaded UK P&L accounts do not include the financial benefits that Mastercard derives from foreign exchange conversion (FX) services where a UK cardholder undertakes a card transaction in a different currency.[73] We consider that FX conversion revenues are relevant to our market review as they are an inherent part of a card transaction where currency conversion is required, i.e. they would not arise without a card transaction and form part of the economic benefits Mastercard derive from the UK card scheme operations. Our terms of reference states that we would examine scheme and processing fees as well as '*other fees and payments relating to Mastercard and Visa's scheme and processing activities*'.[74]

71 Another way to look at this is that insofar that the growth of UK transactions attracts a greater allocation of common costs to the UK due to the debit card expansion, this reduces the allocation of common costs to all other markets around the world, improving their profitability. Thus the expansion into UK debit cards may benefit not only the UK, implying that the economic assessment of the expansion into UK debit cards should also take into account the benefits to other Mastercard operations.

72 [✂].

73 There are also foreign exchange conversion revenues where a non-UK customer makes a transaction at a UK merchant. Mastercard has stated that [✂]. We consider that revenues from foreign exchange conversion are effectively levied on the card issuer rather than the merchant and should therefore be allocated to the location of the issuer, rather than the location of the merchant. As such, foreign exchange conversion income from UK customers should be allocated to UK revenues, even if the transaction takes place abroad.

74 MR22/1.2 *Final terms of reference* (October 2022) paragraph 2.10.

3.15 Subsequently Mastercard provided us with FX conversion revenues in the UK (see the table below). The table shows that [✂] of Mastercard's UK revenues. This is [✂]. Mastercard internal documents also show that [✂].[75]

Table 4: Mastercard's UK FX conversion revenues

Mastercard's UK FX revenues	2019	2020	2021	2022	Average
Mastercard UK FX revenues (USD, million)	[✂]	[✂]	[✂]	[✂]	[✂]
As % of Mastercard fully loaded UK P&L net revenue (inc. FX revenue)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Mastercard fully loaded UK P&L accounts

3.16 We also note that Mastercard only provided us with fully loaded UK P&L accounts for the period of 2019–2022.This includes two years that were impacted by COVID-19 (2020 and 2021), which may as a result understate the underlying profitability of Mastercard's UK operations when calculated as an average over the 2018–2022 period. [✂].[76] [✂],[77] [✂].

Figure 3: Mastercard presentation: Top markets (profitability and market share trends)

[✂]

3.17 We have also identified the following other factors that indicate that the fully loaded UK P&L accounts may not be fully representative of Mastercard's profitability in the UK in the context of a market review. These factors suggest that the margin in the fully loaded UK P&L accounts may understate the EBIT margins in the fully loaded UK P&L accounts and include:

a. the costs associated with the expansions into debit cards may be temporary costs,

b. the costs associated with the expansions into debit cards may be overstated in the fully loaded UK P&L accounts,

c. the treatment of some of the incentive costs as a cost item, rather than as a reduction in revenues.

3.18 Mastercard's market share in debit cards in the UK has been growing significantly over the period 2019–2022. This growth in market share was associated with upfront investment, for example in the form of incentives and rebates for issuers. There is a possibility that the use of incentives and rebates in this way (to support expansion into debit) is a temporary effect.

3.19 The next figure is from a slide that Mastercard sent to us in response to our CWPs.[78] [✂].

75 [✂].
76 [✂]. Source: Mastercard response to PSR working paper dated 1 December 2023 [✂].
77 [✂].
78 Mastercard response to PSR working paper dated 1 December 2023 [✂].

Figure 4: Mastercard presentation: Expected development of profitability and net revenue structure

[✂]

a. [✂].
b. Mastercard's internal documents showed that [✂].[79]
c. Another internal document shows that [✂].[80]

Figure 5: Mastercard presentation: Recent trend of profitability and market share

[✂]

d. The figure below suggests that Mastercard may have a target market share in UK debit cards [✂]. It is therefore possible that Mastercard could reduce incentive payments once it has reached this target.[81]

Figure 6: Mastercard presentation: Expected development of market share

[✂]

e. Mastercard's EBIT in the fully loaded UK P&L has [✂]. In our view, this implies [✂].

3.20 Furthermore, we have not been able to fully assess whether rebates and incentives related to the expansion into UK debit cards have been allocated in a way that best reflects the economic benefits associated with the incentive payments. Mastercard explained to the PSR, and provided illustrative examples, of how rebates and incentives are accounted for in its accounts, and how the adopted approach aligns with the economic benefit that can be derived from the incentives. But this information was not sufficiently detailed to assess how Mastercard has capitalised and depreciated incentive and rebate payments that are shown in the fully loaded UK P&L accounts.

3.21 It is possible that relatively higher rebate and incentive costs have been allocated in the early years of a new contract, when revenues are still relatively low, but relatively lower costs are allocated to later years, when revenues could more fully reflect the benefits of the expansion into debit cards. This could be the result of two effects:

a. it is possible that not all costs that should be capitalised and depreciated from an economic perspective are treated in this way under the accounting rules that Mastercard has applied when compiling the fully loaded UK P&L accounts.[82]
b. Mastercard said that it employed a straight-line depreciation approach to those incentive costs that it capitalises. This indicates that more costs are allocated (as a proportion of revenues) to the early years of a contract compared to later years, which may not reflect the economic utility of the rebates when assuming growing revenues from the contract..[83]

79 [✂].
80 [✂].
81 Mastercard response to PSR working paper dated 1 December 2023 [✂].
82 Call with Mastercard 21 February 2024 [✂].
83 [✂].

3.22 Furthermore Mastercard's internal documents indicate that [✂].[84] Specifically the figure below[85] indicates that [✂]. This suggests that at least a proportion of rebate and incentive payments to gain market share with issuers could potentially be attributed to products and services that are out of scope of our market review (for example open banking services or account-to-account services) or may be related to expected revenues in later periods. This implies that [✂].

Figure 7 – Mastercard presentation: Expected development of net revenue structure

[✂]

3.23 Mastercard has included a proportion of customer incentives as a cost item, rather than a reduction in revenues in its fully loaded UK P&L accounts. This has the effect of reducing the UK margins and is different to how Mastercard reports its incentives in its audited global accounts. See paragraph 3.110 for more details.

Sensitivity analysis

3.24 In order to assess the possible magnitude of the impact of some of the factors set out above, we have undertaken sensitivity analysis using Mastercard's fully loaded P&L accounts provided to us by Mastercard on 12 January 2024. The purpose of this analysis was primarily to test the sensitivity of the profitability shown in the fully loaded UK P&L accounts to assumptions made in the allocations of cost and revenues.[86]

3.25 In this analysis we have made changes to the following key assumptions:[87]

a. [✂].
b. [✂]:
  1. [✂].[88]
  2. [✂]:
    i. [✂].
    ii. [✂].
c. [✂].

3.26 Undertaking this sensitivity analysis shows that making these different cost and revenue allocation assumptions has a significant impact on the margins in the fully loaded UK P&L accounts.

84 See paragraph 3.19a.

85 Mastercard response to PSR 1 December 2023 working paper [✂]

86 We did not aim to identify the 'correct' cost and revenue allocations with this analysis.

87 We have not separately assessed a cost allocation sensitivity based on net revenues. This is because doing so would result in the same margin estimate as using the margins in the European and global accounts. We have instead reviewed separately the suitability of margins in the European and global accounts for understanding UK margins.

88 [✂].

Table 5: Incremental impact of sensitivity analysis on Mastercard's EBIT margin

EBIT margins		2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts		[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	**[✂]**	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	**[✂]**	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	**[✂]**	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	**[✂]**	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	**[✂]**	[✂]	[✂]	[✂]	[✂]	[✂]
Total change in EBIT margin		[✂]	[✂]	[✂]	[✂]	[✂]
Mastercard sensitised fully loaded UK P&L accounts		[✂]	[✂]	[✂]	[✂]	[✂]

Source: Mastercard fully loaded UK P&L accounts, PSR calculations
Note: The percentage changes shown above should be read as percentage point changes. Each change shown is the incremental impact of the change in addition to the previous changes. The individual percentage point changes for each adjustment above may be different if the sequence is changed, although the cumulative change of all individual changes would not be different

3.27 The table shows that flexing a number of assumptions results in an average margin of [✂] % over the period of 2019–2022, showing a significant level of sensitivity of the results to the revenue and cost allocation assumptions made.

3.28 We note that our assumptions do not currently include a reallocation of incentive payments to future time periods or to products outside of scheme and processing services. If we had made adjustments for these considerations, there could have been a further increase in the margins shown above. We also note that alternative cost allocation assumptions could result in higher or lower margins.

3.29 We note that this analysis is not intended to identify the 'correct' margins for Mastercard's relevant UK operations, but rather to identify the sensitivity of the margins in the fully loaded UK P&L accounts to the assumptions made.

Acquiring margin estimates

3.30 We have provisionally found in Annex 6 of the Interim Report (Descriptive Data Analysis) that Mastercard generates [✂] of net revenues on the acquiring side ([✂]). In order to contextualise this observation, we performed an additional hypothetical sensitivity analysis assuming that the acquiring side is run as a separate division from the issuing side with costs split equally between them.

3.31 We did not ask Mastercard to provide us with estimates of profitability separately for issuers and acquirers. However, Mastercard provided us with gross revenues, rebates and net revenues, split by issuer and acquirer. This, together with Mastercard's fully loaded UK

P&L accounts and a number of cost allocation assumptions, allowed us to derive a broad estimate for the EBIT margins that Mastercard derives from acquirers and issuers.

Table 6: Mastercard's UK EBIT margins by customer assuming 50/50 cost split

Mastercard EBIT margins	2019	2020	2021	2022	Average
Acquirers, cost allocated based on 50/50 share with issuers	[✄]	[✄]	[✄]	[✄]	[✄]
Issuers, cost allocated based on 50/50 share with acquirers	[✄]	[✄]	[✄]	[✄]	[✄]
Mastercard fully loaded UK P&L	[✄]	[✄]	[✄]	[✄]	[✄]

Source: Mastercard fully loaded UK P&L accounts, PSR calculations

3.32 The table above shows that average margins on the acquiring side (circa. [✄]%) are higher compared with the overall margins ([✄]%) and [✄] compared with the margins on the issuing side, and [✄].[89]

Provisional findings on Mastercard's UK margins based on the fully loaded UK P&L accounts

3.33 We currently do not have sufficient information to fully assess whether Mastercard's fully loaded UK P&L accounts are a reliable reflection of the profitability of the relevant UK operations for the purpose of our market review.

3.34 Mastercard's view was that it had allocated common costs and revenues on a conservative basis. However, our analysis of Mastercard's fully loaded UK P&L has shown that the margins in the fully loaded UK P&L accounts can vary very significantly, depending on what assumptions are made in relation to the allocation of common costs and revenues. For example, average margins in Mastercard's fully loaded UK P&L accounts are [✄]% but rise to [✄]%[90] in our sensitivity analysis (on average for the period of 2019–2022).

3.35 Our analysis also indicates that Mastercard's view of its margins for the relevant UK operations as presented in the fully loaded UK P&L accounts may underestimate the economic benefits that Mastercard derives from its relevant UK operations. This is mainly due to:

a. [✄].
b. [✄].
c. [✄].
d. [✄].

89 We note that this analysis is based on the fully loaded UK P&L accounts provided to us by Mastercard without any the sensitivity adjustments identified in paragraph 3.25.

90 We note that this figure could be higher or lower depending on the alternative cost and revenue allocation assumptions made. See also paragraph 3.28.

3.36 We therefore do not think that we can currently derive an estimate of Mastercard's profitability in the relevant UK operations from the fully loaded UK P&L accounts that is suitable for the purposes of assessing whether market outcomes are consistent with a competitive market.

3.37 In the next two sections we set out a review of Mastercard's European and Global accounts and consider whether these could be relevant in understanding the margins Mastercard earns in the relevant UK operations.

Estimating UK EBIT margins based on Mastercard's published European accounts

3.38 Mastercard publishes audited regional accounts that mainly include European operations (Mastercard Europe SA – MES or European accounts). Mastercard told us that the MES accounts contain the vast majority of UK external revenues. UK costs are captured in a number of UK entities including Mastercard UK Management Services Limited (MEPUK) and Mastercard European Services Limited (MESL).

3.39 The table below shows the reported EBIT margins for MES.

Table 7 EBIT margins for Mastercard in the published European accounts (%)

Mastercard EBIT margins I	2018	2019	2020	2021	2022	Average
Mastercard Europe SA (as reported) – MES	17.3%	27.0%	25.3%	26.0%	27.7%	**24.7%**

Source: Mastercard European financial statements

3.40 [✂].

3.41 When assessing whether the European accounts are an appropriate basis to estimate the margins for the relevant UK operations, we have considered the following factors.

3.42 The MES accounts include costs for the purchase of services from other parts of the Mastercard group. MES does not consolidate all European entities. These purchases are likely to generate EBIT for Mastercard as a whole, which is not reflected in the European accounts,[91] even though they are generated from activities in Europe (and by implication the UK). These costs are significant.

3.43 For example, the MES accounts show EBIT margins of on average 25% (see the table above). Another Mastercard entity – MESL – receives revenues from MES and shows EBIT margins of around 70%.[92]

3.44 Adjusting the MES EBIT margins for the profits made by MESL increases the MES margins by approximately 20 percentage points to approximately 46%. See table below.

91 Either because they are not consolidated or accrue in other parts of the Mastercard group.
92 In the period of 2018–2022.

Table 8: EBIT margins for Mastercard in the published European accounts (%)

Mastercard EBIT margins	2018	2019	2020	2021	2022	Average
Mastercard Europe SA (as reported) – MES	17.3	27.0	25.3	26.0	27.7	**24.7**
MES – adjusted for intercompany transfers to MESL	29.2	50.9	46.8	49.4	54.9	**46.2**

Source: Mastercard European financial statements, PSR calculations

3.45 MES has intercompany transactions in addition to the example provided above. [✂].

3.46 We have taken the view that intercompany profits form part of the economic benefits that Mastercard derives from the European operations and should be removed from costs when assessing the profitability of Mastercard's relevant UK operations. This is because they are not a cost that Mastercard (as a group) has to pay to provide services in the UK. Equally, we note that Mastercard has not allocated any intercompany profits to the costs in the fully loaded UK P&L accounts.

3.47 If, in the alternative, we were to consider the use of intercompany transactions as a basis on which to generate UK profit estimates, then:

a. The intercompany transactions would need to be reflective of competitive market conditions. Mastercard have told us that its intercompany agreements are supported by transfer pricing studies, based on a comparison of equivalent market transactions, prepared by third-party partners. However, profitability and other relevant information to confirm the appropriate valuation of intercompany transactions for MES are not publicly available.[93] We are therefore not able, for example, to assess whether profitability in the intercompany transactions are higher than would be expected in competitive markets.

b. The profitability assessment would also need to take into account that, because a number of services are effectively provided by notional third parties, the business model for an entity with significant intercompany transactions would be different to Mastercard's overall operations (and by implication the relevant UK operations). For example, where Mastercard notionally outsources the provision of technology and operations for scheme and processing services in the UK (or Europe), then the UK operations would effectively become resellers of scheme and processing services, rather than providers of such services. This could impact on the asset intensity of the operations and could require benchmark margin comparators that are not similar to Mastercard's actual relevant UK operations. It may be disproportionate to undertake this additional analysis when the alternative of adding back intercompany profits is a feasible option.

93 Mastercard confirmed that the fully loaded UK P&L accounts do not include costs related to intercompany transactions. Mastercard has not provided information about the profitability of intercompany transactions in relation to the European accounts.

3.48 Mastercard includes significant litigation–related costs in the European accounts. It may be appropriate to exclude these costs when assessing profitability for the purpose of our market review. This is because, for example: the costs may be related to past activities; the costs could, in themselves, be a result of Mastercard benefiting from lack of effective competitive constraints; the costs may be related to the level of interchange fees (which are out of scope of our market review);[94] the costs may be recoverable from third parties (e.g. through insurance); and because, notwithstanding the long timespan over which these litigation-related costs have accrued, they may not be part of the ordinary course operation of the business (e.g. they are one-off costs and/or non-operational costs). We note that Mastercard removes litigation cost provisions when reporting its adjusted performance to its shareholders and has not included these costs in the fully loaded UK P&L accounts.[95]

3.49 Mastercard uses a different way to account for some of the customer incentives in the European accounts compared with the global accounts, which are prepared in line with accounting principles generally accepted in US accounting standards (US GAAP). In the European accounts Mastercard includes some incentive payments as costs, rather than offsetting them from revenues, which mathematically means that the same costs, revenues, incentives and rebates results in a higher margin under US GAAP.[96] [97] See paragraph 3.110 for more details.

3.50 We therefore consider that Mastercard's European accounts are likely to understate the EBIT margins in Europe that Mastercard derives on an economic basis. As such, we consider that using Mastercard's EBIT margins for Europe as an estimate for the relevant UK operations would likely also understate the economic benefits that Mastercard derives from the relevant UK operations.

3.51 However, we note that Mastercard's European margins (even when only partially adjusted for intercompany transactions by only making adjustments for MESL) are higher than the margins shown in Mastercard's fully loaded UK P&L accounts. See the table below.

Table 9: EBIT margins for Mastercard (%)

Mastercard EBIT margins	2018	2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Mastercard Europe (adjusted for intercompany transfers to MESL)	29.2	50.9	46.8	49.4	54.9	**46.2**

Source: Mastercard European financial statements, PSR calculations

94 See, for example: Sainsbury's Supermarkets Ltd and others (Respondents) v Visa Europe Services LLC and Mastercard and others (Appellants) (supremecourt.uk).

95 Mastercard Q2 2023 Earnings presentation deck, page 12.

96 Mastercard response to PSR questions 13 July 2023 [✂].

97 Mastercard explained that the UK&I revenues, rebates and incentives are recorded in the Mastercard Europe SA entity, and its statutory accounts are generated in accordance with the Belgium accounting framework (Belgian GAAP). Mastercard noted that rebates are treated in the same way under Belgian GAAP and US GAAP. The relevant difference is for incentives, some of which are treated as costs under Belgian GAAP and as contra-revenues under US GAAP. Oxera confirmed that in global terms under US GAAP, this would be classed as a rebate, but in Belgium GAAP it is treated as a cost. PSR-Mastercard Expert Level Meeting 31 July 2023.

Mastercard UK margins relative to the European margins

3.52 Using the European EBIT margins to estimate Mastercard's UK margins also requires an assessment whether the margins in the UK are at, above or below the EBIT margins at the European level.

3.53 Given the significant investment in the UK debit card market, it is possible that the rebate and incentive payments in the UK could lead to lower recorded EBIT margins for the UK compared with the overall European operations (e.g. where the investments result in lower net revenues, whereas the cost base may stay largely fixed).

3.54 Evidence submitted by Mastercard indicates that it is possible that its UK operation could have been more affected by COVID than its overall European operations. This is because Mastercard has a higher share of credit cards in the UK [✂] compared with Europe [✂], and [✂]).[98] Credit card revenues (and in particular commercial credit cards) could have been more impacted by COVID than debit cards, which is likely because credit cards are used more in travel than debit cards. As such it is possible that Mastercard's profitability in the UK could have been lower than in Europe during COVID. However, Mastercard's submissions in response to our CWP indicated that Mastercard did not consider that COVID had a significant impact on the relevant UK operations. [99] We therefore consider that COVID effects (in so far as they are impacting the relevant UK operations more than the European operations) are not a strong reason to assume that UK margins are lower than European margins.[100]

3.55 In respect of the costs of expansion into the UK debit card market, we have noted above that:

a. it is possible that these investments are only having a temporary effect on Mastercard's profitability in the UK (see paragraph 3.18 to 3.19) and a case could therefore be made to exclude them from a profitability analysis for the purpose of our market review.

b. Some of the expansion costs may be more appropriately allocated to different time periods or products outside of those subject to this market review (see paragraphs 3.20 to 3.22).

c. Mastercard's cost allocation method may over-allocate costs to the incremental transactions generated by the growth in debit cards (see paragraph 3.12e.)

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98 [✂].

99 In its response to the CWP, Mastercard said: 'There are various reasons why a reduction in card transaction volumes may not lead to a similar reduction in operating profits. Indeed, despite decreases in gross revenues (due to lower transaction volumes) there was only a relatively small reduction in the operating margins of Mastercard Inc. and Mastercard Europe in 2020 and 2021'. Source: Mastercard response to PSR working paper dated 1 December 2023 [✂].

100 We also consider, in the alternative, that COVID-19, insofar as it has a disproportionate effect on Mastercard's relevant UK operations, could be treated similarly to a one-off exceptional cost item that would normally be excluded from a profitability analysis in the context of a market review. We note that the macroeconomic consequences of the COVID-19 pandemic are complex and recognise that COVID-19 may have, and continue to have, an effect on parts of Mastercard's business. However, we consider it likely that COVID-19 no longer has a net negative effect on Mastercard's business.

3.56 Internal documents from Mastercard indicate that its profit margins in the UK are [✄]. This is because:

a. The figure below shows that that [✄][101] [✄].[102]

Figure 8: Mastercard presentation: Recent trend of profitability and market share

[✄]

b. [✄]. For example:

i. Mastercard's internal documents show [✄].[103] [✄].[104] [✄].[105]

ii. Mastercard documents show that [✄].

iii. [✄].

iv. Mastercard told us in response to the CWP that [✄].

Table 10: Contribution margins (scheme) (%) [106]

Mastercard's regional contribution margins	2018	2019	2020	2021	2022	Average 2018–2021
[✄]	[✄]	[✄]	[✄]	[✄]	[✄]	[✄]
[✄][107]	[✄]	[✄]	[✄]	[✄]		[✄]
[✄]	[✄]	[✄]	[✄]	[✄]	[✄]	[✄]
[✄]	[✄]	[✄]	[✄]	[✄]	[✄]	[✄]
[✄]	[✄]	[✄]	[✄]	[✄]	[✄]	[✄]

Source: Mastercard internal documents and PSR calculations

101 We have assumed that yields shown in this figure are calculated as net revenues divided by payment values.

102 [✄].

103 We used the revenues set out in paragraph 3.56c for this calculation.

104 [✄].

105 [✄].

106 [✄].
[✄].
[✄].
[✄].
[✄].

107 The UK margin has been calculated assuming a revenue share of Ireland as set out in the table in paragraph 3.56c by assuming the UK to Ireland revenue ratio detailed in the table below applies across the four years.

c. [✂].[108] Therefore, as a business that is largely characterised by fixed and common costs, we see no strong prima facie reasons for cost allocations relative to revenues for the UK to be higher than for other European markets. This can be illustrated by considering that, in competitive markets, where incremental costs are low, larger market participants can often negotiate larger volume discounts than smaller market participants.[109]

Figure 9: Mastercard net revenue by market

[✂]

d. [✂].[110] Credit cards are likely to generate higher revenues compared to debit cards as it is, for example, likely that credit cards are associated with a higher proportion of international transactions compared to debit cards (which would also likely result in higher FX conversion revenues compared to debit cards). [✂].

Provisional findings on Mastercard's UK margins based on the European accounts

3.57 The evidence we have reviewed indicates that margins in the relevant UK operations for Mastercard (excluding the cost of expanding into the UK debit card market) are likely higher than the European average. This is because of the [✂]. [111]

3.58 We recognise that the factors set out above will likely be offset to an extent by the cost of Mastercard's investment in debit cards. We consider it is possible that the net effects are such that [✂] when considering:

a. our view on the economic (rather than accounting) costs of the expansion into debit cards as set out in paragraph 3.55

b. that MES has intercompany arrangements other than those for MESL and accounts for some incentive payments as costs in the European accounts (but not the global accounts), in line with applicable accounting standards (Belgian GAAP)

3.59 We therefore consider that, taking all evidence in the round, Mastercard's European margins (adjusted for the profit share with MESL) can be informative in understanding the margins in the relevant UK operations, even when taking into account the expansion into debit cards in the UK.

108 [✂].

109 For example, if Mastercard bought technology services from a third party in competitive markets, it is highly likely that it would pay a lower unit cost for larger transaction volumes where the technology services have low marginal costs.

110 [✂].

111 Mastercard submitted that the results of this analysis are inconsistent with the results of its own analysis of revenue yield as set out in Annex 9 of the Interim Report (Revenue Generation). In Annex 9 we summarise the results of Mastercard's own analysis of revenue yield which indicates that the UK [✂]. As indicated in Annex 9, we do not endorse this methodology as an approach to analysing profitability (see FN19 and paragraph 2.51).

3.60 The table below shows Mastercard's European EBIT margins (adjusted for the profit share with MESL).

Table 11: Mastercard's European EBIT margins (adjusted for the profit share with MESL) (%)

Mastercard EBIT margin	2018	2019	2020	2021	2022	Average
Mastercard Europe (adjusted for MESL)	29.2	50.9	46.8	49.4	54.9	**46.2**

Source: Mastercard European financial statements, PSR calculations (Mastercard margins for Europe are adjusted for the profit share with MESL)

Estimating UK EBIT margins based on Mastercard's published global accounts

3.61 Mastercard publishes consolidated audited global accounts that include the relevant UK operations.

3.62 These are the only audited consolidated accounts that include all of the relevant UK operations for Mastercard.

3.63 The relevant UK operations represent approximately [✂] of Mastercard's global operations (when measured in [✂] terms). This figure would be [✂].

3.64 The global accounts can form an appropriate stating point to estimate the economic benefits that Mastercard derives from the global (and therefore implicitly the relevant UK) operations.

3.65 This is mainly because Mastercard is a global operation with significant global common costs.[112] Furthermore, the global accounts are consolidated accounts, removing the effects from intercompany transfers and include all relevant revenues, including FX related revenues. The global accounts also show all rebates and incentives as a deduction from gross revenues (rather than partially as a cost item), in line with US GAAP.

3.66 However, the global accounts also include a significant proportion of services and/or costs that are either not offered in the UK or are outside of our frame of reference.

3.67 For example, 'other' revenues account for around 20% for Mastercard's global revenues. These other revenues may not be part of the relevant UK operations and may have different margins compared to the services offered in the relevant UK operations. See the table below.

Table 12: 'Other' services as a % of total gross revenues

	2018	2019	2020	2021	2022	Average
Mastercard Inc	15.3	16.5	20.0	20.9	[✂]	[✂]

Source: Mastercard global financial statements, PSR calculations
Note: Gross revenues for 2022 are based on PSR calculations as Mastercard has not published them

112 Mastercard response to PSR questions dated 21 November 2022 [✂].

3.68 Another example are litigation costs, which account for around 2% of total global net revenues for Mastercard (see the table below). Litigation costs could differ significantly between the relevant UK operations and the global average. However, we set out above that we do not think that litigation costs should necessarily be included in the assessment of the profitability of the relevant UK operations in the context of our market review.

Table 13: 'Litigation provisions' services as a % of net revenues (2018–2022)

	2018	2019	2020	2021	2022	Average (2018–2022)
Mastercard Inc	7.5	0.0	0.5	0.5	1.6	2.0

Source: Mastercard global financial statements, PSR calculations

3.69 Mastercard's global accounts make a number of adjustments to certain cost items to facilitate an understanding of its operating performance and to provide a meaningful comparison of its results between periods. Those items impacting on EBIT include, for example (in addition to litigation costs):

a. Russia/Ukraine charges
b. Indirect taxes

3.70 The net impact on operating margins from these other items for Mastercard is shown in the table below.

Table 14: Adjustments to operating expenses, excluding litigation provision (Mastercard)

	2018	2019	2020	2021	2022	Average
USD million	0	0	0	82	67	
As a % of net revenues	0.00%	0.00%	0.00%	0.43%	0.30%	0.15%

Source: Mastercard global financial statements, PSR calculations

3.71 Nevertheless, the above examples are not an exhaustive list and there could be other P&L items that could be considered for adjustments. This could, for example relate to the cost of expanding into new business areas, for example, research and development.

3.72 We note that it would be difficult to identify and quantify a comprehensive list of required adjustments to global margins to allow for a more detailed like for like comparison with the margins for the relevant UK operations. We have therefore made the assumption that global margins without any adjustments for the factors set out above are the most appropriate starting point for estimating EBIT margins for the relevant UK operations based on the global accounts. We think this is a proportionate approach, in particular when considering that the specific examples set out above, for example, other revenues and non-operating expenses represent a relatively small proportion of global revenues (even when including litigation provisions). It also takes into account that Mastercard has a high proportion of costs that are global common costs and that the incremental cost of additional transactions is relatively low.

3.73 We therefore think that the reported global margins are a basis to derive an estimate of the margins for Mastercard's relevant UK operations. This is mainly because for Mastercard the global accounts address some of the factors that have a reducing impact on margins at the European level (for example intercompany profits, litigation costs and the accounting treatment of incentive payments) and at the UK level (for example, the absence of FX-related income and the accounting treatment of incentive payments) and because the impact of other operations and non-operational items seems to be relatively small.

Mastercard UK EBIT margins relative to the global margins

3.74 Using global EBIT margins to estimate the margins for the relevant UK operations also requires an assessment whether the margins in the UK are at, above or below the EBIT margins at the global level.

3.75 We consider that some of the factors that we took into account when assessing the relative margins of the relevant UK operations and the European operations also apply when undertaking the same assessment at the global level.

3.76 [✂]. We have previously set out that some of these expenses may be temporary and that an economic review of these costs may indicate that at least some of these costs may appropriately be allocated to future time periods and non-scheme and processing related products (e.g. account-to-account payments). See paragraph 3.55.

3.77 However, other factors point to margins in the UK being higher than the global average, in particular [✂]. See also paragraph 3.56c.

3.78 Mastercard provided us with a reconciliation of costs between the fully loaded UK P&L accounts and the global accounts. This allowed a calculation of global contribution margins. The table below shows the global contribution margins compared to the contribution margins in the fully loaded UK P&L accounts. [✂].

Table 15: Mastercard UK and global contribution margins

Mastercard contribution margins	2019	2020	2021	2022	Average
Mastercard UK contribution margin fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]
Mastercard contribution margin global accounts	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Mastercard fully loaded UK P&L accounts, Mastercard global financial statements

3.79 Furthermore, Mastercard's global operations contain a number of businesses that have lower margins than the global average. For example, Mastercard owns Vocalink in the UK, which is reporting EBIT margins that are significantly lower than the global average. Even though Mastercard argue lower margin businesses may only account for a small proportion of global revenues, we consider that Mastercard's global margins could understate the profitability of its global scheme and processing services.

Provisional findings on Mastercard's UK margins based on the global accounts

3.80 We consider that, when excluding the effects of the expansion into debit cards, Mastercard's margins in the UK can be proxied by the global margins. This is because of [✂] and because Mastercard's global operations may include businesses with lower margins that do not operate scheme and processing services.

3.81 We note, however, that there are fewer factors pointing towards UK margins being above the global average compared to the European accounts. It is therefore possible that when including the effects of the expansion into debit cards the margins in the relevant UK operations could be below the global average.

3.82 However, we also consider it plausible that the impact on Mastercard's margins from the debit card expansion are a temporary effect or may be significantly smaller than indicated if the related costs are economically most appropriately allocated to future time periods or different products. Assuming that these are temporary effects or more appropriately allocated to future periods (or different products), then the global margins can be informative in understanding the margins in the relevant UK operations.

3.83 The table below shows Mastercard's global margins, compared to the UK and European margins.

Table 16: Mastercard's UK, European, global margins (all figures percentages)

Mastercard EBIT margins at UK, European and global level	2018	2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Mastercard Europe (adjusted for MESL)	29.2	50.9	46.8	49.4	54.9	**46.2**
Mastercard Global	48.7	57.2	52.8	53.4	55.2	**53.5**

Source: Mastercard fully loaded UK P&L accounts and Mastercard global and European financial statements (Mastercard margins for Europe are adjusted for the profit share with MESL)

Approach to estimating margins for Mastercard's relevant UK operations

3.84 In this section we set out our views on how best to estimate the profitability of Mastercard's relevant UK operations on the basis of the evidence discussed above.

3.85 We would ideally have used audited UK accounts covering only the relevant UK operations as the starting point for our analysis of Mastercard's relevant UK operations.

3.86 In the absence of this data, we have spent considerable time seeking and reviewing Mastercard's fully loaded UK P&L accounts against criteria set out in the February 2023 working paper. We have supplemented this analysis with a review of Mastercard's European and global accounts.

3.87 In assessing the available data, we have also had regard to internal documents and a sensitisation of Mastercard's fully loaded UK P&L account using alternative assumptions. We note that following circulation of our December 2023 working papers, on 12 January 2024, Mastercard shared the financial models used to derive their EBIT margins in the fully loaded UK P&L accounts. This meant we had limited time to review the models and to undertake sensitivity analysis.

3.88 We consider that we currently cannot derive an estimate of Mastercard's profitability for the relevant UK operations from the fully loaded UK P&L accounts, that would be suitable for the purposes of assessing whether market outcomes are consistent with a competitive market. This is primarily because Mastercard's analysis of its margins for the relevant UK operations as presented in the fully loaded UK P&L accounts could be an underestimate of the economic benefits that Mastercard derives from its relevant UK operations and because our sensitivity analysis shows that making different assumptions on revenue and cost allocations can lead to significantly higher estimates for the margins for Mastercard's relevant UK operations (indicating a wide possible range for the margins in the fully loaded UK P&L accounts depending on the assumptions made).

3.89 We consider that the European accounts (adjusted for MESL) can be relevant in understanding the profitability of Mastercard's relevant UK operations. This is taking into account that the cost of expansion into UK debit cards may reduce margins in the relevant UK operations [✂].[113] It also takes into account factors that indicate that the margins in the European accounts may underestimate the overall economic benefit Mastercard derives from its European operations (e.g. the presence of intercompany transactions other than MESL, the inclusion of litigation costs and the expensing of some incentive costs). Further there are some factors that indicate that margins in the relevant UK operations could be higher than the European average, in particular [✂].

3.90 We consider that global margins can be informative in understanding the margins in the relevant UK operations on an underlying basis, i.e. margins in Mastercard's relevant UK operations assuming that the costs associated with the expansions into debit cards are temporary costs, [✂]. We consider it plausible that these costs are temporary because [✂]. Further and/or in the alternative, we also consider that it is possible that the financial impact of the expansion into debit cards may be overstated in the fully loaded UK P&L accounts. This could be because these costs may economically benefit future time periods and may also benefit services outside the scope of our market review. We also consider it plausible that the incremental costs of providing the additional transactions gained from the debit card expansion could be lower than set out in the fully loaded UK P&L accounts, given that Mastercard has confirmed that [✂].

113 Although we note that those costs may reduce from the levels reported in the fully loaded UK P&L accounts if it were appropriate to allocate them to different time periods or different services.

3.91 We therefore consider that an estimate of Mastercard's margins on an underlying basis (as represented by the global accounts) is also a plausible approach to assessing the profitability of the relevant UK operations.

3.92 The data we have reviewed shows a wide range of the average margins for Mastercard's relevant UK operations of [✄] to 54% (Mastercard's global accounts).[114,115] See the table below.

Table 17: Mastercard's UK, European and global margins (%)

Mastercard EBIT margins	2018	2019	2020	2021	2022	Average
Mastercard fully loaded UK P&L accounts	[✄]	[✄]	[✄]	[✄]	[✄]	[✄]
Mastercard Europe (adjusted for MESL)	29.2	50.9	46.8	494	54.9	**46.2**
Mastercard Global	48.7	57.2	52.8	53.4	55.2	**53.5**

Source: Mastercard fully loaded UK P&L accounts, Mastercard global and European financial statements (Mastercard margins for Europe are adjusted for the profit share with MESL)

3.93 We did not consider it necessary, for the purpose of this market review, to conclude where exactly within this range Mastercard's margins for the relevant UK operations are likely to lie, save to note the fully loaded UK P&L accounts are likely to understate the economic benefits Mastercard derives from the relevant UK operations and that consequently margins are likely higher than indicated by the lower end of the range.

Mastercard's submissions and our response

3.94 In December 2023 we invited Mastercard to comment on two CWPs on profitability.[116] We offered Mastercard the opportunity to respond to these papers, providing supporting evidence and reasoning as appropriate, on the approach that we have set out in these working papers.

114 On average over the period of 2018 to 2022. We note that Mastercard's fully loaded UK P&L accounts do not include a figure for 2018 and the average therefore represents a four-year average compared to the European and global accounts, which are based on 5-year averages.

115 [✄].

116 Mastercard response to PSR working paper dated 1 December 2023 [✄].

3.95 Mastercard's responses mainly centred on the following areas, where they disagreed with our approach:[117]

a. Global margins as a proxy of margins in the relevant UK operations; and whether the UK is a typical region

b. Whether the reduction in the margins shown in Mastercard's fully loaded UK P&L accounts over the period of 2019–2022 are temporary effects; and whether the 2019–2021 period was heavily impacted by COVID

c. Whether incentive payments (issuer support costs) should be treated as a cost item or whether they should be offset against gross revenues

d. Whether FX conversion revenue and litigation costs should be included in the profitability assessment

3.96 We set out each of these in turn below.

Global margins as a proxy for margins in the relevant UK operations

Mastercard's views

3.97 Mastercard said that global margins do not provide a good proxy for the UK, as the UK payment services sector is one of the most sophisticated and developed in the world, and the UK has a very well-developed e-commerce market. This results in a different transaction mix, [✂] and [✂] as well as differences in costs. There are also differences in the introduction and adoption of new technology, services and services enhancements. [118]

3.98 Mastercard was of the view that there was therefore no objective or rational basis for the PSR to assume that Mastercard's global accounts provide a more accurate view of its UK margin than the fully loaded UK accounts.

Our consideration of Mastercard's views

3.99 We have set out above the reasons why we do not think that it would be appropriate for us to rely on the margins as currently presented in fully loaded UK P&L accounts.

3.100 We do not consider that global accounts are necessarily a precise proxy for Mastercard's UK operations. However, in the absence of a robust estimate based on the fully loaded UK P&L accounts, we consider that Mastercard's global accounts provide informative and reliable data for us to estimate a range for the margins of Mastercard's relevant UK

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117 In its response, Mastercard also made a number of additional points where they disagreed with our approach. This notably covered the following:

a) Description of events prior to the provision of the UK P&L to the PSR
b) Use of a competitive counterfactual
c) Size of the UK market
d) Use of Mastercard internal data for the computation of contribution margins
e) (Lack of) evidence provided by the PSR in relation to a statement it made on a large share of Mastercard UK revenues being related to travel
f) One statement made by the PSR on intercompany transactions.
g) Statement made by the PSR that additional revenue items are missing from the UK P&L

118 Mastercard response to PSR working paper dated 1 December 2023 [✂].

operations, on the assumption that the costs of expanding in to UK debit cards [✂].[119] We consider that the European margins (adjusted for intercompany profits at MESL) also provide relevant information for estimating [✂].[120]

Temporary margin reductions in 2019–2022

Mastercard's views

3.101 Mastercard also suggested that the level of rebates and incentives during the period 2022–26 is higher than during the period 2019–21 and can therefore not be considered to be temporary.[121]

3.102 Mastercard also said that analysis in its internal documents was forward-looking and therefore by its nature subject to uncertainty.[122]

3.103 Mastercard submitted that there is a future competitive threat both from alternative payment methods and other payment card networks and that rebates and incentives are required in order to remain competitive. [123]

3.104 Mastercard said that contracts generally last between 5 and 7 years and without knowing what competing offers the issuers will receive in the future, it is impossible to accurately forecast what the future level of incentives and rebates will be. However, Mastercard noted that data submitted on incentives and rebates to the PSR shows a clear upward trend.[124]

3.105 Mastercard also said that we had overestimated the impact of COVID on its UK margins. More precisely, Mastercard said that the PSR had (i) misrepresented the reduction in transaction volumes in the UK during the period 2020–21 and (ii) not properly assessed the impact of varying transaction volumes on operating margins.[125]

Our consideration of Mastercard's views

3.106 Mastercard's internal documents show an [✂].[126] The same document also indicates expected additional future benefits that are not captured in the figures of that document.

3.107 In any case, we set out above that we consider that even if the investments in UK debit cards are not temporary, Mastercard's margins in the UK are likely higher than shown in the fully loaded P&L accounts and can be broadly proxied by Mastercard's European accounts (adjusted for MSEL).

3.108 We did not consider it necessary to further assess the precise level of the impact of COVID on the UK operations as both of the proxies we use to estimate Mastercard's margins (global and European accounts) for the relevant UK operations include the effect of COVID and given Mastercard's submission suggested that the impact of COVID on the relevant UK operation was relatively small. Mastercard's submission explained that Covid

119 See paragraph 3.80 to 3.82, and 3.90 for more details.
120 See paragraphs 3.57 to 3.59 for more details.
121 Mastercard response to PSR working paper dated 1 December 2023 [✂].
122 Mastercard response to PSR working paper dated 1 December 2023 [✂].
123 Mastercard response to PSR working paper dated 1 December 2023 [✂].
124 Mastercard response to PSR working paper dated 1 December 2023 [✂].
125 Mastercard response to PSR working paper dated 1 December 2023 [✂].
126 See paragraph 3.18 and 3.19.

had a limited impact on transaction volumes, and that a slight decrease in Mastercard Inc. and Mastercard Europe operating margins were observed in 2020 and 2021.

Treatment of incentives

Mastercard's views

3.109 Mastercard said that the treatment of certain incentive payments as costs in the fully loaded UK P&L is appropriate as it is consistent with how Mastercard publicly reports under Belgian GAAP. This is also consistent with how certain incentive payments are treated in Mastercard's UK accounts (part of Mastercard Europe).[127]

Our consideration of Mastercard's views

3.110 We note from Mastercard's submissions that different accounting standards may allow for a different treatment of certain incentive payments that Mastercard makes to its customers. This does not affect Mastercard's reported EBIT, but can have an impact on net revenues and consequently the EBIT margin. We do not think it is necessary for us to identify which of the accounting treatments is more appropriate for the purpose of our market review. Rather we consider that whatever accounting treatment is chosen should follow the approach adopted by the margin benchmark comparators. This is because we derive Mastercard's margins for the relevant UK operations primarily to compare them to similar companies operating in competitive markets. We note that our comparator group reports under US GAAP (PayPal) and Australian GAAP (eftpos and OFX). Under US GAAP all incentive payments are netted off against revenues rather than shown as cost items. The treatment under Australian GAAP (which follows IFRS, the International Financial Reporting Standards), is unclear. IFRS states that incentive payments that relate to a specific activity performed by the customer, on behalf of the supplier, should be reported as a cost – like any other goods or services purchased from other suppliers.[128] It may therefore be possible that Australian GAAP is similar to Belgian GAAP (which is how Mastercard reports its fully loaded UK P&L and European accounts) in that it reports some incentive payments as costs.

3.111 As we cannot exclude the possibility that the application of Australian GAAP would lead certain incentive payments to be reported as a cost, we have undertaken a sensitivity analysis for eftpos and OFX, where we provide illustrative estimates of their margins assuming that some incentive payments are reported as costs in their financial statements. Neither eftpos nor OFX report the level of incentive payments in their published accounts. We therefore based our sensitivity analysis on re-classifying those costs items in their reported P&L accounts that are most likely to include incentive payments. The resulting sensitised margins are shown below.

127 Mastercard response to PSR working paper dated 1 December 2023 [✂].

128 IFRS Foundation, IFRS 15 Revenue from Contracts with Customers paragraphs 70 and 71, September 2015.

Table 18: OFX and eftpos EBIT margins

	2018	2019	2020	2021	2022	Average
OFX EBIT margin	17%	19%	13%	21%	19%	18%
OFX EBIT margin netting promotional expenses against revenue	20%	22%	15%	23%	21%	20%
eftpos EBIT margin	5%	11%	21%	10%	N/A	12%
eftpos EBIT margin netting P&L[129] against revenue	8%	15%	28%	13%	N/A	16%

Notes: eftpos margins are based on data from 2018–2021 as data for 2022 is not available.OFX margins are based on a financial year end in March (e.g. 2022 data is based on March 2023 accounts).
Source: OFX and eftpos financial statements, PSR calculations.

3.112 We note that the revised margin estimates may overstate the impact of removing incentive payments as the costs lines we have removed to perform this estimate may also include costs other than incentive payments.

3.113 The table shows that under this conservative assumption margins for eftpos and OFX could be 4% and 2% higher, respectively.

3.114 We note that using this alternative benchmark margin estimate for eftpos and OFX would not significantly change the comparator benchmark margin range of 12–18% that we have estimated in section 7.

3.115 We have therefore not considered it necessary to undertake a more detailed assessment at this stage, noting that the impacts estimated above are conservative estimates and that a slightly higher benchmark margin range as implied by the sensitised analysis above would not significantly change our assessment of Mastercard's profitability in this market review.

Foreign Exchange conversion revenue

Mastercard's views

3.116 Mastercard said that foreign exchange conversion revenues are out of scope of our market review and that FX income is neither a fee nor a payment. [130]

Our consideration of Mastercard's views

3.117 We do not agree with Mastercard's assessment. We are focused on whether Mastercard is able to earn profits that are higher than in competitive markets. Such an assessment would be incomplete if it did not take ancillary revenues into account that arise as a result of operating scheme and processing services and would understate the economic benefits Mastercard derives from operating scheme and processing services. This is because in a competitive market, ancillary revenues form part of the considerations in respect of market entry and pricing decisions. This can be illustrated by the ancillary services in air travel

129 Product and implementation expenses.

130 Mastercard response to PSR 1 December 2023 working paper [✂].

(e.g. food sales or luggage fees). Ancillary revenues are not a direct revenue when offering an airline ticket to a consumer. However, they are a key consideration in the pricing decision for airline tickets. Effective competition can be expected to ensure that ancillary revenues are passed on to customers in the form of lower ticket prices insofar as they exceed the costs of offering ancillary services. Equivalently, we would expect that foreign exchange conversion revenues (net of costs) would be reflected in lower prices (or higher discounts) for scheme and processing services in a competitive market.

Litigation costs

Mastercard's views

3.118 Mastercard said that litigation costs are not one off items, rather they are ongoing costs. Neither are these costs the result of an exercise of market power. Mastercard also said that the CMA had partially included litigation costs when assessing profitability in the digital advertising market investigation. [131]

Our consideration of Mastercard's views

3.119 We set out above a number of considerations that are relevant when considering whether litigation costs should be included in the assessment of Mastercard's profitability (see paragraph 3.48). We did not consider that it was necessary for us to come to a final conclusion on whether these costs should be excluded from the fully loaded UK P&L accounts for the purpose of our market review, noting that Mastercard has not included litigation costs in the fully loaded UK P&L's. We also note that the proportion of litigation costs as a percentage of net revenue is low in Mastercard's global accounts, which form the upper end of the margin range we identified for the relevant UK operations.

Our provisional conclusions on Mastercard's margins for the relevant UK operations

3.120 We have estimated a range for Mastercard's margins for the relevant UK operations by looking at Mastercard's fully loaded UK P&L accounts, Mastercard's European accounts and Mastercard's global accounts.

3.121 In developing the fully loaded UK P&L accounts, Mastercard needs to make many assumptions about allocations of common costs, which can have significant impacts on the level of costs allocated. Some of the allocations may not be appropriate in the context of a market review, where the purpose of the profitability analysis is to understand profitability from an economic perspective. Some allocations may result in margin estimates that are less reflective of the economic profitability than others.

3.122 We have identified a number of factors, either in the way the UK P&L accounts were constructed or in the way costs have been allocated (where cost allocation information was available), that make them less likely to be representative of the economic benefits that Mastercard derives from the relevant UK operations. These factors may lead to an underestimate of the EBIT margins in the fully loaded UK P&L accounts.

131 Mastercard response to PSR 1 December 2023 working paper [✂].

3.123 We consider the information we have obtained so far is not sufficient for us to derive an estimate for the profitability of Mastercard's relevant UK operations from the fully loaded UK P&L accounts provided to us by Mastercard for the purposes of our market review. This is mainly because of the wide range of margins that can be generated in the fully loaded UK P&L accounts when making assumption changes and because we did not consider it proportionate, at this stage, to derive our own view of a robust spot estimate for the margins in the relevant UK operations, for example by making adjustments to the financial model used by Mastercard to derive the fully loaded UK P&L accounts.

3.124 In light of this, we have also reviewed profitability estimates based upon Mastercard's reported European and global margins.

3.125 We provisionally conclude that both Mastercard's European margins (adjusted for MESL) and Mastercard's global margins provide relevant information to estimate a range for Mastercard's margins in the relevant UK operations. Within this we consider that the European margins (adjusted for MESL) provide relevant information for the margins of Mastercard in the relevant UK operations [✀] and the global margins provide relevant information for the margins of Mastercard in the relevant UK operations on an underlying basis (i.e. without the impact of the expansion into UK debit cards or where some of these costs are more appropriately allocated to different time periods or products).

3.126 The data we have reviewed results in a wide range of the average margins for Mastercard's relevant UK operations [✀] and 54% (Mastercard's global accounts).[132, 133] We did not consider it necessary, for the purpose of this market review, to conclude where exactly within this range Mastercard's margins for the relevant UK operations are likely to lie, save to note that the fully loaded UK P&L accounts are likely to understate the economic benefits Mastercard derives from the relevant UK operations and that consequently margins are likely higher than indicated by the lower end of the range.

132 We note that Mastercard's fully loaded UK P&L accounts do not include a figure for 2018 and the average therefore represents a four-year average compared to the European and global accounts, which are based on 5 year averages.

133 We note that this range is also broadly consistent with [✀].

4 Assessing Visa's profitability

4.1 In this section we set out our assessment of Visa's profitability in the relevant UK operations. We also set out how we have taken into account the submissions we have received from Visa in response to the CWP on Visa's profitability and our response to them.[134]

Datasets used to assess Visa's profitability

4.2 We have looked at the following data sources to estimate Visa's profitability of the relevant UK operations:

a. The fully loaded UK P&L accounts submitted by Visa[135]

b. Visa's published European accounts

c. Visa's global accounts.

4.3 The table below shows the unadjusted[136] EBIT margins from each of the datasets.

Table 19: Visa's UK, European, global margins (%)

Visa EBIT margins at UK, European and global level	2018	2019	2020	2021	2022	Average
Visa fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L accounts – [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa Europe	57.5	60.7	53.6	60.2	67.0	**59.8**
Visa Global	62.9	65.3	64.5	65.6	64.2	**64.5**

Source: Visa fully loaded UK P&L accounts and Visa global and European financial statements

4.4 Below we assess the suitability of each data source in turn and then set out our view of Visa's profitability in the relevant UK operations.

134 Visa response to PSR working paper dated 1 December 2023 [✂].

135 Visa initially provided fully loaded UK P&L accounts which did not allocate FX conversion revenues to the UK. Subsequently Visa prepared a bespoke UK allocation of FX conversion revenues [✂], and provided an updated version of UK P&L accounts incorporating this information. Visa informed us [✂].

136 i.e. the EBIT margins as reported in each dataset without any adjustments.

Estimating UK EBIT margins based on Visa's fully loaded UK P&L accounts

4.5 In response to our November 2022 s81 request (as subsequently supplemented on 19 January and 12 of February 2024), Visa provided us with two sets of fully loaded UK P&L accounts. One version [✂] and one version [✂]. Visa only provided fully loaded UK P&L accounts including [✂] for 2021 and 2022.

4.6 The EBIT margins in these accounts are set out in the table below.

Table 20: Visa's UK EBIT margins (%)

Visa EBIT margins	2018	2019	2020	2021	2022	Average
Visa fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L accounts – [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Visa fully loaded UK P&L accounts [✂]

4.7 We provided some guidance in our November 2022 s81 notice that all revenues and costs should be attributed on a consistent basis when requesting the fully loaded UK accounts. The accounts provided to us were based on allocation methods chosen by Visa, taking this guidance into account. To prepare these accounts, Visa leveraged pre-existing analysis that was the basis for Visa's audited financial statements prepared in connection with Visa's reporting obligations under the IFR.

4.8 We have therefore assessed whether the fully loaded UK P&Ls provided by Visa reflect the considerations for the allocation of revenues and common costs set out in our approach section above.

4.9 Using the considerations set out in paragraph 2.40 above we have reviewed whether it is likely that the cost allocation in the fully loaded UK P&L is based on a FAC basis using activity-based costing principles.

a. *Disaggregation and attribution* – we received descriptions from Visa as part of the responses (which we received on 11 January 2023 for Visa) to our s81 notices on financial analysis (which we provided on 9 November 2022 for Visa). These provided a relatively high-level overview and were not accompanied by all the associated calculations. Following further interactions during 2023, the CWP was provided to Visa for comment on 1 December; following its response to the CWP [✂], we received further details for the calculations on 19 January 2024, which Visa offered to provide following its response to our CWP. However, these additional submissions did not include all the underlying calculations, which meant that there was a limit to the level of detail at which we can assess the disaggregation and attribution choices made by Visa in preparing the fully loaded UK P&L accounts.

b. *Cost types* – we asked Visa for information about incremental costs it incurs in providing scheme and processing services. On 15 August, we asked Visa a question in relation to incremental cost estimates. On 14 September, Visa provided a qualitative response. This stated, among other things: [137]

   1. [✂].[138] It is therefore very difficult to provide a quantitative response to the PSR's questions on incremental costs. There are also challenges in providing a meaningful qualitative analysis.[139]
   2. [✂][140]
   3. [✂][141]
   4. [✂][142] [✂][143]
   5. [✂][144]
   6. [✂][145]
   7. [✂][146]

c. *Attribution drivers, cost allocation methods and reconciliation* – Visa's fully loaded UK P&L accounts, as amended on 19th of January 2024 allow a reconciliation between the fully loaded UK P&L accounts and Visa's European accounts. However, we did not have sufficient information to assess the suitability of the allocation metrics chosen by Visa to allocate European costs to the UK for the purpose of this market review.[147]

d. *Sensitivity testing* – Visa provided us with its underlying calculations on 19 January 2024, which allowed us to undertake sensitivity analysis on the assumptions that were used to allocate revenues and common costs in the fully loaded UK P&L accounts.

Our assessment of Visa's fully loaded UK P&L accounts

4.10 We have performed a review of Visa's fully loaded UK P&L accounts to consider whether these are an appropriate reflection of the margins for the relevant UK operations.

4.11 We provisionally find that:

a. we currently do not have sufficient information to fully assess whether Visa's fully loaded UK P&L accounts can be considered a reliable reflection of the profitability of the relevant UK operations for the purpose of our market review

137 Visa response to PSR questions dated 15 August 2023 [✂].
138 Ibid [✂]
139 Ibid [✂]
140 Ibid [✂]
141 Ibid [✂]
142 Ibid [✂]
143 Ibid [✂]
144 Ibid [✂]
145 Ibid [✂]
146 Ibid [✂]
147 We note that we have not requested this information from Visa yet. Whilst we recognise that this information would allow a more detailed assessment of the appropriateness of the selected cost allocation metrics, we do not currently consider it proportionate or necessary to do so for the purposes of this market review

b. the fully loaded UK P&L accounts may be understating the economic benefits Visa receives from its relevant UK operations

4.12 This is because:

a. we would require more details on how closely a chosen cost allocation metric relates to how common costs are incurred in providing scheme and processing services.

b. Visa did not provide a quantitative response to a question on the level of incremental costs of its UK operations for additional transaction values and volumes (for reasons explained in paragraph 4.9b).

c. we identified a number of factors that indicate that the fully loaded UK P&L accounts may understate the economic benefits that Visa derives from the relevant UK operations.

4.13 We set out below examples of where we did not have sufficient information to fully assess the fully loaded UK P&L accounts and, where appropriate, why we think Visa's fully loaded UK P&L accounts may understate the economic benefits it derives from the relevant UK operations.

4.14 Visa's fully loaded UK P&L account [✂]. Visa has told us that [✂].[148] We think this therefore overstates the economic cost allocated to the relevant UK operations and understates the EBIT margins of the relevant UK operations. This is because [✂]. See also our more detailed views on [✂] in paragraphs 4.49 and 4.50.

4.15 Visa told us that it [✂].[149]

4.16 As set out above, an allocation based on gross revenue may not be consistent with activity-based costing principles unless there are no input or output-based allocation methods. There may be other cost allocation methods that more appropriately reflect the fixed cost nature of the cost base, for example, the number of acquirers or the number of merchants or cards in issue. When we requested underlying financial model data from Visa, it [✂].[150] We also set out above that where revenues are the most appropriate cost driver, net revenues appear to be a more appropriate driver than gross revenues (see paragraph 2.50).

4.17 Using [✂] results in a relatively high allocation of costs to the UK, because [✂].

Figure 10: [✂] as a % of gross revenue

[✂]

Source: PSR analysis of Visa financial statements and Visa fully loaded UK P&L accounts

4.18 Using a cost attribution method that allocates a disproportionate share of costs to the UK is unlikely to reflect economic benefits that Visa obtains from its relevant UK operations. For example, Visa's allocation methodology does not reflect that the UK market is [✂].[151]

148 Visa response to PSR questions dated 15 August [✂].

149 [✂].

150 We note that [✂].

151 [✂].

[✂].[152] Visa's comments [✂].[153] To illustrate this differently, in competitive markets, larger market participants can often negotiate volume discounts, again suggesting a lower relative allocation of common costs to larger markets.[154]

4.19 The table below shows Visa revenues in the UK and other global markets in 2018.

Table 21: Visa Europe Net Revenues by Country ($m)[155]

Visa Net Revenues by Country	2018 (September YTD)
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]

Source: Visa internal documents

152 [✂].

153 [✂] In this document, [✂].

154 For example, if Visa bought technology services from a 3rd party in competitive markets, it is highly likely that it would pay a lower unit cost for larger transaction volumes where the technology services have low marginal costs.

155 [✂].

4.20 When attributing costs for [✂] to the UK on the basis of [✂], Visa has excluded [✂]. However, Visa has not excluded [✂]. This suggests that [✂]. Visa provided us with the European IFR accounts,[156] which confirmed this to be the case in 2021 and 2022 (see the table below).

Table 22: Visa Europe Limited Scheme and Processing EBIT margins

Visa EBIT margins at a European level	Scheme	Processing	Unregulated	Total VEL
European IFR EBIT margins 2021	[✂]	[✂]	[✂]	[✂]
European IFR EBIT margins 2022	[✂]	[✂]	[✂]	[✂]

Source: VEL Financial Statements under EU IFR 2021, 2022

4.21 There is therefore a possibility that Visa has [✂]. Or, in other words, [✂].

4.22 Visa allocates some expenses [✂] by reference to [✂].[157] However, in Visa's response to our question on incremental costs, it indicated that [✂].[158] This indicates that [✂].

4.23 Visa has allocated [✂] to the UK based on Consumer Expenditure Value (CEV).[159] [✂].

4.24 Visa allocates [✂] of its European litigation cost provisions to the UK. It may not be appropriate to include these costs for the purpose of assessing whether profitability is higher than can be expected in a competitive market. This is because:

a. These costs may be related to historic events that are unlikely to recur and are therefore not a reflection of business costs today.

b. High litigation costs themselves may, in our view, be a consequence of a lack of effective competitive constraints, given Visa's market position.

c. Litigation costs may not be incurred in relation to scheme and processing fees, but may be related to interchange fees, which are outside the scope of our market review.[160]

d. Litigation costs may be recoverable from third parties.[161]

e. We have not been provided with evidence as to why such expenses should be seen as a 'cost of doing business' in card services, for example whether such costs would affect competitive entry decisions. Indeed in the UK IFR accounts, Visa states: [✂].[162]

f. Visa, in its global accounts, describes litigation costs as not representative of its continuing operations.[163]

4.25 Similar considerations to the above apply to the allocation of revenues to the UK activities.

156 [✂].
157 [✂].
158 See paragraph 4.9b. We understand that [✂].
159 [✂].
160 Visa told us that [✂] Source: Visa response to PSR question dated 16 February 2024 [✂].
161 Visa told us that [✂] Source: Visa response to PSR question dated 16 February 2024 [✂].
162 [✂].
163 Visa 10K 2022, page 33.

4.26 One such example is foreign exchange (FX) conversion revenues. These arise where a UK cardholder undertakes a card transaction in a different currency.[164]

4.27 We consider that foreign exchange conversion revenues are relevant to our market review as they are an inherent part of a card transaction, i.e. they would not arise without a card transaction and do form part of the economic benefits Visa derive from their UK card scheme operations. Our terms of reference state that we would examine scheme and processing fees as well as 'other fees and payments relating to Mastercard and Visa's scheme and processing activities'.[165] We note that Visa has not objected to our view that FX conversion revenues are part of the economic benefits that Visa derives from the provision of scheme and processing services.[166]

4.28 Visa has provided us with details of FX conversion revenues in the fully loaded UK P&L for 2021 and 2022, although we have not been provided this information for 2018–2020. Visa also provided the FX conversion revenues for its European.[167] This shows that FX revenues accounted for approximately [✂] of its European net revenues in the period of 2018–2022 and that the proportion of UK net revenues appears to be broadly similar (see the table below).

Table 23: Visa FX revenues

Visa FX revenues	2018	2019	2020	2021	2022	Average
Visa Europe Limited (VEL) FX revenues (EUR)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
As a % of VEL net revenues	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L FX revenues (EUR)				[✂]	[✂]	[✂]
As a % of UK net revenues				[✂]	[✂]	[✂]

Source: Visa European financial statements and Visa fully loaded UK P&L accounts

Sensitivity analysis

4.29 In order to assess the possible magnitude of the impact of some the factors set out above, we have undertaken sensitivity analysis using Visa's fully loaded P&L accounts.[168.] In this analysis we have used, as a starting point, Visa's fully loaded UK P&L accounts excluding FX conversion revenues.

164 There are also foreign exchange conversion fees where a non-UK customer makes a transaction at a UK merchant. However, we consider that revenues from foreign exchange conversion are effectively levied on the card issuer rather than the merchant and should therefore be allocated to the location of the issuer, rather than the location of the merchant. As such foreign exchange conversion income from UK customers should be allocated to UK revenues, even if the transaction takes place abroad.

165 MR 22/1.2 *Final terms of reference* (October 2022) paragraph 2.10.

166 Note for record of PSR-Visa meeting 17/01/2024, [✂].

167 Visa response to PSR questions dated 13 July 2023 [✂]. In this document Visa [✂].

168 We used Visa's fully loaded UK P&L accounts (source: Visa response to PSR questions dated 23 November 2022 [✂] supplemented by Visa's response to PSR working paper dated 1 December 2023 [✂].

4.30 We made changes to the following key assumptions:[169]

a. [✂].

b. [✂].

c. [✂].

d. [✂].

e. [✂].

Table 24: Incremental impact of sensitivity analysis on Visa's margin

Visa's sensitised fully loaded P&L account margins	2018	2019	2020	2021	2022	Average
Visa fully loaded UK P&L accounts EBIT margin	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂] [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂] [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂] [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂] [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂] [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total change in EBIT margin	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa margins – sensitised fully loaded UK P&L accounts	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Note: The percentage changes shown above should be read as percentage point changes. Each change shown is the incremental impact of the change in addition to the previous changes. The individual percentage point changes for each adjustment above may be different if the sequence is changed, although the cumulative change of all individual changes would not be different
Note: [✂]
Source: Visa fully loaded UK P&L accounts, PSR calculation

4.31 The table shows that flexing a number of assumptions results in average margins over the period of 2018–2022 of [✂], showing a significant level of sensitivity of the results to the revenue and cost allocation assumptions made.

4.32 We note in this context that we have not sensitised all cost allocation assumptions and that alternative cost allocation assumptions could result in higher or lower margins.

169 We have not separately assessed a cost allocation sensitivity based on net revenues. This is because doing so would result in the same margin estimate as using the margins in the European and Global accounts. We have instead reviewed separately the suitability of margins in the European and global accounts as a proxy for UK margins.

4.33 However, this analysis is not intended to identify the 'correct' margins for Visa's relevant UK operations, but rather to identify the sensitivity of the margins in the fully loaded UK P&L accounts to the assumptions made.

Acquiring margin estimates

4.34 We've provisionally found in Annex 6 of the Interim Report (Descriptive Data Analysis) that Visa generates over [✂] of net revenues on the acquiring side [✂]. In order to contextualise this observation, we performed an additional hypothetical sensitivity analysis assuming that the acquiring side is run as a separate division from the issuing side with costs split equally between them.

4.35 We did not ask Visa to provide us with estimates of profitability separately for issuers and acquirers. However, Visa provided us with gross revenues, rebates and net revenues, split by issuer and acquirer. This together with Visa's fully loaded UK P&L accounts and a number of cost allocation assumptions, allowed us to derive a broad estimate for the EBIT margins that Visa derives from acquirers and issuers.

Table 25 Visa's margins by customer assuming 50/50 cost split

Visa fully loaded P&L accounts EBIT margins by acquirer and issuer	2018	2019	2020	2021	2022	Average
Acquirers, cost allocated based on 50/50 share with issuers [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Issuers, cost allocated based on 50/50 share with acquirers [✂]	[✂]	[✂]	[✂][170]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Acquirers, cost allocated based on 50/50 share with issuers [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Issuers, cost allocated based on 50/50 share with acquirers [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L accounts [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Note: Margins [✂]. Average issuer margins have been calculated based on total revenues and total EBIT over the 5-year period.
Source: Visa fully loaded UK P&L accounts, PSR calculations

170 [✂]

4.36 The table above shows that average margins on the acquiring side [✄] are [✄] compared with the overall margins [✄] and [✄] compared with the margins on the issuing side, and [✄].[171]

Provisional findings on Visa's UK margins based on the fully loaded UK P&L accounts

4.37 We currently do not have sufficient information to fully assess whether Visa's fully loaded UK P&L accounts are a reliable reflection of the profitability of the relevant UK operations for the purpose of our market review.

4.38 We have not had sufficient information from Visa to fully assess the cost categorisation and cost allocation choices made in preparation of the fully loaded UK P&L accounts

4.39 Our analysis of Visa's fully loaded UK P&L has shown that the margins in the fully loaded UK P&L accounts can vary very significantly depending on what assumptions are made in relation to the allocation of common costs and revenues. For example, the margins in Visa's fully loaded UK P&L accounts (excluding [✄]) are [✄] but rise to ca [✄][172] in our sensitised view (on average for the period of 2018–2022).

4.40 Our analysis also indicates that Visa's view of its margins for the relevant UK operations as presented in the fully loaded UK P&L accounts may underestimate the economic benefits that Visa derives from its relevant UK operations. This is mainly due to:

a. [✄]
b. [✄]
c. [✄]
d. The increase in the profitability shown in the fully loaded UK P&L accounts when changing some of the assumptions made for the allocations of costs

4.41 We therefore do not think that we can currently derive an estimate of Visa's profitability in the relevant UK operations from the fully loaded UK P&L accounts that is suitable for the purposes of assessing whether market outcomes are consistent with a competitive market.

4.42 In the next two sections we set out a more detailed review of Visa's European and Global accounts and consider whether these could be relevant in understanding the margins Visa earns in the relevant UK operations.

Estimating UK EBIT margins based on Visa's published European accounts

4.43 Visa publishes audited regional accounts that mainly include European operations as well as the UK (Visa Europe Limited – VEL or European accounts). Visa told us that the European accounts contain [✄] their relevant UK activities. There are no audited accounts that include the relevant UK operations that cover a smaller number of countries than the European accounts. This means the European accounts are the smallest level for which published accounts containing the relevant UK operations are available.

171 We note that this analysis is based on the fully loaded UK P&L accounts provided to us by Visa [✄].

172 We note that this figure could be higher or lower depending on the alternative cost and revenue allocation assumptions made. See also paragraph 4.30.

4.44 The table below shows the reported EBIT margins in Visa's European accounts.

Table 26: EBIT margins for Visa in the published European accounts (%)

Visa EBIT margins at European level	2018	2019	2020	2021	2022	Average
Visa Europe Limited (VEL)	57.5%	60.7%	53.6%	60.2%	67.0%	**59.8%**

Source: Visa European financial statements

4.45 The fully loaded UK P&L accounts represent approximately [✂] of Visa's European operations (when measured in net revenue terms) over the period of 2018–2022. This figure is [✂] on average in 2021 and 2022 when [✂] are included.

4.46 When assessing whether the European accounts are an appropriate basis to estimate the margins for the relevant UK operations, we have considered the following factors.

4.47 The European accounts include costs for the purchase of services from other parts of the Visa group and are not consolidated. These purchases are likely to generate EBIT for Visa as a whole, which is not reflected in the European accounts,[173] even though they are generated from activities in Europe (and by implication the UK).

4.48 Visa has confirmed that Visa Europe purchases services from other parts of the Visa group. For example, VEL in 2022 incurred €510m in intercompany expenses under a framework agreement with Visa Inc, including, for example, fees for IT network infrastructure, license fees and royalties.[174]

4.49 We have taken the view that intercompany profits form part of the economic benefits that Visa derives from the European operations and should be removed when assessing the profitability of Visa's European operations. This is because they are not a cost that Visa (as a group) has to pay to provide services in the UK.

4.50 If in the alternative, we were to consider the use of intercompany transactions as a basis on which to generate UK profit estimates, then we would also need to consider the following:

a. The intercompany transactions would need to be reflective of competitive market conditions. However, profitability and other relevant information for such an analysis for VEL are not publicly available.[175] We are therefore not able, for example, to assess whether profitability in intercompany transactions is higher than would be expected in competitive markets.

b. The profitability assessment would also need to take into account that, because a number of services are effectively provided by notional third parties, the business model for an entity with significant intercompany transactions would be different to Visa's overall operations (and by implication the relevant UK operations). For example, where Visa notionally outsources the provision of technology and operations for scheme and processing services in the UK (or Europe), then the UK operations would

173 Either because they are not consolidated or accrue in other parts of the Visa group.

174 VEL Annual report 2022, Note 27.

175 [✂] Source: Visa response to PSR questions dated 15 August 2023, as supplemented in September 2023 [✂].

effectively become resellers of scheme and processing services, rather than providers of such services. This could impact on the asset intensity of the operations and could require different benchmark margin comparators than comparators that are similar to Visa's actual relevant UK operations. It may be disproportionate to undertake this additional analysis when the alternative of adding back intercompany profits is a feasible option.

4.51 Visa includes significant litigation related costs in the European accounts. As set out above, it may be appropriate to exclude these costs when assessing profitability for the purpose of our market review. This is, for example, because these costs may be related to past activities; could in themselves be a result of Visa benefitting from a lack of effective competitive constraints; may be related to the level of interchange fees (which are out of scope of our market review);[176] may be recoverable from third parties (e.g. through insurance); and may not be part of the day-to-day operation of the business (e.g. they are one-off costs and/or non-operational costs). We note that [✂].[177]

4.52 We therefore consider that Visa's European accounts are likely to understate the EBIT margins in Europe that Visa derives on an economic basis. As such, using EBIT margins for Europe as an estimate for the relevant UK operations would probably also understate the economic benefits that Visa derives from the relevant UK operations.

Visa UK margins relative to the European margins

4.53 Using the European EBIT margins to estimate Visa's margins for the relevant UK operations also requires an assessment whether the margins in the UK are at, above or below the EBIT margins of the European level.

4.54 Visa has provided us with internal documents that indicate the [✂].

4.55 An internal document from July 2020 includes:

a. A line and bar chart headed: [✂].

b. The chart is sub-headed [✂].

c. The chart is set out below. [✂].[178]

Figure 11: Visa operational expenditure to income ratio in its top 10 countries by net revenue (FY19)

[✂]

Source: Visa internal documents

4.56 This indicates that [✂]. [179]

4.57 Visa also reports internally [✂]. These documents show that [✂] [180] [✂].[181]

176 See, for example: Sainsbury's Supermarkets Ltd and others (Respondents) v Visa Europe Services LLC and Mastercard and others (Appellants) (supremecourt.uk)

177 VEL considers litigation costs to be [✂].

178 [✂].

179 [✂].

180 Visa told us that [✂].

181 [✂].

Table 27: Visa contribution Margins for UK&I and UK only (assuming 100% Irish margin)

Visa contribution margins at UK and UK&I level	2018	2019	2020	2021	2022	Average
UK only (assuming 100% Irish margin)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
UK & Ireland	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Visa internal documents,[182] PSR calculations

4.58 Visa has told us that [✂].[183] However, [✂] was not able to provide us with UK contribution margins on a standalone basis. We have therefore calculated implied UK contribution margins assuming that margins in Ireland are 100%, which is the most conservative assumption possible. This results in a lower bound estimate for the UK contribution margin of around [✂] on average over the period of 2018–2022 (see the table above).

4.59 Visa's internal documents also included information about contribution margins[184] in other European regions. See the table below.

Table 28: Visa contribution margins in different European regions

Visa regional contribution margins	2018 (Full year)	2019 FY (Full year)	2019 (September)	2020 (September)
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂][185]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]

182 [✂].
183 Visa response to PSR working paper dated 1 December 2023 [✂] .
184 Visa told us that [✂].
185 [✂].

Visa regional contribution margins	2018 (Full year)	2019 FY (Full year)	2019 (September)	2020 (September)
[✂]	[✂]	[✂]	[✂]	[✂]

Source: Visa internal documents, PSR calculations

4.60 This shows that Visa UK margins [✂].

4.61 We note that contribution margins do not allow a direct read across to EBIT margins on a FAC basis. However, we consider that where costs are largely fixed common costs, contribution margins can nevertheless provide an indication of relative profitability. As set out above in paragraph 4.18, we may not necessarily expect a proportionately higher allocation of common costs to the relevant UK operations given that [✂]. We note in this context that that Visa's internal document did not suggest that [✂]. Visa also told us that [✂].

Provisional findings on Visa's UK margins based on the European accounts

4.62 The evidence we have reviewed indicates that [✂]. This is because:

a. [✂].

b. Internal documents indicate that [✂].

Estimating UK EBIT margins based on Visa's published global accounts

4.63 Visa publishes consolidated audited global accounts that include the relevant UK operations.

4.64 These are the only audited consolidated accounts that include all of the relevant UK operations for Visa.

4.65 The relevant UK operations represent approximately [✂] of Visa's global operations over the period of 2018–2022 (when measured in net revenue terms excluding [✂]). This figure is [✂] on average in 2021 and 2022 when [✂] are included.

4.66 The global accounts can form an appropriate starting point to estimate the economic benefits that Visa derives from the global (and therefore implicitly the relevant UK) operations.

4.67 This is mainly because Visa is a global operation with significant global common costs. Furthermore, the global accounts are consolidated accounts, removing the effects from intercompany transfers; and include all relevant revenues, including all FX conversion revenues.

4.68 However, the global accounts also include a significant proportion of services and/or costs that are either not offered in the UK or are outside of our frame of reference.

4.69 For example, 'other' revenues account for around 5% of Visa revenues. These other revenues may not be part of the relevant UK operations and may have different margins compared to the services offered in relevant UK operations. See the table below.

Table 29: 'Other' services as a % of total gross revenues – Visa

	2018	2019	2020	2021	2022	Average
Visa Inc	3.6	4.5	5.0	5.2	5.0	**4.7**

Source: Visa global financial statements, PSR calculations

4.70 Another example is litigation costs, which account for around 1.5% of total global net revenues for Visa (see the table below). Litigation costs could differ significantly between the relevant UK operations and the global average. Further, we set out above that we do not think that litigation costs should necessarily be included in the assessment of the profitability of the relevant UK operations in the context of our market review.

Table 30: 'Litigation provisions' services as a % of net revenues – Visa

	2018	2019	2020	2021	2022	Average
Visa Inc	-2.9	-1.7	-0.1	0.0	-3.0	-1.5

Source: Visa global financial accounts, PSR calculations

4.71 Visa's global accounts identify a number of cost items as not representative of its continuing operations, as they may be non-recurring or have no cash impact, and may distort its longer-term operating trends. Those items impacting on EBIT include, for example (in addition to litigation costs):

a. Amortisation of acquired intangible assets
b. Acquisition-related costs
c. Russia-Ukraine charges
d. Indirect taxes

4.72 The net impact on operating margins from these other items for Visa is shown in the table below.

Table 31: Adjustments to operating expenses, excluding litigation provision (Visa)

	2018	2019	2020	2021	2022	Average
USD million	195	10	63	224	249	N/A
As a % of net revenues	0.95	0.04	0.29	0.93	0.85	0.61

Source: Visa global financial accounts, PSR calculations

4.73 Nevertheless, the above examples are not an exhaustive list and there could be other P&L items that could be considered for adjustments. This could, for example, relate to the cost of expanding into new business areas, e.g. R&D.

4.74 We note that it would be difficult to identify and quantify a comprehensive list of required adjustments to global margins to allow for a more detailed like-for-like comparison with the margins for the relevant UK operations. This is not least because detailed global revenue and cost information data is not publicly available. We have therefore made the assumption that global margins without any adjustments for the factors set out above are the most appropriate starting point for assessing Visa's UK EBIT margins based on the global accounts. We think this is a proportionate approach, in particular when considering that the specific examples set out above, i.e. other revenues and non-operating expenses, represent a relatively small proportion of global revenues (even when including litigation provisions). It also takes into account that Visa has a high proportion of costs that are global common costs and that [✂].[186]

4.75 We therefore think that the reported global margins can be a basis to derive an estimate of the margins for Visa's relevant UK operations. This is mainly because for Visa the global accounts address some of the factors that have a reducing impact on margins at the European level (e.g., intercompany profits) and at the UK level (e.g. intercompany profits and absence of [✂]) and because the impact of other operations and non-operational items seem to be relatively small.

Visa UK EBIT margins relative to the global margins

4.76 Using global EBIT margins to estimate the margins for the relevant UK operations also requires an assessment whether the margins in the UK are at, above or below the EBIT margins at the global level.

4.77 We consider that some of the factors that we took into account when assessing the relative margins of the relevant UK operations and the European operations also apply when undertaking the same assessment at the global level.

4.78 As set out at paragraph 4.55, [✂]. This suggests that Visa's margins in the UK are higher than the global average.

4.79 In paragraph 4.61 we set out that whilst contribution margins do not allow a direct read across to EBIT margins on a FAC basis we nevertheless consider that where costs are largely fixed common costs, contribution margins can provide an indication of relative profitability and that this is supported by the UK [✂], implying an allocation of common costs (relative to net revenues) that is at least not higher than for other global markets.

Provisional findings on Visa's UK margins based on the global accounts

4.80 The evidence we have reviewed suggests that Visa's global accounts can be informative in understanding the margins for the relevant UK operations. [✂].

186 As set out in paragraph 4.18.

Approach to estimating margins for Visa's relevant UK operations

4.81 In this section we set out our views on how best to estimate the profitability of Visa's relevant UK operations on the basis of the evidence discussed above.

4.82 We would ideally have used audited UK accounts covering only the relevant UK operations as the starting point for our analysis of Visa's relevant UK operations.

4.83 In the absence of this data, we have spent considerable time seeking and reviewing Visa's fully loaded UK P&L accounts against criteria set out in the February 2023 working paper. We have supplemented this analysis with a review of Visa's European and global accounts.

4.84 In assessing the available data, we have also had regard to internal documents and a sensitisation of Visa's fully loaded UK P&L account using alternative assumptions. Following circulation of our December 2023 working papers, on 19 January 2024 and 9 February 2024, Visa shared the financial models used to derive the EBIT margins in the fully loaded UK P&L accounts. This meant we had limited time to review the models and to undertake sensitivity analysis.

4.85 We consider that we currently cannot derive an estimate of Visa's profitability in the relevant UK operations from the fully loaded UK P&L accounts that is suitable for the purposes of assessing whether market outcomes are consistent with a competitive market. This is primarily because Visa's view of its margins for the relevant UK operations as presented in the fully loaded UK P&L accounts could be an underestimate of the economic benefits that Visa derives from its relevant UK operations and because our sensitivity analysis shows that making different assumptions on revenue and cost allocations can lead to significantly higher estimates for the margins for Visa's relevant UK operations (indicating a wide possible range for the margins in the fully loaded UK P&L accounts depending on the assumptions made).

4.86 We consider that the European accounts are likely to understate the margins for Visa's relevant UK operations. This is taking into account that Visa's European accounts are not consolidated and may therefore contain costs that are recorded as profits in other parts of the Visa group. Visa also records significant litigation costs in the European accounts, which we consider may not be relevant for an assessment of the economic benefits that Visa derives from the relevant UK operations. Further, Visa's internal documents show that [✂].[187]

4.87 We consider the global margins can be informative in understanding Visa's margins in the relevant UK operations. This is because the global accounts include FX conversion revenues, are fully consolidated (i.e. they are not affected by intercompany profits), and are less impacted by litigation related costs. Internal documents show that [✂]. We therefore consider using global margins is a potentially [✂] of Visa's profitability for the relevant UK operations.

187 However, we note that Visa's European EBIT [✂] than the EBIT margins in the fully loaded UK P&L. This further supports our view, that the EBIT margins in Visa's fully loaded UK P&L accounts may underestimate the EBIT margins for the relevant UK operations.

4.88 The data we have reviewed shows a wide range of the average margins for Visa's relevant UK operations of [✂] ([✂]) and 64% (based on Visa's global accounts).[188,189] See the table below.

Table 32: Visa's UK, European and global margins (%)

Visa global EBIT margins	2018	2019	2020	2021	2022	Average
Visa fully loaded UK P&L accounts [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa fully loaded UK P&L accounts [✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Visa Europe Limited (VEL)	57.5	60.7	53.6	60.2	67.0	**59.8**
Visa Global	62.9	65.3	64.5	65.6	64.2	**64.5**

Source: Visa fully loaded UK P&L accounts, Visa European and global financial statements
Note: figures in italics are PSR calculations, where FX revenues for 2018 and 2019 are assumed to be the same ratio of total net revenues as in 2022 and for 2020 the same as for 2021. This is based on the assumption that COVID impacts on travel are most similar in the respective years

4.89 We did not consider it necessary, for the purpose of this market review, to conclude where exactly within this range Visa's margins for the relevant UK operations are likely to lie, save to note that the fully loaded UK P&L accounts are likely to understate the economic benefits Visa derives from the relevant UK operations and that consequently margins are likely higher than indicated by the lower end of the range.

Visa's submissions and our response

4.90 In December 2023 we invited Visa to comment on two CWPs on profitability.[190] We offered Visa the opportunity to respond to these papers, providing supporting evidence and reasoning as appropriate, on the approach that we have set out in these working papers.

4.91 We set out below the most salient points raised by Visa in its response to the working paper on its profitability and our response to them.

188 We note that Visa's fully loaded UK P&L accounts do not include [✂] for 2018 to 2020.

189 [✂].

190 Visa response to PSR working papers dated 1 December 2023 and 18 December 2023 [✂].

4.92 Visa's responses commented on the following areas, where it had concerns with our approach:[191, 192]

a. Global margins as a proxy of margins in the relevant UK operations
b. Whether the profitability analysis should be forward looking.

4.93 We set out each of these in turn below.

Global margins as a proxy for margins in the relevant UK operations

Visa's views

4.94 Visa was of the view that there are strong reasons for why UK margins are lower than the global average, including that [✂]. This is also consistent with profitability in the fully loaded UK P&L accounts, which are in part based on audited IFR accounts.[193]

4.95 Visa said that is wrong to assert a strong relationship between a profit margin after attribution of direct costs and a profit margin after allocation of common cost and therefore to rely on Visa's internal documents showing [✂]. It does not follow as a matter of logic that the level of common costs allocated should be in proportion to direct costs incurred. For example, one cluster may have very low marketing costs (which are direct expenses) but have very high transaction volumes, so it would not follow that the level of marketing (direct costs) would lead to a similar level of common costs being generated (if, for example, common costs were allocated based on transaction volumes).[194]

Our consideration of Visa's views

4.96 We have set out above the reasons why we do not think that it would be appropriate for us to rely on the margins as presented in fully loaded UK P&L accounts. We consider that whilst the audited IFR accounts can be a starting point for a profitability analysis, we would still need to consider whether they provide the appropriate basis for assessing the economic benefits that Visa derives from its relevant UK operations. For example, the IFR accounts are based on specific regulatory requirements and have been prepared for that specific purpose. Any profitability estimate derived from these accounts would need to be assessed against relevant criteria and may need to be adjusted for the purpose of an economic assessment of profitability.

4.97 We also set out above that we considered that it would be disproportionate, at this stage, to derive our own view of the fully loaded UK P&L accounts that would address the issues we have identified.

191 Visa response to PSR working papers dated 1 December 2023 and 18 December 2023 [✂].
192 In addition, Visa also pointed out that:
1. There is no requirement for Visa to prepare regulated accounts for UK entity.
2. The PSR misrepresents Visa's extensive engagement on the issue.
3. The PSR is trying to determine a forward-looking measure of profitability based on past results, meaning that the analysis is actually backward-looking.
4. Profitability is only one of many factors the PSR should be considering.

193 Visa response to PSR working paper dated 1 December 2023 [✂].
194 Visa response to PSR working paper dated 1 December 2023 [✂] .

4.98 We do not consider that Visa's global accounts are necessarily a precise proxy for Visa's UK operations. However, in the absence of a robust estimate based on the fully loaded UK P&L accounts, we consider that Visa's global accounts provide informative and reliable data for us to estimate a range for the margins of Visa's relevant UK operations. We have mainly referred to the internal documents to assess whether it is likely that Visa's margins in the UK are relatively higher or lower than the global margins. These documents do not provide an indication that [✄]). Visa has not provided any further documentary evidence to support its view that [✄], other than to point to the fully loaded UK P&L accounts, [✄]. We note in this context that the UK is [✄] and that the UK accounts for circa [✄] of VEL revenues.

The profitability analysis should be forward looking

Visa's views

4.99 Visa said that we appeared to be determining a forward-looking measure of profitability based on past results by assuming certain costs are non-recurring. Visa said that, at the same time, we did not consider a forward-looking view of competitive dynamics. The UK payments sector was undergoing a period of great dynamism and change with significant market entry driving greater choice in the ways of making payments. If we used past profitability as a proxy for what Visa's margins might be in the future, then this needed to acknowledge and assess how the market would change in the coming years.[195]

Our consideration of Visa's views

4.100 We interpret Visa's views as suggesting that its margins in the relevant UK operations may decline in the future and that we have therefore overestimated its profitability for the purpose of this market review. We have included a brief assessment of whether there is evidence suggesting that Visa's margins in the relevant UK operations could decline significantly in the future. This assessment can be found in paragraph 5.8.

Our provisional conclusions on Visa's margins for the relevant UK operations

4.101 We have estimated a range for Visa's margins for the relevant UK operations by looking at Visa's fully loaded UK P&L accounts, Visa's European accounts and Visa's global accounts.

4.102 In developing the fully loaded UK P&L accounts, Visa needs to make many assumptions about allocations of common costs, which can have significant impacts on the level of costs allocated. Some of the allocations may not be appropriate in the context of a market review, where the purpose of profitability analysis is to understand profitability from an economic perspective. Some allocations may result in margin estimates that are less reflective of the economic profitability than others.

4.103 We have identified a number of factors, either in the way the fully loaded UK P&L accounts were constructed or in the way costs have been allocated (where cost allocation information was available), that make them less likely to be representative of the economic benefits that Visa derives from the relevant UK operations. These factors are likely to lead to an underestimate of the EBIT margins in the fully loaded UK P&L accounts.

195 Visa response to PSR working paper dated 1 December 2023 [✄].

4.104 We consider the information we have obtained so far is not sufficient for us to derive an estimate for the profitability of Visa's relevant UK operations from the fully loaded UK P&L accounts provided to us by Visa for the purposes of our market review. This is mainly because of the wide range of margins that can be generated in the fully loaded UK P&L accounts when making assumption changes and because we did not consider it proportionate, at this stage, to derive our own view of a robust spot estimate for the margins in the relevant UK operations, for example by making adjustment to the financial model used by Visa to derive the fully loaded UK P&L accounts.

4.105 In light of this, we have also reviewed profitability estimates based upon Visa's reported European and global margins.

4.106 We provisionally conclude that Visa's global margins provide relevant information, [✂], to estimate the margins in the relevant UK operations for Visa. We considered the global accounts to be more suitable as a proxy than the European margins. This is mainly due to the possibility that the European accounts include costs that are profits in other Visa entities and because it includes litigation costs that may not necessarily form part of the economic costs for the relevant UK operations.

4.107 The data we have reviewed shows a wide range of the average margins for Visa's relevant UK operations of [✂] ([✂]) and 64% (based on Visa's global accounts).[196,197] We did not consider it necessary, for the purpose of this market review, to conclude where exactly within this range Visa's margins for the relevant UK operations are likely to lie, save to note that the fully loaded UK P&L accounts are likely to understate the economic benefits Visa derives from the relevant UK operations and that consequently margins are likely higher than indicated by the lower end of the range.[198,199]

196 We note that Visa's fully loaded UK P&L accounts do not include figures including [✂] for 2018 to 2020.

197 [✂].

198 We note, however, the existence of internal documents suggesting that Visa's UK profit margin [✂] compared with the global average margins. However, we have not undertaken analysis to reach a firm view for the purposes of this interim report.

199 However, we interpret the upper end of the range with a degree of caution, given that global accounts can only serve as a proxy for UK profitability.

5 Expected future margins

5.1 One further consideration in a profitability analysis is whether the margins that have been calculated based on historical data are likely to continue in the future. For example, if margins are projected to fall significantly in the future, for example due to new market entry, then this may indicate that any potential harm that may be associated with high margins may not persist and may therefore not require a remedy.

5.2 We therefore set out below our assessment of whether Mastercard's and Visa's margins that we have estimated for the relevant UK operations are likely to be significantly different in the future from the levels we have identified in our analysis above.

Mastercard

5.3 We have set out in paragraphs 3.18 and 3.19 that Mastercard's internal documents indicate that its [✂]. However, they also indicate that there is a possibility that Mastercard may refrain from [✂].

5.4 Our competitive assessment indicates that significant new market entry into scheme and processing services in the UK are unlikely in the medium term (see Interim Report Annex 1: 'Competition with other payment methods') and that Mastercard may benefit from a lack of effective competitive constraints in respect of the fees it charges to acquirers (see Interim Report Annex 2: 'Bargaining positions of acquirers and merchants').

5.5 Mastercard's global margins have continued to increase since 2022 (see the table below).

Table 33: Mastercard's global EBIT margin

Mastercard EBIT margins	2018	2019	2020	2021	2022	2023	Average (2018–2022)
Mastercard Global	48.7	57.2	52.8	53.4	55.2	55.8	53.5

Source: Mastercard global financial statements

5.6 In an internal document from 2021, Mastercard stated [✂].[200]

5.7 Thus we have not seen compelling evidence to suggest that Mastercard's margins in the relevant UK operations are going to decline significantly in the future. We also note that margins may even increase if the costs associated with the entry into debit cards (e.g. higher rebates and incentives) are recouped in later years.

200 [✂]

Visa

5.8 Visa provided us with internal documents suggesting that it [✂].

a. A document from 2021 shows that margins are expected to [✂].[201]

Figure 12: 2021 slide extract

[✂]

Table 34: Visa's EBIT margin projections

Visa EBIT margin projections	2021	2022	2023	2024	2025	2026	Average
Visa Europe	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

b. A document from May 2022 again shows [✂].[202]

Figure 13: 2022 slide extract

[✂]

5.9 Whilst we note that the internal information above shows [✂]

5.10 Our competitive assessment indicates that significant new market entry into scheme and processing services in the UK is unlikely in the medium term (see Interim Report Annex 1: 'Competition with other payment methods') and that Visa may benefit from a lack of effective competitive constraints in respect of the fees it charges to acquirers (see Interim Report Annex 2: 'Bargaining positions of acquirers and merchants').

5.11 Visa's global margins have continued to increase since 2022 (see the table below) and Visa Europe's margins remain above historic averages.

Table 35: Visa's EBIT margins at European and global level

Visa EBIT margins	2018	2019	2020	2021	2022	2023	Q1 2024 (Q1 2023)	Average (2018–2022)
Visa Europe	57.5	60.7	53.6	60.2	67.0	62.5	N/A	59.8
Visa Global	62.9	65.3	64.5	65.6	64.2	64.3	69.0 (64.1)	64.5

Source: Visa European and global financial statements

5.12 Thus we have not seen compelling evidence to suggest that Visa's margins in the relevant UK operations are going to decline significantly in the medium term.

201 [✂]
202 [✂]

6 Comparator benchmark margin analysis

Introduction

6.1 As set out above we are interested in how Mastercard's and Visa's profitability in the relevant UK operations compares to the profitability that would be expected if Mastercard and Visa were operating in competitive markets in the relevant UK operations.

6.2 We do this by comparing the profit margins of Mastercard's and Visa's relevant UK operations to the profit margins of appropriate benchmark comparators, that can be expected to be operating in competitive markets. That is a market considered to be working well from a competition perspective, e.g. where there is limited market concentration,[203] and the absence of other features indicating the a lack of effective competitive constraints like markets with high barriers to entry. See paragraph 2.58 and 2.59 for more detail.

6.3 In this section we set out how we have identified the competitive profit benchmark margin, or at least its upper or lower bound, for Mastercard's and Visa's relevant UK operations, for the purpose of our market review (the 'comparator benchmark margin'). We then compare this to the profitability estimates for Mastercard and Visa as set out in the previous sections.

6.4 We have identified in our analysis of Mastercard's and Visa's margins for the relevant UK operations that:

a. The documents we have reviewed show EBIT margins for Mastercard in a range of [✂] to 53% on average over the period of 2018–2022. We consider that the margins that best reflect the economic benefits Mastercard derives from the relevant UK operations are likely higher than indicated by the lower end of this range.

b. The documents we have reviewed show EBIT margins for Visa in a range of [✂] to 64% on average over the period of 2018–2022. We consider that the margins that best reflect the economic benefits Visa derives from the relevant UK operations are likely higher than indicated by the lower end of the range.

6.5 We have noted in our February 2023 working paper that undertaking a comparator benchmark margin analysis is not without its challenges – the main one being identifying comparators to allow us to assess the level of profitability objectively.[204]

6.6 As part of our benchmark margin analysis we were not able to identify a very close comparator to Mastercard's and Visa's relevant UK operations, mainly because there are no comparators that have very similar business operations to Mastercard and Visa and that operate in competitive markets. Instead we identified a number of what we consider to be sufficiently similar comparators. We note in particular that Visa did not agree with any of

203 Market concentration would considered to be present where market shares are concentrated between a small number of firms.

204 MR 22/1.5 *Approach to profitability analysis working paper* (February 2023) paragraph 1.7.

the comparators we identified and Mastercard agreed with two comparators out of the five we originally identified, but only under conditions that certain adjustments are made to ensure that the margin reflects the part of the business that the PSR had identified as the relevant comparator.

6.7 We nevertheless consider that the comparators we identified are sufficiently similar to Mastercard and Visa to provide an indication of the competitive benchmark margin.

6.8 The remainder of this section is structured as follows:

- First, we outline the purpose of the comparator benchmark margin analysis.
- Second, we set out how we have selected the most appropriate benchmark comparators.
- Third, we outline the profitability of the selected comparators.
- Fourth, we set out supplementary analysis conducted to cross-check our findings.
- Fifth, we set out our provisional views on the margins Mastercard and Visa could expect to earn in the relevant UK operations in competitive markets.

Purpose of our comparator benchmark margin analysis

6.9 Benchmarking the profitability of Mastercard's and Visa's relevant UK operations against the profitability of comparable companies (that are operating in competitive markets) is a way of exploring the outcomes in a market, including identifying what level of profitability would be expected if Mastercard and Visa were operating in a competitive market in the relevant UK operations. This also includes assessing whether the profits that Mastercard and Visa earn are higher than those available in competitive markets.

6.10 Combined with other evidence we will gather in this market review, profits that are higher than those available in competitive markets may indicate that Mastercard and/or Visa benefit from a lack of effective competitive constraints. We will assess the results from our comparator benchmark margin analysis alongside other evidence.

Selection of comparators

6.11 We set out below our approach to selecting appropriate comparators to Mastercard's and Visa's relevant UK operations.

6.12 The ideal comparator only provides services that are the same as (or very similar to) the relevant UK operations of Mastercard and Visa and operates in the same geographic region. Such a comparator is most likely to have a level of risk and capital intensity that is very similar to that of Mastercard's and Visa's relevant UK operations. This is important because risk and capital intensity are likely to affect the level of margins a company would be expected to earn in competitive markets.

6.13 As set out previously, the ideal comparator should also operate in a competitive market.[205] [206] For example, the comparator should not have a large market share, or benefit from high barriers to entry.

6.14 Mastercard's and Visa's relevant UK operations include domestic and international card payment services (both inbound and outbound). The ideal comparator would therefore have a meaningful presence in the UK and would also offer both domestic and international card-based payment services.

6.15 We have considered whether Mastercard and Visa could be used as a comparator for one another. However, we note that Mastercard and Visa together have a very high market share in the UK (i.e. the UK market is a relatively highly concentrated market). We can also not exclude the possibility that there are other features of the market that may indicate that Mastercard and Visa benefit from a lack of effective competitive constraints. Further, as both companies are subject to this market review, it could potentially be circular to include them as comparators. We therefore do not think they are suitable as comparators.

6.16 Mastercard's and Visa's very high combined UK market share makes it unlikely that there are other providers of very similar services to Mastercard and Visa in the UK. We therefore do not think that it will be possible to identify an ideal comparator for the comparator benchmark margin analysis.

Sufficiently similar comparators

6.17 Where there is no ideal comparator, companies whose operations are sufficiently similar, and are operating in sufficiently competitive markets, can be suitable comparators ('sufficiently similar comparators'). In this case the comparators should share as many features with Mastercard's and Visa's relevant UK operations as possible, recognising that there will not be an exact mirroring of operations.

6.18 In identifying sufficiently similar comparators, we have considered whether companies' operations overlap with those of Mastercard's and Visa's relevant UK operations and are comparable in a number of other aspects. This helps us to identify comparators that have a broadly similar risk exposure to Mastercard's and Visa's relevant UK operations, but also have sufficiently similar business operations that allow a meaningful comparison of profit margins. This included whether possible comparators:[207]

a. Are payment system operators in (multiple) domestic and/or international markets (that are ideally card based) and provide similar value added services as Mastercard's and Visa's relevant UK operations,[208] ideally with limited additional services that are different to the services offered by Mastercard's and Visa's relevant UK operations.

205 See paragraph 2.60.

206 One example of a like for like comparator is the retail energy market investigation where the CMA selected margins achieved in retailing energy to large business customers in the UK with the margins achieved in selling energy to retail customers in the UK. See FR Appendix 9.13: Retail profit margins (publishing.service.gov.uk), paragraph 14.

207 When selecting the comparators we are not expecting that a sufficiently similar comparator overlaps with Mastercard's and Visa's relevant UK operations in all of the aspects set out here, but rather that the comparator, in the round, is as similar to Mastercard's and Visa's relevant UK operations as possible.

208 That is services that are similar to those offered by payment service providers.

b. Provide services in the UK or in a country with a comparable business environment to the UK.

c. Are for-profit organisations.

d. Operate similar business models (e.g. use similar resource inputs) with similar size and maturity to Mastercard's and Visa's relevant UK operations.

e. Provide sufficient financial information in publicly available format to estimate their profit margin.

6.19 An additional consideration for the sufficiently similar comparators is that they should be operating in a competitive market.

6.20 In the process of identifying the comparators with the closest similarity to Mastercard and Visa's relevant UK operations we began by considering comparators that offer services as payment system operators[209] or payment service providers within the following categories:

a. Domestic and international card based payments.

b. Domestic and international payments that are not card based.

c. Domestic card based payments.[210]

d. International non-card based payments.[211]

6.21 Within these categories we identified the following potential comparators that have operations that are most similar to those of Mastercard and Visa's relevant UK operations:

a. Domestic and international card based payments: Amex and Discover.

b. Domestic and international payments that are not card based: PayPal.

c. Domestic card based payments: eftpos.

d. International non-card based payments: OFX.

6.22 We also considered whether payment system infrastructure operators should be included in our consideration of potential comparators. An example of a payment system infrastructure operator is Vocalink. On balance, we considered that payment system operators and payment service providers have closer overall similarity with the relevant UK operations of Mastercard and Visa. This is because payment system operators and payment service providers are likely to also operate their own payment system infrastructure (at least to some extent), but also offer other services that overlap with the services offered by Mastercard and Visa in the relevant UK operations and as such provide a broader overlap with Mastercard's and Visa's relevant UK operations than payment system infrastructure providers.

6.23 We did not identify any other potential comparators that have greater similarities with Mastercard's and Visa's relevant UK operations and that can be considered to be operating in sufficiently competitive markets.

209 For the purpose of our market review, we consider that payment system operators are providers that are involved in the authorisation, clearing and settlement of payment transactions – in particular providers that own and maintain the rules and standards of the system and may offer related ancillary services. We also considered providers that may only perform parts of these activities.

210 With no or limited international payments.

211 With no or limited domestic payments.

6.24 We assess whether each of these potential comparators are sufficiently similar comparators to Mastercard's and Visa's relevant UK operations in more detail below. For each we first assess the overlap of their business model with Mastercard's and Visa's relevant UK operations, followed by an assessment of whether they are likely to be operating in competitive markets.

American Express (Amex) and Discover

6.25 There are only a small number of international card-based payment system operators for which sufficient financial information is available. These are: [212]

a. American Express (Amex) and
b. Discover.

Overlap of business model

6.26 Amex and Discover both process payments and are card-based payment system operators in multiple domestic and the international markets. While Amex is relatively widely used and accepted in the UK (although less than Mastercard and Visa), Discover has only a very small market share in the UK.

6.27 However, both Amex and Discover have a significantly different business model from Mastercard's and Visa's relevant UK operations. Most importantly both have a significant financial services offering. For example, in 2019[213] c.20%[214] of Amex net revenue is net interest income (i.e. interest income less interest expense); for Discover this is c.83%.[215] Both companies also make significant provisions for credit/loan losses. c.10%[216] of Amex expenses and c.42%[217] of Discover expenses are provisions for such losses.

6.28 The difference in the business model also means Discover and Amex are likely to have a different capital intensity and different risk exposure compared to Mastercard's and Visa's relevant UK operations. For example, as illustrated by provisions for losses, they will be exposed to retail and business customer defaults, whereas Mastercard's and Visa's relevant UK operations are not. We note that Amex and Discover have consumer receivables that account for 74% and 76% of total assets, respectively in 2019.

6.29 Consequently, the EBIT margins Amex and Discover would require to earn their respective cost of capital is likely to be different from that of Mastercard's and Visa's relevant UK operations.

6.30 In addition, given the significant level of interest income, calculating an EBIT margin for Amex and Discover may not result in a meaningful margin benchmark. We note that credit services providers, such as banks, are usually assessed on a return on equity (ROE) basis rather than using EBIT margins.

212 We also considered UnionPay and JCB but insufficient financial information is available to perform a margin estimate.

213 We found it appropriate to consider 2019 for the purpose of this comparison, which is the year before the pandemic, and which we considered represented a more typical year.

214 American Express Company Form 10-K 2021.

215 Discover Annual Report 2021.

216 American Express Company Form 10-K 2021.

217 Discover Annual Report 2021.

6.31 Mastercard suggested that Discover's payment services division could serve as a comparator instead of Discover's overall operations.[218] However, whilst Discover reports segment profits for payment services, we do not know how costs are allocated between segments. Further the annual report states that 'Corporate overhead is not allocated between segments; all corporate overhead is included in the DigitalBanking segment'.[219] This indicates that not all relevant costs are allocated to the payment services division, which likely results in an underestimate of the cost of operating the payment services division for the purpose of our market review. We are not able to estimate from the publicly available information how significant this underestimation is. We also note that even if all relevant costs were allocated to the payment services division by Discover in the published financial statements, we would still need to consider whether the common cost allocations chosen by Discover to the payments services division would be economically meaningful (e.g. whether costs are allocated based on activity-based costing principles).

Competitiveness of the market

6.32 We have assessed whether Amex and Discover are likely to be operating in competitive markets. We do this separately for Amex and Discover below.

Amex

6.33 In respect of card services, we note that Amex has a relatively small overall share of the cards market, both at a global level and in the UK.[220] Nevertheless there may be certain sectors, such as corporate travel and hospitality expenditure, where Amex may have a larger share and where it is possible that it could benefit from a 'must-take' status. We also note that Amex is widely accepted in the US.[221] It is therefore possible that Amex may benefit from a lack of effective competitive constraints when setting prices for merchants, at least in certain use cases and/or certain geographies. It is also possible that as a card scheme, Amex may be able to indirectly benefit should the prices set by Mastercard and/or Visa be higher than what would be available in competitive markets, at least to some degree.

6.34 However, we also consider that it is possible that competitive pressures in the issuing side may mean that higher prices on the acquiring side could be competed away by competition for credit card customers (e.g. through cardholder benefits) as well as banking customers (e.g. through an acceptance of higher risk customers). We do not have sufficient information to assess the net effect of these factors.

6.35 Thus, even assuming Amex provided only card services (and no credit services), we would consider that it would be prudent to exclude Amex from the set of comparators given these potential concerns.

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218 Mastercard response to PSR working paper dated 18 December 2023 [✂]

219 Discover Annual report 2022, Section 22. Segment Disclosures.

220 MR18/1.2 *Final terms of reference: market review into the supply of card-acquiring services* (January 2019) page 12.

221 https://www.americanexpress.com/us/merchant/accept-the-card.html.

Discover

6.36 Given the very high share of interest income in Discover's revenues we have not considered it necessary to assess the competitiveness of the market that Discover operates in as we consider that even if we find that Discover is operating in competitive markets, its business model is not sufficiently comparable to Mastercard and Visa for it to serve as a sufficiently similar comparator.

6.37 We have considered whether Discover's payment services division could be considered to be operating in competitive markets. We consider that it is possible that Discover's payment services may benefit from a lack of effective competitive constraints when setting prices for merchants, at least in certain geographies. This is, for example, because Discover is widely accepted in the US.[222] It is also possible, that as a card scheme, Discover may be able to indirectly benefit, should prices set by Mastercard and/or Visa be higher than what would be available in competitive markets, at least to some degree. However, we also consider that it is possible that competitive pressures in the issuing side may mean that any higher prices on the acquiring side could be competed away by competition for credit card and debit card customers (e.g. through cardholder benefits), as well as for banking customers (e.g. through an acceptance of higher risk customers). We do not have sufficient information to assess the net effect of these factors, but consider it prudent to exclude Discover's payment services division on a standalone basis from the set of comparators given these potential concerns.

Overall assessment

6.38 We do not consider that Amex is a sufficiently close comparator. This is because the calculation of a meaningful EBIT margin would be challenging for Amex, given the significant levels of interest income. For example, in 2019, Amex's net interest income (after provision for credit losses) accounted for 60% of its pre-tax income. Further, we cannot exclude the possibility that Amex may benefit from a lack of effective competitive constraints in at least some of the use cases and/or geographies. Further, Amex's banking services are likely to differ significantly in terms of risk exposure and capital requirements to card schemes. That means even though the presence of banking services may mitigate the financial effects of a lack of effective competitive constraints from the card operations, it may do this with a business unit that has profit margins that could be quite dissimilar to margins expected in a competitive market for card services.

6.39 We do not consider that Discover is a sufficiently close comparator. For Discover overall this is because banking services account for the significant majority of its operations and as such the profitability of Discover largely reflects the profitability of its banking services, which are likely to have a different risk profile and capital requirement compared to Mastercard's and Visa's relevant UK operations.

6.40 We also do not consider that Discover's payment services division is a sufficient close comparator. This is because it is likely that not all relevant costs are allocated to the payment services division in the published financial statements and because we cannot exclude the possibility that Discover may benefit from a lack of effective competitive constraints in the payment services division, at least in some use cases and/or geographies.

222 Where are Discover Credit Cards Accepted? | Discover.

PayPal

6.41 We have considered whether PayPal, is sufficiently similar to Mastercard's and Visa's relevant UK operations to be used as a comparator for the purpose of our market review.

Overlap of business model

6.42 Like Mastercard and Visa, PayPal provides domestic and international payment services in the UK and offers a number of value-added services that are similar to those of Mastercard, and Visa's relevant UK operations. For example, for some transactions PayPal provides international and domestic payment processing and settlement services based on its own payment system infrastructure.[223] It also offers fraud protection services.[224]

6.43 PayPal also provides services in addition to those offered by Mastercard's and Visa's relevant UK operations. We consider that the risk exposure and capital requirements for these additional services are likely to be relatively similar to those of Mastercard's and Visa's relevant UK operations as many of these services are related to the wider payment ecosystem.

Competitiveness of the market

6.44 We consider that we cannot exclude the possibility that PayPal may benefit from a lack of competitive constraints in some of its service offering. For example, PayPal operates a digital wallet that charges merchants for transactions. Users decide which payment method to use to fund transactions to merchants when using their digital wallet. We note that merchants may have limited choice in whether to accept the use of the payment system chosen by the customer, at least in some use cases and/or geographies.[225] It is also possible that, as a competitor to card schemes, PayPal may be able to indirectly benefit, should prices set by Mastercard and/or Visa be higher than what would be available in competitive markets, at least to some degree. However, we also consider that it is possible that any supernormal profits on the merchant side could be competed away by competition for PayPal customers (e.g. through customer benefits). We do not have sufficient information to assess the net effect of these factors.

6.45 However, PayPal is not only offering services as a digital wallet operator. It also offers a number of other services, for example gateway and payment processing services. When offering its Braintree, PayPal Card Unbranded Card Processing or Zettle by PayPal services, PayPal engages third party acquirers that are the entities formally providing acquiring services to merchants.[226] We consider it to be likely that these other services are largely operating in competitive markets, given the large number of alternative providers in this market.

6.46 Should PayPal benefit from a lack of effective competitive constraints as a payment system operator, then this could affect its revenues and EBIT margins and could consequently overstate the comparator benchmark margin derived from PayPal. However, we consider that these effects are to some extent mitigated by PayPal's exposure to more competitive markets in its other business operations.

223 PayPal 2022 Annual Report, page 3.
224 PayPal 2022 Annual Report, page 5.
225 We note that some of PayPal's customers use Mastercard and Visa issued cards in order to fund PayPal transactions.
226 [✂]

Overall assessment

6.47 We consider that PayPal has sufficiently similar operations to Mastercard's and Visa's relevant UK operations for the purpose of our market review, recognising that there are no like-for-like comparators. This is because, whilst we recognise that we cannot exclude the possibility that some of PayPal's payment services may be benefiting from lack of effective competitive constraints, we consider this risk is mitigated by PayPal's presence in a number of different payment-related markets, some of which are likely to be competitive markets. We consider that these different payment-related markets are broadly similar to Mastercard's and Visa's relevant UK operations, which mitigates the risk that these markets differ significantly in terms of risk exposure and capital intensity from Mastercard's and Visa's relevant UK operations.

6.48 To the extent that PayPal benefits from a lack of effective competitive constraints in at least some of its service offering, this may indicate that using it as a comparator would result in a conservative estimate of the margins that Mastercard and Visa would be able to achieve in a competitive market for the relevant UK operations.

6.49 We therefore consider that PayPal is a sufficiently similar comparator to Mastercard and Visa's relevant UK operations for the purpose of our market review.

eftpos

6.50 We have considered whether eftpos is sufficiently similar to Mastercard's and Visa's relevant UK operations to be used as a comparator for the purpose of our market review.

Overlap of business model

6.51 eftpos is an Australian domestic card-based payment system operator.[227]

6.52 We consider that eftpos shares a number of key features with Mastercard and Visa's relevant UK operations. Key similarities of eftpos to Mastercard's and Visa's relevant UK operations are that eftpos is also operating a card-based payment system. In Australia, eftpos is in direct competition with Mastercard and Visa (e.g. processing debit card payments in Australia). Its costs[228] and risks should therefore be largely similar to Mastercard and Visa's relevant UK operations.

6.53 We considered whether being an Australia-only provider could cause any dissimilarities in risks faced by eftpos compared to Mastercard's and Visa's relevant UK operations. Our view is that there are prima facie credible reasons to consider that the risks are comparable. For example, Australia and the UK both have similar developed, market-based economies with similar approaches to economic regulation. In addition, the operators in the Australian payment market are similar to those in the UK (e.g. Visa, Mastercard, PayPal and Amex all have a presence in Australia).

227 eftpos is now part of Australian Payments Plus Ltd, following a merger approved in September 2021: eftpos Australia (auspayplus.com.au).

228 We also note that analysis of eftpos, Mastercard Inc and Visa Inc 2019 annual reports (i.e. latest pre-covid annual reports) indicates that key expense lines, as a percentage of total expenses, incurred by eftpos are broadly similar to Mastercard and Visa.

6.54 We note that eftpos does not offer international payment services and does not offer credit cards and as such its risk exposure may most closely mirror Mastercard's and Visa's domestic payment services and less so Mastercard's and Visa's international payment services offered in the relevant UK operations.

Competitiveness of the market

6.55 eftpos has a sizeable share of card transactions in the Australian payment card market, with a 40% share of debit transactions in 2020, although it does not offer credit cards.[229] We nevertheless consider that it is less likely that eftpos is benefiting from economic profits as eftpos' prices are significantly below those charged by Mastercard and Visa in Australia.[230]

6.56 Further, in an October 2021[231] paper the Reserve Bank of Australia (RBA) noted that a potential exit from the market of eftpos would result in a significant lessening of competitive pressure in the debit market due to its status as the lowest-cost network, when compared to the international card schemes (such as Mastercard and Visa).[232] This suggests that eftpos actively competes with the international schemes for domestic transactions in Australia, making it less likely that eftpos is benefiting significantly from a lack of effective competitive constraints.

6.57 We note that eftpos is owned by its members, who are issuers and acquirers in Australia. This could imply that eftpos may set prices that are not risk reflective (i.e. higher or lower than in competitive markets). We note that its owners are a diverse set of organisations with differing incentives. We therefore consider that eftpos' margin is likely to incorporate a risk-reflective rate of return. This is because it is plausible that some owners would favour lower prices whilst others would favour higher prices. A risk-reflective margin is best placed to balance the interest of those who favour lower and those who favour higher prices.

Overall assessment

6.58 Taking all these factors into account, we consider that eftpos is a sufficiently similar comparator to Mastercard and Visa's relevant UK operations.

229 RBA, Expert Industry Opinion in Relation to the Application to The Australian Competition and Consumer Commission for Authorisation of the proposed amalgamation of BPAY GROUP PTY LTD, EFTPOS PAYMENTS AUSTRALIA LIMITED and NPP AUSTRALIA LIMITED, page 54.

230 RBA, Payments System Board Annual Report 2020, Graph 15, page 34.

231 Section 3.1, Issues for the Review page 16, Review of Retail Payments Regulation- Conclusions Paper, (October 2021).

232 *"However, if ePAL [eftpos Australia Payments Limited (ePAL)] is the company that runs the eftpos network] cannot compete for the volume of large merchants, its ability to compete for smaller merchants would also be weakened. In the extreme, as the lowest-cost network, its potential exit from the market would result in a significant lessening of competitive pressure in the debit market and would likely result in an increase in both interchange rates and scheme fees, impacting all merchants."* RBA, Review of Retail Payments Regulation- Conclusions Paper, page 16, October 2021.

OFX

6.59 We have considered whether OFX is sufficiently similar to Mastercard's and Visa's relevant UK operations to be used as a comparator for the purpose of our market review.

Overlap of business model

6.60 OFX is a global provider of foreign exchange services headquartered in Australia. It provides online international payment services across over 170 countries.[233]

6.61 We consider that OFX shares a number of key features with Mastercard and Visa's relevant UK operations. For example, OFX acts as a payment intermediary and provides settlement services for some of the transactions it processes.

6.62 While OFX has staff costs to provide advice to clients (which is likely more limited for Mastercard's and Visa's relevant UK operations), it does not, similarly to Mastercard's and Visa's relevant UK operations, operate through physical branches. Further, it is likely that OFX has a level of capital intensity that is not too dissimilar from Mastercard and Visa's relevant UK operations, as OFX, like Mastercard and Visa, is investing in IT infrastructure, software and risk management.[234]

6.63 We note that OFX does not offer domestic payment services and as such its risk exposure may most closely mirror Mastercard's and Visa's international payment services and less so Mastercard's and Visa's domestic payment services offered in the relevant UK operations.

Competitiveness of the market

6.64 There are a large number of providers of international payment services, and OFX's relatively limited scale (with revenues of around USD 150m) indicates that it is unlikely that OFX benefits from a lack of effective competitive constraints.

Overall assessment

6.65 Taking all these factors into account, we consider OFX is a sufficiently similar comparator to Mastercard's and Visa's relevant UK operations.

Sufficiently similar comparators in combination

6.66 We consider that whilst no comparator is the ideal comparator, we have been able to identify three sufficiently similar comparators that can serve as benchmark comparators: PayPal, eftpos and OFX. The three selected comparators each have a business model that overlaps with at least some important aspects of Mastercard's and Visa's relevant UK operations. As such it can be expected that they also have a broadly similar risk exposure and capital intensity as Mastercard's and Visa's relevant UK operations.

6.67 The three selected comparators are all somewhat different to each other in the way they overlap with the relevant UK operations of Mastercard and Visa. This means that between them they overlap significantly with the services offered by Mastercard and Visa in the relevant UK operations.

233 See: About us | OFX (UK).

234 OFX FY23 Financial Results: PowerPoint Presentation (ofx.com) page. 14.

6.68 Consequently, we consider that looking at the profitability of the three sufficiently similar comparators is informative for the margins that Mastercard and Visa could likely achieve in a competitive market for the relevant UK operations.

Profitability of the selected comparators

6.69 We have estimated profitability for the benchmark comparators identified in the previous section by reference to EBIT margins, which is how we have estimated profitability for Mastercard and Visa's relevant UK operations. This is because the EBIT margin accounts for operational costs, but excludes financing costs and as such best represents the economic benefits that a firm receives from its business activities.

6.70 We have used reported revenues and EBIT for each comparator in our calculations of the EBIT margins. This is because we have not identified clear reasons for adjustments to either reported revenues or reported operating income (EBIT) for our chosen comparators. Such adjustments could, for example, be to adjust for large non-operating items like goodwill write-offs, litigation costs or the removal of gains or losses on the disposal of assets.

Benchmark margins

6.71 The table below shows the 5-year average EBIT margins for the period of 2018–2022 for the benchmark comparators.[235] It also shows the highest and lowest EBIT margin in that period for each selected comparator.

6.72 The table also shows the highest and lowest estimate for Mastercard's and Visa's margins in the relevant UK operations that form the basis for their respective margin ranges we have identified in the sections above.

Table 36 – Comparator benchmark margins (2018–2022)[236]

Company	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
eftpos (2018–2021)	5%	**12%**	21%
OFX	13%	**18%**	21%
PayPal	14%	**15%**	17%
Mastercard fully loaded UK P&L accounts (2019–2022)	[✂]	[✂]	[✂]
Mastercard global	49%	**53%**	57%
Visa fully loaded UK P&L accounts	[✂]	[✂]	[✂]

235 Except for eftpos, where only four years' data was available in that period.

236 All data has been sourced from companies' published annual reports. Where a financial year end was not in December, we have used the nearest year when calculating the margin in each year. See Annex A for more details.

Company	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
Visa global	63%	**64%**	66%

Notes: eftpos margins are based on data from 2018 – 2021 as data for 2022 is not available. OFX margins are based on a financial year end in March (e.g. 2022 data is based on March 2023 accounts).
Source: eftpos, OFX, PayPal financial statements, Mastercard global and Visa global financial statements

6.73 The table above shows that the selected comparators have average EBIT margins of between 12% to 18% when using 5 year averages.

a. It shows that the average EBIT margins of all of the benchmark comparators is substantially below the upper end of the EBIT margin range for Mastercard's and Visa's relevant UK operations.

   1. For Mastercard the upper end of the range is around three times as high as the average margin of the highest benchmark comparator.

   2. For Visa the upper end of the range is more than three times as high as the average margin of the highest benchmark comparator.

b. The low end of the range for Mastercard's margins for the relevant UK operations [✂] of the margin range for the comparators.[237]

c. The low end of the range for Visa's margins for the relevant UK operations, [✂] the highest average margin of the benchmark comparators.

Cross-check

6.74 In addition to the benchmark margin analysis, we have undertaken a cross-check, using a wide range of companies with operations in the UK. This was to cross-check the results of our benchmark margin analysis against margins in the UK more generally.

6.75 Our cross-check is based on FTSE 100 companies (excluding banks, asset managers and insurers), differentiating comparators by capital employed intensity.[238]

6.76 We set out below why we considered it appropriate to differentiate comparators in our cross-check on the basis of capital employed intensity.

Market-wide profitability analysis

6.77 Economic theory establishes that investors require a return for investing capital to compensate them for the non-diversifiable risk that they bear for making their investment. The rate of return that the investors require from a particular firm is measured by the firm's Weighted Average Cost of Capital (WACC). Economic theory also establishes that in a competitive market, firms will on average earn returns on capital, as measured by Return on Capital Employed (ROCE), that equals the WACC. This is because broadly the firms temporarily earning a higher ROCE will have those returns competed away (e.g. by new

237 We note that this gap could be larger if 2018 margins for Mastercard's relevant UK operations were included in the average margins based on the fully loaded UK P&L accounts.

238 We refer to capital employed intensity when considering the ratio between capital employed (total assets less current liabilities) and revenues.

entrants into the market), whereas those earning a lower ROCE than the WACC will not be able to attract capital from their investors and therefore either improve their efficiency or fail.

6.78 Further, and all else equal, firms that employ relatively more capital will need to generate margins that are higher than the firms that employ relatively less capital, in order to attract capital from their investors.

6.79 There is therefore a relationship between the level of capital employed and the margins a business needs to earn in order to attract capital from their investors. For the purpose of this cross-check we have used capital employed intensity, which we have defined as net assets[239] divided by revenues. This ratio tells us how much assets are required to generate a unit of revenues.

6.80 The relationship between capital employed intensity and EBIT margins can be illustrated by the following equations:[240]

$$WACC \times Capital\ Employed\ Intensity = Required\ EBIT\ Margin$$

$$ROCE \times Capital\ Employed\ Intensity = actual\ EBIT\ Margin$$

$$\frac{EBIT}{Capital\ Employed} \times \frac{Capital\ Employed}{Revenue} = \frac{EBIT}{Revenue}$$

6.81 The first relationship indicates that the required EBIT margin is a function of a company's required rate of return and its capital employed intensity. The second and third functions (with the third being a disaggregation of the second), show that the actual EBIT margin is a function of returns and capital employed intensity.

6.82 Assuming the relationship between the level of capital employed and the margins businesses need to generate to attract capital holds in practice (e.g. that markets are competitive and that actual EBIT margins are equal to required EBIT margins), we should be able to identify (on average) a relationship between the level of capital employed intensity and the EBIT margins companies generate.

6.83 We are interested estimating the competitive margins of Mastercard's and Visa's relevant UK operations, i.e. we are interested primarily in the competitive margin levels in the UK. We have therefore aimed to identify companies with significant UK operations for our cross-check.

6.84 In our cross-check we have therefore looked at the relationship between operating (EBIT) margins and capital employed intensity of FTSE 100 firms over the period of 2018–2022. In order to make this analysis more relevant to Mastercard's and Visa's relevant UK operations we have excluded from the FTSE 100 companies that were either banks, insurance companies or asset managers as calculating an EBIT margin for these sectors may not result in a meaningful margin benchmark. We note, for example, that profitability for banks is usually assessed on a return on equity (ROE) basis rather than using EBIT margins.

6.85 We chose the FTSE100 in preference to international indices as the latter would likely result in a smaller, rather than a larger proportion of companies in the index that have a significant UK exposure.

239 That is total assets less current liabilities.

240 Please note the use of the term "capital employed intensity" to distinguish it from capital intensity, with the latter equalling total assets divided by revenue.

6.86 We would expect that the more assets a company uses to generate a unit of revenue (expressed as the capital employed intensity), the higher the EBIT margin a company would need to generate to attract investors.

6.87 We consider that this analysis can serve as a useful cross-check in our market review. Whilst such an analysis cannot be expected to result in a precise EBIT benchmark margin for Mastercard's and Visa's relevant UK operations it can provide useful directional information on what margins businesses with a similar capital intensity are able to achieve on average in the wider economy. Information on margins sourced from across the wider economy are also less likely to be significantly impacted by individual companies' ability to earn supernormal profits or, for example, the phase of the lifecycle a company is in.

6.88 We note in this context that in particular the data used for our cross-check is taken from published accounts.[241] Published accounts are drawn up based on accounting principles, rather than with a view to derive an economically accurate estimate of, in particular, the capital employed. The resulting capital employed intensity may therefore deviate from an economic capital employed intensity. For example, we note that, in particular Visa has very significant levels of intangible assets in the global accounts. In order to derive an economically accurate estimate of the capital employed, the value of the assets and liabilities (e.g. intangible assets) would need to be reviewed (and potentially adjusted).

6.89 The figure below shows, for each FTSE 100 company (excluding banks, insurance companies and asset managers): [242]

a. The average EBIT margin over the period of 2018–2022.

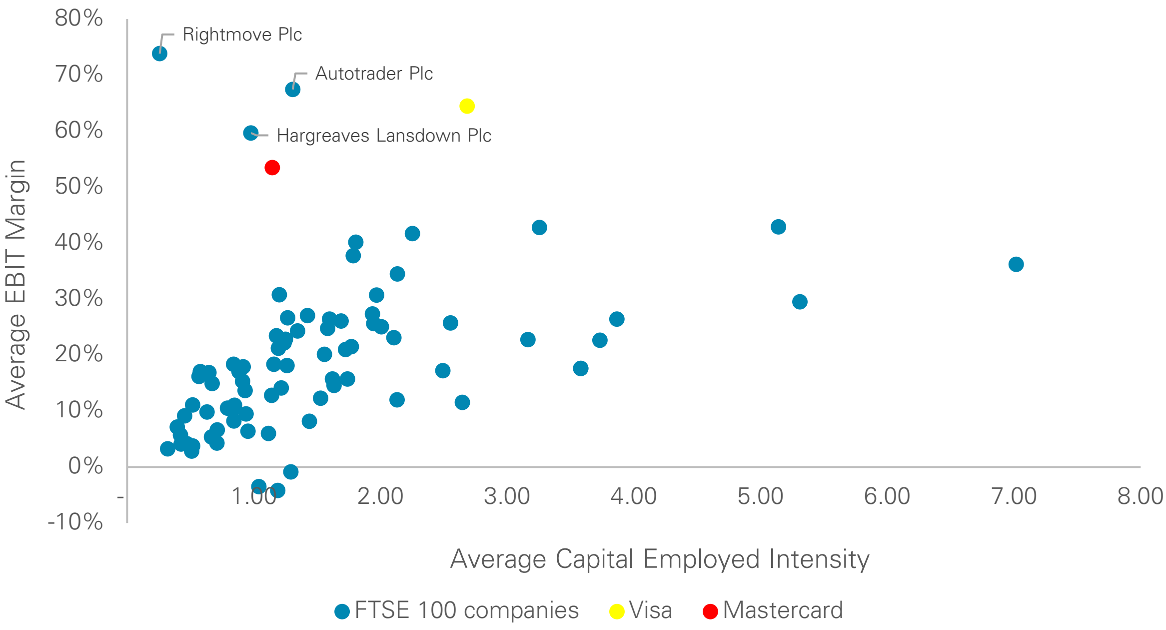
b. the capital employed intensity.

6.90 FTSE 100 companies are shown in blue colour on this chart. Mastercard is shown in red. Visa is shown in yellow.

241 This includes the data for Mastercard and Visa, which we have taken from the global accounts. Capital employed intensity is 1.07 for Mastercard (based on Mastercard's global accounts) and 2.68 for Visa (based on Visa's global accounts).

242 See Annex B for details, which includes a list of the FTSE 100 companies that this cross-check is based on.

Figure 14 – Average EBIT margins and average capital employed intensity for the FTSE 100 (2018–2022)



Note: Capital employed intensity is total assets minus current liabilities, divided by net revenue
Source: FTSE 100 data, Bloomberg, Mastercard / Visa data, company financial statements.[243]

6.91 We note that Figure 14 above includes a small number of outliers that have a capital employed intensity of around 1 with relatively high margins. There could be a number of reasons for this. This includes the possibility that these firms do not operate in competitive markets.[244] However, for the purpose of performing a cross-check we have not considered it necessary to conclude on the precise reasons for the presence of these outliers.

6.92 The figure above shows that, except for the small number of outliers, margins for businesses with a low capital employed intensity (i.e. businesses with a capital employed intensity of around 1 or less) are no higher than around 20%.

6.93 The average EBIT margin for this group is around 14% including and around 10% excluding the outliers.

6.94 The figure above shows that the capital employed intensity for Mastercard for 2018–2022 is 1.07 (based on Mastercard global accounts).[245] As explained above the reported capital intensity may not reflect the economic capital intensity. Nevertheless, even assuming an uncertainty range around the reported figures, this indicates that Mastercard's global margins are higher than what would be expected in competitive markets. For example average EBIT margins are around 16% at a capital employed intensity of around 1.[246]

243 For Mastercard / Visa , there are slight discrepancies between the EBIT Margin and Capital Employed Intensity calculated using Bloomberg data and company financial statement data.

244 For example, two of the outliers are advertising platforms with market shares of above 70%.

245 We do not show Mastercard's European accounts here as these accounts are not consolidated and may therefore not include all relevant assets and liabilities.

246 The average EBIT margin shown here is based on companies with a capital employed intensity of between 0.5 and 1.5.

6.95 The figure above shows that Visa has a capital employed intensity of just below 3 based on its global accounts. This is likely, to a large extent, due to significant levels of acquisition related intangible assets that are included in Visa's global accounts.[247,248] As explained above the reported capital intensity may not reflect the economic capital intensity. Nevertheless, even assuming an uncertainty range around the reported figures, this indicates that Visa's global margins are higher than what would be expected in the wider market, and by implication, competitive markets. For example, average EBIT margins are around 24% at a capital employed intensity of between 2 and 3.

6.96 This suggests that companies with a reported capital employed intensity that is similar to the reported capital employed intensity of Mastercard and Visa (based on the global accounts) have EBIT margins of around 16% and 24% on average.[249] This is broadly consistent with the range of EBIT margins of the benchmark comparators of 12% to 18%, particularly when considering that this analysis is intended to serve as a cross-check and that it is based on reported capital employed intensity.

6.97 We further note that the vast majority of companies with a capital employed intensity of 1 and below have EBIT margins of around 20% or less. This is again broadly consistent with the range of EBIT margins of the benchmark comparators.

Our provisional view on the comparator benchmark margin analysis

6.98 Given the high market share of Mastercard and Visa (as of 2021, Mastercard and Visa accounted for around 99% of the combined total of UK debit and credit card payments both by volume and value),[250] we do not expect there to be an ideal comparator, i.e. a comparator that is directly comparable to Mastercard's and Visa's relevant UK operations.[251]

6.99 We have reviewed a number of possible comparators that share as many features with Mastercard's and Visa's relevant UK operations as possible, recognising that there will not be an exact mirroring of operations. These were:

a. Amex and Discover

b. eftpos

c. OFX

d. Paypal

247 See, for example, Visa Annual Report 2022 (q4cdn.com), pages 56 and 82.

248 We note that there is a possibility, where companies benefit from a lack of effective competitive constraints, that acquisition-related intangibles can be valued above levels derived from a cos- based method (e.g. the modern equivalent asset value). This could result in a higher value for the capital intensity.

249 We note that the upper end of the range is based on the relatively high capital intensity in Visa's global accounts, which is likely, to a large extent, due to acquisition related intangible assets.

250 PSR, *Final terms of reference for scheme and processing fees market review* (MR 22/1.2), paragraph 2.2.

251 Such a comparator would, for example, provide services that are the same as (or very similar to) Mastercard's and Visa's relevant UK operations and provide services in the same geographic region.

6.100 We have not identified any other suitable comparators that have more similar operations to Mastercard's and Visa's relevant UK operations and that operate in competitive markets.

6.101 We consider that Discover and Amex (global card-based payment system operators), are not sufficiently similar comparators to Mastercard and/or Visa's relevant UK operations. Reasons for this include that their business model incorporates a significant element of financial services (in particular, lending) alongside payment services and as such are unlikely to have similar risk exposure. As a result, the revenue and cost structure of their operations are also likely to differ significantly from Mastercard / Visa relevant UK operations. The high levels of interest income and expense in their cost structures also means that it would be challenging to calculate a meaningful estimate for the EBIT margin for Amex and Discover. Further, we cannot exclude the possibility that Amex and Discover may be benefiting from a lack of effective competitive constraints, at least in some regions or use cases and may be able to indirectly benefit should prices set by Mastercard and/or Visa be higher than what would be available in competitive markets, at least to some degree.

6.102 We are of the view that the other possible comparators (eftpos, OFX, PayPal) have businesses that mirror at least some of Mastercard's and Visa's relevant UK operations. Further, they do not have significant other operations that are likely to result in sufficiently substantial differences to Mastercard's and Visa's relevant UK operations in terms of risk exposure, capital structure or revenue and cost structure to exclude them as a comparators. We also consider that they operate in sufficiently competitive markets.

6.103 We therefore consider that the margins of these benchmark comparators are informative for the margins that Mastercard and Visa could likely achieve in a competitive market for the relevant UK operations.

6.104 The table below shows that the average EBIT margins of these benchmark comparators is between 12 to 18% over the period of 2018–2022.

Table 37 – Comparator benchmark margins 2018–2022

	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
eftpos (2018–2021)	5%	**12%**	21%
OFX	13%	**18%**	21%
PayPal	14%	**15%**	17%

Notes: eftpos margins are based on data from 2018 – 2021 as data for 2022 is not available. OFX margins are based on a financial year end in March (e.g. 2022 data is based on March 2023 accounts).
Source: eftpos, OFX, PayPal financial statements.

6.105 We have cross-checked the results of the comparator benchmark margin analysis using FTSE 100 companies (excluding banks, asset managers and insurers), which suggests that companies with a reported capital employed intensity that is similar to the reported capital employed intensity of Mastercard and Visa have EBIT margins of around 16% and 24% on average.[252,253]

6.106 Thus the cross-check using FTSE 100 companies is broadly consistent with the range of the EBIT margins of 12% to 18% of the benchmark comparators.

Mastercard's submissions

6.107 In December 2023, we invited Mastercard to comment on two CWPs on profitability.[254,255] We offered Mastercard the opportunity to respond to these papers, providing supporting evidence and reasoning as appropriate, on the approach that we have set out in these working papers.

6.108 We set out below the most salient points raised by Mastercard in its response to the working paper on the comparator benchmarking analysis and our response to them.

6.109 Mastercard's responses mainly centred on the following areas:

a. The comparator selection approach and the criteria used for selecting comparators
b. Discover being excluded by the PSR for reasons that are not justified; Discover's payment services division should be included as a comparator
c. The chosen comparators are not appropriate; in particular, two chosen comparators (OFX and eftpos) are not appropriate
d. One comparator was appropriately selected by the PSR (PayPal); however, PayPal's EBIT margins are estimated too low
e. Mastercard explained why the cross check conducted by the PSR suffers from a number of shortcomings
f. Consideration of other comparators
g. Mastercard's review of the PSR's approach to assessing whether a comparator operator is in a competitive market, from which Mastercard concluded that this approach is not correct

6.110 We set out each of these in turn below.

252 We note that the implied margin range based on the cross-check is based on accounting data and significant assumptions. The results may differ should we undertake a more robust economic analysis of the capital employed for Mastercard and Visa (and the FTSE100 constituents).

253 We note that the upper end of the range is based on the relatively high capital intensity in Visa's global accounts, which is likely, to a large extent, due to acquisition-related intangible assets.

254 Mastercard response to PSR working paper dated 1 December 2023 [✂]

255 Mastercard response to PSR working paper dated 18 December 2023 [✂]

Comparator selection method and approach

Mastercard's views

6.111 Mastercard said that we had not provided any evidence of other comparators being considered and then being rejected. In particular, we had not explained what other domestic card schemes were considered, why these were excluded from the analysis, and why, out of all the domestic card schemes, eftpos was deemed the relevant comparator.[256] Mastercard noted that "since the PSR has not included any other money transfer providers and concluded that it 'did not identify any other comparators that have greater similarities with Mastercard and Visa's relevant UK operations and that can be considered to be operating in a competitive market", this might imply that the PSR has excluded other money transfer companies from Its analysis due to these having market power without sufficient evidence to support such an assessment.[257]

6.112 Mastercard said that we had not explained why we have not used the comparators from the February 2023 working paper (other than PayPal).[258]

6.113 Mastercard said that when selecting the margin benchmark the mean or median results for each market or sector would be an inappropriate benchmark as this would imply that at least half the firms in these clusters were earning excessive returns.[259]

Our consideration of Mastercard's views

6.114 We note that when selecting comparators we identified five possible comparators, but selected only three. As such, we have set out other comparators we have considered, but not selected. We do not think it would be proportionate for us to identify all possible comparators and then to set out why they were not chosen. We note that one of the key elements of our approach was to identify companies that have operations that are as similar as possible to Mastercard's and Visa's relevant UK operations, which we considered were payment system operators and payment service providers (see paragraphs 6.20 to 6.22). As such, companies that do not provide these services would not be selected as comparators. This is the main reason why we did not include most of the companies from the February 2023 working paper. Other considerations when choosing comparators are set out in paragraph 6.19 and 6.20. Further, we note that our cross check includes a large number of additional comparators as a proxy for the broader UK market. We consider that it may be possible to identify additional companies operating as payment system operators or payment service providers, but we note that Mastercard has provided us with a list of companies which it views, based on its own analysis, as having characteristics that are similar to those of Mastercard.

6.115 In respect of other domestic schemes, we note that there are other possible comparators, but these are either smaller in size or do not have financial information in a publicly available format.

256 Mastercard response to PSR working paper dated 18 December 2023 [✂]
257 Mastercard response to PSR working paper dated 18 December 2023 [✂]
258 Mastercard response to PSR working paper dated 18 December 2023 [✂]
259 Mastercard response to PSR working paper dated 18 December 2023 [✂]

6.116 We understood Mastercard's comments regarding the range of margins to imply that the competitive benchmark margin should be set by reference to the highest and lowest margin in an industry. We do not agree with this approach. For example, the CMA guidelines state that ' *In practice, a competitive market would be expected to generate significant variations in profit levels between firms and over time as supply and demand* conditions *change, but with an* ***overall*** *tendency towards levels commensurate with the cost of capital of the firms* involved' (emphasis added).[260] This clearly indicates that the industry average in a competitive market is the relevant benchmark rather than the highest or lowest margins of individual participants in that market. Further the CC guidelines state that '*a situation where profitability of firms representing a substantial part of the market has exceeded the cost of capital over a sustained period could be an indication of limitations in the competitive process*'.[261] This shows that where companies in an industry are able to maintain margins higher than the competitive level for a long period of time, they may not represent margins that are reflective of competitive outcomes, and as such could reasonably be expected to be excluded from a competitive benchmark margin.

Discover's payment services division should be included as a comparator

Mastercard's views

6.117 Within our February 2023 working paper we included Discover as one of 31 other companies listed in the credit services sector of the NYSE in a comparator benchmarking exercise of Mastercard Inc profits, caveating that companies within the credit services sector carried out a wide range of activities and varied in size. But we later shared our emerging view in our CWP that we did not think that Discover had an operation that is sufficiently close to Mastercard's UK operations to make it a sufficiently similar comparator for the purpose of our market review. Responding to our emerging view, Mastercard said that Discover's payment services division should be included as a comparator as it was separately identified in Discover's segment reporting. This was because this division includes the PULSE ATM network, the Diners Club card network, as well as payment transaction processing and settlement services on the Discover Global Network.[262]

Our consideration of Mastercard's views

6.118 We set out in paragraphs 6.36 and 6.37 why we do not consider that Discover's payment services division is a suitable comparator.

260 CC3 – paragraph 117.

261 CC3 – paragraph 118.

262 Mastercard response to PSR working paper dated 18 December 2023 [✂]

The appropriateness of the chosen comparators

Mastercard's views

6.119 Mastercard said that two of the comparators that we had selected were not appropriate.[263] In particular:

a. Eftpos – was focused on domestic, debit cards and instore transactions, whereas Mastercard also offered CNP,[264] credit cards and international transactions. We had not evidenced why a diverse set of ownership would lead to a risk reflective margin. Further, eftpos market power may manifest itself in inefficiencies and poor quality of service rather than in high profits.[265]

b. OFX – offered different and a smaller set of services compared to Mastercard. It offered international money transfer, which was a simple transfer of funds, combined with both cross-border activity and currency conversion. The types of transactions also differed, being higher value, less frequent and mainly business-to-business.[266]

6.120 Mastercard said that PayPal is in principle a relevant comparator, but that we had underestimated its EBIT margin,[267] which is more appropriately estimated as being 30%[268] rather than 15%. In particular:

a. Interchange and network fees should be excluded from revenues and costs (increasing PayPal's margins by circa 10 percentage points). This was because the vast majority of large acquirers present their revenues net of interchange and network fees. Focusing on gross revenues and including interchange and network fees as operating costs would distort a comparison of operating margins. Furthermore, the PSR wants to use PayPal as a non-card-based payment method, this also means that interchange and network fees need to be excluded from the operating margin calculation.[269] [270]

b. PayPal's acquiring services should be excluded from the margin calculation (increasing PayPal's margins by circa. 5 percentage points). Mastercard said that, over the last five years, publicly listed acquirers have achieved operating margins of approximately 10%, ranging from 7% in 2018 to 12% in 2020.[271]

6.121 Mastercard said that in addition, it is likely that margins for payments funded by credit transfers/direct debits or by a PayPal wallet balance, are likely higher than those funded by a debit or credit card.[272]

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263 Mastercard response to PSR working paper dated 18 December 2023 [✂]

264 Card not present transactions.

265 Mastercard response to PSR working paper dated 18 December 2023 [✂]

266 Mastercard response to PSR working paper dated 18 December 2023 [✂]

267 Mastercard response to PSR working paper dated 18 December 2023 [✂]

268 Mastercard response to PSR working paper dated 18 December 2023 [✂]

269 Mastercard response to PSR working paper dated 18 December 2023 [✂]

270 Mastercard response to PSR working paper dated 18 December 2023 [✂]

271 Mastercard said this average was based on the operating margins of 11 publicly listed acquirers from Europe and North America: Adyen, Worldline, Nexi, Fiserv, Global Payments, Block, Shift4 Payments, Nuvei, Evo Payments, Paysafe and Priority Technologies; Source: Mastercard response to 18 December 2023 working paper [✂]

272 Mastercard response to PSR working paper dated 18 December 2023 [✂]

Our consideration of Mastercard's views

6.122 We have set out in paragraph 6.16 that we do not think that we will be able to identify an ideal comparator set. We have therefore aimed to identify sufficiently similar comparators. This recognises that any comparators we do identify will have differences to Mastercard's relevant UK operations. We consider that the comparators we have identified are the best available comparators, i.e., they have the closest similarities with Mastercard's relevant UK operations. It therefore follows that a comparator should not be deemed inappropriate just because it does not offer the same services as Mastercard.

6.123 We have set out in paragraph 6.57, why we consider that a diverse ownership can be consistent with profit margins at a risk reflective level. We note Mastercard's points regarding possible inefficiencies but consider that this does not necessarily result in profit margins that are not risk reflective.

6.124 Whilst we note that we have not identified acquirers as comparators for Mastercard and Visa, we do consider that there could potentially be a case for making adjustments to PayPal's financial statements to make them more comparable to Mastercard's and Visa's relevant UK operations. The clearest example are likely to be interchange fees as Mastercard and Visa do not show interchange fees in their revenues or costs (even though interchange fees are incurred as part of a card transaction). The inclusion of interchange fees in PayPal's revenues and costs could therefore potentially make PayPal's accounts less comparable to Mastercard's and Visa's accounts. We have therefore calculated a sensitised margin for PayPal, where we have removed transaction expenses, which includes interchange fees, but also other fees. As such this sensitivity overstates the effect of removing interchange fees.

6.125 The table below shows the resulting adjusted PayPal margins.

Table 38 – PayPal margins (2018–2022)[273]

	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
PayPal (as reported)	14%	**15%**	17%
PayPal (excluding transaction costs)	22%	**25%**	28%

Source: PayPal financial statements, PSR calculations

6.126 The table above shows that PayPal margins would be circa 10 percentage points higher if all transaction expenses are removed.

6.127 However, we note that the above is only making an adjustment for one possible factor that could make PayPal's margins more comparable to those of Mastercard's and Visa's relevant UK operations. We consider that before we could place significant weight on a sensitised margin for PayPal, we would need to consider in more detail what other factors could be considered for adjustment, some of which may operate in opposite directions.

273 All data has been sourced from companies' published annual reports. Where a financial year end was not in December, we have used the nearest year when calculating the margin in each year. See Annex A for more details.

We would also need to consider whether it would be appropriate to only adjust for a proportion of transaction expenses, rather than the full amount.

6.128 We have not considered it necessary to undertake this fuller assessment at this stage. This is because our analysis shows that there is only [✂] of the range of Mastercard's margins in the relevant UK operations and the sensitised PayPal margins. As such a higher benchmark margin as implied by the sensitised analysis for PayPal would not significantly change our assessment of Mastercard's profitability in this market review considering that Mastercard's margins are likely higher than indicated by the lower end of the range.

6.129 We note Mastercard's reference to PayPal's acquiring business, which we assume is referring to PayPal's gateway and payment processing services. We do not agree that it would be appropriate to remove these services from the margin estimate, for the reasons set out in paragraph 6.45.

The cross check

Mastercard's views

6.130 Mastercard said that we had not explained why we had chosen the FTSE100 for the cross check and should have used a broader set of international indices for the cross check. Mastercard said that when looking at the margins of these broader indices, then there is a greater number of companies with a relatively low capital employed intensity and a similar business model as Mastercard that have relatively high margins (than in the FTSE100).[274]

6.131 Mastercard said that its capital employed intensity is likely higher than 1, citing a Bank of England paper that found that intangible assets are often understated in published accounts.[275] Mastercard also told us that we had previously indicated in its February 2023 working paper on profitability that Mastercard has substantial intangible assets, where the reported accounting value may not reflect the true economic value.

6.132 Mastercard indicated that it was not appropriate to identify outliers in the cross check based on their high margins.[276]

Our consideration of Mastercard's views

6.133 We set out in paragraphs 6.83 to 6.87 that one of the aims of the cross check is to provide information on the average margins earned by listed firms in the UK, for different levels of capital intensity. We said that the FTSE100 would likely provide a closer approximation of margins in the UK than international indices. We therefore do not consider that international benchmarks are more appropriate for the cross check than the FTSE100.[277]

274 Mastercard response to PSR working paper dated 18 December 2023 [✂]

275 Mastercard response to PSR working paper dated 18 December 2023 [✂]

276 Mastercard response to PSR working paper dated 18 December 2023 [✂]

277 As the FTSE100 index has a number of large international companies which may not have a large proportion of their revenues in the UK, we have also undertaken the same analysis with the equivalent FTSE250 constituents. This analysis indicates that the average margins in our cross check would have been lower had we used the FTSE250 constituents.

6.134 We do not consider that the presence of more companies with high margins in the international benchmarks suggests that the result of our cross check would necessarily be significantly different, noting that we have mainly looked at averages when reviewing the results of the cross check (see paragraph 6.97). We have set out in paragraph 6.116 why we consider industry averages to be a more appropriate basis for deriving a competitive comparator benchmark margin than individual companies within an industry.

6.135 We note that the purpose of the cross check is a high level a sense check on the margins derived from our selected comparators and as such we consider it would be disproportionate for us to undertake a more detailed analysis of the individual constituents of the index. However we have undertaken a high level assessment of potential comparators cited by Mastercard in paragraph 6.139.

6.136 We note that Mastercard has only suggested that it is likely that its capital intensity is greater than 1 and has only provided evidence of a general nature, which is likely to apply to a significant number of companies in the sample. It is not clear from Mastercard's submission that the results of the cross check would be different if the adjustments made in the Bank of England paper were applied to all companies in the sample as the Bank of England report (as cited by Mastercard) indicates that it is likely that intangible asset values in other index constituents may also be understated.

6.137 Whilst we have identified possible outliers as part of our cross check analysis, we have not placed significant weight on the cross check analysis where outliers are excluded. In other words, the substantive part of our cross check analysis is based on the full dataset including outliers.

Consideration of other comparators

Mastercard's views

6.138 Mastercard identified a number of additional companies with characteristics that it viewed as being similar to those of Mastercard. These were operators of networks that can be used for a number of purposes, such as for paying for fuel (fuel cards), paying out employee benefits (e.g., meal vouchers) or for purchases at specific stores (store cards). This included Fleetcor, WEX (in particular its 'Fleet Solutions' segment), Sodexo (in particular its 'Benefits and Rewards' segment, now known as 'Pluxee'), Edenred and Paychex.[278]

Our consideration of Mastercard's views

6.139 We note that Mastercard has not suggested that these companies are more suitable comparators than the comparators we have identified. [279] We have nevertheless undertaken an initial assessment of these comparators. Based on this review we note that these companies all primarily serve a specific subset of the payment market (e.g logistics). We consider that this suggests that they are therefore likely less reflective of the broader payments market than the comparators we have identified, which all serve multiple industries.

278 Mastercard response to PSR working paper dated 18 December 2023 [✂]
279 Mastercard response to PSR working paper dated 18 December 2023 [✂]

Visa's submissions

6.140 In December 2023 we invited Visa to comment on two CWPs on profitability.[280] We offered Visa the opportunity to respond to these papers, providing supporting evidence and reasoning as appropriate, on the approach that we have set out in these working papers.

6.141 We set out below the most salient points raised by Visa in its response to the working paper on the comparator benchmarking analysis and our response to them.

6.142 Visa's responses mainly centred on the following areas[281]:

a. The comparator selection approach and the criteria used for selecting comparators
b. The rationale for excluding Amex and Discover
c. The chosen comparators are not appropriate
d. We should have considered other comparators
e. The cross check

6.143 We set out each of these in turn below.

Comparator selection method and approach

Visa's views

6.144 Visa said we had not explained the methodology used to identify the comparators. We had provided only at a very high level some of the criteria used to derive the shortlist of comparators. Further detail was required on how we applied the criteria when selecting comparators and whether we looked at other potential comparators and if so, on what basis they were executed (and if not, why we had not looked at other comparators).[282]

6.145 Visa said that it acknowledges that the selection of comparators to its business is difficult, given the global nature of Visa's operations, its size, and the breadth of different services that it provides. Consequently, rather than settling on a narrow selection of comparators, the use of a wider range of potential comparators was more appropriate.[283]

Our consideration of Visa's views

6.146 We set out in paragraph 6.17 to 6.24 our approach to identifying comparators. One of the key elements of this approach was to identify companies that have operations that are as similar as possible to Mastercard's and Visa's relevant UK operations, which we considered were payment system operators or payment service providers. We therefore focussed our analysis on identifying comparators that derive a significant proportion of

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280 Visa response to PSR working paper dated 18 December 2023 [✂]

281 In addition, Visa's response also highlighted that:

1. The PSR used backward-looking analysis without consideration of how the market will change in the future;
2. The PSR did not consider whether the comparator margins used are reflective of those that would be observed in a competitive market in the UK or whether they may understate a competitive benchmark due to other factors;
3. The PSR did not sufficiently explain the methodology used for selecting comparators; The PSR did not consider the extent to which the selected comparators' businesses would overlap with Visa's businesses.

282 Visa response to PSR working paper dated 18 December 2023 [✂]

283 Visa response to PSR working paper dated 18 December 2023 [✂]

their revenues from these services. We identified a sufficient number of comparators that met this criteria.

6.147 Consequently we did not find it necessary to also explore comparators offering other services, which we considered were likely to have less similarities with Mastercard's and Visa's relevant UK operations. Including additional comparators would therefore risk introducing comparators that are less similar to Mastercard's and Visa's relevant UK operations and consequently may provide less meaningful information about the profit margins that Mastercard and Visa could be expected to earn in the relevant UK operations under competitive market conditions. However, we note that we also undertaken a cross check based on a large subset of the FTSE100 constituents.

6.148 We consider that it may be possible to identify additional companies operating as payment system operators or payment service providers, but we note that Visa has not provided us with such comparators (other than a list of illustrative comparators, see further below).

Exclusion of Amex and Discover

Visa's views

6.149 Visa said that Amex and Discover both provide domestic and international card-based payments and have more comparable risk profiles to Visa than our selected comparators.[284]

Our consideration of Visa's views

6.150 We set out in paragraphs 6.33 to 6.37 why we did not consider that Amex and Discover are sufficiently similar comparators to Mastercard's and Visa's relevant UK operations.

The appropriateness of the chosen comparators

Visa's views

6.151 Visa said that the comparators we have selected do not provide an appropriate proxy for a competitive margin for Visa's UK operations. This is because they are not sufficiently similar to Visa and have risk profiles that differ significantly from Visa's.[285] In particular:

a. Eftpos – is mutual style corporation that is not motivated by profit and as such would not be expected to achieve the same level of margin as a for-profit company. It offers a smaller set of value-added services and provides only lower risk domestic transactions and no higher risk international transactions.[286]

b. OFX – offers different and a smaller set of services compared to Visa and has a different way of generating revenues.[287]

c. Paypal – is a growing firm which may not provide a representative margin for a mature firm in a competitive market. It uses a different accounting treatment of R&D to Visa which understates PayPal's margin by about 12 percentage points.[288]

284 Visa response to PSR working paper dated 18 December 2023 [✂]
285 Visa response to PSR working paper dated 18 December 2023 [✂]
286 Visa response to PSR working paper dated 18 December 2023 [✂]
287 Visa response to PSR working paper dated 18 December 2023 [✂]
288 Visa response to PSR working paper dated 18 December 2023 [✂]

Our consideration of Visa's views

6.152 We have set out in paragraph 6.16 that we do not think that we will be able to identify an ideal comparator set. We have therefore aimed to identify sufficiently similar comparators. This recognises that any comparators we do identify will have differences to Mastercard's and Visa's relevant UK operations. We consider that the comparators we have identified are the best available comparators, i.e. they have the closest similarities with Mastercard's and Visa's relevant UK operations.

6.153 We note that the suggested adjustments by Visa do not appear to take into account that capitalised R&D would also need to be amortised in PayPal's accounts. However, we note that even if we were, hypothetically, to consider it appropriate to include the suggested R&D related adjustments, the range of Visa's margins in the relevant UK operations would still [✂] PayPal's adjusted margins.

Consideration of other comparators

Visa's views

6.154 Visa said there are a number of other potential comparators, which we had failed to consider. Visa provided a number of alternative comparators to illustrate that there are other companies that have similar risk profiles to Visa's business and that have margins similar to Visa's UK margins.[289] This list included [✂] (an acquirer), [✂] (a payment services provider primarily for logistics companies), [✂] (internet domain service provider) and [✂] (a stock exchange).[290]

Our consideration of Visa's views

6.155 We note that Visa has provided the comparator set for illustrative purposes.[291] We have nevertheless undertaken a high-level review of them. Based on this review we do not consider that the illustrative comparators would be better than the comparators we have identified:

a. For [✂] this is because [✂] operates as an acquirer. Whist we do consider that acquirers are likely to face similar business risk as Mastercard and Visa as they also operate in the overall payments market, we did not consider they match Mastercard and Visa as closely as the comparators we identified, which all offer payment system operation services (at least to some extent).

b. For [✂] this is because we consider that it mainly serves a specific subset of the payment markets (logistics operators). [✂] is therefore less reflective of the broader payments market than the comparators we have identified.

c. For [✂] and [✂] this is because they do not offer payment services.

289 Visa response to PSR working paper dated 18 December 2023 [✂]

290 Visa response to PSR working paper dated 18 December 2023 [✂]

291 Visa response to PSR working paper dated 18 December 2023 [✂]

The cross check

Visa's views

6.156 Visa said that it was unclear why we had chosen FTSE100 as the only appropriate benchmarking index.[292]

6.157 Visa said that different accounting policies, the age and nature of the assets employed, or differences in how the costs of intangible assets or research and development are accounted for will affect this analysis and the same conclusions might not be drawn if data was properly adjusted to reflect an economic measure of capital intensity.[293]

6.158 Visa stated that it was not reasonable to discount "outliers" from the cross-check, because of an assumption that they may not represent competitive margins.[294]

Our consideration of Visa's views

6.159 We set out in paragraph 6.83 to 6.87 that one of the aims of the cross check is to provide information on the average margins earned by listed firms in the UK, for different levels of capital intensity. We said that the FTSE100 would likely provide a closer approximation of margins in the UK than international indices. We therefore do not consider that international benchmarks are more appropriate for the cross check than the FTSE100.[295]

6.160 We consider that a full economic assessment of capital intensity for each comparator included in the cross check (and for Mastercard and Visa) would be disproportionate when considering that the purpose of the cross check is a sense check on the margins derived from our selected comparators and when considering the likely substantial amount of work required to derive an economic estimate of asset values for each comparator. We further note that a full economic assessment may also result in adjustments to FTSE index constituents.[296]

6.161 Whilst we have identified possible outliers as part of our cross-check analysis, we have not placed significant weight on the cross-check analysis where outliers are excluded. In other words, the substantive part of our cross-check analysis is based on the full dataset including outliers.

292 Visa response to PSR working paper dated 18 December 2023 [✂]

293 Visa response to PSR working paper dated 18 December 2023 [✂]

294 Visa response to PSR working paper dated 18 December 2023 [✂]

295 As the FTSE100 index has a number of large international companies which may not have a large proportion of their revenues in the UK, we have also undertaken the same analysis with the equivalent FTSE250 constituents. This analysis indicates that the average margins in our cross check would have been lower had we used the FTSE250 constituents.

296 That is because the difference between accounting and economic valuations may also be present in FTSE100 constituents.

Other submissions

Responses to our February 2023 working paper

6.162 None of the respondents to our February 2023 working paper provided us with specific suggestions for suitable comparators. A number of respondents commented on the criteria we should apply when selecting comparators, including:[297]

a. comparators should be similar to the two card schemes
b. IT companies are the most appropriate benchmark comparators

Our consideration

6.163 Our approach to the selection of benchmark comparators as set out in paragraphs 2.60 to 2.62 aims to identify companies similar to Mastercard's and Visa's relevant UK operations. We consider that companies operating as payment system operators or payment service providers would likely be more comparable to Mastercard's and Visa's relevant UK operations than IT companies more generally.

Our provisional conclusions on the comparator benchmark margins

6.164 Our comparator benchmark analysis did not identify an ideal comparator. This is not surprising given Mastercard's and Visa's very high combined market share in the UK.

6.165 We therefore sought to identify sufficiently similar comparators. The selection of the comparators ultimately requires some element of judgement, given there is potentially a relatively wide range of possible alternative comparators.

6.166 We consider that our choice of comparators is therefore necessarily subject to a proportionate exercise of regulatory discretion. We note that other approaches may provide a different set of comparators. However, we consider that our approach is reasonable and appropriate and is not invalidated by the possibility of other approaches being available. We consider that we have been prudent and careful in exercising our regulatory discretion, especially considering that we have also undertaken a cross-check, which is broadly consistent with the results of the benchmark margin analysis.

6.167 Our benchmark margin analysis identified three comparators that we consider are sufficiently close comparators to Mastercard's and Visa's relevant UK operations. We have not identified other suitable comparators that have more similar operations to Mastercard's and Visa's relevant UK operations.

297 MR22/1.7 *Stakeholder input (and non-confidential responses) to the competitive constraints call for evidence and profitability working paper (September 2023)* paragraph 3.11 to 3.16.

6.168 The table below shows the average EBIT margins of these benchmark comparators.

Table 39 – Comparator benchmark margins 2018–2022

	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
eftpos (2018–2021)	5%	**12%**	21%
OFX	13%	**18%**	21%
PayPal	14%	**15%**	17%

Notes: eftpos margins are based on data from 2018–2021 as data for 2022 is not available. OFX margins are based on a financial year end in March (e.g. 2022 data is based on March 2023 accounts).
Source: eftpos, OFX, PayPal financial statements.

6.169 We therefore provisionally conclude that the competitive benchmark margin for Mastercard's and Visa's relevant UK operations is likely to be between 12% and 18% in the period of 2018–2022.[298]

298 However, we note that this range should be interpreted with a degree of caution, given the inherent uncertainty with identifying a suitable comparator, in this case.

7 Our provisional conclusions from our profitability analysis

7.1 In this section we set out our provisional conclusions from our profitability analysis. We set out our current estimate of the margins of Mastercard's and Visa's relevant UK operations and the margins of benchmark comparators that operate in competitive markets. This enables us to assess whether Mastercard's and/or Visa's fees and/or fee increases may have resulted in profits (and consequently) that are higher than would be expected in competitive markets.

Summary and introduction

7.2 We provisionally found in Chapter 4 of our interim report that, on the acquiring side, Mastercard and Visa do not face effective competitive constraints in the provision of core scheme and processing services. In some optional services, alternative providers may provide varying degrees of constraint to Mastercard and Visa. However, as Mastercard and Visa can provide a one-stop shop solution for core and optional services, they are in a stronger position than alternative providers of optional services.

7.3 These provisional findings, combined with other evidence, including indications of profits that are or may be higher than those available in competitive markets, may indicate that Mastercard and/or Visa are able to benefit from a lack of effective competitive constraints.

7.4 We applied a two-stage approach to first estimating Mastercard's and Visa's margins for the relevant UK operations and second to identifying the most appropriate comparators (and their profit margins) for the purpose of our market review. This is summarised below.

7.5 For estimating Mastercard's and Visa's margins for the relevant UK operations

- Step 1: Choosing the measure of profit margins.

  We have estimated profit margins of Mastercard's and Visa's relevant UK operations using EBIT margins.

- Step 2: Selecting the estimation method for the chosen measure of profit margins.

  EBIT margins are the ratio between EBIT (operating profit) and revenues.

- Step 3: Selecting and evaluating the most relevant input data.

  We have assessed margin estimates based on the fully loaded UK P&L accounts, European accounts and global accounts.

- Step 4: Estimate Mastercard's and Visa's margins for the relevant UK operations

  The documents we reviewed show a range for the average margins for the relevant UK operations of [✂] to 53% for Mastercard and [✂] to 64% for Visa in the period of 2018–2022.

7.6 For identifying the most appropriate comparators and their margins

- Step 1: In the absence of in ideal comparator, identify sufficiently similar comparators to Mastercard's and Visa's relevant UK operations that operate in competitive markets

  We have identified PayPal, eftpos and OFX as sufficiently similar comparators.

- Step 2: Identify the benchmark EBIT margin from the benchmark comparators.

  The benchmark comparators have average EBIT margins of between 12 to 18%.

- Step 3: Cross-checking the results.

  We performed a cross-check using the FTSE 100 constituents – the results from the cross-check are broadly consistent with the range of average margins for the benchmark comparators.

7.7 We set out below our key provisional conclusions.

Mastercard's and Visa's margins in the relevant UK operations

7.8 We have identified in our analysis of Mastercard's and Visa's margins for the relevant UK operations that:

a. The documents we have reviewed show EBIT margins for Mastercard in a range of [✂] ([✂]) and 53% (Mastercard's global accounts) on average over the period of 2018–2022. [299] [300]

b. The documents we have reviewed show EBIT margins for Visa in a range of [✂] ([✂]) and 64% (based on Visa's global accounts) on average over the period of 2018–2022.

7.9 We found that the fully loaded UK P&L accounts are likely to understate the economic benefits Mastercard and Visa derive from the relevant UK operations and that consequently margins are likely higher than indicated by the lower end of the range.

a. For Mastercard this is because the fully loaded UK P&L account does not include all relevant revenues (i.e. FX conversion income). Further, different cost allocation choices can result in significantly different margins for the fully loaded UK P&L accounts. We are currently not persuaded that the cost allocation choices by Mastercard best reflect the economic benefits that Mastercard receives from its UK operations.

b. For Visa this is primarily because the fully loaded UK P&L accounts include [✂] and because different cost allocation choices can result in significantly different margins for the fully loaded UK P&L accounts. We are currently not persuaded that the cost allocation choices by Visa best reflect the economic benefits that Visa receives from its UK operations.

299 We note that Mastercard's fully loaded UK P&L accounts do not include a figure for 2018 and the average therefore represents a four-year average compared to the European and global accounts, which are based on 5-year averages.

300 However, we interpret the upper end of the range with a degree of caution, given that European and global accounts can only serve as a proxy for UK profitability.

7.10 We recognise that global and European margins represent an imperfect proxy for UK margins. Ideally, we would have derived our own estimates of the margins for the relevant UK operations (possibly derived by making adjustments to the fully loaded UK P&L accounts).

7.11 However, we have not found it necessary to conclude precisely on the extent to which Mastercard's and Visa's fully loaded UK P&L accounts underestimate the margins of the relevant UK operations. This is because we did not consider it proportionate to do so, considering:

a. the likely substantial additional analytical work that would be required to derive a robust estimate of the margins for the relevant UK operations based on a fully allocated revenue and cost model for the relevant UK operations, e.g. by making relevant adjustments to the fully loaded UK P&L accounts provided to us by Mastercard and Visa.

b. The purpose of the profitability analysis and the weight we are placing on it in this market review. We consider it sufficient to demonstrate that there is a possibility that Mastercard's and Visa's margins for the relevant UK operations may be higher than what would be expected in competitive markets, which we have set out in this Annex.

c. That we also had European and global accounting data from Mastercard and Visa available to us, which allowed us to derive a range for Mastercard's and Visa's profitability in the relevant UK operations.

The comparator benchmark margin analysis

7.12 We have not been able to identify companies that have operations that are very similar to the relevant UK operations of Mastercard and Visa (ideal comparators). This is not necessarily unexpected, given the high market share of Mastercard and Visa in the UK.

7.13 Consequently, we base our comparator analysis on companies:

a. whose operations share key features with Mastercard's and Visa's relevant UK operations, but may also differ in certain aspects (sufficiently similar comparators).

b. operate in competitive markets, i.e. a market where there is limited market concentration, and where there is an absence of other features indicating a lack of effective competitive constraints.

7.14 We identified the following benchmark comparators:

a. domestic and international non-card-based payments: PayPal.

b. domestic only card-based payments: eftpos.

c. international non-card-based payments: OFX.

7.15 We have not identified any other suitable comparators that have more similar operations to Mastercard's and Visa's relevant UK operations and that operate in competitive markets.

7.16 We consider that each comparator is sufficiently similar to Mastercard's and Visa's relevant UK operations to serve as benchmark comparators and to help us identify a range for the comparator benchmark EBIT margin that Mastercard and Visa could expect to earn for the relevant UK operations in a competitive market.

7.17 The benchmark comparators are all somewhat different to each other in the way they overlap with the relevant UK operations of Mastercard and Visa. Between them they overlap significantly with the services offered by Mastercard and Visa in the relevant UK operations. Consequently, we consider that looking at the benchmark comparators is informative for the margins that Mastercard and Visa could likely achieve in a competitive market for the relevant UK operations.

7.18 The benchmark comparators have on average EBIT margins in a range of 12% and 18% in the period of 2018–2022.

7.19 We also performed a cross-check which is broadly consistent with these findings with:

a. margins of FTSE 100 companies, with a similar capital employed intensity as Mastercard / Visa having EBIT margins in a range of between ca 16% and 24% on average.[301]

b. EBIT margins of companies with a low capital employed intensity generally being less than around 20%.

7.20 We note, however, that the cross check is based on published accounting data and as such is based on accounting valuations rather than economic valuations of in particular the asset values used when calculating capital employed intensity. As such the results should be considered directional and may differ when undertaking a full economic assessment.

Comparing Mastercard's and Visa's margins to the benchmark

7.21 The table below shows our estimate of the range for Mastercard's and Visa's EBIT margins in the relevant UK operations and the EBIT margins of the benchmark comparators.

a. It shows that the average EBIT margins of all of the benchmark comparators is substantially below the upper end of the EBIT margin range for Mastercard's and Visa's relevant UK operations.

  1. For Mastercard the upper end of the range is around three times as high as the average margin of the highest benchmark comparator

  2. For Visa the upper end of the range is more than three times as high as the average margin of the highest benchmark comparator

b. The low end of the range for Mastercard's margins for the relevant UK operations [✂] of the margin range for the comparators.[302]

c. The low end of the range for Visa's relevant UK operations, [✂] the highest average margin of the benchmark comparators.

301 We note that the upper end of the range is based on the relatively high capital intensity in Visa's global accounts, which is likely, to a large extent, due to acquisition related intangible assets

302 We note that this gap could be larger if 2018 margins for Mastercard's relevant UK operations were included in the average margins based on the fully loaded UK P&L accounts

Table 40 – Comparator benchmark margins 2018–2022

Company	EBIT margin (min)	EBIT margin (simple average)	EBIT margin (max)
Eftpos	5%	**12%**	21%
OFX	13%	**18%**	21%
PayPal	14%	**15%**	17%
Mastercard fully loaded UK P&L accounts (2019-2022)	[✂]	[✂]	[✂]
Mastercard global	49%	**53%**	57%
Visa fully loaded UK P&L accounts	[✂]	[✂]	[✂]
Visa global	63%	**64%**	66%

Notes: eftpos margins are based on data from 2018 – 2021 as data for 2022 is not available. OFX margins are based on a financial year end in March (e.g. 2022 data is based on March 2023 accounts)
Source: eftpos, OFX, PayPal financial statements, Mastercard and Visa global financial statements, Mastercard and Visa fully loaded UK P&Ls

Our interpretation of the results

7.22 For the periods considered, there is a sizeable gap between the EBIT margins for the benchmark comparators of 12%-18% and the upper end of the range for the margins of Mastercard's relevant UK operations of 53%. [✂]. This would indicate that Mastercard could be earning margins that are higher than would be expected in competitive markets.

7.23 There is a sizeable gap between the EBIT margins for the benchmark comparators of 12%-18% and the range we identified for the margins of Visa's relevant UK operations, which is [✂]%[303] to 64%. [✂]. This would indicate that Visa's margins are higher than would be in expected in competitive markets.

7.24 We recognise that in our approach to identifying the range of the margins of Mastercard and Visa we have used proxies (i.e. the global and European accounts).

7.25 Further, there is no ideal comparator for Mastercard and Visa' relevant UK operations. The selection of the chosen comparators is therefore based our regulatory judgement and the exercise of our regulatory discretion. We consider that we have been prudent and careful in exercising our regulatory discretion, especially considering that we have also undertaken a cross-check of the results of the benchmark margin analysis.

303 Or [✂] when using the fully loaded UK P&L accounts [✂].

7.26 We have taken this into account when considering, both the amount of weight we place on the results from the benchmark margin analysis in the provisional conclusions set out in this annex and our interim report, and we will also take this into account when considering consultation responses to our interim report, including any to undertake a ROCE based analysis at a later stage. The decision to undertake a ROCE based analysis would need to consider carefully the potential benefits of obtaining a more robust estimate of Mastercard's and Visa's UK profitability when set against the potential detriment of any possible delay of subsequent stages of this market review.

Annex A: Benchmark comparator margins

Table 41 – Comparator benchmark margins by year

EBIT Margins	2018	2019	2020	2021	2022	Average
eftpos[304] [305]	5%	11%	21%	10%	N/A	**12%**
eftpos (netting P&I[306] **against revenue)**	8%	15%	28%	13%	N/A	**16%**
OFX[307]	17%	19%	13%	21%	19%	**18%**
OFX (netting promotional expenses against revenue)	20%	22%	15%	23%	21%	**20%**
PayPal	14%	15%	15%	17%	14%	**15%**
PayPal (excluding transaction costs)	22%	25%	24%	28%	25%	**25%**

304 eftpos is now part of Australian Payments Plus Ltd, following a merger approved in September 2021: eftpos Australia (auspayplus.com.au).

305 eftpos financial year end is June. The figures shown for each calendar year in the table are the financial results to June in each calendar year.

306 Product and implementation expenses.

307 OFX financial year end is in March – given that the majority of the financial year is in the previous calendar year we have calculated margins for OFX using the annual report for 2023 to inform figures for calendar year 2022 (and adopted the same approach for prior years).

Annex B: FTSE 100 companies included in the cross-check

Table 42 – FTSE 100 Companies included in cross-check (figures are averages over the period of 2018 to 2022)

Count	Company	Average Capital Employed Intensity	Average EBIT Margin
1	Rightmove PLC	0.3	74%
2	Auto Trader Group PLC	1.3	67%
3	Hargreaves Lansdown PLC	1.0	60%
4	British American Tobacco PLC	5.1	43%
5	London Stock Exchange Group PLC	3.3	43%
7	Imperial Brands PLC	2.3	42%
8	Rio Tinto PLC	1.8	40%
9	InterContinental Hotels Group PLC	1.8	38%
10	United Utilities Group PLC	7.0	36%
11	Schroders PLC	2.1	34%
12	RELX PLC	1.2	31%
13	Diageo PLC	2.0	31%
14	Severn Trent PLC	5.3	29%
15	AstraZeneca PLC	1.9	27%
16	GSK PLC	1.4	27%
17	Experian PLC	1.3	27%
18	Anglo American PLC	1.6	26%
19	Informa PLC	3.9	26%
20	Airtel Africa PLC	1.7	26%
21	Antofagasta PLC	2.6	26%
22	Dechra Pharmaceuticals PLC	1.9	26%
23	Reckitt Benckiser Group PLC	2.0	25%
24	Berkeley Group Holdings PLC	1.6	25%

Count	Company	Average Capital Employed Intensity	Average EBIT Margin
25	Croda International PLC	1.3	24%
26	Spirax-Sarco Engineering PLC	1.2	23%
27	Fresnillo PLC	2.1	23%
28	Hikma Pharmaceuticals PLC	1.2	23%
29	Haleon PLC *[Data available for 2022 only]*	3.2	23%
30	National Grid PLC	3.7	23%
31	Sage Group PLC/The	1.2	22%
32	Ashtead Group PLC	1.8	21%
33	Halma PLC	1.2	21%
34	ConvaTec Group PLC	1.7	21%
35	Smith & Nephew PLC	1.6	20%
36	Unilever PLC	0.8	18%
37	Taylor Wimpey PLC	1.2	18%
38	Barratt Developments PLC	1.3	18%
39	Diploma PLC	0.9	18%
40	SSE PLC *[Data missing for 2021]*	3.6	18%
41	Whitbread PLC *[Data missing for 2021]*	3.6	18%
42	Flutter Entertainment PLC	2.5	17%
43	Next PLC	0.6	17%
44	Burberry Group PLC	0.9	17%
45	Intertek Group PLC	0.6	17%
46	Howden Joinery Group PLC	0.6	16%
47	BT Group PLC	1.7	16%
48	Smiths Group PLC	1.6	16%
49	Mondi PLC	0.9	15%
50	IMI PLC	0.7	15%
51	Entain PLC *[Data missing for 2018]*	1.6	15%
52	Weir Group PLC/The	1.2	14%
53	Rentokil Initial PLC	0.9	14%
54	WPP PLC	1.1	13%
55	Pearson PLC	1.5	12%

Count	Company	Average Capital Employed Intensity	Average EBIT Margin
56	Endeavour Mining PLC	2.1	12%
57	Vodafone Group PLC	2.6	12%
58	RS GROUP PLC	0.5	11%
59	Smurfit Kappa Group PLC	0.8	11%
60	Coca-Cola HBC AG	0.8	10%
61	BAE Systems PLC	0.8	10%
62	B&M European Value Retail SA	0.6	10%
63	DS Smith PLC	0.9	9%
64	JD Sports Fashion PLC	0.5	9%
65	Associated British Foods PLC	0.8	8%
66	Melrose Industries PLC	1.4	8%
68	Bunzl PLC	0.4	7%
69	Kingfisher PLC	0.7	7%
70	BP PLC	1.0	6%
71	Shell PLC	1.1	6%
72	Compass Group PLC	0.4	6%
73	Marks & Spencer Group PLC	0.7	5%
74	Frasers Group PLC	0.7	4%
75	Centrica PLC	0.5	4%
76	Glencore PLC	0.4	4%
77	Tesco PLC	0.5	4%
78	DCC PLC	0.3	3%
79	J Sainsbury PLC	0.5	3%
80	Rolls-Royce Holdings PLC *[Data missing for 2018]*	1.3	-1%
81	Ocado Group PLC	1.0	-3%
82	International Consolidated Airlines Group SA *[Data missing for 2022]*	1.2	-4%

12 Endeavour Square
London E20 1JN
Telephone: 0300 456 3677
Website: www.psr.org.uk