Payment Systems Regulator

Market review of card scheme and processing fees

Stakeholder submissions to:

Competitive constraints call for evidence (MR22/1.4)

Approach to profitability analysis working paper (MR22/1.5)

September 2023

Contents

Names of individuals and information that may indirectly identify individuals have been redacted.

Respondents to the call for evidence – competitive constraints

AIB Merchant Services

From: cardfees
To: cardfees

****This email has come from an external source. BE CAREFUL of links and attachments and report suspicious emails****

Good Afternoon [redacted],

Thank you for revising the deadline. Please find our feedback further to internal discussion with Subject matter experts.

- Intra-regional cards & Inter-Regional Cards - merchants use DCC to cover extra fees, inevitably passing costs to the end consumers / industry.

- Corporate cards- Merchants migrating to A2A payments due to high fees, again leading to Consumers paying more where merchants increase charge to cover higher corporate card fees.

- Reports & MI - Charging for provision of services when it was / should be part of default service: There is an industry wide dependency on Schemes to provide reports & MI. However the schemes charge fees to provide these reports, for what effectively is a basic service, that ought be provided. It all adds up slowly and these costs inevitably gets passed to the end consumers.

- Scheme fees
  - Scheme Fees have gone up by 228% in the last few years. Both schemes have increased fees significantly using intra and inter formats to justify the uplift. While this metric translate to direct profits to the schemes, few of these costs are converted to provide a beneficial service to end consumers. A good example of this is 3DS, where a fee is charged. However in practice 3DS isn't applied in practice universally. So the scheme are effectively benefitting as a result of Regulations.
  - They have also introduced new fees and charges for existing product types . Fees are almost used as a penalty if card transactions are not submitted completely in line with requirements.
  - Complexity around scheme fees can result in acquirers averaging the charge to merchants particularly for obscure submission types or fees levied annually rather than by transaction.
  - When one scheme introduces a fee structure, almost automatically other scheme also picks up this pattern of fee structure, leading to an impression that the schemes are different only in name, but operate as if they are a single company.

- Lack of Innovation: The above observations leads to our final logical conclusion that due to the constant & relentless focus on fees by Schemes, there is no real energy (or resources) left to focus on meaningful innovation or competition, that benefits end consumers.

Kind Regards,

[redacted]

Head of Risk & Compliance | AIBMS UK
E: [redacted]
Janus House, Endeavour Drive, Basildon, Essex - SS14 3WF
www.aibms.com

Association of Convenience Stores

Market Review of Scheme and Processing Fees: Competitive constraints in card payment systems

A submission from the Association of Convenience Stores

Overview

ACS (Association of Convenience Stores) welcomes the opportunity to respond to the Payment System's Regulator's market review of scheme and processing fees, looking at competitive constraints in card payment systems. ACS represents 48,590 local shops and petrol forecourt sites including Co-op, BP, Rontec and thousands of independent retailers, many of which trade under brands such as Spar, Budgens and Nisa. These retailers operate in all locations, such as neighbourhoods, villages, on petrol forecourts and in city centres, but our primary trading location in secondary shopping areas close to where people live and work.

There are different methods by which convenience retailers can access acquirer services. Many retailers choose to hire payment consultants who specialise in negotiating intricate fee arrangements and securing the best possible deals on their behalf. Alternatively, symbol groups may have pre-existing agreements with acquirers, granting permission for the acquirer to approach the independent retailers associated with the symbol group. While the symbol group may recommend a specific acquirer to its independent retailers, the acquirer will still engage in direct business negotiations with the symbol group retailer, taking into account the volume and type of card transactions processed by that particular business.

Retailers have no choice but to accept Visa and Mastercard payments, with as much as 98% of transactions going through these two providers. This duopoly of the card schemes market has led to concerns about the lack of competition, which in turn affects retailers' ability to negotiate better rates and terms.

To address this issue, the PSR should encourage the use of open banking by fintech companies to offer new payment services for retailers. Increasing competition from alternative payment systems is crucial for the success of this initiative. However, it is essential to increase business awareness of these options and ensure that consumer protections are trusted. By doing so, retailers will have more options and greater leverage to negotiate fairer rates and terms for accepting payment cards.

One of the biggest challenges retailers face is the lack of transparency in the card payment system. They receive a blended bill for their monthly charges for accepting card payments, without a breakdown of scheme/processing fees vs interchange fees. These fees have been increasing drastically, and retailers are unable to fully understand and assess the costs they incur. The lack of transparency makes it difficult for retailers to make informed decisions about payment processing, negotiate better rates, and assess the impact on their bottom line.

As retail businesses have a limited understanding of how Mastercard/Visa set their fees, this consultation response will focus on the merchant's experiences of the card acquiring market, answering the questions that focus on competitive constraints from the perspective of retail businesses in the convenience sector.

For more information on this submission, please contract [redacted]

Differences in the competitive dynamics on the issuing and acquiring sides

8. Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

The assessment is fair. Retailers have been experiencing an increase in merchant service charges over the years, which could be attributed to the rise in scheme and processing fees that are being passed onto them, along with an increase in interchange fees. While Mastercard and Visa hold a dominant position in the market, their competition primarily pertains to acquiring services, rather than retailers. Nonetheless, this trend is likely to continue as retailers seek ways to offset these costs.

10. How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

There is little to no competition between Mastercard and Visa for merchants, as these card networks only enter negotiations with acquirers. Merchants are charged interchange fees as part of their 'merchant service charge' and these fees are the same across all acquiring banks.

10b: Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?

Retailers do not receive deals, rebates or discounts from Mastercard and Visa, as they do not engage in direct negotiations with them. However, an acquirer such as Barclaycard may offer discounts or rebates, and the decision to keep or pass on these savings to retailers would be at the discretion of the acquirer.

10c: Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

Retailers such as convenience stores have no choice but to accept Visa and Mastercard payments (see answer to question 16).

The PSR should therefore promote the use of open banking by fintech companies to provide innovative payment services to retailers. To achieve success in this initiative, increasing competition from alternative payment systems is vital. However, it is equally important to raise business awareness of these options and ensure that consumer protections are trusted, as this will enable retailers to negotiate better rates and terms for accepting payment cards.

11. Can you describe, to the extent you consider that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?

If scheme and processing fees increase, smaller retailers, or independent convenience stores, would be disproportionately affected, as they have limited bargaining power as the acquirer has the upper hand. Additionally, due to the expectation that these major card brands will be universally accepted, these fees would likely be passed onto consumers, resulting in higher prices for goods and services. The lack of transparency surrounding scheme and processing fees further exacerbates this issue, leaving retailers with limited options to mitigate these costs.

The impact of transparency on competitive pressure at all levels of the value chain

12. Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We agree that the lack of transparency and complexity surrounding scheme and processing fees creates significant cost burdens for retail merchants, which in turn reduces competitive pressures in the card payments value chain. The opacity of these fees also hinders competition between card schemes, making it challenging for retailers and acquirers to evaluate the expected costs of participating in each scheme. Additionally, the lack of transparency around incentive payments from card scheme operators to issuers dampens competitive tension between card schemes, and retailers are left with little visibility into the specific scheme and processing fees they are being charged, resulting in higher costs and reduced leverage to negotiate better terms.

13. Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

The lack of transparency surrounding financial flows in the payment card industry is a major obstacle to effective competition. Typically, independent retailers receive a consolidated statement from their card acquirer that combines interchange fees, service fees, and processing fees. Retailers therefore don't really understand what they're paying for.

14. Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

Retail merchants, such as convenience stores, do receive bills that break down transaction and activity-based charges, but there is no specific breakdown of scheme, processing, and interchange fees. Although acquirers do provide a breakdown of fees (including Visa credit, Visa debit, MC credit, MC debit etc), it is impossible to trace individual transactions to verify their accuracy. An example of a Bill is available in the Appendix.

If there were more transparency regarding the allocation of the merchant service fee, it could foster more competition among acquirers and card scheme providers.

The 'must-take' status of Mastercard and Visa-branded cards (in many retail environments)

16. Would you describe Mastercard and Visa as 'must-take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:

a. Do merchants have any alternatives to accepting both Mastercard and Visa-branded cards if they decide to accept cards? In what situations or under what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?

Retailers are compelled to accept Visa and Mastercard, given their dominance in the card scheme market, leading to insufficient competitive pressure and allowing these card schemes to impose high fees, while alternative payment methods are not yet strong enough to effectively reduce these fees.

Appendix 1: Barclaycard payments bill

Payment Solutions

barclaycard

[redacted]

[redacted]
Merchant number: [redacted]
- including 1 outlet
Your VAT registration number

Invoice number
01[redacted]
Date of issue
31 October 2022
Your reference

Our VAT registration number is:
GB 243 8522 62

This month's invoice is £690.64

How we worked this out	GBP
Monthly charges	£5.76
Transaction charges	£594.24
Activity based charges	£90.64
Total amount due	£690.64

Thank you for paying by Direct Debit.
This statement is for information and VAT purposes. The amount due will be collected from account [redacted] on or just after 10 November 2022

Your VAT Summary

VAT category	Charges	VAT £
Standard VAT 20%	£4.80	£0.96
VAT Exempt	£684.88	£0.00
Total VAT		£0.96

Important Information

Please remember that it is a condition of your Merchant Terms and Conditions to maintain Direct Debit instructions in order to pay any amounts you owe to us, unless we have agreed otherwise with you.

Important security information about your PDQ terminals

We've had reports that fraudsters are targeting PDQ terminals. Using a range of distraction techniques, they remove the PDQ when it's unattended and change the function from 'sale' to 'refund' before making a transaction. This type of fraud only takes seconds – so please make sure your staff know where the PDQ is at all times. You should always keep PDQs out of reach of customers except when making transactions. Treat it with the same care as you would cash or your till.

If you spot anything suspicious, please report it to management or the police immediately and keep hold of any CCTV footage.

Here to help

Click
barclaycard.co.uk
/paymentacceptance

Phone
0800 161 5343

Write to
Dept - CSD
1234 Pavilion Drive,
Northampton,
NN4 7SG

This document is available in large print or braille.

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account summary

barclaycard

[redacted]

Monthly charges - Standard VAT 20%

Charge type	Value	Rate	Count	Charge	VAT	Total
Data Security Manager	-	£4.80	1	£4.80	£0.96	£5.76
Total Monthly charges				£4.80	£0.96	£5.76

Transaction charges - VAT Exempt

Charge type	Value	Rate per transaction	Count	Total
VISA Consumer Credit	£1,312.19	0.699 %	36	£9.17
MC Commercial Credit Contactless	£802.13	1.8%	81	£14.44
VISA Consumer Debit Contactless	£81,390.17	0.29%	8712	£236.03
International Maestro Contactless	£2.18	0.29%	2	£0.01
MC UK Debit	£7,010.69	0.29%	315	£20.33
MC Premium Credit	£3,756.04	0.699 %	342	£26.25
VISA Commercial Debit Contactless	£725.88	0.8 %	59	£5.81
MC Consumer Credit	£2,954.14	0.699 %	179	£20.65
MC UK Debit Contactless	£40,159.93	0.29%	4169	£116.46
MC Commercial Debit Contactless	£193.60	0.8 %	14	£1.55
VISA Business Debit	£126.36	0.8 %	6	£1.01
VISA Commercial Credit Contactless	£92.03	1.8%	10	£1.66
MC International Debit Contactless	£166.04	0.29%	22	£0.48
MC Commercial Debit	£50.86	0.8 %	1	£0.41
VISA International Debit Contactless	£45.94	0.29%	3	£0.13
VISA Consumer Credit Contactless	£4,940.95	0.699 %	467	£34.54
MC Consumer Credit Contactless	£9,085.11	0.699 %	968	£63.50
MC Commercial Credit	£210.86	1.8%	11	£3.80
VISA Consumer Debit	£13,002.11	0.29%	553	£37.71
VISA International Debit	£57.45	0.29%	1	£0.17
VISA Vpay	£43.59	0.29%	3	£0.13
Total Transaction charges				£594.24

Activity based charges - VAT Exempt

Charge type	Value	Rate per transaction	Count	Total
International Transaction Credit	£73.05	2.2%	7	£1.61
International Transaction Debit	£315.20	2.2%	31	£6.93
International Transaction Commercial	£13.99	2.2%	1	£0.31
Electronic Authorisation	-	£0.005	16357	£81.79
Total Activity based charges				£90.64

Total charges £690.64

Please remember that it is a condition of your Merchant Terms and Conditions to maintain Direct Debit instructions in order to pay any amounts you owe to us, unless we have agreed otherwise with you.

LONDIS [redacted] - Invoice Number [redacted]- 31 October 2022

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your transactions at a glance

Transactions we've processed at each of your locations

barclaycard

LONDIS
[redacted]
[redacted] GBP
Merchant ID [redacted]

Date Processed	Count	Amount
02 Oct 22	1053	£11,478.59
03 Oct 22	631	£6,058.88
04 Oct 22	504	£4,856.90
05 Oct 22	488	£4,768.43
06 Oct 22	491	£4,654.76
07 Oct 22	530	£5,472.49
09 Oct 22	1152	£12,557.52
10 Oct 22	602	£6,365.80
11 Oct 22	444	£4,494.94
12 Oct 22	508	£5,137.36
13 Oct 22	465	£4,639.28
14 Oct 22	461	£4,493.95
16 Oct 22	990	£11,234.95
17 Oct 22	542	£6,486.93
18 Oct 22	447	£4,052.40
19 Oct 22	442	£4,651.05
20 Oct 22	460	£4,773.02
21 Oct 22	488	£4,845.12
23 Oct 22	1111	£11,846.57
24 Oct 22	506	£5,230.34
25 Oct 22	472	£4,685.73
26 Oct 22	513	£5,279.33
27 Oct 22	500	£5,001.59
28 Oct 22	501	£4,889.40
30 Oct 22	1088	£12,253.98
31 Oct 22	565	£5,918.94
Total	15954	£166,128.25

American Express

AMERICAN EXPRESS

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American Express Payment Services Limited: Response to PSR call for evidence MR22/1.4: Competitive constraints in card payment systems

11 April 2023

AMERICAN EXPRESS

Confidential

Scheme and processing fees market review team
Payment Systems Regulator
12 Endeavour Square, London, E20 1JN
By e-mail to: cardfees@psr.org.uk

11 April 2023

Dear Team,

I refer to the Payment Systems Regulator's ("**PSR**") call for evidence MR22/1.4: Competitive constraints in card payment systems, as part of its market review of scheme and processing fees. I am pleased to provide a response on behalf of AEPSL.

The information contained in this document is provided to the PSR for the specific purpose of the market review and is provided on a confidential basis. The disclosure of any commercially sensitive data and/ or business secrets contained in this document could seriously and adversely affect the legitimate business interests of American Express, therefore such information should not be provided to any third parties.

Should you have any queries in relation to the responses provided or if you would like to discuss further, please do not hesitate to contact me.

Yours sincerely,

[redacted]
American Express Payment Services Limited

Confidential

American Express welcomes the opportunity to comment on the PSR's call for evidence in the market review of scheme and processing fees in the UK.

As American Express competes with and operates a different model to Visa and Mastercard, it is not in a position to respond to each of the detailed questions that PSR has asked for supporting evidence on in the call for evidence. Instead, American Express sets out below a few observations on the general competitive dynamics in payments in relation to the themes that the PSR is exploring from our perspective as a small, innovative three-party scheme competitor to Visa and Mastercard.

Theme: The intensity of competition and innovation in the payment ecosystem

American Express agrees that card payments deliver significant positive outcomes and value for both merchant and consumer end-users; offering a fast and efficient method of payment with well-developed consumer protections. [redacted]

American Express also agrees that in various circumstances, non-card payment methods offer a competitive alternative to cards both from a merchant and a consumer perspective. The UK payments landscape has evolved significantly over the last decade, particularly in response to changes such as Open Banking, which has created opportunities for new entry and competition. As payments continue to evolve through technological innovations, adoption of payment methods such as account-to-account (A2A) payments by consumers and merchants will increasingly continue driving further competition and better outcomes for users. We hope that the conclusions of the Joint Regulatory Oversight Committee unlock the full potential of A2A payments, as envisioned in the PSR's five-year strategy.

As the PSR is aware, American Express competes with Visa and Mastercard both as a three-party card scheme alternative to the dominant card schemes and, since 2019, as a payment initiation service provider (PISP) by offering our Pay with Bank transfer (PwB) product. American Express therefore plays an important role in bringing competition, innovation and increased consumer choice.

In the UK, as a three party card scheme, American Express:

- Is both the issuer and acquirer of American Express transactions. American Express does not operate a licensing business [redacted]
- [redacted]

  Importantly, as an integrated payments service provider, American Express competes to provide card issuing services and to secure merchant acceptance of those cards. Unlike the dominant card schemes, American Express does not compete based on ubiquity. It must instead prove its value to both consumers and merchants based on a highly differentiated, value-generating business model.

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We note that the PSR seeks to understand the factors that limit the expansion of payment schemes other than Visa and Mastercard. [redacted] We note HMT is undertaking a regulatory review which will address these concerns and welcome the proposed approach, to ensure a fair, proportionate and pro-competitive regulatory environment that fosters and promoted competition.

Theme: the 'must take' status of Mastercard and Visa-branded cards (in many retail environments)

The PSR's evidence shows that Visa and Mastercard accounted for around 99% of debit and credit card transactions in the UK[1]. It is evident from this that Visa and Mastercard have significant market power and effectively operate as a dominant duopoly in the UK.

Anecdotally, our experience supports the view that merchants consider Visa and Mastercard cards to be 'must take'. In contrast, American Express is always a choice for merchants and consumers. Neither will accept the payment products of a discretionary network such as American Express unless they find value in doing so – they can and do choose not to accept or use American Express.

As the PSR considers the scope of the markets in which Visa and Mastercard operate and have 'must take' status, American Express' view is that [redacted] This is consistent with the approach taken by the PSR in its market review of the supply of card-acquiring services, which considered competition for card-acquiring services for all cards. [redacted] We note that:

- Market definition has a specific purpose under competition law and should be determined based on established principles. As a concurrent regulator with competition objectives, it is important that the PSR adheres to these principles and the approach taken by other competition authorities, including as set out in the Competition and Market Authority's guidance on market definition, when considering payments "markets" and the substitutability of products for customers.
- [redacted] When defining the relevant product market, it is important to identify all products and/or services that are regarded as interchangeable or substitutable by the customer, by reason of the products'/services' characteristics, their prices and their intended use. For merchants (and cardholders), [redacted]

[1] Para 2.2 Market Review of card scheme and processing fees: Final Terms of Reference.

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[redacted]

Theme: the impact of transparency on competitive pressure at all levels of the value chain

With respect to the PSR's questions about whether the complexity of scheme and/or processing fees and a lack of transparency around financial flows pose a barrier to competition, American Express observes that if the existing complexity in four party card scheme pricing is a concern for the PSR, it is not clear that providing additional information regarding financial flows elsewhere in the payment system would be beneficial to merchants or competition. In our view, to ensure effective competition, it is important that the focus is on ensuring that merchants understand the price that they are paying for the services that they receive, for example, through the remedies that the PSR has introduced following the card acquiring market review.

We would be happy to discuss any of our observations further with the PSR should that be helpful.

British Retail Consortium

BRC Response to PSR call for evidence on competitive constraints in card payment systems

ABOUT THE BRC

The BRC's purpose is to make a positive difference to the retail industry and the customers it serves, today and in the future.

Retail is an exciting, dynamic and diverse industry which is going through a period of profound change. Technology is transforming how people shop; costs are increasing; and growth in consumer spending is slow.

The BRC is committed to ensuring the industry thrives through this period of transformation. We tell the story of retail, work with our members to drive positive change and use our expertise and influence to create an economic and policy environment that enables retail businesses to thrive and consumers to benefit. Our membership comprises over 5,000 businesses delivering £180bn of retail sales and employing over one and half million employees.

Background and importance of card fees

Scheme & Processing fees

Data from our most recent Payments Survey shows that cards account for almost 90% of retail sales, with the value of card payments in 2021 totalling £377.9bn (BRC Payments Survey). UK consumers rely heavily on card payments, resulting in merchants having no choice but to accept them.

The earlier Market Review by the Payment Systems Regulator (PSR) on the supply of card acquiring services involved a thorough study that confirmed the BRC's own findings that the benefits of legislation to reduce card fees have not been passed on to most retailers, and that the fees levied by the card schemes have been increasing aggressively for several years. As the PSR stated in 2020, card scheme fees have "more than doubled over the period from 2014 to 2018, with most of this increase occurring between 2016 and 2018, after the IFR caps came into force" (PSR, 2020).

Since Interchange Fee Regulation was implemented in 2015, it is estimated that subsequent changes to scheme fees have increased UK merchants' annual costs by £519 million (as of the start of 2021), acting to erode materially the benefits of interchange regulation for merchants. Of the £519 million, £371 million is estimated to have been added since the European Commission's two-year review of the IFR. Further estimates suggest that the average Merchant Service Charge across IFR-regulated countries is now higher than it was prior to regulation (due to a combination of increases to both scheme fees and the acquirer margin component).[1]

Our 2022 Payments Survey shows that in 2021 scheme fees jumped substantially, averaging a 28% increase as a percentage of turnover. Credit cards saw the most significant impact, increasing by a very substantial 42%, whilst debit cards saw a 23% increase. In 2021, retailers spent £1.15 billion to process card transactions.

Following the Covid-19 pandemic, online expenditure has increased, and many retailers have expanded their online presence. The significant increase in card fees coincides with this and creates yet another hurdle for retailers navigating the post-pandemic world. Further, smaller retailers who

[1] Estimates provided by CMSPI and Zephyre Scheme Fee Study (2020)

may themselves have only just remained viable during the previous two years are hit hard, and often have little to no bargaining power.

As the PSR itself notes, “the costs of operating UK payments are ultimately paid for by consumers and businesses (even if they do not always face the direct cost at the time of making a payment). It is therefore important that payment systems are run efficiently so that they represent value for money.”

The card schemes are able to take advantage of a position of power, and we ask the PSR to seriously consider any long-term solutions to ensure that there are not other ways for the card schemes to recoup costs.

Interchange fees

We believe it is imperative that the PSR considers the anti-competitive behaviour of the card schemes, and the apparent willingness to abuse a regulatory loophole with the five time increase in cross-border interchange fees, with no objective reasoning or indication that their costs have increased fivefold.

Whilst we understand the limitation of these market reviews is to look at cross-border interchange fees following the abuse of the regulatory loophole, we would welcome a broader examination of interchange fees and whether these are fit for purpose within the UK landscape.

CMSPI, the payments consultancy, estimates that the broader reclassification of the UK as an inter-regional market has so far resulted in £53.4 million in additional annual fees for UK merchants. This figure includes reclassification of consumer interchange fees, commercial interchange fees, scheme fees, and the removal of returned interchange on refunded consumer transactions. Only two of these fees are in scope of the PSR’s market reviews. There is concern that the card schemes could increase fees to counter any intervention the PSR may look to make.

A Supreme Court ruling in 2020 declared interchange fees in the UK market as unlawful.

Some countries have abolished domestic interchange fees, including the Netherlands, Denmark and Canada, and in a market where card issuers generate sufficient income from other sources, it seems evident that interchange fees are no longer necessary in a mature card market such as the UK, and are stifling innovation.

Response to the consultation

Theme 1

The intensity of competition and innovation in the payments ecosystem

A duopoly currently exists within the payments environment within which two companies derive benefit and, in our view, act anti-competitively. In order to disrupt this duopoly, both inter- and intra-market competition are needed. 90% of retail spending was made on cards in 2021 (BRC Payments Survey), which shows how heavily reliant the UK consumers are on cards. Of this, Visa & Mastercard hold 98% share of the card scheme market.

A fair and competitive market would also enable thriving innovation. The BRC does not believe we are seeing either of these in the current market. An effectively competitive market would result in more than two firms dominating and holding a 'must-take' status, and we would see alternative payment types able to take off and compete without barriers to entry.

The innovations that currently exist in the payments landscape, such as Apple and Google pay, represent developments to the 'front end' of the payments flow. These have done little to fundamentally disrupt the existing, card-based infrastructure, which remains core to consumers' expectations regarding the payments experience.

An argument could also be made that mobile wallets have in fact hindered the progression of account-to-account payments. Prior to mobile wallets, consumers had the inconvenience of always having to carry their card. Account-to-account payments would have offered the benefit of only needing your mobile phone, thus providing the incentive to switch. By not innovating fully and only adding to the front-end, mobile wallets could be seen to have taken away the USP from account-to-account payment methods and resulted in a negative impact on innovation and competition.

Interchange fees are a huge barrier to innovative entry . Banks currently get a sizeable revenue from card transactions through interchange fees, even when capped. The banks benefit from a wider payments ecosystem in the UK that is dominated by card transactions. In open banking payments however, interchange fees are prohibited. This results in a distorted, anti-competitive market. Banks, therefore, have a vested interest in ensuring consumers continue to use card payments rather than open banking payments. Card payments are a huge source of revenue for them, so although they have a regulatory obligation to support open banking payments, they have no commercial desire to.

As such, banks are doing little to promote open banking to consumers, resulting in consumers knowing very little about any alternative payment methods. Until the fundamental issue of interchange fees are addressed, we don't see how the market can be truly competitive and innovation can thrive.

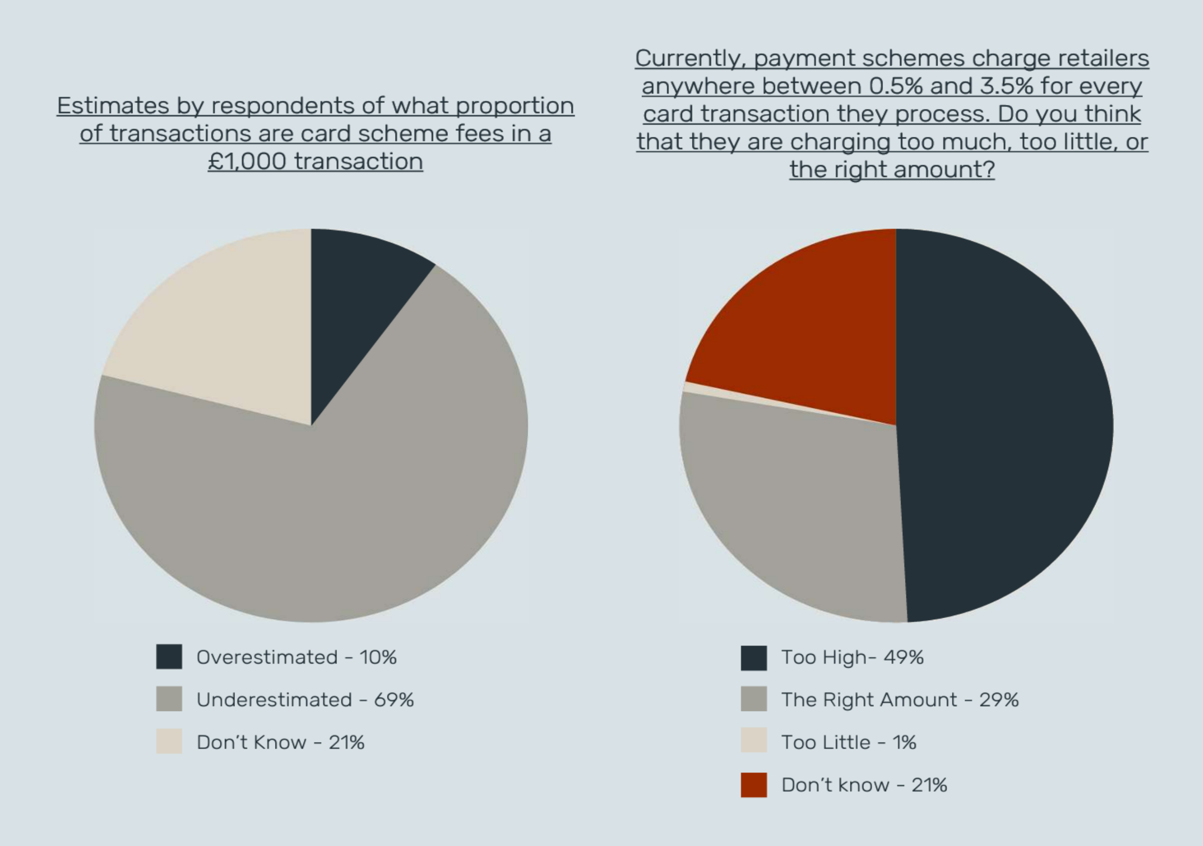
When looking at payment options, the regulatory position favours card payments in a way that enables a better consumer experience, despite the relative risk being mostly similar.

For example, the exemptions for SCA mostly apply to card-based payments, making the consumer experience much easier with cards. This sways consumer behaviour to continue using this payment method.

It's extremely difficult to say whether card schemes are offering value for money given the opaqueness of the fee structures. However, the fact that fees are increasing year on year without seeing material change in the service or identifiable aligned increases in cost, suggests that the value for money is very questionable. Scheme and processing fees, in our opinion, are added and increased with complexity and opaqueness so as to maximise profits.
Consumers' satisfaction with card schemes are more difficult to gauge as the understanding of the payments ecosystem is limited. Whilst they might be happy paying on their card, they are unlikely to understand what difference Mastercard, Visa, or another payment rail, offer.

In January 2022, Coadec (the Coalition for a Digital Economy) commissioned Public First to poll 1,008 UK adults online. This was a nationally representative poll. The questions were a combination of questions about their shopping behaviours, questions about how they pay, and their appetite for alternative payment options to cash and cards.

While seven in ten (71%) respondents were aware that card schemes charge a fee on every transaction paid for on cards, when asked to estimate the cost of these fees, 81% either underestimated the cost on a £1,000 transaction, or answered that they didn't know. An even larger percentage (90%) of respondents either underestimated or answered that they didn't know what the absolute monetary cost of the Card Tax was to UK retailers each year. When told the true rate of the Card Tax, half (49%) thought that the level was too much, while only 29% said it was about the right amount. 80% of respondents said they would support schemes, like Visa or Mastercard, committing to lowering the fees they charge retailers to help them deal with the economic pressures they are currently under.



Theme 2

Differences in competitive dynamics on the issuing and acquiring sides

Reverse competition exists in the issuer side of the market. By this, we mean that the card schemes compete to get issuers by offering the highest price possible. Since the IFR capped interchange fees, card schemes will not lower the interchange fees because they know this would mean the issuer would move to the opposing card scheme. A cap is meant to be the absolute highest level, with other fees below the cap also possible. In an advanced card market such as the UK, interchange fees should be set significantly below the cap. But the way the market is set up, this cannot and does not happen due to this reverse competition that is in effect.

Though there is some competition in the acquirer market, we believe this could be more efficient to allow ease of comparison and switching. The BRC believes that Open Banking for merchants should be enabled; this would pull the API's from the acquirers to make comparison easier and simpler and allowing retailers to switch acquirer based on competitive factors, including the cost. This would ensure better competition in the acquirer market.

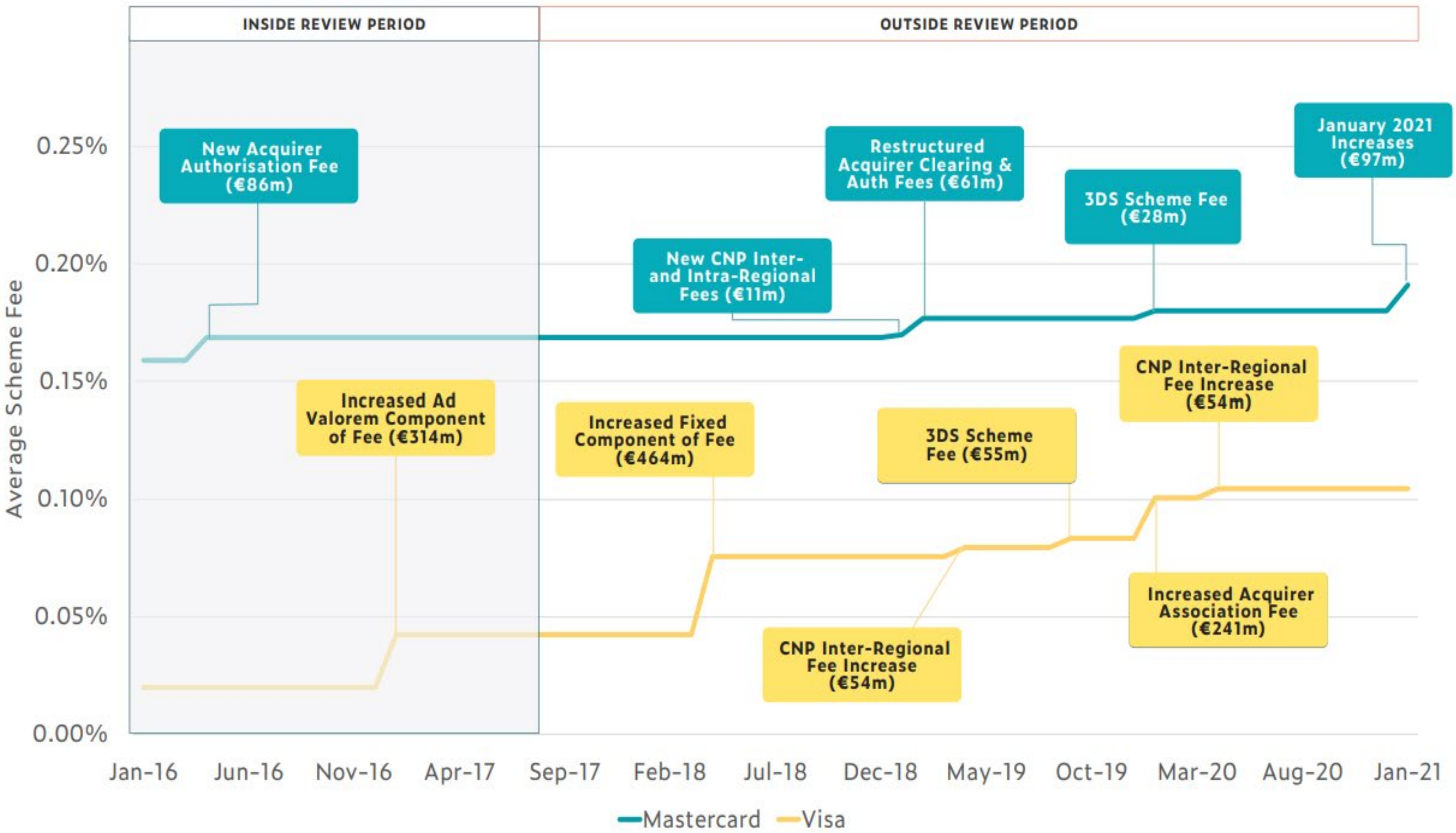
However, the acquirer fee is a very small percentage of total cost and the bulk of the costs are in scheme and processing fees, as well as interchange fees. So it's critical that the acquirer fees don't detract from the PSR's focus on scheme and processing fees.

Theme 3

The impact of transparency on competitive pressure at all levels of the value chain

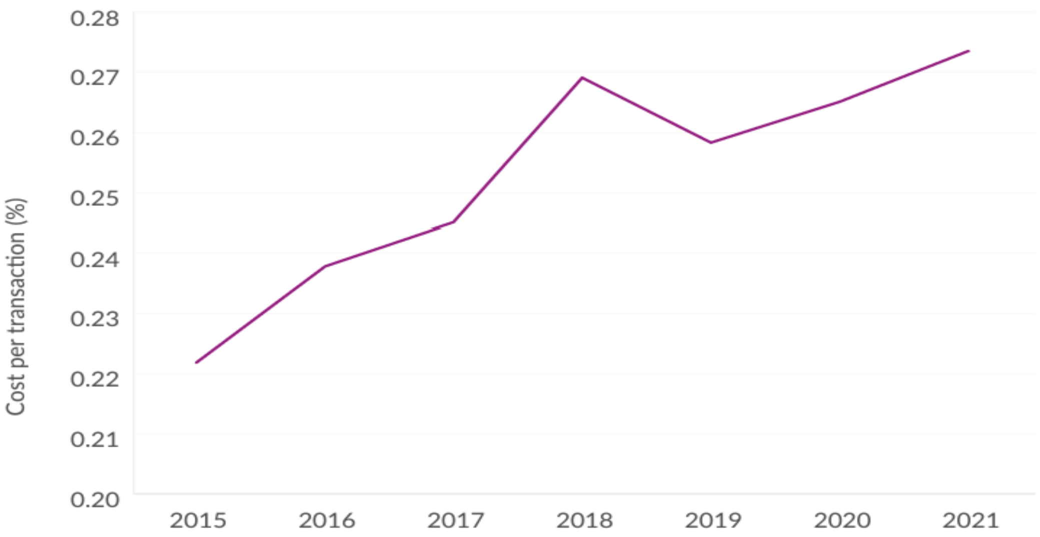
Transparency is a big concern in the card fee breakdowns. New fees are introduced very frequently, so that the breakdowns sent to retailers are long, detailed and complex. Existing fees are hard to understand; for example, market development funds, SCA fees, and PSR regulatory fees are often inconsistent or opaque. This level of complexity makes it nigh on impossible for retailers to understand what they are being charged, to ascertain if there is value in the service received comparable to the fee being charged, or to challenge any fees. It also makes it easy for schemes to consistently add or increase fees, as we have seen since the introduction of the IFR.

The chart below is taken from CMSPI, the payments consultancy firm, and shows this in action. As you can see, new fees are consistently introduced with opaque titles as well as various fee increases that are incrementally creeping up over time.



Whilst each increase/addition may appear small when taken in isolation, you can see the below chart from our Payments Survey which shows how this has risen since 2015. Lack of transparency masks this, making it very difficult to decipher and see absolute values of the increases. Our Payments Survey showed that from 2020 to 2021, scheme fees rose by an average 28% and in 2021 retailers spent £1.15bn on accepting cards.

COST OF DEBIT CARDS (AS A % OF TRANSACTION VALUE)



SCHEME FEES (% OF TURNOVER)			
Payment type	2020	2021	% Increase 2020 -> 2021
Credit Cards	0.041%	0.058%	42%
Commercial Cards	0.045%	0.051%	12%
Debit Cards	0.037%	0.045%	23%
Total	0.038%	0.048%	28%

Whilst transparency is needed, so is simplicity. Ensuring retailers have lengthy breakdowns of all possible associated fees may not achieve the outcome of retailers being able to ascertain value and challenge certain fees. Complexity of fee breakdowns is also a concern, and simplicity is vital in ensuring they are understood.

Further, fees and services must be able to be challenged or opted out of without being penalised for doing so. Transparency and simplicity will help retailers better understand if the fees they are being charged reflect value, or in some circumstances if it relates to a service they no longer require.

A recent update from Visa concerns us as they expand their ‘Secure Credential Framework’ to Europe. This tells retailers that they must adopt Visa EMV Payment Tokens in a card-not-present environment, or if not then they will face additional fees. There are many reasons why retailers may not want to utilise tokens, and opting out of services should never be punished by additional fees.

Theme 4

The ‘must-take’ status of Mastercard and Visa-branded cards

Mastercard and Visa definitely hold must-take status for retailers. Our Payments Survey showed that 90% of retail spending in 2021 was on cards, and of the card market, Visa and Mastercard hold 98% market share in the UK. Therefore, should a retailer opt to not accept these cards, they risk losing a large percentage of their customers to their competition.

Further, many of the big banks have recently switched payment networks, moving their customers from one of the card schemes to the other. Given the millions of consumers served by these large banks, retailers cannot afford to isolate such a big percentage of the population and lose customers.

Retailers build loyalty and trust with their customers. They ultimately want their customers to have a positive shopping experience with them. For retailers, it would be detrimental to this relationship to suddenly stop accepting what is likely to be their customers’ main payment type.

It is a market dominant position that cannot be challenged by merchants.

Other than the two large card schemes, there are no other must-take payment options. Many BRC members have committed to keep accepting cash to ensure they do not exclude vulnerable customers, but it is certainly not a must-take in the same way.

We have seen in recent years some merchants stopping taking cash, particularly in areas or sectors where it is unlikely to be a problem (some parts of central London, or sectors such as hospitality, for example), or smaller retailers where logistically cash has become too difficult to manage. Those that prefer cash are likely to have a backup of a card, and it is therefore unlikely that refusal to accept cash would risk losing a large proportion of customers like it would do should retailers stop accepting cards.

Other payment types do not have must-take status.

Are all payment types increasing in cost?

The question arises as to whether the rises in cost are generally reflective of the nature of the market, and whether all other fees are rising at a similar rate.

Our most recent Payments Survey showed that from 2020 to 2021 cash remained constant, costing 2.44 pence per transaction. Measured on a similar scale, scheme fees on average rose from 1.04 pence to 1.25 pence per transaction (a 21% increase), and interchange fees went from 6.39 pence to 6.65 pence per transaction (a 4% increase). Conversely, acquirer fees actually reduced by a fraction from an average of 0.68 pence to 0.66 pence per transaction (a 2.8% decrease).

As is evident, it is not generally reflective of rising costs. Account-to-account and Open Banking providers are able to enter the market with significantly lower fees, evidencing that the fees associated with accepting cards are not reflective of the cost of providing payments in general.

HSBC UK Bank Plc

HSBC UK BANK PLC

MARKET REVIEW OF SCHEME AND PROCESSING FEES:

COMPETITIVE CONSTRAINTS IN CARD PAYMENT SYSTEMS

RESPONSE TO PSR CALL FOR EVIDENCE DATED FEBRUARY 2023

10 APRIL 2023

HSBC UK Bank plc (‘**HSBC UK’**) welcome the opportunity to respond to the Payment Systems Regulator’s call for evidence (‘**CfE**’) on competitive constraints in card payment systems as part of the scheme and processing fees Market Review.

Having reviewed the call for evidence carefully, we are not providing responses to each of the individual questions, but we would like to provide some overarching comments.

Background

In August 2008 HSBC Bank plc entered into a joint venture with Global Payments Inc. in respect of HSBC’s UK Visa and MasterCard acquiring business, HSBC Merchant Services LLP (‘**HMS**’). HMS was 51% owned by Global Payments, with the remaining 49% of shares held by HSBC Bank plc.

In July 2009, HSBC Bank plc sold its remaining shareholding in HMS to Global Payments, with the result that HMS became wholly owned by Global Payments.

On the basis that HSBC UK has not been directly involved in card-acquiring in the UK for over a decade, we are unable to comment on a number of themes identified in the CfE. HSBC UK remains a card issuer and our responses are primarily provided from our perspective as a card issuer and also from a general market viewpoint.

On 22 February 2023, HSBC UK submitted our response to PSR’s Section 81 (1)(b) Request for Information of the Financial Services (Banking reform) Act 2013 (‘**Section 81’**), required as part of the PSR’s Market review of scheme and processing fees and cross-border interchange fees. A number of the themes and questions set out in the CfE have been directly addressed by HSBC UK in the Section 81 submission. The PSR therefore already has HSBC UK’s information and views on:

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

Card Acceptance

We urge the PSR to consider the importance of card acceptance as part of its review.

[redacted]

We note the varying stakeholder views on Theme 4 and the proposed 'must take' status of Mastercard and Visa-branded cards, in a number of retail environments. Whilst we acknowledge the prevalence of MasterCard and Visa within card payments markets, it is important to note that all of the major international card schemes, including American Express for example, are very well established and operate efficiently and effectively in the interests of both cardholders and the businesses accepting payments. We consider that this aspect should not be overlooked when considering the 'must take' status of Mastercard and Visa-branded cards.

[redacted]

Whilst we welcome the PSR's review of considering competitive constraints in card payment systems, we also encourage the PSR to keep all end users' needs and potential unintended impacts at the heart of the market review. For example, it is important to HSBC UK's customers and the UK economy that businesses remain able to accept payment for provided goods and services, whether the end customer lives in the UK or is travelling to the UK for personal or business purposes. We acknowledge the concerns highlighted in the CfE, but we believe there is a need to carefully balance the promotion of competition, against the adverse impacts on end users resulting from potential erosion of card acceptance. HSBC UK encourages the PSR to consider the potential outcomes of the Market Review for both cardholders (UK and overseas) and businesses that currently accept cards.

Ingka Group

Contribution from Ingka Group (parent company of IKEA UK and Ireland)
Ingka Holding B.V. and its controlled entities

Answer to the call for evidence on the Market review of scheme and processing fees

Competitive constraints in card payment systems

About IKEA and the Ingka Group

Since its founding 80 years ago in 1943, IKEA has offered well-designed, functional and affordable, high-quality home furnishing, produced with care for people and the environment. There are several companies with different owners, working under the IKEA brand, all sharing the same vision: to create a better everyday life for the many people.

With IKEA retail operations on 32 markets, Ingka Group is the largest IKEA retailer and represents about 90% of IKEA retail sales (including IKEA UK and Ireland). It is a strategic partner to develop and innovate the IKEA business and help define common IKEA strategies. Ingka Group owns and operates IKEA sales channels under franchise agreements with Inter IKEA Systems B.V. It has three business areas: IKEA Retail, Ingka Investments and Ingka Centres. Read more on Ingka.com.

IKEA opened its doors in the UK in Warrington in 1987. Today we have 20 full sized stores, one city store and one Order and Collection Point, with three Plan and Order Points due to open in the coming months. In December 2022, IKEA UK announced total sales of £2.2 billion for the year ending 31st August 2022[1], which marks double-digit sales growth of 13% compared to the previous 12 months.

Our answers

Question 1: Do you think competition in card payment systems is working well? If not, what would it look like if it did?

We believe that the UK card payment system shows signs that some elements are not working as intended. While competition should have a downward pressure on costs and pricing, we see the opposite being the case, despite interchange fee caps in place:

- **The two-elements of the UK card payment market**, i.e. where networks and schemes are pushing their products to issuers while issuers get remunerated via acquirers, **is leading to an increase in prices**. Schemes incentivise issuers to issue their products, leading to further increases in prices. Consumers are unaware of costs associated to accepting payments, which they implicitly pay. Fees introduced by one scheme (3DS – fees, Transaction Risk Analysis – TRA, etc.) are very often copied and implemented quickly by competitors.

- **The highly complex cost structure hampers transparency for merchants** and limits competition on the ground.
- **Visa and MasterCard dominate the UK card payment market**, accounting for [redacted] of Point-of-Sale (PoS) turnover. Our data as a merchant indicates that [redacted], exacerbating the current state-of-play.

Stronger (domestic) competition should enable lower prices for consumers and retailers. Consumers would also benefit from greater choice at PoS. Merchants could choose not to accept solutions without fearing to lose 50% of their customers – because customers would have access to multiple card applications on their payment cards.

Question 2: What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

Please see Question 1.

Question 3: Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Paragraph 3.10

- *"wide acceptance of cards, combined with open standards, has enabled the development of many alternative payment methods":* Our experience on the ground suggests that no alternative card-based payment methods have been able to emerge.
- *"They also argued that competition from other card schemes, existing alternative payment systems and emerging payments technologies shapes and ultimately constrains the commercial strategies of Mastercard and Visa, including with respect to service features and associated pricing.":* Our experience on the ground suggests an absence of viable competitors to Visa and MasterCard in the UK card payments market.

Paragraph 3.11

- *"These stakeholders highlighted that such positive outcomes include but are not limited to: the low cost of making and receiving payments":* In this context, the concept of "low cost" is relative and could be questioned from a merchants' standpoint.
- *"the ubiquitous acceptance network":* Due to the over-dominance of Visa and MasterCard on the UK card payment market, merchants have little choice but to accept their payment solutions.
- *"the security and resilience of payments supported by card payment networks":* This positive outcome materialised but was also triggered by legislation; the extent to which schemes' propositions exceed legal requirements is yet to be borne out. Domestic schemes have proven as efficient and resilient, if not more so, than Visa and MasterCard, and reduce dependency on non-UK actors.

Paragraph 3.12

- *"Competition in payments is about the choices that different participants in the value chain can make, which may involve an initial funding stage before the payment stage.":* Our experience as a merchant suggests the opposite: consumers have no choice, as they are bound to make payments via the network that their issuing bank predefines.
- *"The payments value chain has multiple different levels: from banks to payment intermediaries, to end users (both consumers and merchants). There are multiplechoices at each different level.":* Our experience shows multiple choices, at different levels are not available on the UK card payment market, except for issuers being able to choose the network that will be providing card services for their end-users. In practice, merchants making any other choice will incur losses in sales.
- *"While issuers' choice of card scheme may be fixed over a certain period, other choices, such as a consumer's choice over which method of payment to use, can (and often do) vary between each transaction (and merchants may try to influence this).":* Our experience as a merchant suggests that consumers have choices at PoS only between cash and card payments, but not across card payments.
- *"Recent market trends and technological innovation have greatly increased the range of methods that consumers and merchants can use to pay or be paid.":* The range of methods that consumers and merchants can use to pay or be paid has greatly increased, but this development has not led to an increase in competition in the UK card payment market.
- *"Payment schemes are the result of coordination of the activities and incentives of many specialised functions that interact in complex ways.":* We agree with this point as the four-party model is highly complex and extremely non-transparent as a result. The previously referenced advances in competition refer to exclusively three-party models, to which this statement does not apply.
- *"Pricing as a whole is set in order to encourage activities that are beneficial for all users of the system (such as fraud prevention for individual customers/businesses or system-wide improvements and innovation).":* The pricing models of the four-party schemes are highly complex and extremely non-transparent as a result.

Paragraph 3.13

- *"Consumers decide which paymentmethods they want to adopt (for example, which card brands to carry, which payment apps to register with) and which one to use for a specific transaction.":* We disagree with this statement. Though consumers decide which bank they are affiliated with, they do not choose the card brand that their bank uses.
- *"Consumers decide which payment methods they want to adopt (for example, which card brands to carry, which payment apps to register with) and which one to use for a specific transaction.":* In practice, due to the lack of competition merchants have little choice but to accept card-based payments, involuntarily contributing to Visa and MasterCard's dominance.

Paragraph 3.14

- *"Proponents of this view noted that before consumers can make payments, there is a funding stage that is important for competition.":* The design and operation of a four-party model should not inhibit actors such Visa and MasterCard from competitive charging and pricing, as domestic schemes from other European markets operating under the same model do.

Paragraph 3.15

- *"Some stakeholders, including Mastercard and Visa, highlighted that the choice between payment methods for both merchants and consumers is influenced by the requirements of the specific payment transactions. (…) As a result, competition differs depending on the payment type, and competition in payment services is based on multiple product dimensions alongside price, including security, convenience and consumer protection considerations.":* Competing payment instruments reduce complexity and offer a more homogeneous experience across the different customer journeys. Consumer protection would still apply.

Paragraph 3.16

- *"Mastercard and Visa each stated to us that competitive dynamics are complex also due to the range of specialised activities that form part of a payment system. They explained that the role of the payment system operator in a four-party card scheme is wide-ranging, ":* We acknowledge this point but would like to also highlight that domestic schemes are able to do exactly the same, if not more efficiently, at a competitive price.
- *"working with others to promote the adoption of new technologies":* "incentivising" might be the better word in this context than "promoting".

Paragraph 3.18

- *"Mastercard and Visa both indicated that there is increasing availability of these alternatives":* We acknowledge this point but would like to also highlight that the underlying payment instrument will in almost all cases be a card-based payment method that is issued either under a MasterCard or Visa network.

Paragraph 3.19

- *"Under such a view, four-party card payment schemes are a key enabler of further innovations that – in some cases – present a competitive threat to the card schemes themselves":* Our experience as a merchant suggests that this statement is incorrect.
- *"various digital and mobile wallets and buy-now-pay-later (BNPL) providers have successfully entered and acquired consumers and merchants in the UK, leveraging the infrastructure created by either Mastercard or Visa (or other international card schemes).":* Our experience as a merchant suggests that this statement is incorrect.

Paragraph 3.20

- *"Examples include Klarna Pay Now, Pay With Bank Transfer (developed by American Express) and GoCardless."* These products are still only niche products that do not compete with card payments.
- *"Apple Pay, Google Pay and Samsung Pay (…) have developed increasingly strong relationships with final consumers, to the extent that they are seen to 'own' the customer relationship":* These solutions remain card-based payment methods that use either a tokenised Visa or Mastercard.

Paragraph 3.21

- *"Mastercard and Visa argued that pricing for scheme and processing fee services would be constrained (…)by potential entry and growth from new operators."* : As a merchant we do not see any new operators entering the UK card payment market.

Question 4: Please provide evidence and/or views on the extent to which Mastercard and Visa are currently competitively constrained (or likely to be competitively constrained in the near future) in their ability to set their scheme and processing fees (in general or for certain services), on either the issuing or acquiring side, by:

- Other card payment systems: We see no constraints on Visa and MasterCard through this angle, as no other card payment systems are available in the UK card payment market.
- Other payment systems: We see limited constraints on Visa and MasterCard through this angle. Other payment systems hold very small market share: only [redacted] for e-commerce sales and no alternative at PoS except cash. [redacted]
- Other payment intermediaries who use Mastercard and Visa infrastructure: We see no constraints on Visa and MasterCard through this angle because the underlying instrument is a card-based payment. Apple Pay is notably recovering costs from issuers, not schemes.
- Other third parties – for instance, providers of specific services such as authentication, clearing or fraud detection: We see no constraints on Visa and MasterCard through this angle as no competing providers of authentication services are available apart from EMVCo-owned 3DS. Card-based payments are in most cases cleared using the card infrastructure. With regards to fraud detection, merchants can use proprietary solutions but have to pay for them separately.
- The existence of shared standards and protocols between or within schemes: We see no constraints on Visa and MasterCard through this angle because standards are shared and protocols exist between and/or within schemes.

Question 5: Do you agree that users have different payment options, which can reflect either the requirements for specific transactions or the characteristics of the available payment methods? In particular, it would be helpful if you could reference the choices

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available to different groups of users (consumers, merchants, issuers and acquirers) and expand on:

a. the needs of those who want to make payments and of those who want to receive payments, and how issuers and acquirers cater for those needs

Consumers can choose which payment method they want to use. However, their choice is very limited at PoS due to technological and convenience-related constraints, leading the vast majority of consumers to pay with their Visa or MasterCard card.

Consumers have more choices on remote sales channels, where competing means of payments are available to them, but many merchants may decide not to offer these alternatives because of the high costs associated with their use. Ultimately, all consumers are bound to hold a Visa or MasterCard card in their wallet.

Because Visa and MasterCard's market share is very important, **merchants** have no choice but to accept Visa and MasterCard's payments. Alternatives are available in the e-commerce space [redacted]

b. the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems have few alternatives

Card-based payment systems have **few alternatives specifically for payments at PoS** as merchants cannot turn down acceptance of card-based payments because of their relevance. Customers will very likely hold in that situation a Visa or MasterCard case in their wallet.

c. the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems would be easier to substitute with other payment systems

The introduction of a seamless, cost-efficient and widespread mobile payment solution based on account-to-account or e-money would prove most relevant. Typically, wallet-based solutions become relevant in the e-commerce space before migrating gradually towards physical PoS. Low-value transactions such as a kiosk in a fast-service delivery environment are most relevant for such solutions.

d. any studies you are aware of on the relative frequency and importance of the different types of payment transactions

National central banks and the European Central Bank (ECB) release on a regular basis information relative frequency and importance of the different types of payment transactions while **industry journals** regularly publish reports, e.g., papers with Payment Method Reports.

Question 6: What are the main factors that limit the entry and/or expansion of payment schemes other than Mastercard and Visa? To what extent do those factors result in limited entry or expansion and how does limited entry or expansion affect the competitive constraints on Mastercard and Visa in setting the level of scheme and processing fees?

At issuing level: MasterCard and Visa have extensive resources at hand to promote the issuance of their products vis-à-vis those of their competing or any upcoming schemes.

At network level: Investments are vast as new entrants face high barriers to entry in a very mature market under complex regulation. These high barriers enable Visa and MasterCard to unilaterally increase scheme fees without having to fear to lose business.

At consumer level: Incumbents make use of their resource to market their products to the end-user (e.g., Olympics Games, Union of European Football Associations – UEFA) while consumers lack awareness on the costs associated to accepting payments.

Question 7: To what extent do you agree with the view that the fees Mastercard and Visa charge to issuers and acquirers for scheme and processing services are 'largely reflective of the value' of those services? To what extent do you consider fees for scheme and processing services to be reflective of the costs of providing those services? Please provide examples and explain to what extent you think 'being reflective of the value' or 'cost-orientation' are relevant criteria in assessing the competitiveness of such fees.

Visa and MasterCard's network cost structure is highly non-transparent. Subsequently, merchants have no insights as to determine whether the costs charged reflect the costs of providing the service.

Yet, as a merchant, **we observe continuous increases of scheme fee for individual components of transaction processing or scheme fees on top of more generic categories of scheme fees**. Schemes also collect fees under "market development fund" or "innovation fund", on which merchants have no insights on their use and why they should contribute to such funds. Merchants are given the understanding that all such network fees are charged to the merchants on a passthrough basis such that acquirers are operating on no-gain/no-loss basis with respect to network fees. However, pricing models of different acquirers indicate that network fees are "passed through" inconsistently – showing the highly complex nature of scheme processing fees.

Despite lower network effects, **domestic schemes are able to provide service to end users at lower costs** compared to Visa and MasterCard while complying to same regulation as international networks.

Question 8: Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Our answers above support all statements made under Theme 2.

Question 9: How would you describe the nature and intensity of competition between Mastercard and Visa for issuers and cardholders? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

As mentioned by Theme 2, consumers are indifferent to whether their card bears a MasterCard or Visa logo. Therefore, **MasterCard and Visa compete for the issuers rather than end-users.**

b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to issuers?

[redacted]

c. Do issuers currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

We do not know of any credible alternatives to this date.

d. Does the intensity of competition between Mastercard and Visa differ between issuers? For example, does the negotiating power of issuers vary with certain characteristics?

Merchants do not have the visibility necessary to answer this question.

e. Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by issuers, or for specific requirements of different transaction types?

To our knowledge, this is not the case.

Question 10: How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

We do not observe direct competition between Visa and MasterCard in the acquiring or merchant business.

b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?

As mentioned in Theme 2, **acquirers have no ability to differentiate between Visa and MasterCard schemes in terms of acceptance** because of the dominant position of both players and hence the merchants' requirement to accept both. [redacted] shows that those incentives are targeted to reduce competition towards domestic schemes instead of competing between themselves. This suggests that Visa and MasterCard could be cooperating to maintain a dominant position. Competition between Visa and MasterCard can really be observed only on the issuing market.

c. Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

Competing means of payment are either **not mature enough** to seriously challenge Visa and MasterCard, **or based a Visa or MasterCard payment instrument**. As a result, they carry a premium cost for merchants.

d. Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?

We as merchants observe differences in passthrough across different acquirers.
Whether this difference comes from the highly non-transparent nature of scheme and fee processing or from bespoke offers is not known to us.

e. Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?

To our knowledge, this is not the case.

Question 11: Can you describe, to the extent you consider that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?
We do not know to what extent processing or scheme fees can be raised to issuers. However, it will be in the scheme's interest to **keep fees levied to issuers as low as possible to incentivise cooperation**. We consider it more likely that scheme and processing fees would be raised towards acquirers. Regardless on which side of the market fees are being levied to, ultimately higher fees will always be passed on indirectly to end-consumers..

Question 12: Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Paragraph 3.30

- *"Merchants have poor visibility of the specificity of scheme and processing fees that they are paying. Where acquirers don't clearly present scheme fees, processing fees and their own fees separately to their customers, merchants may struggle to exercise choice about potential alternative suppliers of scheme, processing or acquiring services, to bring down their own costs.":* Acquirers not being able to clearly present scheme and processing fees is **based on the underlying complexity of such fees** and not, as could be interpreted, lack of effort or intent on the part of acquirers. We as merchants have direct experience with acquirers working hard to remedy the lack of clear presentation of fees. Effective cost-control of scheme and processing fees is impossible for merchants as the basis for passthrough is not visible to the merchant. All scheme and processing fees passed through to the merchant must therefore be taken at face value – no checks possible to verify correctness of such fees.

Question 13: Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

We are not able to answer this question as we are not sure in what context "financial flows" are referred to.

Question 14: Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

We believe that **the complexity of scheme and/or processing fees is an obstacle to effective competition and, more so, is a symptom of a lack of competition**. The complexity of fee structures imposed by the schemes make it almost impossible for merchants to understand what they are being charged for. Benchmarking acceptance fees against competing means of payment becomes very challenging. The complexity and resulting lack of understanding from merchants can easily be exploited by the schemes to increase prices or introducing new fee components unilaterally and covertly.

If fees were made less complex and more transparent, merchants would very likely face lower fees. As a result, merchants would benefit from better cost-control possibilities and more efficient benchmark opportunities [redacted]

Question 15: Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Paragraph 3.32

- *"Some stakeholders said that Mastercard and Visa-branded cards have long been defined as 'must-take' for merchants, within the established case law that led to the introduction of the IFR. Once a merchant starts accepting card payments, they are unlikely to stop as that would put them at a disadvantage against competing merchants and risk them losing sales.":* We agree with this statement should it refers to internat ional, mono -badged card payments only and ignore s domestic schemes and co-badged cards.

Paragraph 3.3 9

- *"Some stakeholders also stressed the self-reinforcing nature of this problem. In their view, card scheme operators that have 'must -take' brands are in a strong position to potentially hamper the development of alternative payment types that could – in the long run – exercise a competitive constraint on them, even if just in some particular use cases or for specific groups of users." :* We observe an increasing pattern of Visa and MasterCard buying out potential challengers entering the market, which is an alternative strategy of hampering competition in the market .

Question 16: Would you describe Mastercard and Visa as 'must -take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:

a. Do merchants have any alternatives to accepting both Mastercard and Visa -branded cards if they decide to accept cards? In what situations or under what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?

Both Visa and MasterCard products are "must take" for merchants and acquirers in light of their market dominance . No viable alternatives exist to substitute these products

b. Do acquirers need to sign up with both Mastercard and Visa to have a viable business model? In what situations or under what conditions is it a viable option for an acquirer to sign up with just one of these two? What would be the consequences for the acquiring services offered to merchants?

We believe that acquirers need to sign up with both Mastercard and Visa to have a viable business model . If acquirers did not participate to both schemes, they would not be considered relevant for the merchants for the reasons outlined in Theme 4 .

Question 17: How do you think that the optionality of different services related to Mastercard and Visa payments has changed in recent years? When answering, please also consider and provide specific examples on the following aspects:

a. Which of the services offered (and fees charged) by Mastercard and Visa are unavoidable for issuers (and cardholders) and/or for acquirers (and merchants) that want to participate in the Mastercard and Visa schemes?

On the issuing side, we cannot comment on (unavoidable) fees as we lack insights.

On the acquiring/merchant side, in respect to payment acceptance services , we consider that all fees levied under scheme and processing fees are unavoidable since merchants have no opportunity to reject or challenge any particular fee, or indeed transfer the service to a third party. In respect to ancillary payment services, such as network tokenisation services, merchants will not be charged unless they opt in and fees can be negotiated. Schemes may utilise scheme fee changes to incentivise the merchant to procure ancillary services from the schemes directly instead of purchasing from third parties .

b. Which services can instead be procured from third parties (or simply rejected)? Who are these third -party providers and, if you have used these, what has been your experience with their services?

Optionality of services is only available for ancillary services but not for core card - payment acceptance services. The following services can be provided either by MasterCard and Visa directly or by third parties: fraud services, tokenisation services, gateway/orchestration services and open banking services. The following services can only be provided either by MasterCard or Visa: advisory services based on cardholder payment data.

c. How does the situation regarding the optionality of services affect the ability of different users to optimise their costs?

Optional services are directly negotiated and contractually set. Users of the service have the full ability to optimise their costs. Again, this only holds true for ancillary payment services, and not for core card -based payment acceptance services.

For further information, please contact:
Ingka Group Finance
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Innovate Finance

MR22/1.4: Competitive constraints in card payment systems call for evidence

MR22/1.5: Approach to profitability analysis working paper

Innovate Finance response to the PSR call for evidence and working paper

About Innovate Finance

Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Innovate Finance's mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

The UK FinTech sector encompasses businesses from seed-stage start-ups to global financial institutions, illustrating the change that is occurring across the financial services industry. Since its inception following the Global Financial Crisis of 2008, FinTech has been synonymous with delivering transparency, innovation, and inclusivity to financial services. As well as creating new businesses and new jobs, it has fundamentally changed the way in which consumers and businesses are able to access finance.

Introduction and key points

Innovate Finance welcomes the opportunity to respond to PSR MR 22/1.4 and 1.5.

In preparing this response, we have consulted with our FinTech start-up and scale-up members that span the issuer and acquirer sides of the discussion. All members are aligned that there is an urgent need to explore constraints on competition and innovation in card payment systems.

Given the competition law considerations around sharing commercially sensitive data, we recommend that the PSR engages bilaterally with our members and the wider FinTech ecosystem.

For transparency, we recommend that the PSR sets out publicly how it intends to engage with a diverse cross-section of industry players to explore these issues in detail.

[ENDS]

John Lewis Partnership

Background

This paper contains the John Lewis Partnership's response to the call for evidence on the Market Review of Scheme and Processing Fees - Competitive Constraints in Card Payment Systems.

While there are 17 questions in total in the paper, we have selected a subset of questions to respond to - namely questions 2, 3, 8, 10, 12 and 15 - to complement our earlier response to the PSR's questionnaire relating to the scheme and processing fees market review (sent on 3rd March 2023).

Questions and Responses

Question 2. What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

The key aspects would be the lack of competition and dominance of Visa & Mastercard in the UK market, meaning that Merchants wanting to ensure they gain (and maintain) Customer market share need to accept both Visa & Mastercard payments and therefore ultimately the fees charged for accepting them. Themes 2, 3 & 4 of this Call for Evidence are all relevant in capturing how the (lack of) competition impacts the setting of scheme and processing fees:

- **Theme 4**: The 'must-take' status of Mastercard and Visa-branded cards is particularly true in the UK market where there are no local card schemes and Visa and Mastercard both have a high degree of penetration.This lack of competition means the Schemes do not need to be as competitive when setting fees and therefore have the ability to set and impose fees on Merchants with no prior consultation or negotiation. (Merchants have historically had to have any scheme fee-related discussions with the Acquirer and not the Scheme directly or as part of a 3-way discussion).

- **Theme 2** (Differences in the competitive dynamics on the issuing and acquiring sides): Merchants and therefore Acquirers need to offer both card schemes (Visa & Mastercard) as cardholders do not exhibit strong brand preferences towards card scheme operators and effectively accept the one offered by their issuing bank. Acquirer and Merchants therefore have limited bargaining power whereas Issuers are often incentivised by the card schemes who want to acquire their Business and therefore have greater leverage to negotiate. As a result, the burden of any increase in such fees falls disproportionately on Acquirers and ultimately Merchants.

- **Theme 3** (The impact of transparency on competitive pressure at all levels of the value chain): There is a lack of clarity and transparency on card scheme and processing fees which means that Merchants often do not understand why fees are being introduced or increased or what they relate to specifically. As a result, Merchants are not sufficiently informed and not in a position to challenge these fees and time and effort is invested in better understanding the fees as opposed to challenging and negotiating them. This ultimately meaning less competitive pressure on the card schemes to set fees in a fair and competitive manner.

Question 3. Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

The low cost for making and receiving payments, mentioned as a significant positive outcome for merchants by some stakeholders - primarily Visa and Mastercard, does not resonate with us as a merchants as we have seen that the costs for processing card payments have increased considerably, particularly in the period between 2020 and 2023 (as referenced in our response to the PSR's Scheme and Processing Fees questionnaire.)

Furthermore, given the deep market penetration by both schemes in the UK and the lack of alternative card schemes, we do not fully agree with the argument that competition from other card schemes constrains the commercial strategies of Mastercard and Visa, as these card schemes (i.e. AMEX) represent a small % of market share and of our own overall transaction volume, limiting the competitive influence it has over Mastercard and Visa. While we agree that there is competition between Mastercard and Visa, this is mostly relating to signing up Issuers and thereby their cardholder base; from the Merchant's perspective, the competition between Visa and Mastercard does not result in competitive advantages as we more often see fee increases vs. reductions and where one of the schemes increases their schemes fees, the other one usually follows suit (resulting in higher fees across both card schemes for Merchants to pay).

We believe it is to a limited degree that existing alternative payment systems constrain the commercial strategies of Mastercard and Visa (with respect to service features and associated pricing) as BNPL propositions and digital wallets (such as Apple Pay and Google Pay) are not substitutes for card scheme operators and are a layer on top of the Visa and Mastercard (or any other) card scheme infrastructure, with all such transactions incurring transaction fees to be paid to the card schemes. These propositions also create opportunities for additional pricing by the card scheme operators.

We agree with the statement that consumers decide which payment methods they want to adopt; however, not with the point that they choose which card brands to carry as typically cardholders have a direct relationship with their issuing banks and not with the card schemes. Furthermore, Cardholders are generally not in a position to decide which card brands to carry as this is determined by the Issuing Bank they bank with (and can change, as we have seen in recent years with the move of Banks such as Santander and Natwest from Visa to Mastercard).

Regarding there being multiple choices at each different levels of the payment value chain, including when stakeholders choose different payment services and different service providers, it is important to note that Merchants can only influence the payment service provider (PSP) costs associated with card transactions and have much less bargaining power with respect to determining the actual scheme fees charged by Visa and Mastercard. Scheme fees are usually passed through to us as part of the Interchange ++ model that we follow with our acquirer and there is no negotiation on these.

We agree with the other positive outcomes of card payments offered by Visa and Mastercard such as:

- Their ubiquitous acceptance network and their coverage across the UK

- The security and resilience features such as 3DS and extremely high availability

- Consistent processing standards

We also agree that competition varies based on the payment type, evidenced by the fact that for merchants, competition has been working much better in new payment types such as BNPL (e.g. where key providers such as Klarna and Clearpay will incentivise Merchants to partner with them through how their fees are set and/ or marketing funds) vs. traditional card payment scheme operators.

Question 8. Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

The points articulated under Theme 2 resonate well with us from a merchant perspective, particularly the below ones:

- Mastercard and Visa have strong bargaining powers with merchants & acquirers due to their wide acceptance and limited penetration in the UK market by other card schemes. This is evidenced by the fact that new fees or fee increases are regularly introduced and acquirers & merchants have no choice but to pay these if they wish to continue to accept and process Visa & Mastercard payments.

- There has been a further move away from cash due to the pandemic and has been demonstrated in our own figures where looking at the overall breakdown of payment methods taken in our stores, we have noticed the decline in cash as an overall percentage since the pandemic.

- Alternative payment methods still rely on Visa & Mastercard as a scheme operator. For example, Apple Pay & Google Pay (both digital wallet payments) rely on a card funding instrument (often a Visa or Mastercard card) as do many Buy-Now-Pay-Later (BNPL) payment methods such as Klarna or Clear Pay or PayPal Pay Later. Additionally, both Visa & Mastercard have their own Open Banking Pay-By-Bank solution, creating a stake for themselves in an alternative payment method market which otherwise would offer true and potentially strong competition to the card schemes.

- Cardholders do not exhibit strong brand preferences as typically cardholders have a direct relationship with their issuing banks and not with the card schemes. Cardholders typically choose a Bank and then go with the scheme offered via their Bank - e.g. with the move of Banks such as Santander and Natwest from Visa to Mastercard in recent years, it is unlikely that Customers would have changed Banks purely based on the change of card scheme.

- There is competition between the card schemes to increase their share of cardholders and therefore they focus their efforts on attracting issuers. Merchants, however, are generally not offered incentives to promote a specific card brand to their customers and where these agreements do exist, the card schemes are moving away from this commercial incentive model.

- We also believe it is true that acquirers remain largely unaffected by fee increases due to the fact they pass through the scheme fees via the Interchange ++ pricing model to merchants. However, there could be situations where contract rates between acquirers and the schemes might be influenced by the number and brand value of merchants onboarded with the acquirer, thus increasing/ decreasing their negotiating power.

- While we cannot comment on whether increases in scheme and processing fees (combined with rebates and incentives for issuers) could be a potential circumvention of the IFR, we can confirm that as a Merchant we have been impacted by significant increases in scheme fees over the past few years.

Question 10. How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?

c. Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

d. Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?

e. Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?

From the merchant standpoint, we understand that there is a degree of competition as well as collaboration on standards between Visa and Mastercard, resulting in similarity of features offered by both these card schemes to merchants. However, the similarity also extends to when one of them introduces a new fee and the other more often than not follows suit shortly after.

We believe there is some level of competition in the way that Visa and Mastercard set scheme fee levels for merchants and acquirers as the scheme and processing fees set by both of them differ considerably for merchants (in our experience). [redacted]

On point b, we know that 1 of the schemes has historically offered bespoke incentive deals (classed as 'transaction support') for some merchants. However, this is potentially moving to more of a funding model where adoption of their products and services is incentivised through offering a level of funding to merchants to support costs of implementing such products and/ or services. This is already the model used by the other card scheme.

In terms of credible alternatives to Mastercard and Visa, given their high degree of penetration on the issuing bank side and therefore level of consumer adoption in the UK, there is no alternative card-scheme which offers merchants a sizeable share of the market and customer base; these other card schemes (i.e. Amex) are complimentary to but not a substitute for Visa & Mastercard, particularly as they have historically catered for a specific and more affluent Customer demographic vs. the mass market.

We do believe that Open Banking provides a credible alternative to card payments via Visa and Mastercard - and potentially the only real alternative currently in the UK market - but it needs to mature and evolve to ensure greater consumer and therefore merchant adoption. A wider payments ecosystem adoption (e.g. UK Banks) would make this payment method option more compelling and viable. Speed and ease of adoption - i.e. integration of the likes of Pay by Bank - depends on merchants' technology architecture and infrastructure and factors like if the payment method is offered via an existing payment service provider would reduce the overall effort to implement.

In terms of points d & e which relate more to the dynamics between the schemes and Acquirers, we are unable to comment on the intensity of competition between these 2 parties.

Question 12. Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We agree with the 2 points covered in the statements under Theme 3:

- There is a lack of transparency and complexity in understanding scheme and processing fees, even for merchants like us who follow an Interchange ++ model with our acquirer where scheme fees are passed directly through to the merchant. While we receive a monthly statement report from our acquirer, with a level of breakdown by each fee type, the breakdown is limited to how our acquirer/ Visa & Mastercard have categorised the fees and therefore not all fees are broken down to the right level of granularity for us to truly understand what they relate to and equally the descriptions provided are often insufficient and require interpretation and explanation.

- This in turn leads to higher operational costs for merchants, as dedicated resources are required to review and query the fees charged to firstly ensure they are better understood (i.e. what we are being charged for and why), and assess them with the transaction volumes and sales across various channels. The lack of transparency and resulting time & effort needing to be spent on understanding scheme and processing fees, along with insufficient fee breakdowns, means that there is limited ability and capacity for merchants to challenge the fees effectively and therefore we cannot easily or accurately gauge the competitive pressure faced by Visa and Mastercard across the card payment value-chain.

Question 15. Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We broadly agree with the assessments made under Theme 4, in particular:

- We have to accept both Visa and Mastercard branded cards if we want to compete for market share in the UK and appeal to the large base of Customers who are Visa and/ or Mastercard cardholders to gain their custom. [redacted]

- We would definitely expect any acquirer we work with for card payment processing to offer both of these card scheme operators and in this respect, also agree there is a 'must-take' status for Acquirers too. Acquirers and Merchants therefore have to accept the Visa and Mastercard scheme and processing fees as a result and this does give Visa and Mastercard leverage when setting these fees.

- As a merchant, we have been impacted by significant increases in scheme fees over the past 3 years and do believe that these fees require closer scrutiny.

- We agree that while some services provided by the schemes and their associated fees are unavoidable, there has also been an indirect increase in fees, evidenced by the introduction of fees for 3DS and other behavioural fees which both of the schemes have introduced.

- Where theme 4 references Visa and Mastercard hampering the development of alternative payment types which could introduce competition, both card schemes are keeping their 'skin in the game' with emerging alternatives such as Open Banking/ Pay by Bank transfer and therefore it is fair to say diluting the competition in this space.

Finally, as mentioned earlier, based on the information we receive today where greater clarity is needed to understand why certain fees are charged, we can confidently say more clarity and granular detail will be needed on Visa and Mastercard fees as part of evaluating the services and understanding avoidable and unavoidable fees.

Mastercard

Mastercard response to PSR Call for evidence ‘*Market review of scheme and processing fees: Competitive constraints in card payment systems MR22/1.4*’

17 APRIL 2023

Introduction

Mastercard welcomes the opportunity to respond to the PSR's Call for Evidence. We would like to make two overall comments.

First, the PSR had previously signalled that it intended to publish a working paper setting out its initial thinking on competitive dynamics. The Call for Evidence paper does discuss a number of themes, but we are concerned in particular about the lack of an appropriate framework to assess the functioning of the payments landscape. Such a framework should also provide a well thought-through appreciation of the economics of payment services, which is absent from the Call for Evidence paper.

Without a framework, there is a real risk that PSR's assessment will not be robust and instead suffer from a misconceived view of how competition in payment services actually works.

Second, the PSR appears to be focusing on an artificially narrow segment of the market. We note that although the PSR does not explicitly define 'retail environments' in the Call for Evidence , its focus in some of the Themes means that the PSR does not cover many types of payment where Mastercard is competing for volume. There are many merchants, such as those providing professional services or high value products/services, which do not accept cards and for who bank transfers or cash are the only accepted payment methods.

In addition, although the PSR is including commercial cards within the scope of the review, it appears not to be examining competing providers of business-to-business payments, despite the competitive constraints which they provide on commercial cards, which currently have a small share of B2B transactions. The PSR also appears not to be considering either person-to-person or government/business-to-consumer payments, where cards also currently account for a small proportion of the transactions.

It is not possible to evaluate the competitive constraints which apply to Mastercard without understanding the wider payment landscape in which Mastercard's cards operate and the nature and effectiveness of competition within it.

The PSR will of course be aware that when considering payments services as a whole, the vast majority of payment transactions which *could* take place on Mastercard cards, do not in fact take place on Mastercard cards. Mastercard's overall share of payments is limited because of the wide range of alternative payment methods available and the preference for those alternatives often expressed by merchants of every kind. Indeed, Mastercard estimates that Mastercard transactions account for 11% and 4% of payment transactions in the UK in 2021, by number and value of transactions respectively.[1]

Therefore, by disregarding all of these very real and effective forms of competition and instead limiting its assessment only to alternative providers of Mastercard scheme or processing/switching services, the PSR is presenting a very distorted view of the payments market.
Mastercard's response to the Call for Evidence consists of the direct responses in this document and two reports: i) 'Mastercard's scheme activities—changes over time'; and, ii) 'The competitive landscape for payment services in the UK', which was commissioned from Oxera.

[1] Mastercard estimate based on UK Finance data. Percentages calculated as UK-issued Mastercard card transactions, as a share of payment transactions in the UK in 2021 (cash, cheque, cards, direct debit and faster payments). This may be an overestimate of Mastercard's share since the calculation excludes all CHAPS and BACS credit transfers and some of these are also likely to be relevant.

The 'Mastercard's scheme activities—changes over time' shows the breadth of the changes made in scheme activities over time, how Mastercard continues to innovate in response to competition and how its value proposition has evolved. 'The competitive landscape for payment services in the UK' report provides a detailed analysis of the competitive dynamics and constraints on Mastercard's fees, and ultimately the market outcomes that emerge from these.

Question 1
Do you think competition in card payment systems is working well? If not, what would it look like if it did?

As noted above, Mastercard is concerned that the PSR is taking an overly narrow view of payments by focusing on credit and debit card services. Cards are part of a much broader payments landscape with particular structural and economic characteristics that affect the competitive dynamics at play.

Therefore, in order to address this question, it is first necessary to establish an analytical framework to understand and assess the payment systems landscape similar to those commonly used by the Competition and Markets Authority ('CMA') and Financial Conduct Authority ('FCA'), as well as other regulatory authorities in their market reviews and studies. This framework should consider:

- Key economic characteristics– particularly the economic concepts of two-sided network effects[2] and multi-homing[3] and the implications for how competition in this markets works.
- Market structure and composition of the payments landscape.
- Competitive process and dynamics– how the identified economic characteristics of the industry shape the dynamic process of firm strategy and consumers' choices.
- Analysis of market outcomes for consumers and merchants using payment methods in the UK.

Such a framework allows for a better understanding of the relevant outcomes that are generated by the market, and how these compare to the situation we would expect to see if competition is working as expected.

Broader payments landscape
The payments landscape in the UK encompasses many different types of transaction. These can be categorised in various ways, for example according to who is making or receiving the payment (including consumers, government and businesses), the value of the transaction, whether the transaction is in store or remote, the extent to which the payment is recurring, or the type of merchant sector. Across these various categories, consumers and merchants have a range of payment methods available to them (including cash, debit and credit cards, Direct Debit, Faster Payments, Buy Now Pay Later (BNPL) services credit-transfer based payment methods, and digital wallets among others).
Some payment method providers may only operate in specific segments, while others (such as cards) operate in a wider range of segments. For many payment methods (including cards in the UK) the product offer will be largely the same across these different sectors. This means that a card scheme (and other providers of payment

[2] Payment systems bring together consumers who wish to make a payment, and retailers and other types of recipients who adopt the means to accept payment. Payees want to be able to accept payment with a system that payers are able to use; similarly, payers want to have access to systems that payees typically accept. This means that the attractiveness of participating in a payment system is a function of the level of participation on the other side of the market—a 'network externality'.
[3] Multi-homing refers to the participation of users in more than one payment network. In the case of consumers, it means that they have access to more than one payment method. In the case of merchants, it refers to them accepting more than one payment method.

methods) will need to make sure its product is competitive in all segments in which it operates in order for it to be able to increase its market share.

Different payment methods may be used to various extents within each segment. Therefore, the need for various payment methods to compete in order to maintain or grow their share in each segment has competitive effects on the other segments in which they participate.

This means that while card schemes have become a widely used payment method in some segments, in other segments where for example credit transfers (with invoicing) is the primary payment method, card schemes seeking to expand their share of transactions will only be successful if their product is competitive in terms of innovation, quality and price.

By restricting its thinking to card payment systems, the PSR is taking an overly narrow approach to assessing the competitive dynamics in the payment services landscape.

Competitive dynamics

Payment systems are able to support sustainable competition, even though they are characterised by strong network effects. Multi-homing (i.e. holding/accepting more than one payment method) on both sides of the market is common in payment systems, and increasingly so due to technological developments and regulatory changes such as the introduction of Open Banking. This network-to-network competition is further supported by the prospect of tipping points. In particular where one payment method offers substantial mutual advantages to merchants and customers when compared to rival payment methods, widespread multi-homing can be expected to facilitate rapid switching to that payment method. The threat of merchant steering and entry of new providers, and risk of tipping points create competitive pressure on incumbent payment networks simply to maintain their share of transactions. Importantly, this pressure will drive behaviours among incumbents, even if significant volatility in shares of transactions is not observed.

The competitive process should be assessed by analysing the ways in which providers compete. This includes:

- an analysis of competition for the customer base (acceptance by merchants and holding by consumers),
- the use of payment methods at the point of sale (online and in-store),
- front-end and back-end competition which represents a structural change to the value chain
- multihoming and steering and new entry and their impact on incumbent providers.

Aware of the risk of steering and entry, incumbent payment networks will need to compete on innovation, quality and price in order to maintain market share, thereby creating competitive outcomes in the payments market without necessarily significant volatility in market share.

Market outcomes

These features of the market and competitive dynamics mean that we can observe the following market outcomes:

- **Volumes** continue to shift towards more efficient methods, as payment players compete to expand and continue to displace cash and cheque. Certain merchant types (e.g. smaller merchants) and segments (e.g. tradespersons) increasingly have options to accept payment via more efficient methods, such as cards, Faster Payments bank transfers and digital wallets, among others. This in part, has been made possible through continued innovation—to a large extent driven and facilitated by, card schemes. This innovation has improved the services provided to end users through the whole UK payments ecosystem.

- **Innovation** has also been introduced directly by new entrants using new technologies and new propositions. In turn, this has driven existing players continually to develop their own propositions in order to keep a competitive position in the payments landscape. This innovation has delivered and continues to deliver good outcomes for merchants and consumers.
- Greater **choice** of payment methods and an increased **quality** of payment methods. Both consumers and merchants typically have a variety of options for any given payment. Although all payment methods provide a minimum level of service, they vary significantly in their product features (for instance the degree of buyer protection that is offered).
- the **pricing** of various payment methods, which reflects the variation in product offering (for more detail, see response to question 7 and the Oxera report on the competitive landscape). The credible threat of new entry acts as a source of competitive constraint on existing pricing of incumbents. The trends observed in terms of volumes, innovation, quality and choice are consistent with the pricing of the provided services. The average fee per Euro transacted paid to Mastercard has not increased significantly since 2017. Specific fees have changed reflecting improved value and service quality through Mastercard's innovation in the main features of the scheme. This results in an overall increase of mandatory acquirer fees of 3.1% p.a., on average.

The market outcomes that can be observed in the UK payment landscape are consistent with a well-functioning market, characterised by providers being competitively constrained by other providers, new entrants and the credible threat of further entry. We also note the pace of innovation has increased with new propositions (or material improvements to existing propositions) such as development of BNPL, digital wallets, and credit transfer-based payment services coming to the market with increasing frequency.

Question 2

What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

Mastercard recognises the elements of competitive dynamics covered in Theme 1, although the thinking and approach outlined in Theme 1 contains significant shortcomings. In particular, the PSR's focus on credit and debit cards fails to recognise the much broader payments landscape which includes many other types of transactions and payment methods. Further, there is no consideration of the economic characteristics of payment services or discussion of what these mean for competitive dynamics. As a result, Theme 1 does not provide a robust description of the competitive dynamics and constraints.

Theme 1: The intensity of competition and innovation in the payments' ecosystem

Question 3
Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Question 4
Please provide evidence and/or views on the extent to which Mastercard and Visa are currently competitively constrained (or likely to be competitively constrained in the near future) in their ability to set their scheme and processing fees (in general or for certain services), on either the issuing or acquiring side, by:

- **other card payment systems**
- **other payment systems (please identify)**
- **other payment intermediaries who use Mastercard and Visa infrastructure (please identify)**
- **other third parties – for instance, providers of specific services such as authentication, clearing or fraud detection (please identify), and/or**
- **the existence of shared standards and protocols between or within schemes**

We respond jointly to questions 3 and 4, as they cover the same core issues. As is set out in the 'Competitive Landscape in the UK' report submitted by Mastercard, card schemes compete in a much broader competitive landscape that includes many different types of transactions and payment methods.

While Theme 1 correctly recognises that consumers and merchants have a choice over the payment methods they use and accept, it fails properly to recognise the full extent of these alternative payment methods which include cash, Direct Debits, BNPL, digital wallets such as PayPal, and various credit-transfer based payment methods such as Faster Payments.[4]

Indeed, Mastercard estimates that Mastercard transactions account for a relatively small share of total transactions in the UK. Therefore, by disregarding all of these very real and effective forms of competition and instead limiting its assessment only to a subset of alternative providers to Mastercard scheme or processing/switching services, the PSR risks forming a distorted view of the payments market.

These payment methods share a set of common economic characteristics. Namely, the presence of two-sided network effects, extensive multi-homing for consumers and merchants (which enables network competition) and economies of scale which have been reduced thanks to technology and regulatory changes. These economic characteristics are essential to understanding the competitive dynamics (and therefore constraints) faced by payment service providers but is absent from the PSR's thinking.

Moreover, while there is some acknowledgement in Theme 1 that the choice of payment method is influenced by the type of transaction being completed, the implications are not fully recognised. In particular, some payment method providers may only operate in specific segments, while others (such as cards) operate in a wider range of segments. In some segments, Mastercard will compete more closely with other card schemes and cash whilst in other segments, Mastercard is directly competing with direct debit or bank transfers to grow their share of transactions.

[4] Additionally, the theme fails to acknowledge the competition between the different card schemes, which is not limited to Mastercard and Visa, but also includes alternatives such as American Express and JCB, among others.

Nonetheless, for many payment methods (including card schemes in the UK) the core product offering will be largely the same across these different sectors. This means that card schemes (as well as other providers of payment methods) need to ensure that their product is competitive in all segments in which they operate in order to be able to increase their market share. Therefore, the need for various payment methods to compete in order to maintain or grow their share in each segment has competitive effects on the other segments in which they participate.

Theme 1 does briefly touch on the payments value chain, but falls short of accurately describing how competition in the value chain works and the role of disruptive new entrants in it. Payment methods such as cards must convince consumers to hold their payment method. But they must also convince consumers to use that payment method on as many transactions as possible. When Mastercard competes for the use of their cards, it does so for each transaction and against other card schemes and a wide array of payment methods, such as cash, Direct Debit, Faster Payments, BNPL, digital wallets and Open-Banking-enabled credit transfers, among others.

This means that a card scheme must offer an attractive proposition for financial institutions to issue cards, and that new technology-driven payment methods generally must convince customers to download an app and sign-up to their service. The ease of access to alternative payment methods means that card schemes not only face intense competition between them for access to issuers (see Theme 2), but also intense competition from newer providers seeking to reach customers with innovative product propositions such as those mentioned above.

Further, payment providers such as card schemes need to offer customers a strong value proposition through factors such as ease of use and buyer protection to encourage actual use of their product. Since most revenue is associated with transactions rather than holding a credit or debit card.

The impact of new entrants

Whilst Theme 1 does acknowledge the existence of alternative payment services that have emerged such as Klarna Pay Now and Gocardless, it does not appear to recognise that multihoming by consumers and merchants creates ongoing competition for transactions. Nor does it recognise the ability of merchants to steer consumers towards the merchant's preferred payment method.

The increase of multi-homing on both sides of the market and the ability of merchants and digital wallets to steer have also facilitated new entry into payment services. Thus, existing alternative payment methods impose competitive constraints on credit and debit card schemes, but so do potential alternatives that *could* enter.

There are different options for building the necessary customer base to enter the payments industry, but two of them stand out in the current landscape.

- Entry is possible by introducing a new value proposition for customers, that differentiates from the current offerings in the market. Examples of this are Klarna and other BNPL providers and Revolut with their expanding digital banking proposition.
- Companies that leverage the large user bases they have in other industries and enter the payments industry. Typical cases of this type of entry are Amazon Pay and Apple Pay. The Competitive Landscape in the UK report submitted by Mastercard describes how different providers impose competitive constraints on Mastercard and other payment providers in more detail.

Another type of entry into the payments sector that has been seen in Europe is through building user bases with peer-to-peer (P2P) transaction platforms. Examples of this are Swish in Sweden, Bizum in Spain, Blik in Poland, MobilePay in Denmark and Vipps in Norway. These providers have developed expansive user bases by offering a free and easy way of transferring funds. Providers have built on these user bases and expanded their services to offer online and in-store payments. WeChat Pay in China entered the market with a user base formed through a messaging app. All these payment service providers are today major players in their respective markets.

Theme 1 also fails to recognise the role played by the credible threat of entry and/or expansion, which is currently the case. This by itself imposes competitive pressure on Mastercard and other payment providers, even in the absence of observed entry or volatility in the shares of transactions among providers.

For example, a recent report by the FCA set out three entry strategies for big technological companies:

- provide more services across the card schemes, to capture more of the value chain;
- compete with the card schemes directly by facilitating the adoption of non-card payment systems; and
- widen the scope of payment products, or use-cases, that users access through digital wallets.[5]

Other third parties

As noted in Theme 1, the four-party card schemes model fosters competition in different parts of the value chain. The Mastercard scheme incentivises competition between issuers to offer the best services to cardholders and incentivises competition between acquirers to offer the best services to merchants.

Moreover, the four-party model facilitates competition *with Mastercard itself*, as it enables third-party providers to offer services of different kind to issuers and acquirers. These third-party providers compete directly with Mastercard, especially in offering optional value-added products and services.

Finally, entry and competition are also fostered by Mastercard's open approach to sharing its protocols, which enables other businesses to leverage the existing Mastercard knowledge and capabilities in order to enter the market. These open standards have led to the emergence of third-party providers of various optional services. In other jurisdictions, domestic card schemes have also benefited from the openness of Mastercard's sharing of rules and standards. EMV 3DS, the industry standard on which all of Mastercard's identity solutions are built, is a publicly accessible standard that any entity can use to develop PSD2-compliant authentication solutions that work on the Mastercard (and other EMVco members') networks.

In sum, card schemes, as well as all other payment methods, are heavily constrained by competition from traditional payment methods, the recent entry of alternative payment methods and the potential entry of different types of new entrants to the market. These constraints have grown stronger over time, as has been set out in this response and in the Competitive Landscape in the UK report that has been submitted by Mastercard.

[5] Financial Conduct Authority (October 2022), 'The potential competition impacts of Big Tech entry and expansion in retail financial services', p.19.

Question 5

Do you agree that users have different payment options, which can reflect either the requirements for specific transactions or the characteristics of the available payment methods? In particular, it would be helpful if you could reference the choices available to different groups of users (consumers, merchants, issuers and acquirers) and expand on:

a. **the needs of those who want to make payments and of those who want to receive payments, and how issuers and acquirers cater for those needs**
b. **the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems have few alternatives**
c. **the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems would be easier to substitute with other payment systems**
d. **any studies you are aware of on the relative frequency and importance of the different types of payment transactions**

Payment users in the UK have a wide, and increasing, range of payment options available to them.

As set out above, the UK payments landscape encompasses various categories of transaction. Categorisation can be made according to who is making or receiving the payment (including consumers, government and businesses), the value of the transaction, whether the transaction is in store or remote, the extent to which the payment is recurring. Transactions can also be categorised by the merchant sector (also distinctions between different sectors is not always clear cut). Different payment methods may be used to various extents within each sector, however across the UK payments landscape payers and payees have choice of various payment options.

Without providing explanation or justification for its approach, the PSR is focusing on an artificially narrow view of the market—i.e. for 'retail' consumer card payments. This ignores the role of other important segments where card schemes have not achieved as high a degree of acceptance as others. This risks overlooking important sources of competitive constraint on Mastercard. When considering the broader payments landscape in the UK, the vast majority of payment transactions which could take place on Mastercard cards, do not in fact take place on Mastercard cards. Indeed, Mastercard estimates that Mastercard transactions account for 11% and 4% of payment transactions in the UK in 2021, by number and value of transactions respectively. Other payment methods accounted for similar proportions of the number of UK transactions in 2021, e.g. cash (circa. 15%), Direct Debit (c. 10%) and Faster Payments (c. 10%). [6]

Alternatives for retail consumer card payments

Even according to the PSR's narrow, users have multiple payment options. From the retail consumers perspective, they have access and use cash, cards, Faster Payments bank transfers, BNPL, digital wallets and Open-Banking-enabled credit transfers. As set out in the response to the previous question, Mastercard competes with all these alternatives for the consumers' choice of payment method at the moment of checkout.

From the merchants' perspective, the last decade saw a large proportion of small in-store retailers start accepting card payments, mainly through payment facilitators that offer simple pricing and an easy onboarding

[6] Mastercard estimate based on UK Finance data. Percentages calculated as UK-issued Mastercard card transactions, as a share of payment transactions in the UK in 2021 (cash, cheque, cards, direct debit and faster payments). This may be an overestimate of Mastercard's share since the calculation excludes all CHAPS and BACS credit transactions and some of these are also likely to be relevant.

process. This trend has shown that cards were capable of offering a valuable proposition to consumers and merchants, changing the payment method use in this segment.
From the merchants' perspective, they have multiple acceptance alternatives. For example, the survey that the PSR commissioned for its card-acquiring market review showed that 96% of merchants accepted other payment methods, in addition to cards.[7]

The survey commissioned by the PSR for the card-acquiring market review also set out two important findings:-

- Even though a small number of merchants have found it necessary to influence consumers to use other payment methods instead of cards, 83% of those who have done so were successful in steering customers.
- 63% of merchants responded that if the cost of accepting cards would rise by 10%, they would either stop accepting or steer consumer to use other payment methods.

Thus, merchants have different options for accepting payments, are aware of their ability to steer consumers to other payment methods and are willing to do so if the fees would not be aligned with the value.

Segments and alternatives in the broader payments landscape

There are several consumer to business ('C2B') and business to business ('B2B') sectors and types of transaction where merchants currently accept payment through methods which are not based on cards to a large extent but where cards do compete to retain or grow share. A recent survey from YouGov among SME's showed that online bank transfers was the preferred payment method for 57% of the SME's.

Payments made by businesses (B2B and B2C), are largely based on bank transfers, with cards competing for these transactions from a low base. We estimate that around 7% of business payments were made on cards in 2021 (with the remainder largely based on Faster Payments, other forms of credit transfer, Direct Debit or cash).[8] The number of card transactions has been gradually increasing over time as cards compete to retain and expand their share.

Peer-to-peer (P2P) payment methods are typically not based on card rails (but rather cash, bank transfer and 'on-us' P2P platform transactions including Revolut, PayPal, Monzo). This is one example where distinctions between payment categories are blurring, as certain smaller merchants and sole traders have the option to use such methods to accept payments. In other countries in Europe, P2P payment methods entered and then also become popular for payments to small merchants.

Within consumer payments (C2B) consumers and merchants have different payment options, the use of which varies by sector and by the type of payment. For instance, for regular payments (such as rent, utility bills and subscription fees), Direct Debit accounts for around 75% of transactions. Cards are also competing for share here, but from a relatively low base (we estimate that card schemes account for under 15% of such transactions in 2021).

Card schemes seeking to expand their share of transactions in such C2B and B2B sectors will only be successful if their product is competitive in terms of innovation, quality and price. In particular, two examples of specific

[7] This survey was designed for merchants that accepted cards, so the relative importance of card acceptance is overestimated in the survey results.
[8] Excluding Bacs Direct Credit from the calculation would result in a share of 75% for Faster Payments, 12% for Direct Debit and 11% for cards.

segments where cards are competing with existing payment methods (such as credit transfers and cash) as well as new payment methods are worth noting:-

- Tradespersons includes work undertaken by trade professionals at the customer's premises, and may include payments to plumbers, builders, decorators, cleaners or electricians, who may act as sole traders or be employed by companies. Merchants in this segment traditionally largely accepted cash and paper invoicing requesting bank transfer payments. Increasingly, such merchants also have the option to accept other methods including cards, QR-code based methods that facilitate the use of bank transfers, and alternative payment methods which make use of Open Banking technology such as PayPal, GoCardless—with new entrants also competing to enter (e.g. Tomato Pay).
- Professional services includes lawyers, accountants, architects, doctors/dentists and education services. Merchants in this sector are most likely traditionally to have accepted payment by cheque and more recently paper invoicing requesting bank transfer, but they also now have a range of alternatives available to them of which cards is just one option.

Merchants have choice about how to accept payment. Some choose not to accept cards preferring to be paid in cash or to invoice their customers and request payment by bank transfers, as well as using new alternative payment methods. Others may send an invoice requesting payment by credit transfer or card, and some of these may ask the consumer to call the merchant during opening hours if they intend to pay by card; in other words, they steer their customers towards paying by credit transfers.

In the case of utilities or membership subscription payments merchants may often prefer payment to be made via Direct Debit. These merchants can influence consumers to use a particular payment method in many different ways. Many utility companies for instance will communicate to consumers that discounts are offered where the consumer pays via direct debit, rather than cards or other methods.

Charities is another important sector in which cards are competing from a low base. Traditionally, charitable donations would have been made by cash or cheque, although more recently charities have become increasingly focussed on trying to generate regular income by persuading donors to set up Direct Debits. Cards have also had success in entering this market, including through the use of portable payment terminals allowing on-street donations.

Within merchant categories where the acceptance of card payments is widespread, we observe multiple competitors offering alternatives to cards, such as PayPal, various BNPL providers, as well as other credit-transfer based payment methods. The ease of acceptance of some of the alternatives to cards (e.g. the merchant does not need an acquirer to accept PayPal or Klarna) has further expanded merchant choice and multi-homing in the acceptance side.

Competition between different payment alternatives

The need for various payment methods to compete in order to maintain or grow their share in each segment has competitive effects on the other segments in which they participate.

For many payment methods (including card schemes in the UK) the product offer will be largely the same across these different sectors. This means that a card scheme (and other providers of payment methods) will need to make sure its product is competitive in all segments it operates in for it to be able to increase its share of transactions.

Furthermore, the boundaries between different transaction types is often blurred, and increasingly so. For example, the distinction between in-store and online payments is becoming increasingly blurred. Some merchants have integrated the delivery of their service with the payment method, making the distinction between remote and in-store payments less well defined. A mobile application can be used for both ordering a taxi and paying for the taxi journey, train ticket apps can be used for purchasing and displaying tickets. Ordering a meal in a restaurant (in-person) can widely be done by using a QR code (online). Likewise, grocery stores have facilitated the use of 'Smart Scan' technologies, where an in-store transaction could very easily be turned into to an online purchase.

These examples could be viewed as remote transactions but in practice actually compete with in-store payment methods such as cash or cards. For example, the Uber and Trainline apps allow payment using PayPal. Continued growth in this form of integration will mean further competition between online and in-store payment methods. It would therefore be artificial to segment the wider payments landscape into multiple different markets for the purpose of assessing competitive constraints, purely on the basis of varying use of payment methods. Rather, a considered economic analysis of competitive constraints needs to take into account this variation and the implications for the competitive dynamics in the broad payments landscape. Payment providers which compete across many different segments (such as Mastercard) will as a result feel the competitive constraints from multiple fronts. Across the payments landscape users have a choice of various payment methods, and this choice is increasing.

The distinction between financial and non-financial products are also starting to blur with the introduction of embedded finance into non-financial products. This opens new opportunities for digital platforms and financial institutions, in particular for new entrants. Future growth of embedded finance will have a relevant impact on the competitive landscape, distancing final payment methods from consumers and fostering back-end competition between payment providers.

Choice of payment options has been increasing

Multi-homing (i.e. holding more than one payment method) has become very common among both consumers and merchants. Almost all consumers in the UK have a current account (98% of the adult population), which enables them to use Direct Debit and Open Banking, and a large proportion of the UK adult population currently use mobile banking to make payments. Consumers typically hold multiple cards (on average around 2 cards per person), and large numbers have accounts with, and use, BNPL products and digital wallets. For instance, in the UK, there are 20 million users of PayPal,[9] and as of 2022 over 17 million consumers in the UK had used BNPL services.[10]

The entry of BNPL, the expansion of digital wallets, and the introduction of Open Banking technology and various new players competing for share of transactions is increasing the number of different payment options for merchants and consumers across the whole payments landscape. Technology has made it easy to register multiple payment options, by using mobile devices and downloading applications.

Multi-homing is also increasingly common on the merchant side, across various types of transaction and sector. Technology is helping merchants to accept a wide range of different payment options, for instance gateway services for e-commerce enable merchants to accommodate payment methods from multiple providers.

[9] PayPal website, 'PayPal', https://www.paypal.com/uk/webapps/mpp/account-sign-up (last accessed March 2023).
[10] Finder (2022), 'Buy now pay later (BNPL) statistics', (last accessed March 2023).

Furthermore, although all payment methods provide some minimum level of service, they vary significantly in their product features. Some product features such as provision of credit, convenience (such as digital wallets saving payment details) are attractive to consumers, which makes these payment methods indirectly attractive to merchants. Other services are directly attractive to merchants such as instant authorisation, notification of payment, and timely clearing of transactions. Other features directly benefit both consumers and merchants.

Therefore, there is choice on both sides of the market in terms of payment features including convenience, the availability of a credit facility and speed. Consumers also have choice when it comes to 'buyer protection' (and merchants with 'seller protection'). Buyer protection can either be offered by the payment method directly, by merchants themselves, or by other providers such as marketplaces or digital wallets. For instance, Amazon has a Buyer Protection policy, as does PayPal in the case where consumers use credit-transfer-based payment methods. Travel agencies such as Trailfinders offer their own buyer protection and steer customers towards using a credit-transfer based payment method.

In summary, Mastercard is subject to many different competitive constraints from a wide range of competing providers, and on multiple fronts, including other card schemes and alternative payment methods, including PayPal, BNPL providers, direct debit, credit transfer based methods etc. Merchants and consumers are facing increasing choice of payment options across this broad payments landscape.

Question 6

What are the main factors that limit the entry and/or expansion of payment schemes other than Mastercard and Visa? To what extent do those factors result in limited entry or expansion and how does limited entry or expansion affect the competitive constraints on Mastercard and Visa in setting the level of scheme and processing fees?

The UK payments landscape *has* seen widespread entry and continues to do so, highlighting the strong competitive constraints to which Mastercard is subject.

Entry is not only possible, it is happening; new providers have successfully entered

In order to enter successfully into a payments market, providers broadly need three main elements:

- access to a technical infrastructure
- a wide enough user base
- a proposition which delivers value to end users.

Entry has become easier, in part as Open Banking is enabling new entrants and existing providers to access a technical infrastructure to facilitate payments using credit transfers, separate to any card-based system.

Several providers of BNPL services have successfully entered and relatively quickly built up a customer base in the UK (such as Klarna which has a user base of 16 million in the UK).[11] Digital wallet providers have seen rapid growth in uptake and use, both online and in-store.

New entrants do need to offer a proposition which meets a customer need to attract consumers and merchants in order to be successful in gaining volumes. PayPal entered and grew by making it more convenient to pay

[11] See Klarna website, https://www.klarna.com/uk/business/reach-our-shoppers/, (last accessed March 2023).

online, BNPL providers entered and grew their user bases by offering a new form of instalment credit. These examples demonstrate that it is possible to enter the payments market in the UK, even without an existing customer base.
BNPL providers and digital wallets could decide to use Open Banking to fund their payment methods via bank transfer, in addition to or instead of card payments[12]. This is not a purely hypothetical scenario. PayPal has already done so, and Klarna uses Open Banking for its 'Pay Now' payment method. ~Although a technological investment required, the fact that providers could follow these examples and shift large transaction volumes away from cards represents a real competitive threat on Mastercard.

Newer entrants have developed new payment methods using credit transfer infrastructure and Open Banking. This has enabled further innovative new entrants such as IATA Pay, GoCardless, 'Pay with Bank Transfer', Super Payments and PayIt payment methods. These methods (amongst others) each offer a particular value proposition and business model designed to attract consumers and merchants and build a user base.

Although the number of transactions for some of the new methods is currently still relatively small, these examples show that it is possible to enter with payment methods that compete with card schemes. More established entrants (such as PayPal and BNPL providers) were small when they entered and have demonstrated that it is possible to attract consumers and merchants and drive widespread adoption.

Entering by leveraging existing customer bases

Other large players (such as retailers and marketplaces) also have the ability to leverage their existing user bases to steer consumers towards their preferred payment methods. Some examples include large supermarket chains, such as Sainsbury's and Tesco, which have the user bases and consumer loyalty needed to succeed in steering their customers into alternative payment methods if the options they currently use don't offer good value.

Furthermore, some large merchants have also entered the payments market to offer their own digital wallets at checkout, granting them additional ability to influence the choice of payment method. These include Amazon Pay, which is actively competing with PayPal as a payment method; Meta Pay, a solution for purchases on the company's social media platforms, such as the Facebook or Instagram marketplaces; or the Tesco Payment Wallet.

The threat of further entry imposes competitive constraints

The evidence shows that entry is possible, has already happened, and continues to do so. Mastercard is therefore competing on many fronts, and with many existing players, new entrants and with the credible threat of other new payment providers entering the UK payments landscape. Mastercard continues to innovate and improve quality in its service offerings, while its pricing of scheme and processing fees has not increased significantly since 2017.

Despite entry and expansion being observed in the UK landscape, it is important to note that the economic characteristics of payment systems mean that widespread entry and expansion of new payment providers is not *required* in order for Mastercard and Visa to be competitively constrained (see the response to question 4).

[12] Amazon Pay and other digital wallets operate a 'staged wallet' where the funding and payment stages are decoupled. This makes it relatively straightforward to add another funding source such as credit transfers; PayPal has already done so. Digital wallets such as Apple Pay operate a 'pass-through' wallet and could convert themselves into a 'staged' wallet to enable its users to use credit transfers as a funding source.

It is the credible *threat* of entry which leads to relevant competitive constraints, even if the market shares of entrants are small. Competition is supported by the prospect of tipping points. In particular, where one payment method offers substantial mutual advantages to merchants and customers when compared to rival payment methods, widespread multi-homing can be expected to facilitate rapid switching to that payment method. Furthermore, merchants are able to steer consumers towards preferred payment methods .

Aware of the risk of steering and entry, incumbent payment platforms need to compete on innovation, quality and pricing in order to maintain market share, thereby creating competitive outcomes in the payments market without necessarily significant volatility in market share. This risk of entry needs to be credible, rather than widespread in order for competitive constraints to be present today. The entry that is observable, then, not only results in direct competitive pressure on existing providers, but also is evidence that the threat of potential future entry is credible (and thus exerts further competitive constraints).

Question 7

To what extent do you agree with the view that the fees Mastercard and Visa charge to issuers and acquirers for scheme and processing services are 'largely reflective of the value' of those services? To what extent do you consider fees for scheme and processing services to be reflective of the costs of providing those services? Please provide examples and explain to what extent you think 'being reflective of the value' or 'cost orientation' are relevant criteria in assessing the competitiveness of such fees.

Mastercard sets its fees based on the value created for issuers and acquirers as well as the competitive conditions of the market in which it operates. The services that Mastercard provides to acquirers and issuers needs to reflect value and the broader competitive conditions in order to maintain Mastercard's reputation in the payment ecosystem, sustain demand from acquirers and issuers and incentivise day-to-day use by cardholder and merchants. As a result, prices are linked to the creation of value that system users receive from Mastercard products. This means that any increases in prices are related to an identified improvement in Mastercard's value proposition or some other change in circumstances.

Central role of customer value

The strong trust and reputation behind the Mastercard brand underpin the acceptability of card payments. Merchants serving consumers will not want to be associated with a payment method which is viewed negatively or has high or unfair charges. Given the range of alternatives available, and how central the ability to conveniently and securely accept payments is to merchant's own businesses, a reputation for being a fair business partner is central to merchants' continued acceptance of Mastercard.

A focus on reputation and value generation inherently requires an awareness of the value proposition provided to acquirers, issuers, cardholders and merchants by competing payment providers. Mastercard sets it fees based on the value it delivers and the competitive conditions in the market. As Mastercard tries to compete, the competition it encounters from current and rapidly emerging alternative payments technology influences Mastercard's commercial strategy, including with respect to service features and associated pricing, which are ultimately constrained by a merchant's ability to accept and prefer other payment methods. As a result, Mastercard constantly monitors the demands of different users and the developments in the broader payments market, to ensure its service offering stays relevant for merchants and acquirers.

On the acquiring side of the market, in order to maximise the volume of transactions taking place on its card network, Mastercard must not only encourage acquirers to acquire Mastercard products, but also take measures that ensure the resulting Mastercard proposition is attractive to merchants and in turn, the consumers that they serve. Merchants may decide not to accept all, or particular types of, Mastercard cards, whilst accepting other payment methods that customers hold, including other electronic payments and cash. Achieving the widest possible acceptance is core to Mastercard's business model.

Mastercard's commercial strategy on the issuer side of the market is constrained by close competition between card schemes for issuer business. When choosing a payment scheme, issuers take into consideration fees set for issuers and the quality that the scheme provides both for issuer activities and for final customers. This means that Mastercard competes on both price and quality aspects.

As with acquirers, issuers also have many outside options for supporting or value-added services in relation to Mastercard transactions. The prevalence of alternative options for issuers (including third party providers, and self-supply) is therefore a key constraining factor on Mastercard's pricing for value added services to its issuer customers.

Many of the services offered by Mastercard are optional, and acquirers and issuers can decide to accept or refuse them separately from deciding whether to provide Mastercard acceptance services. Customers have the choice to not to use a product/service where they do not perceive value either because they have no need or they have a preferred alternative solution. Indeed, Mastercard's data shows that customers take different decisions on the optional services they use from Mastercard. The usage pattern of these services differs by customer, service and year.

The payment card proposition is competitive

To continue to be successful, Mastercard needs to compete on innovation, quality and pricing and ensure its card proposition in terms of services, fees, fraud prevention and costs, amongst others, is competitive.

In a competitive market, one would expect the fees of different products to be similar after adjusting for differences in the product proposition. The analysis of fees presented in Oxera's Competitive Landscape report shows that fees for different payment methods, after adjusting for differences in the product proposition, are indeed similar, indicating that the market is competitive.

The fees charged to merchants for payment methods with a more extensive service offering (such as buyer protection) are typically higher than the fees charged for payment methods with a more limited scope, as one would expect to observe in a competitive market:

- fees charged for payment methods that offer buyer protection are similar across different providers
- fees charged for payment methods that offer buyer protection are also similar to payment methods with a more limited scope, after adjusting for the difference in product proposition.

This analysis is set out in the accompanying Competitive Landscape report.

Theme 2: Differences in the competitive dynamics on the issuing and acquiring sides

Question 8

Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Theme 2 represents an incomplete view that does not correctly capture the different competitive constraints that card schemes and Mastercard in particular, face.
Card schemes compete fiercely to maintain and grow their issuer and cardholder portfolio, which is an important part of the four-party scheme model. Nonetheless, all payment methods, must compete to develop value propositions that are also attractive for merchants and acquirers (in the case of card schemes), to be able to maintain and grow their share in transactions, which is ultimately what drives revenue.

Mastercard has undertaken various initiatives further to enhance its offering for acquirers and merchants. This has led to, for example, a reduction in fraud costs, transaction approval and rejection errors, and transaction times, all of which are to the direct benefit of acquirers and merchants. Additional examples are presented in the response to Q10.

Card acceptance is nowhere near universal and Mastercard must compete vigorously to grow its share of transactions in many currently underserved transaction types.
Technology, digital banks and increased multi-homing mean that there is significant competition for issuers.
More broadly, the PSR misrepresents the acquiring side of the market, where acceptance is far from universal. Theme 2 fails to recognise the variation in card acceptance and use across different segments of payment. There are many merchants, such as those providing professional services or high value products/services, which do not accept cards and for which bank transfers or cheques are the only accepted payment methods. In business and government/public sector payments, cards have a low share of transactions and fiercely compete in their search for growth. Likewise, a recent survey from YouGov among SMEs showed that online bank transfers was the preferred payment method for 57% of the SMEs.[13]

Direct Debit is the most popular payment method for utility and other similar bills while many professional services are still paid through invoicing and bank transfers. Mastercard is continuously improving its value proposition to attempt to gain additional transactions in these and many other sectors. This point is discussed in more depth in the Competitive Landscape in the UK report that has been submitted by Mastercard.

Mastercard competes for acceptance not only with Visa, but with many recent and potential entrants, as well as traditional payment methods.
Theme 2 misrepresents the competitive dynamics among payment providers by ignoring the competition for the use of payment methods, where Mastercard not only competes with Visa, but also with other providers that could expand or enter the market while facing competitive pressure from potential entrants.

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[13] 'Online bank transfer' excludes payments by direct debit and standing order. The question posed was 'What payment methods do you accept for selling goods or services to customers? Please select all that apply'. See, SMEs survey conducted by YouGov for Bank of England (2022), 'The digital pound: a new form of money for households and businesses?', https://www.bankofengland.co.uk/paper/2023/the-digital-pound-consultation-paper.

Acquirers seek to offer multiple payment acceptance alternatives for their merchant customers, but only one payment method will be used for each transaction. Hence, the Mastercard acquiring side fees are determined by offering the best possible value proposition to acquirers and merchants to encourage the use of Mastercard services. Theme 2 also fails to recognise the ability of merchants to steer consumers to the most favourable payment methods to them.

These alternatives include BNPL in the UK and the recent introduction and growth of Open Banking as well as digital wallets, which, contrary to the PSR's characterisation, have created new competitive pressure on card schemes. These alternative payment methods exert relevant competitive constraints on card schemes and we expect this to increase in the coming years.

Digital wallets impose relevant competitive constraints to Mastercard

Theme 2 also ignores important aspects of the competitive constraints imposed by digital wallets, such as PayPal and Amazon Pay. This comes in the form of front-end competition i.e. competition for the use of payment method, and back-end competition i.e. competition among payment methods they give their users access to (to fund their wallet or transactions).

PayPal is a good example to illustrate the effect of digital wallets on the competitive dynamics. PayPal operates as a digital-wallet service, offering to fund payments with money transfers directly from a bank account (originally via Direct Debit and more recently through Open Banking) or by linking a payment card. In addition, if the payer has a positive balance their PayPal account, then the payment can be made using the PayPal balance, which removes the need for external payment processing.

Although PayPal transactions may also be funded by cards, PayPal has the ability to change this, which imposes competitive constraints on card schemes. Some estimates reveal that PayPal saw approximately 60% of transaction volume funded through automated clearing house ('ACH') transfers in 2019 globally,[14] and a higher proportion in certain countries.[15]

The fact that PayPal has already implemented Open Banking and developed fraud prevention systems to be able to offer buyer protection, means that its own credit-transfer based payment product can compete well with cards. This implies that if card-scheme fees were to increase substantially, PayPal would steer consumers to other funding methods, such as bank transfers.

PayPal is not an isolated case, as other digital wallets are also moving towards more complete payment propositions. For example, Apple has recently launched Apple Cash and 'Tap to Pay', which in the near future could be used together as a closed-loop payment method. Apple has also recently launched 'Apple Pay Later', expanding their offering with a BNPL proposition and showing further evidence that large tech businesses will continue to move into payments with more complete product propositions. These and other examples in the digital wallet and fintech sectors must be considered by the PSR to understand the competitive dynamics in the payment services sector.

[14] Earnest Analytics (August 2019), 'Can you Venmo me?'. Note that the data relates to PayPal funding mix excluding Venmo (a P2P proposition owned by PayPal).

[15] For instance, in Germany, an estimated 80–85% of PayPal transactions are funded using credit transfer and Direct Debit. See IT Finanzmagazin, '[Die girocard ist vermutlich zu spät – Interview mit Hugo Godschalk, PaySys Consultancy]()'

Question 9

How would you describe the nature and intensity of competition between Mastercard and Visa for issuers and cardholders? In particular:

a. **What are the dimensions or features on which Mastercard and Visa compete?**
b. **b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to issuers?**
c. **Do issuers currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?**
d. **Does the intensity of competition between Mastercard and Visa differ between issuers? For example, does the negotiating power of issuers vary with certain characteristics?**
e. **Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by issuers, or for specific requirements of different transaction types?**

As the PSR recognises, competition for issuers and cardholders is indeed intense between Mastercard and Visa. Retaining current cardholders, attempting to reach competitor's cardholders and attracting new cardholders is an important part of the card schemes businesses. To be successful, card schemes compete on innovation, quality and price, in order to offer a valuable proposition to all the participants in the card scheme, including issuers and cardholders.

To offer a valuable proposition to issuers and cardholders, Mastercard must continuously innovate to bring new solutions and higher quality to its different users. Some relevant product enhancements that have benefited issuers and cardholders include enhancements to the chargeback and dispute resolution platform, tokenisation and new authentication solutions to adapt to the rise in e-commerce, among many others. Mastercard's innovation and service development has not only improved the overall customer experience, but has also supported issuers and acquirers in complying with new regulatory requirements, such as PSD2.

The persistent search for quality and value directly improves the service that is given to issuers as Mastercard clients, and to cardholders as one of the end-users of the payment network. Without continuous innovation and quality enhancements, issuers and cardholders would shift to other schemes or payment methods for their purchases, undermining Mastercard's transaction volumes and revenues.

As in most business environments, price is also a significant dimension of competition in the payments landscape. Different card schemes compete to try to attract partnerships with issuers for the growth of their cardholding network and may enter into bespoke agreements that include different types of rebates and incentives.

Question 10

How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. **What are the dimensions or features on which Mastercard and Visa compete?**
b. **Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?**
c. **Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?**
d. **Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?**

e. **Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?**

Competing for transactions

While acquirers will frequently look to offer multiple payment acceptance options to their merchant customers, only a single payment method will be used for any given transaction, and Mastercard's acquirer side fees are determined by the need to maintain a good value proposition to merchants to encourage the acceptance and use of Mastercard. If Mastercard were not able to deliver this value, merchants and digital wallets would have an incentive to steer consumers to other payment methods (see responses to questions under Themes 1 and 4 for further details on steering).

When delivering value to merchants (and cardholders), Mastercard does not only compete with Visa, but also with alternative payment methods. As was set out in the responses to Theme 1, merchants have the possibility to accept cash, BNPL, bank transfers (including those enabled by Open Banking), and digital wallets among others. When designing a value proposition for acquirers and merchants, card schemes need to consider the alternative options for the scheme's users. If the pricing would not be placed according to the value, merchants would steer consumers into other payment methods.

Competition between payment methods is also shaped by the diversity among merchants. The broad competitive landscape consists of multiple segments, where merchants have different needs and preferences. This has two direct implications for competition.

- different needs among merchants drives constant innovation by Mastercard, to be able to offer value propositions that suit a wide array of scheme users.
- different volume shares among segments of the market mean that card schemes must compete in innovation, quality and price to attempt to grow their position in the segments where their presence is less relevant, which imposes additional competitive constraints not only in that given segment, but in all the broader payments landscape.

Innovation

Acquirers offer a variety of payment methods. Aware of the risk of steering and entry, incumbent payment platforms will need to compete on quality, innovation and pricing in order to maintain market share, thereby creating competitive outcomes in the payments market without necessarily significant volatility in market share.

Indeed, competition in the payment service market is based on multiple dimensions. For example, payment system users value security, resilience, speed, efficiency, and convenience, while acquirers value services and tools that enable them to reduce their costs and deliver value to merchants, for example in relation to fraud prevention and payment reconciliation. Therefore, Mastercard constantly monitors the demands of different users and the developments in the broader payments market, to ensure its service offering stays relevant for merchants and acquirers.

For Mastercard to continue to be successful, it needs to make sure that its entire card product continues to deliver a competitive and attractive experience to merchants and cardholders in terms of convenience, speed and protection, security and stability and costs such as fees and fraud costs. In addition to introducing new services, Mastercard also continually develops and enhances its existing services, both to meet the demands of acquirers and merchants as well as to ensure the integrity of its network. In this way, the benefits to acquirers are not limited to new services, but rather encompass the creation, maintenance and expansion of existing services and the network itself.

Optional services

Mastercard offers a range of optional scheme services to support acquirers in completing transactions quickly, conveniently and securely for their customers. For these products, acquirers and their customers have the choice not to use the service or to self-supply, and if they take the service, to have it supplied by Mastercard or a third party. An acquirer will have an incentive to adopt an optional Mastercard service only if it delivers value to them.

Mastercard continually monitors the market to identify customer needs and gaps in the service offering, with the aim to improve its overall card payment proposition in competition with other payment options. This means that at the time of introducing a new service there are likely to be potential providers even if, at that point in time, there may be no similar services currently available in the market; Mastercard often develops new services precisely to address a particular gap that has not yet been addressed.

Alternative providers may develop similar services and/or focus on other types of needs or gaps in the market. Many of the activities that acquirers are required to undertake are done by themselves or outsourced to third-party providers. As a result of the four-party model, many alternative services and providers can be identified across important service areas necessary for the smooth completion of secure transactions. Examples include fraud and risk (credit) related solutions, cyber risk related solutions, chargeback related services, data analytics and customer insights, gateway services; and tokenisation.

Bespoke commercial agreements with acquirers

From time to time Mastercard pays incentives to acquirers. Each incentive is unique and individually agreed, typically as a joint investment between Mastercard and an acquirer in order to incentivise and meet the costs of the acquirer in adopting or promoting a particular product or service or to cover the costs of a specific project.

Question 11

Can you describe, to the extent you consider that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?

The constraints that Mastercard faces to raise its fees have been discussed elsewhere in this response. In sum, there is a wide range of competitive constraints that limit the ability of Mastercard to raise its different fees. Only when there is a solid rationale rooted in the customer value proposition and where competitive conditions permit, would Mastercard be able to increase its fees. Indeed, Mastercard's gross mandatory fees as a percentage of transaction value have not changed substantially during the period under review—mandatory acquirer fees increased only by 3.1% p.a., on average.

Nonetheless, even if Mastercard's capacity to increase fees is limited, the question about who would bear a potential raise could still be of interest to the PSR. As in most value chains, price changes in intermediate products are supported by all the downstream participants, in different proportions. Thus, any raise in card fees will be supported, to some extent, by acquirers and merchants.

The distribution of any potential rise in card fees (how much is supported by merchants and how much by acquirers) depends on the downstream competitive conditions and not on the competitive conditions of the market where the price rise was imposed. Thus, if there were a rise in a card fee, the percentage assumed by merchants would depend on the competitive conditions in the acquiring market, as was described by the PSR in its acquiring market review.

However, the acquiring market review is useful to draw some initial conclusions. First, the largest merchants, which account for around 70% of the transaction value, mostly use IC++ pricing. This means that acquirers charge them the interchange fees, the scheme fees and their margin. Any change in interchange or scheme fees are directly passed on to these large merchants, at least in the short run.[16] For the rest of the merchants, as was previously mentioned, the pass-through will depend on the competitive conditions in the card acquiring market and not on the competitive conditions of the upstream payment methods industry.

[16] Depending on the competitive conditions, the change on interchange or scheme fees could have an impact in the acquirers margin in the longer run.

Theme 3: The impact of transparency on competitive pressure at all levels of the value chain

Question 12
Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Question 13
Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

Question 14
Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

We respond jointly to questions 12, 13 and 14, as they cover the same core issues.

Mastercard's fees
The nature of the four-party model means that Mastercard has contractual relationships with acquirers and issuers rather than merchants and cardholders. As a result, it is the acquirer and issuer, rather than merchants and cardholders, that pays scheme (and switch) fees to Mastercard.

In line with this commercial model, it is the acquirer which charges fees to merchants for the use of acquiring services, not Mastercard. Therefore, it is acquirers who will generally be the first (and usually only) point of contact for merchants on matters regarding fees. Indeed, Mastercard does not have clear visibility of all the fees charged by acquirers to merchants, as that is usually commercially confidential between those parties.

Scheme fees are set to reflect the value that Mastercard's services deliver and there are therefore a range of fees for different types of transactions. For example:

- there are different fees associated with card present ('CP') transactions i.e. where the cardholder is physically present at the point of sale, in a typical retail store environment and card-not-present ('CNP') transactions i.e. where the cardholder is not physically present, in a typical ecommerce transaction;
- there are also different fees depending on the location of the cardholder's issuer and merchant. If the cardholder's issuer and merchant are located in the same country, the transaction is domestic; if the issuer and merchant are in different countries but in the same European sub-region, the transaction is intraregional; if the issuer and merchants are in different regions (e.g. United States and the UK) the transaction is interregional.

The structure of scheme fees are also a consequence of Mastercard continuously innovating further to enhance its proposition. Mastercard offers many optional services to issuers and acquirers, who select them on a case-to-case basis, according to their needs[17]. Many of the activities that issuers and acquirers are required to undertake are done in-house or outsourced to third-party providers. Optional services are also an important part of the four-party model and promote competition by supporting diversity and making more choices

[17] Further detail about optional services offered by Mastercard can be found in the responses to questions 10 and 17.

available to Mastercard customers. They extend the range of what payment services can provide, allowing service providers to innovate and compete in new areas of the market. For a scheme to foster innovation and promote choice among its customers, it must price the different services it provides independently, which naturally leads to a more complex fee schedule.

In summary, the complexity of the fee schedule is a result of Mastercard's value-based pricing approach combined with Mastercard's continuous efforts to innovate to enhance its product proposition and introduce new services (which in turn is a result of being subject to competitive pressure) rather than it being "a symptom of competition not working well".

Issuers and acquirers

Mastercard's customers are issuers and acquirers which are sophisticated companies for which understanding fees is not a significant challenge. Acquirers are able to offer blended or standard rates to merchants, which demonstrates that acquirers understand the fee schedule and are able to build business propositions for merchants around them. Acquirers face a financial risk in setting a blended rate to their customers and so need to have a very detailed understanding of their cost drivers (i.e. card scheme fees) when determining the rates which they will charge. The ability of issuers and acquirers clearly to comprehend scheme fees can also be observed in their response to optional services, where there is variation in the take-up and use. An acquirer or issuer will have an incentive to adopt an optional Mastercard service only if it delivers value to them. Alternatively they can chose to not use the service, to self-supply or have the service supplied by a third party.

Merchants

The nature of the acquiring contracts and the level of transparency that this entails which will vary by merchant. Scheme fees are a small part of the MSC for most merchants and many merchants therefore opt for blended rates. Other merchants (in particular, larger ones) have interchange + or interchange ++ contracts.

Merchants with a blended rate pay one fixed fee for card transactions. Under the interchange fee + model, the fees to merchants are broken down into two components (an interchange fee and an acquirer fee), and under the interchange ++ model they are broken down into three components (an interchange fee, scheme fees, and an acquirer fee).

Card-acquiring market review remedies

In its review of the card-acquiring market, the PSR found that acquirers and ISOs do not typically publish their prices for card-acquiring services, making it difficult for merchants to compare prices.[18] In response, the PSR implemented the remedy to mandate the provision of bespoke summary boxes by card-acquirers to merchants with annual card turnover of up to £50m. The price and non-price information provided is based on a prescribed format by the PSR.

The focus of the remedy on smaller merchants suggests that larger merchants have a more sophisticated understanding of fees. The PSR's ability to determine the template format of the information provided in the summary boxes provides an opportunity to tackle issues relating to information transparency.

As was set out in the PSR's acquiring market review, the largest component of the merchant service charge for small merchants is the acquirer's margin. The PSR highlighted that smaller merchants in particular find it difficult to compare the offerings of acquirers and payment facilitators, hindering their ability to shop around

[18] PSR (2022), 'Card-acquiring market remedies', Final Decision, October, p6.

and switch provider. Nonetheless, the market review noted that approximately 98% of small and medium merchants had standard pricing contracts with acquirers, which would prevent increased scheme fee transparency to acquirers from being passed on to merchants.

Theme 4: The 'must-take' status of Mastercard and Visa-branded cards (in many retail environments)

Question 15

Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

PSR's narrow view of the payments landscape

The title of this theme appears to suggest that the PSR is considering an artificially segmented and narrow view of how competition is working in the payments landscape in the UK. We note that the phrase 'in many retail environments' is not defined in the Call for Evidence, nor does it appear to come through in the description of vies under Theme 4. Nevertheless, regardless of precisely what is meant, the focus of Theme 4 means that it does not cover many types of payment with which Mastercard is competing.

While card schemes have become a widely used payment method in some segments, in others their acceptance and use is much more limited and Mastercard is actively seeking to expand its share of transactions.

For instance, many trade professionals have traditionally largely accepted cash and paper invoicing requesting bank transfer payments. However, such merchants are increasingly accepting other methods, and have the ability to steer their customers towards their preferred payment method.[19] Survey data shows the growth of non-traditional payment methods in this market segment. The use of credit, debit and charge cards has increased from 8% in 2016 to 41% in 2022 with other forms of payment including mobile banking, credit transfers, and online payments (among others) is now accounting for 17% of payments.

Importantly, the fact that Mastercard has been successful in expanding in its share in some of these segments shows that its product is competitive in terms of innovation, quality and price. In other segments, such as payment for utility bills, subscriptions and rent payments, credit-transfer-based payments and Direct Debit are widely used in addition to cards. For instance, for regular payments (such as rent, utility bills and subscription fees), Direct Debit accounts for around 75% of transactions.[20] Many of these payments could be made using other methods, with cards providing a viable alternative, spurring competition between payment providers. Cards have been competing successfully to attract transactions that could otherwise be made using Direct Debit.

The correct approach to assessing competitive constraints would therefore be to consider all the relevant sources of competitive pressure which exist in the UK payments landscape. As discussed above in response to questions 3 and 4, the payments landscape is characterised by strong network effects, where threats of entry and switching to alternative providers result in competitive constraints. New entry and the potential for rapid market share changes mean incumbent providers compete by 'running to keep still' i.e. they need to price in a competitive way and innovate to maintain their existing positions.

The PSR is not considering the competition for transactions

Mastercard typically earns revenue through usage of its cards, with fees based on volumes and types of transactions and the range of optional services utilised in addition. Thus, the competition for holding and

[19] See response to Question 5 above.

[20] Cards are also competing for share here, but from a relatively low base (less than 15%).

acceptance is for the access to the consumer and *potential* revenue, but not an activity that leads to revenue itself. In other words, Mastercard does not earn much revenue when customers are issued a card or when merchants decide to accept Mastercard, but rather when cardholders use the card to make payments.

How payment methods charge has become increasingly important, as technology has enabled entry and multi-homing has become more and more commonplace (see response to question 5). Providers must compete on quality, convenience, and service proposition for each payment decision to increase their share of transactions/volume. Providers must also compete on prices and service to avoid merchants steering consumers towards other payment methods.

Different types of steering are possible and indeed observable in the UK landscape (see response to question 16). Furthermore, increased multihoming through the development of new payment methods (or new providers in different parts of the value chain) helps to reinforce this effect.

Multihoming on both sides of the market, combined with the possibility to influence consumers means that merchants have the ability to steer payment users away from Mastercard at the point of use, even if many consumers hold, and merchants accept, Mastercard branded cards.

Competitive pressure and innovation

Competitive pressure from many angles means that Mastercard must continually innovate, improve its service offering, and price in line with the value the scheme provides in order to maintain (and expand) its share.

Furthermore, the PSR notes that certain stakeholders shared a view that 'card scheme operators that have "must-take" brands are in a strong position potentially to hamper the development of alternative payment types that could – in the long run – gi on them, even if just in some particular use cases or for specific groups of users' (paragraph 3.39). This does not reflect developments in the market. There has been a significant amount of innovation and new entry in recent years. This includes the development of new, alternative payment methods and propositions which has driven existing players to develop new services in response (for instance PayPal introducing instalment credit in response to the entry of BNPL providers).

Much innovation has been driven through investment from incumbent players such as card schemes, which has resulted in new products and services, and more efficient processes. Indeed, payment schemes have an incentive to ensure successful adoption among issuers and acquirers and merchants and cardholders of the latest technologies, as well as to instil the right incentives to promote adoption.

Innovation is one area where Mastercard is 'running to keep still'. The scheme is continually innovating in order to improve the service offering, and in response to other innovations in the market and to the credible threat of further entry. At the same time, the innovation developed by Mastercard in many instances also enable alternative payment methods to enter (further adding to the competitive pressure on Mastercard). Examples of this occurring include BNPL providers and digital wallets. In both cases, providers have made use of card schemes' networks of cardholders to quickly establish a user base.

Mastercard is subject to various competitive constraints, including in its pricing

In paragraph 3.34 the PSR summarises different stakeholders' views that 'Mastercard and Visa each leverage their "must-take" status to charge high fees to acquirers and/or issuers, unless constrained by other factors'.

This is an odd statement. Firms will always have an incentive to charge as high as they are able to, subject to constraints. As explained in detail in responses under Theme 1 and the Competitive Landscape report, Mastercard is subject to various competitive constraints, which means that it must compete fiercely on innovation, quality and price.

Question 16

Would you describe Mastercard and Visa as 'must-take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:

- **a. Do merchants have any alternatives to accepting both Mastercard and Visa-branded cards if they decide to accept cards? In what situations or under what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?**
- **b. Do acquirers need to sign up with both Mastercard and Visa to have a viable business model? In what situations or under what conditions is it a viable option for an acquirer to sign up with just one of these two? What would be the consequences for the acquiring services offered to merchants?**

The PSR seems to consider whether Mastercard and Visa are 'must-take' within each segment of payments individually. For the purposes of assessing the competitive constraints on card schemes, this results in a distorted view of how competition works in the payments landscape. As explained in the response to questions 3 and 4, for many payment methods the core product offering will be largely the same across different sectors and segments of payments.

Different payment methods are used to various extents within each sector, and across the UK payments landscape payers and payees have choice of various payment options.

B2B and B2C payments, for example, are largely based on bank transfers, with cards competing for these transactions from a low base. Within consumer payments (C2B) consumers and merchants have different payment options, the use of which varies by sector and by the type of payment (see responses to Q5 and Q15). Furthermore, merchants also have the ability to influence consumers by steering them towards alternative payment methods. They would exercise this ability where there are sufficient incentives to do so.

Extensive and increasing multihoming on both sides of the market (as set out in response to question 5) makes the possibility of steering more of a credible threat. In this context, merchants are able to influence consumer behaviour in multiple ways. These can be broadly grouped into three headings.

Non-acceptance

Merchants can choose not to accept card scheme or other payment methods. The acceptance of cards varies by sector, and many merchants will not accept cards (see responses to question 5 and question 15). Other large retailers and digital wallets, such as Amazon or PayPal can easily switch customers to alternative payment methods and leverage the credible threat of non-acceptance to impose competitive constraints on the card schemes.

Implicit consumer influence

Rather than non-acceptance, merchants and digital wallets may implicitly influence consumer decision-making in various ways. Merchants control the design of their checkout process, so they can nudge their customer into selecting the payment method that they prefer. It is well-established that the design of online choice architecture can have a large impact on consumer decision-making, including through the use of defaults or presenting different payment options with differing prominence.

For example, some utility companies offer all payment methods in their web pages, but invite customers to register only a Direct Debit payment when reaching out through email.

Explicit consumer influence

The simplest example, and more likely in physical points of sale, is when the seller directly communicates to the buyer the payment method that it prefers. It is also possible for merchants to discourage some payment methods by making it more costly for customers to pay with them. For example, some merchants, may send an invoice requesting payment by credit transfer or card, but ask the consumer to call the merchant during opening hours if they intend to pay by card.

Another explicit way of influencing the payment method choice is by offering direct financial incentives to consumers. These may be in the way of discounts, vouchers or coupons to consumers for choosing a specific payment method. For example, British Gas, as well as some other utility companies, offer discounts to customers that pay through direct debit.

These financial incentives can also be jointly offered between payment methods and merchants, looking to steer consumers into a certain payment method, while looking to grow the merchant's sales. Cashback offers is another way to encourage consumers to shop through particular apps or payment methods, and is used by some new entrants (e.g. Super Payments).

A further way of explicitly influencing consumers' choice of payment method is by offering an alternative payment method during checkout, after the consumer has initially selected their payment option. An example of this method is the 'Transformer' service from Volt. This service identifies the consumer's bank while the customer begins to enter the card details at checkout and sends a prompt offering to easily switch to an Open Banking-based payment method.

Threat of steering is resulting in competitive pressure

Competitive constraints on Mastercard stem from the *threat* of steering. It is not necessary to observe widespread execution of steering, the *credible threat* of steering is enough to impose constraints in markets with strong network effects. The fact that we do observe steering taking place only serves as evidence that the threat is indeed a credible one in the case of the UK payment landscape.

In this sense, it would be incorrect to label a payment method as 'must-take' in the scenario in which it is *currently* widely accepted for certain segments within retail payments, such that the method is not adequately constrained in its pricing.

The competitive dynamics in this type of market means that the credible threat of entry tomorrow, manifests in today's incumbent providers feeling competitive pressure *today*. Concretely, this means that Mastercard's pricing is constrained currently as it faces the threat of entry on multiple fronts and indeed from the expansion of other providers who have already been successfully establishing user bases in the UK. This also drives Mastercard continually to improve its quality of service and to drive innovation.

Therefore, Mastercard-branded cards cannot be categorised as 'must-take' when considering the dynamic nature of competition within the UK payments landscape. Mastercard credit and debit cards are currently accepted and used by a large number of consumers, merchants and acquirers in the UK. However, this is a reflection of the value that the scheme continues to deliver to these users.

Mastercard is having to compete fiercely on multiple fronts and the fact that Mastercard is not 'must-take' in the medium term (since entry is a credible threat, facilitated by multihoming and steering) means that the UK payments landscape is delivering good outcomes for consumers and merchants, with respect to innovation, quality, choice and pricing (as set out in further detail in the Competitive Landscape report).

Question 17

How do you think that the optionality of different services related to Mastercard and Visa payments has changed in recent years? When answering, please also consider and provide specific examples on the following aspects:

a. **Which of the services offered (and fees charged) by Mastercard and Visa are unavoidable for issuers (and cardholders) and/or for acquirers (and merchants) that want to participate in the Mastercard and Visa schemes?**
b. **Which services can instead be procured from third parties (or simply rejected)? Who are these third-party providers and, if you have used these, what has been your experience with their services?**
c. **How does the situation regarding the optionality of services affect the ability of different users to optimise their costs?**

Some services are an essential pre-requisite for the effective functioning of the network and are therefore only provided by Mastercard. As they are an integral part of what a card scheme does and are fundamental to the operation of the four-party model, they are associated with mandatory fees. For Switch, these include for example the authorisation, clearing and settlement fees, and for the Scheme, the volume, card-not-present, cross-border and reported transaction fees.

To operate its scheme effectively, Mastercard considers carefully whether its scheme services are offered as optional or mandatory to its scheme participants. Mastercard nowadays offers a range of optional scheme services to support acquirers and issuers. For these products, acquirers, issuers and their customers have the choice not to use the service or to self-supply, and if they take the service, to have it supplied by Mastercard or a third party.

In practice, there is variation in the take-up and use of optional Mastercard services across acquirers and merchants. An acquirer will have an incentive to adopt an optional Mastercard service only if it delivers value to them. For example, currency services offer a range of options for settlement to acquirers, which allows Mastercard's customers to implement their preferred approach. For one large acquirer this fee accounts for 58% of all optional fee revenues. At the same time it accounts for 5% of optional fee revenues for the median large acquirer.
Optional services are also an important part of the four-party model and promote competition by supporting diversity and choice of product/service. They extend the range of what payments can provide, allowing service providers to compete in new areas of the market.

Mastercard continually monitors the market to identify customer needs and gaps in the service offering, with the aim of improving its overall card payment proposition in competition with other payment options. Alternative providers may develop similar services and/or focus on other types of needs or gaps in the market.

Many of the activities that acquirers are required to undertake are done by themselves or outsourced to third-party providers. As a result of this four-party model, many alternative services and providers can be identified across important service areas necessary for the smooth completion of secure transactions. Examples include fraud and risk (credit) related solutions, cyber risk related solutions, chargeback related services, data analytics and customer insights, gateway services and tokenisation.

All queries in relation to this response should be to Simon Grossman, Vice-President – Regulatory Affairs, Mastercard, 1 Angel Lane, London EC4R 3AB – simon.grossman@mastercard.com – 07890 591 702

Mastercard's scheme activities - changes over time

17 APRIL 2023

Executive summary

Using its technology and knowhow, Mastercard develops, maintains and operates a payment network that is focused on building simple, safe and innovative payment technology solutions. Given the parts of a card transaction that are most visible to businesses and consumers, one might think that the core product Mastercard provides is the transfer of money—but this is not correct.

Mastercard engages in many pre- and post-payment activities, known as 'scheme activities', and establishes many rules that are essential to delivering a seamless transaction at the point of exchange.

This report describes the breadth of the myriad of changes to Mastercard's scheme activities that have taken place over time. These changes represent Mastercard's role as an enabler of innovation and growth, and underscore its crucial role in the payments system as a central coordinator.

The Mastercard network

The Mastercard payment network comprises the scheme itself, the infrastructure it needs to process transactions, and ancillary services. This enables Mastercard to provide:

- A universally accessible network operating in more than 120 countries, enabling cardholders to pay at many businesses worldwide.
- A brand that consumers, merchants, and third parties can trust, thanks to the building blocks facilitating the broad acceptability of Mastercard payments.
- Assistance in coordinating network participants who would otherwise be reluctant to work together, driving innovation both in the payments system and beyond.
- Investment in activities that seek to ensure the resilience of the card payment ecosystem.
- A central role in facilitating e-commerce and cross-border transactions, including via tourism, a key part of the UK economy.
- Alignment of incentives through dynamic design of the scheme rules and the continuous development and adoption of new initiatives

In short, Mastercard's scheme drives value by improving payment efficiency, facilitating new entry, ensuring security and stability, driving innovation, and providing benefits to wider society.

How (and why) have Mastercard's scheme services changed over time?

Mastercard seeks to deliver value to its customers and the wider economy by making its payments as easy, quick, and secure as possible.

Considerable changes in the payments landscape over the past decade, including technological developments, new entry, regulatory developments, and evolving risks, have implications for Mastercard directly and the ecosystem more broadly.

Mastercard confronts these risks by continually developing and enhancing its scheme activities and services to meet the needs of issuers, cardholders, acquirers, and merchants, and to ensure security and stability.

Mastercard carefully manages the trade-offs between ensuring efficiency and maintaining security. For example, Mastercard introduced new and improved systems to monitor and manage the fraud risks associated with contactless payments, eventually making it possible to safely increase the limit for contactless transactions.

Similar trade-offs are managed between facilitating the entry of new players to the ecosystem and maintaining security and stability. After raising the volume threshold to enable the entry of new payment facilitators, Mastercard manages the risk associated with these new players by, among other things, introducing the Payment Facilitator Review process, which examines the risks facing specific payment facilitators and shares these assessments with them—enabling them to improve their systems, and thereby the safety of the entire ecosystem.

Five drivers of growth

Mastercard generates value by boosting the economy, working for consumers and helping businesses both inside and outside the financial services sector. The value generated can be highlighted by mapping Mastercard's scheme activities against five key drivers of economic growth:

- improving payment efficiency
- facilitating new entry
- maintaining security and stability in the payments' ecosystem
- driving innovation
- promoting wider benefits

Improving payment efficiency

Improving payment efficiency is not only beneficial to consumers and businesses, but also the wider economy; frictions result in increased time, effort, and monetary cost, which raise the total costs of goods and services in the economy. By reducing these transaction costs, the scheme can affect aggregate consumption in the economy, boosting growth.

Mastercard has invested in improving payment efficiency while balancing a need to maximise transaction security. Some recent examples include the following.

- Improving the chargeback process, providing consumer confidence, making chargebacks more efficient, and reducing the number of chargebacks overall.
- Balancing user convenience and transaction security by introducing the Mastercard Digital Enablement Services (MDES), Mastercard's tokenisation service, which has helped to reduce declined transactions in the UK by 58% in 2022.
- Improving the Automatic Billing Updater (ABU), a web service that enables merchants, acquirers, and other payment service providers to ensure that they have the most up-to-date customer card credentials on file, enabling a reduction in declined recurring and card-on-file payments, as well as reducing operating and processing costs.
- Improving authentication while maintaining payment efficiency, such as through Accountholder Authentication Value validation.

- Improving contactless payments, reducing the time it takes to make a payment (and therefore the transaction cost), mitigating any risk associated with bypassing CHIP and PIN, and adapting Mastercard's fraud prevention mechanisms to account for the new technology.

Facilitating new entry

The Mastercard scheme is open to new banks and 'non-bank' issuers; it is not limited to established banks, nor existing payment devices, which is how Mastercard was able to enable the innovation needed to respond to technological developments (such as payment via mobile device).

The openness of Mastercard's scheme enables it to support Mastercard's commercial incentives to grow payment volumes, regardless of the business models of the members using the scheme. This enables Mastercard positively to impact the payment services sector and beyond, facilitating the entry and competitiveness of new players and disrupting established business models.

Below are some of the ways in which Mastercard's scheme activities enable new entry.

- Increasing onboarding speed for new players (from around 8 weeks in 2020/21 to 3.5 weeks in 2022), such as through its Fintech Express Initiative and Parallel Path (a direct-licensing process enhancement), while also implementing controls to prevent new players from going live prior to the completion of all risk reviews (increasing safety to the ecosystem).

- Empowering the entry of payment facilitators into the acquiring market and encouraging their growth by providing advisory support, substantially increasing the access of smaller merchants to the cards ecosystem.

- Empowering the entry of fintechs into the issuing market (such as via the Mastercard Send Partner Program), benefitting the ecosystem (and consumers) by increasing competition and enabling new and innovative services.

- Encouraging innovative business models elsewhere in the economy by fostering better competitive outcomes in the financial services sector.

Ensuring security and stability in the payment network

The payments ecosystem faces continuous and evolving threats from fraud, cybercrime, and the changing nature and new entry of players in the ecosystem.

Mastercard must therefore carry out constant upgrades to its network to prevent fraud from rising. To ensure the integrity of the system, it invests in the maintenance and monitoring of its network, benefitting acquirers and issuers, as well as the broader payments ecosystem. The scheme also ensures that it improves security in the system without compromising payment efficiency or the ability of new entrants to enter the ecosystem.

There are four types of risk to be managed:

1. Digital risk (e.g. from fraudsters)

2. Cyber risk (from rapidly evolving cyber-attack technologies and a maturing market for stolen data)

3. Financial crime risk (e.g. money laundering and scam fraud, which are evolving as criminal organisations become more sophisticated, the surface area to attack widens in the payments chain, and cryptocurrency transactions rapidly multiply)

4. Systemic risk (i.e. risks to the payments ecosystem, such as through settlement risks). Mastercard manages risks associated with the Settlement Guarantee, through which the scheme ensures that acquirers, and ultimately merchants, will always be paid in the case of issuer settlement failure.

Mastercard continually invests to ameliorate these risks and assure the security of the payments ecosystem. As the risks have evolved, so too have Mastercard's scheme activities, improving generalized activities and monitoring and creating and enhancing products and services. Some recent examples are as follows.

- Using the latest AI technology and working alongside issuers to identify suspicious activity and provide targeted information on real-time risks, such as via Mastercard Decision Intelligence and the acquisition of Brighterion, NuData, Riskrecon, and Ekata, exploring innovative ways to reduce fraud.

- Monitoring the number of chargebacks associated with each player via the excessive chargeback programme, and introducing new data dashboards to aid this (such as Data Integrity Online).

- Investing in the latest techology (e.g. Safety Net and Cyber Secure) to protect Mastercard against cyber-attacks, as well as monitoring key industry trends and updating the scheme rules to reflect them. This has resulted in a significant fall in UK Account Data Compromise events, from 119 cases in 2016 to 37 in 2021.

- Mitigating the risks associated with cryptocurrency and financial crime by monitoring developments in areas with a high risk of financial crime, including via the deployment of Crypto Secure, which helps financial institutions and merchants to securely process crypto payments.

- Managing the risks associated with the proliferation of new third parties in the payments ecosystem via Mastercard's Customer Risk Management and Enterprise Risk Management teams, seeking to improve new players' performance and therefore the health of the ecosystem as a whole.

- Ensuring that funds are always transferred to acquirers if the issuer fails to settle.

The above activities have helped fraud costs to reduce even as risks to the ecosystem and payment efficiency and the number of new players have increased. Between 2018 and 2022, fraud per value of transaction in the UK within the Mastercard system declined by 72%.

Driving innovation

Mastercard enables the development and take-up of desirable innovations across its scheme participants, especially given two key characteristics of payment systems:

1. Many innovations within the payments' ecosystem are high-risk activities, with benefits that are often not realised for years and sometimes not at all;

2. The benefits of investments in the payments network lead to innovation at the network level, rather than at the private level.

The result of these two factors is that private incentives are often insufficient to invest in innovation, raising the need for a central coordinator like Mastercard to align incentives, facilitate the coordination, and encourage the innovation itself. Such investments will frequently be more viable for Mastercard than individual issuers or acquirers working alone.

- Mastercard works with others to promote the adoption of *new technologies and protocols* such as Strong Customer Authentication (SCA).

- Mastercard works with others to *generate new ideas*, such as via partnering with start-ups on Mastercard Start Path (and Start Path Crypto and Start Path Open Banking), helping them to scale, uncover opportunities to innovate, and create new experiences for their customers.

- Mastercard's innovation *requires substantial investment and comes with considerable risks. For example, contactless was a significant investment and commercial risk, but has driven significant benefit.*

- Mastercard recognises that not every idea will be successful, but that *even failed innovations can provide valuable insights and lessons for future development*, ultimately leading to better consumer outcomes.

Promoting wider benefits

Mastercard's scheme activities often have wider social benefits that do not accrue directly to its scheme participants, and these are often a byproduct of Mastercard following its own unilateral incentives to grow the card market.

For example, encouraging people who did not (or could not) access electronic payments to use cards is good for Mastercard commercially, but it also benefits the wider society through the reduction of 'financial exclusion' and the associated social costs.

Mastercard's activities to facilitate new entry, which increases the positive network effects of the scheme, benefit wider society by bringing about better competitive outcomes, which benefits consumers through increased innovation, increased quality, and cheaper goods and services.

Mastercard has also benefitted the wider ecosystem through privacy and data management. Mastercard innovations such as Truata (launched in 2018) help companies with end-to-end data management, striking a balance between using data to consumer advantage and protecting personal confidentiality.

Finally, Mastercard works with regulators and industry participants to ensure positive market outcomes; in the context of regulatory changes, such as PSD2, Mastercard acted as a facilitator across the ecosystem, driving consumer engagement with the new standards.

Changes in Mastercard's scheme activities

Mastercard's activities are directed at ensuring that it delivers value to its customers and the economy overall by making its payments as easy, quick and secure as possible.

There are many pre and post payment activities and rules that are essential to delivering a seamless transaction at the point of exchange.

The scheme continuously invests and innovates to ensure it can respond to the evolving nature of threats and consumer demands.

Mastercard builds trust in the entire scheme, which generates benefits both within and outside the payments sector.

1. Introduction

This report's focus

This report analyses changes in Mastercard's scheme activities over time. It does not provide an exhaustive list, but instead highlights the breadth of the changes made. It demonstrates how Mastercard continues to innovate in response to competition, and how its value proposition has evolved.

It also provides an understanding of changes in Mastercard's scheme activities over time, which underly the changes in fees over the same period. These activities have enhanced the value that Mastercard's payment products deliver to issuers, acquirers, merchants and consumers, delivering efficiencies for issuers and acquirers and an improved experience for merchants and cardholders.

Some of these activities have fees directly related to the changes in scheme activities and services, while others have been reflected in changes to existing scheme fees—in line with Mastercard's value-driven approach to pricing.

Mastercard has responded to evolving risks in the payments' ecosystem in recent years. It has met the needs of issuers, acquirers, merchants and cardholders by introducing new services and activities, as well as enhancing existing ones—and this report covers both aspects.

The role of payments in the economy

Innovation in payment systems has led to simpler, cheaper and more secure means of payment, acting as a catalyst for economic growth. When Mastercard makes improvements to its scheme, it places competitive pressure on other electronic payment providers to improve their services, improving the overall attractiveness of electronic payments and encouraging their use.

As such, Mastercard's improvements increase the efficiency and quality of payments as a whole and, in the long term, all industries benefit from the reduced friction in trade.

To understand the benefits that accrue from Mastercard's innovation and investment, it is useful to identify the key economic characteristics that define payment systems.

- Payment systems coordinate the activities of (generally many) participants, each bringing specialised functions, activities and incentives. As such, a payment system is a dynamic ecosystem that continuously evolves.

- Strong network effects means that it is valuable for many players and providers to operate in the ecosystem. The Mastercard scheme encompasses a critical mass of providers and consumers, ensuring that those who join the system will have other participants to transact with.

- Innovation generally requires a significant degree of coordination and collaboration between participants on both the supply side and the demand side. In short, payments require a large degree of collective innovation.[1]

[1] Collective innovation relates to new products or services where the value is realised only when the parties on both sides of the transaction adopt the innovation. The costs of adopting the innovation may fall to one or both parties.

If incentives to coordinate sustainably are too weak to obtain critical mass, desirable innovations might not be introduced. This is where the role of a payment scheme can be most effective.

Mastercard's role in payments

Mastercard's commercial incentive is to increase the number and value of transactions using its brands. In order to build its success in a competitive market, Mastercard's activities seek to ensure that it delivers value to its direct and indirect customers, and the economy overall, by making its payments as easy, quick and secure as possible. This ultimately leads to more sales and lower fraud costs for merchants. In this way, the scheme is an enabler of innovation and growth.

Below are some key features of Mastercard's scheme.

- The scheme provides a universally accessible network, operating in more than 120 countries and enabling cardholders to pay at most businesses worldwide.[2]
- Mastercard's globally recognised brand instils confidence and trust in a common set of rules and standards, and predictability in the payment system. Consumer and merchant recognition that payment transactions will be enforced and the strong trust and reputation behind the Mastercard brand are the building blocks that facilitate the broad acceptability of its card payments.
- The scheme overcomes coordination problems among network participants who would otherwise be reluctant to cooperate, driving forward innovation and promoting adoption of new technologies in the payment network and ecosystem—and beyond.
- The scheme has played a central role in facilitating e-commerce, as well as facilitating cross-border transactions, including, for example, payments coming into the economy from tourism, a core part of the UK economy.
- Overall, by aligning incentives through the dynamic design of the scheme rules and the continuous development and adoption of new initiatives, Mastercard's scheme activities promote better outcomes for end-users and the economy.

How have Mastercard's scheme services changed over time?

The payments landscape has seen considerable change in the past decade due to technological developments, entry by new providers, regulatory changes, and changing risks in the ecosystem.

- **Technological and regulatory trends are reshaping the payments landscape**. Technological, market and regulatory developments are significantly reducing barriers to entry and changing the way that competition works in the payments market.
    - New technology has increased the importance, attractiveness and availability of e-commerce.
    - The introduction of Open Banking has reduced the costs for new payment service providers to access interbank processing infrastructure.
    - Common and openly available technology standards have enabled new providers to enter the payments industry.

[2]Mastercard 'About Mastercard', last accessed 30 March 2023.

    - Furthermore, changes in technology—particularly the growth of mobile payments—continue to change consumer payment preferences.

- **Changing risks in the ecosystem**. As the economy becomes increasingly digitalised and the sharing economy grows, Mastercard faces dynamically evolving risks from fraud. Further, cybercrime has evolved as the payments' ecosystem becomes more digitised and interlinked, from small-scale lone-wolf attacks to large-scale criminal operations and nation-state attacks. Although the increasing number of new third-party players in the ecosystem has delivered benefits, it also poses new risk challenges for the payments' ecosystem.

These changes have implications for Mastercard directly, as well as the broader ecosystem. In response, Mastercard continually develops and enhances its scheme activities and services, ensuring that the entire card product continues to deliver a competitive and attractive experience to merchants and cardholders in terms of convenience, speed and protection, security and stability, and costs (such as fees and fraud costs).

In meeting these aims, Mastercard continuously manages the trade-off between security and the need to ensure convenience and payment efficiency in the ecosystem. For example, the introduction of contactless, and subsequent increases in contactless limits, improved payment efficiency and the payment experience for cardholders and merchants, making payments approximately ten times faster than other point of sale methods of payment. However, in doing so, Mastercard had to make sure that this increased efficiency did not lead to increased risk of fraud.

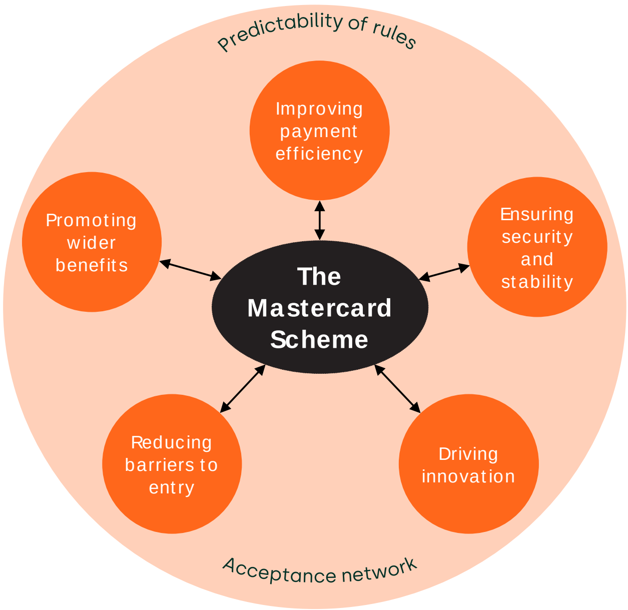
Mastercard's scheme introduced additional monitoring for fraud through its franchise management programme, through which Mastercard monitors all players to ensure the security of the ecosystem as a whole, while simultaneously raising standards. This, alongside other fraud-prevention measures, has ensured that fraud per value of transaction in the UK has declined by 72% between 2018 and 2022, while payment efficiency has improved.[3]

Mastercard also manages is the trade-off between facilitating new entry into the payments ecosystem and managing the potentially associated security risks. In recent years, the scheme has substantially increased the speed at which players (and especially fintechs) can be onboarded into its ecosystem. Mastercard has implemented additional controls that are carried out in parallel to the onboarding process, as well as introducing programmes that continually monitor the performance and mitigate the security risks of new players specifically—such as the Payment Facilitator Review process, which was introduced in 2010 and expanded in 2015 to enable the growth of payment facilitators.

The scheme generates value by: (i) boosting the economy; (ii) working for consumers; and (iii) helping businesses both inside and outside the financial services sector to grow. This report highlights the economic value generated by Mastercard by mapping its scheme activities against five key pillars of economic growth, as summarised in Figure 1 below.

[3] This is measured based on gross basis points. Fraud in gross basis points refers to the value of fraud as a proportion of transaction value, before the effect of chargebacks is included.

Figure 1 **The Mastercard scheme: drivers of growth**



While innovation is critical for Mastercard's growth and success, it is important to recognise that not all ideas will be successful. While some innovations have significantly improved the payments ecosystem, others have failed to gain traction with scheme participants and wider ecosystem users. However, even failed innovations can provide valuable insights and lessons for future development, ultimately leading to better consumer outcomes.

The structure of this report

- **Section 2 outlines how Mastercard's activities improve payment efficiency**—by making payment transactions safe, simple and smart, Mastercard improves payment efficiency in the transactions between consumers and merchants, and ensures that customers have a route to protection and refund when things go wrong.

- **Section 3 outlines how Mastercard's activities facilitate new entry**—the Mastercard scheme facilitates the entry of a range of newer 'non-bank' issuers and acquirers, as well as third-party players, facilitating competition within the ecosystem.

- **Section 4 outlines how Mastercard's activities ensure security and stability in the payment network**—including activities aimed at ensuring the security of Mastercard's payment network. This includes activity to tackle the risks associated with digital, financial crime, cyber and systemic risk. The scheme also manages the trade-offs between improving the security of the network, improving payment efficiency, and facilitating new entry.

- **Section 5 outlines how Mastercard drives innovation**—innovation plays a key role in the payments' ecosystem, but it is often high-risk for individual players to conduct and requires collective engagement. The Mastercard scheme acts as an enabler that incentivises the take-up of desirable innovations and de-risks them, while protecting and growing the UK payments ecosystem for all.

- **Section 6 discusses how the Mastercard scheme promotes wider economic and societal benefits**. These benefits include financial inclusion, privacy and data management, and positive market outcomes, as well as benefits arising from the facilitation of new entrants.

2. Improving payment efficiency

A. Introduction

A key objective of the Mastercard scheme, reflected in its mission statement, is to use its technology and expertise to make payments safe, simple and smart.[4] In doing so, it seeks to improve payment efficiency in transactions between consumers and businesses.

Not only is this directly beneficial for consumers and businesses, but there is also a wider economic benefit. Frictions result in transaction costs (the time, effort and monetary cost of transacting), which in turn raise the total cost of goods and services in the economy. By reducing these transaction costs, the scheme can affect aggregate consumption in the economy, boosting economic growth.

Three important areas of friction explain why payment methods are used and are beneficial to society: the issue of commitment, some degree of information asymmetry, and the actual physical processes involved in making a payment. When two parties want to exchange goods or services, a commitment (or an enforcement) of the promises of each party to exchange is required. The information asymmetry stems from the fact that the payer is better informed than the payee about their intention to pay, but is less informed than the payee about the quality of the good or service being exchanged for the money.

Understanding these frictions helps to explain the value and attraction of payment methods. For a payment method to be used and valued by consumers, it needs to address, in particular, the issue of commitment and the information asymmetry. Trust issues drive frictions in transacting, and there are costs to achieving trust. The payment scheme needs to establish trust to remove these two important frictions.

Mastercard has a globally recognised brand in making payments secure. Consumers and retailers recognise that the transaction will be enforced, and the strong trust and reputation behind the Mastercard brand are the building blocks that facilitate the broad acceptability of its card payments.

New technologies and innovations have reduced frictions by making way for quicker, cheaper, and more convenient payment methods. For example, contactless payments allow customers to make payments quickly and securely without the need for physical cards or cash, resulting in shorter checkout times and faster payment processing.

The increased efficiency of payment methods generates spillover effects for those involved and the third parties indirectly affected by the transaction, resulting in cost savings for merchants and time saved for everyone involved in the transaction.

Different initiatives benefit cardholders, merchants, acquirers and issuers in different ways. Some initiatives result in more convenience for cardholders and merchants (such as contactless). Other initiatives result in costs savings for issuers and acquirers, as well as a better experience for cardholders (for example, a well-functioning chargeback system). Some result in a better experience for consumers and merchants; examples of this include card-on-file, which is made more secure by tokenisation, as well as Automatic Billing Updater (ABU). These services are described in detail later in this section.

[4] Mastercard (2018), 'Guided by our vision, mission and values'.

When reducing frictions in transactions the scheme must find the right balance between convenience and security. Improving convenience often requires further investments in technology solutions to maintain a secure system.

B. Changes in scheme activities: improving payment efficiency

Mastercard has continuously invested in activities that balance the need to reduce payment frictions while maximising transaction security. Through these activities, Mastercard has created value for both issuers and acquirers, as well as cardholders and merchants. This subsection provides a number of examples.

Chargeback

The Mastercard scheme reduces payment frictions by ensuring fast and efficient resolutions in the event of difficulties.

The Mastercard scheme rules on chargebacks and the dispute-resolution platform (Mastercom) provide consumer confidence and a strong degree of consumer/buyer protection in the event of a failure in the payment chain, including when a merchant does not deliver the product or service.

Continually enhanced and developed, this process gives consumers the confidence to proceed with transactions with unfamiliar merchants, and simultaneously opens new markets to those merchants. Mastercard also defines a clear set of rules that smooth the process if something goes wrong, which protects both issuers and acquirers, avoids the need for costly chargebacks, and improves cardholder and merchant experiences.

Through this system, transactions that were not actually initiated by the cardholder (i.e. fraudulent), or for which the service or product was not delivered, can be reversed (a 'chargeback'), while the merchant is also protected against any invalid chargebacks. Mastercard's chargeback system is an efficient and standardised system for assigning the costs of the dispute and the burden of proof and process, such that many claims can be speedily resolved at low cost.

To reduce the occurrence of chargebacks and resolve them more easily and efficiently, Mastercard has designed and enhanced its claims management system over many years. Its rules and its incentive structure (e.g. assigning burden of proof, and setting a dispute administration fee that is awarded to the party in the right) aim to reduce the number of spurious chargebacks (i.e. those that are unlikely to succeed). Over the years, improvements have been implemented to Mastercard's dispute-resolution process, transforming it from the legacy, fax-based system of 1988 to the web-based portal of today.

Mastercard's 2019 acquisition of Ethoca, a chargeback and fraud dispute-resolution platform that aims to improve customer experiences with digital receipts, was a significant step towards improving payment efficiency within the Mastercard ecosystem. Ethoca enables merchants and card issuers to collaborate in real time to detect and resolve digital commerce fraud, reducing fraud at source and thereby benefitting both merchants and card issuers through reduced operational costs.

By incorporating Ethoca's technology into Mastercard's chargeback process, Mastercard can offer customers more efficient dispute resolution; it estimates that issuers and merchants can achieve a chargeback reduction of more than 80%.[5]

[5] Mastercard (2020), 'Transforming dispute resolution through merchant-issuer collaboration' Mastercard (2020), 'Transforming dispute resolution through merchant-issuer collaboration'

Mastercard monitors chargeback data from merchants and acquirers, looking to intervene if a merchant is underperforming. Feedback loops are in place to enable enhancements to the dispute-resolution process on a regular basis. For example, the Mastercard Standards Review Board meets monthly, providing an opportunity to enhance the chargeback process following feedback.

Further, Mastercard is able to take a system-wide approach to reducing disputes by mitigating their occurrence in the first instance. It achieves this by focusing on improving authentication solutions (see below) and encouraging issuers and acquirers to adopt best practices. Together, these address three possible avenues of mitigation, as follows.

- **Most chargebacks are the result of fraud**. Mastercard's continued work makes strong customer authentication (SCA) solutions as accessible and non-disruptive to the checkout experience as possible. This drives widespread adoption and reduces fraud (and thus chargebacks).

- **For a fraud-related chargeback to be initiated, an issuer or acquirer has to have initiated or approved something incorrectly**. Mastercard has developed a large number of enterprise security solutions, such as Safetynet[6] and risk-based analysis of messages, which leverage Mastercard data and knowhow to help issuers and acquirers spot suspicious transactions. This reduces the number of decisions required to approve problematic transactions.

- **Fault is often clear**. To avoid adversarial chargeback cycles on Mastercom, Mastercard facilitates pre-chargeback communication and collaboration. If given clear information and rules prior to a formal dispute being raised, the issuer or acquirer can accept responsibility and avoid the costly chargeback cycle—except in situations where there is a genuine underlying dispute.

Tokenisation

The Mastercard scheme has reduced payment frictions by using secure digital tokens for faster and safer transactions.

Tokenisation: the process of replacing a card's primary account number (PAN) with a non-sensitive, unique alternative card number (or 'token').

Tokens can be unique for a certain type of device, merchant, commerce, or commerce platform, ensuring that if a token is compromised, it cannot be used for any other transaction or with any other merchant. This creates an EMV-like security for each transaction,[7] which reduces the risk of card numbers being misused or stolen. Even if the token is intercepted or stolen, it cannot be used by fraudsters to access the cardholder's account information or make fraudulent transactions.

Since the actual card information is not transmitted during the transaction, the risk of data breaches and fraud is reduced. Merchants can securely store and seamlessly process payment data without the risk of exposing valuable financial data to potential fraudsters. These security measures help to prevent of data breaches, protect sensitive information and ensure the secure and efficient processing of digital payments.

[6] SafetyNet (for issuers) was introduced in 2015 as a global tool designed to monitor the transactional traffic of Mastercard's network and avoid large-scale fraud events. SafetyNet for acquirers was introduced in 2019.

[7] EMV refers to the increased security of payment card transactions through the use of a chip embedded in credit, debit, and prepaid cards. The EMV standard is not limited to the token but includes a cryptogram that is unique per transaction. For example, a token could be stolen and a transaction initiative, but without the unique cryptogram the transaction would be declined by MDES.

Tokenisation technology is also used by mobile payment systems such as Google Pay and Apple Pay to replace the customer's card information with a unique digital identifier or token that is securely transmitted to the merchant. Mastercard's tokenisation service, Mastercard Digital Enablement Service (MDES), is critical in supporting these mobile payment systems, providing customers with a secure and convenient payment experience while reducing fraud risk for merchants.

MDES is a platform that enables issuers, merchants and acquirers to offer digital payment solutions to their customers in a secure and seamless manner. Mastercard first launched the platform in 2014, launching MDES for merchants in 2018 to better meet the growing demand for secure and efficient digital payments.

Card issuers can use the MDES service securely to issue and manage digital payment credentials across a number of modes, including smartphones and smartwatches. Customers are then able to use their digital payment credentials to make contactless payments, in-app purchases, and online purchases.

The rising demand for fast and frictionless payments has seen a shift towards merchants encouraging cardholders to store their payment credentials on file, with the merchants themselves, via digital payment methods, and via digital wallets. This enables consumers to store payment credentials to their user account, eliminating the need to re-enter their card information for every purchase. These transactions offer consumers a convenient, frictionless and fast way to pay, with 78% of UK consumers having a card on file, and a further 6% open to saving one.[8]

However, fraud and cybersecurity threats are constant and ever-evolving. Card-not-present (CNP) transactions accounted for 79%[9] of card fraud volumes in 2020.[10] Given that over 80% of the UK population make e-commerce purchases,[11] robust countermeasures to combat fraud and cyber threats are crucial. Mastercard has invested extensively in MDES to balance the need for convenience and transaction security.

Mastercard has also expanded tokenisation into the merchant space, allowing merchants to store consumer details on their website in tokenised form. If a repeat purchase is made, the transaction can be approved smoothly and efficiently, while also reducing the risk of fraud.

The MDES platform itself has undergone changes in recent years, including to its underlying cryptography. It is also evolving to include full life-cycle management of customers. Additionally, with the introduction of push authorisation, services that were previously not fully integrated have become so. Push authorisation enables customers to approve transactions from their mobile device, reducing the friction and complexity associated with traditional payment methods. This enhancement has contributed to a more efficient and streamlined payment process, enabling customers to make payments quickly and easily from their mobile devices.

The increased security and convenience enabled by tokenisation has boosted the adoption of digital payments in-store, in-app and online, driving growth for the wider ecosystem. As a result of tokenisation, Mastercard

[8] Mastercard (2020), 'Credential on File: The Digital Commerce Growth Engine'.

[9] We do not anticipate this was largely effected by the pandemic. In 2018, CNP transactions accounted for around 76% of the total value of fraud in the UK according to statistics from UK Finance (2019), 'Fraud – the facts 2019: The definitive overview of payment industry fraud', p. 14.

[10] See UK Finance (2021), 'Fraud - the facts 2021: The definitive overview of payment industry fraud', p. 21.

[11] Statista (2023), 'Online shopping behavior in the United Kingdom (UK) - statistics & facts', January.

anticipates a 29% increase in in-store digital purchases[12] by 2024 and a 10% increase in online digital purchases by 2024.[13]

MDES has facilitated a significant improvement in payment efficiency in the Mastercard ecosystem. Tokenisation supported reducing transaction declines by 58% in the UK in 2022, affecting all decline reason codes. Furthermore, the adoption of tokenisation across the Mastercard network has contributed towards strong performance in tokenised approval rates. In 2022, token approval rates were 98.4%, without financial decline, increasing from previous years. Despite the increased risk of fraud, which has resulted in a decrease in authorisation approval rates for non-tokenised and non-3DS transactions, approval rates for tokenised CNP transactions have exhibited consistent positive growth since 2015, thus demonstrating the overall value of the MDES service.[14]

Beyond this, tokenisation has vastly improved the overall user experience, which has resulted in a lower abandonment rate. Tokenisation eliminates the need for users to enter the same credential data multiple times, resulting in better lifecycle management.

Automatic Billing Updater

The Mastercard scheme reduces payment frictions by ensuring that cardholder information is frequently updated, avoiding unnecessary declines.

As discussed above, consumers are increasingly storing their account information online to simplify and reduce the time associated with the checkout process. Customers with account-on-file payment arrangements may experience service disruptions when their card expires or account information changes, increasing the risk of customer attrition and compromising merchant sales. In response, Mastercard developed the ABU service in 2016 to ensure the continuity of card-on-file and recurring payments.

ABU is a web service that provides access to updated account credentials (cards). This can be leveraged by merchants, acquirers or other payment service providers to ensure that they have their customers' most up-to-date card credentials on file, resulting in a reduction in declines for recurring and card-on-file payments. ABU also applies to mobile wallets.

The service can be used in two different ways: (i) pulling updates; or (ii) having updates pushed to an endpoint on the merchant/acquirer/payment service provider system for account numbers that they are watching.

For card-on-file and recurring payment merchants, accessing ABU directly is quick and efficient, allowing inquiries and updates close to the time of the transaction to help reduce preventable declines caused by changed account numbers and expiration dates. Mastercard estimates that 33% of all CNP declines could be prevented by using ABU.[15]

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[12] In-store digital purchases are purchases made in store using digital devices, which includes contactless payments through smartphones and wearables.

[13] Mastercard data.

[14] Mastercard data.

[15] Mastercard Developer (2023), 'Automatic billing updater'.

Using ABU can improve payment efficiency further by reducing operating and processing costs because customers who have saved credentials with a given merchant are more likely to complete a transaction, reducing the risk of customer attrition.[16] An example of an ABU use case is captured in Box 1 below.

Box 1 Adyen and ABU benefits

Adyen – one of the biggest global acquirers—used the ABU API automatically to update stored accounts in real time for all its card-on-file merchants. It also provides extensive live performance data to its merchants, including authorisation rate impact by issuing bank and decline codes. The impact of ABU adoption were:

- a 2.5% increase in approval rates and corresponding revenue from card-on-file payments;
- 24% of invalid card declines being prevented;
- 11% of expired card declines being prevented;
- over 6% of generic declines being prevented;
- a 43% chance of turning a decline into an approval with an ABU API update.

Source: Mastercard Developer (2023), 'Automatic billing updater'; Mastercard Developer (2023), 'Adyen and Automatic Billing Updater'.

Authentication

The Mastercard scheme plays an important role in reducing frictions during customer authentication.

The shift towards CNP transactions, driven by the rise of e-commerce and mobile payments, has been accompanied by a new set of fraud challenges. E-commerce fraud losses on UK-issued cards has increased from £139.6 million in 2011 to £376.5 million in 2020.[17] These require new approaches to maintaining convenience of payments while simultaneously protecting security within the wider payments ecosystem. It is essential to Mastercard's success and competitive positioning that it continues to invest and innovate in this area to improve the cardholder and merchant experience. Examples of recent developments include NuData, Accountholder Authentication Value (AAV), and EMV 3DS. It is through this lens of maintaining consumer convenience that authentication is explored in this section.

Regulatory authorities have also recognised that SCA is a necessary requirement to reduce fraud and thereby protect consumers.[18] Mastercard has been integral to leading and coordinating the industry's response to the SCA requirements. It has also provided SCA-compliant solutions that use payment authentication protocols to provide a better customer experience, as well as to reduce fraud and basket abandonment.

As part of this, Mastercard has developed innovative solutions that have been incorporated into regulation. One example is AAV validation, introduced in 2004 and enhanced in 2018 and 2019—an important element of SCA

[16] Ibid.

[17] UK Finance (2021), 'Fraud – The Facts 2021', p 34.

[18] The European Commission mandated SCA in PSD2, and this mandate is also included in the equivalent UK regulations. See Financial Conduct Authority (2020), 'Technical Standards on Strong Customer Authentication and Common and Secure Methods of Communication Instrument 2020 (UK-RTS)', November; European Commission (2017), 'Payment Services Directive (PSD2): Regulatory Technical Standards (RTS) enabling consumers to benefit from safer and more innovative electronic payments', November.

that was pioneered by the industry through EMVCo and later adopted as a requirement into PSD2. AAV validation is a check by the issuer on the token created by the acquirer through SCA.[19]

Like Mastercard's other authentication solutions, AAV increases trust in the ecosystem as a whole and provides for a more seamless and less vulnerable CNP experience for all participants. This leads to additional approved transactions, less friction and ultimately greater value to customers, improving efficiency in the ecosystem.

The implementation of EMV 3DS consumer authentication helped to ensure that e-commerce transactions are simple, accessible, and secure by accurately and efficiently verifying consumers during CNP purchases or other flows, such as recurring payments and card-on-file transactions. EMV 3DS has increased authentication and authorisation approval rates from around 86% in 2019 to over 94% in 2022 for UK issued transactions.[20] EMV 3DS, the industry standard on which all of Mastercard's identity solutions are built, is a publicly accessible standard that any entity can use to develop PSD2-compliant authentication solutions that work on the Mastercard network (and those of other EMVco members). EMV 3DS was already available as a standard for any competitors wishing to develop similar solutions prior to mandate of SCA (March 2022 in the UK). The introduction of EMV 3DS reflects continuous development and investment in authentication.

The engagement of Mastercard with merchants on EMV 3DS has been critical in improving payment efficiency in the ecosystem. Mastercard made significant investments to ensure that everyone was ready for PSD2 and that customers could continue to make payments without interruption. To help with compliance with these new regulations, Mastercard published an authentication guide in 2019, which covered a significant breadth of EMV 3DS merchant use cases, and required significant collaboration with retailers.[21] This was based on extensive merchant engagement, and provided a steer on how to use Mastercard infrastructure to comply while not driving away customers. This helped merchants to better understand the new regulations and to implement changes to their payment processes, improving payment efficiency and ensuring that transactions were secure. These engagements provided an opportunity for Mastercard to discuss the most recent industry developments and share best practices for improving payment efficiency.

Initiatives such as NuData (2017), through its NuDetect platform, allow Mastercard to deliver even quicker and more secure customer authentication processes. NuDetect identifies authentic users from potential fraudsters based on their online, mobile app and smartphone interactions, flagging those who represent the highest risk. The technology assesses, scores and learns from each online or mobile transaction to enable merchants and issuers to make near real-time authorisation decisions. The verification process offers a better insight into the company's traffic, gives accurate information to make better authentication decisions, and—crucially—provides a seamless experience to legitimate users, without added friction.

Mastercard also introduced Smart Authentication Direct for Acquirer Exemptions (2021) to improve efficiency. Mastercard expects issuers to respond to retailer authentication requests and to be able to process exemption flags included in authorisation requests without systemically declining them. It introduced Smart Authentication Direct for Acquirer Exemptions to assist issuers in responding to acquirer exemptions (and SCA delegation flags) in authentication. If an enrolled issuer's transaction is deemed low-risk, Mastercard will respond to authentication requests on the issuer's behalf with an acquirer exemption (or SCA delegation flag). If the transaction is determined to be high-risk, Mastercard will route it to the Access Control Server (ACS) for further review. For all other authentication requests, the normal flow would apply.

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[19] AAV verifies that the token sent to the issuer by the acquirer has been generated by the appropriate mechanism. Mastercard offers a solution that means issuers do not need to incur the in-house software development time and effort to undertake this activity

[20] Mastercard data.

[21] Mastercard (2019), 'Authentication guide for Europe', V1.1, April.

Mastercard also encourages whitelisting to improve payment efficiency by reducing the number of declined transactions. This allows cardholders to select trusted merchants in order to avoid the additional authentication step and enjoy a truly frictionless online payment experience. Whitelisting entails compiling a list of pre-approved trusted merchants or payment recipients, allowing transactions with these parties to be automatically approved without the need for additional verification. This process can help to reduce the risk of fraud while also reducing the need for manual intervention, resulting in faster and more efficient payments.

Mastercard also encourages biometric identification to reduce reliance on authentication from what consumers know (e.g. passwords) to who they are (e.g. fingerprints). As an example, Identify Check Mobile (2017) uses biometric technology to verify a customer's identity and simplify the online shopping experience.

Mastercard's ongoing authentication activities look to improve payment efficiency and security. By monitoring authentication performance, it can identify areas of poor performance and take appropriate action to address them. Not only does this ensure that transactions are completed quickly and efficiently, but it also lowers the risk of fraud and other security threats.

Through this monitoring process, Mastercard can gain insight into the authentication mechanisms used by various merchants and issuers. They may notice, for example, that a specific issuer uses a more complex authentication mechanism than a simple biometric authentication method. Mastercard can provide merchants and issuers with feedback and recommendations on how to improve performance by understanding how authentication occurs, as well as the success rate of various methods.

This process of monitoring, feedback, and follow-up is critical to ensuring payment efficiency across the Mastercard ecosystem. By working closely with customers and merchants, Mastercard is able to provide targeted support and guidance to help them optimise their authentication processes. As a result, the payment ecosystem's overall efficiency improves, while security and fraud risk are reduced.

Contactless

The Mastercard scheme has reduced payment frictions by speeding up transaction times at the point of sale, as well as improving the convenience around payment methods.

Mastercard has launched initiatives that have reduced how long it takes to make a payment, and the associated costs in terms merchant and consumer time. As an example, contactless payments have reduced the time it takes to make purchases without jeopardising payment security. Mastercard estimates that contactless payments are up to 10 times faster than other in-person payment methods.[22]

Contactless technology has proven especially useful for low-value transactions where the risk impact is minimal. Furthermore, the introduction of low-value payment terminals has resulted in a lower cost of investment because a PIN pad is no longer required. Cardholder-activated terminals such as vending machines, on-street parking metres, and off-street parking entry/exit terminals have all benefitted from this. Contactless readers have also enabled payment and access functionality, particularly in transit and public transportation.

Mastercard will continue to play an important role in enabling contactless, both from the perspective of developing the technology and coordinating and facilitating adoption. Although contactless technology had already been developed in 2007, it only achieved wide adoption around 2015. Mastercard then further optimised its systems to enable the contactless limit to be increased.

[22] Mastercard (2020), 'Mastercard study shows consumers moving to contactless payments for everyday purchases as they seek cleaner, touch-free options', 30 April.

It was the rollout of contactless terminals and technology, which allowed for the subsequent development and adoption of mobile payments through MDES tokenisation, described above. Not only did it create the necessary acceptance infrastructure, but it enabled both cardholders and merchants to familiarise themselves with the concept of a contactless transaction as well as to see the enhanced value. As the volume of mobile payments continues to grow, the initial investment by Mastercard in contactless can be seen to have increasing and long-term benefits.

Mastercard has invested significantly in increasing the roll-out of contactless infrastructure, such as by partnering with a variety of merchants to provide contactless payment options in their stores. These collaborations entail the installation of contactless payment terminals (using Near-Field-Communication (NFC) technology) and systems, which allow customers to pay for purchases by tapping their contactless-enabled cards or mobile devices. Mastercard also provided guidance to retailers on defining how the point-of-sale (POS) should be positioned in the cashier system; namely, that new terminals should be placed close to the customers, rather than to the cashier (as had been the case with the previous terminals).[23]

The scheme also worked closely with a wide range of stakeholders in the transport space, such as Transport for London (TFL), the Department for Transport, transport authorities, suppliers and industry bodies to help TFL to adopt contactless on bus and tubes, a process involving many rounds of stakeholder engagement.[24] This additional work by Mastercard has led to significant improvements in payment efficiency, with more merchants and customers being able to realise the benefits of contactless. For example, TFL's adoption of contactless reduced its cost of fare collection from 14% of the revenue to 9%.[25]

Mastercard has continued to enhance its fraud-prevention system to mitigate the additional risks associated with contactless payments not requiring cardholders to enter their PINs. This change has been managed by Mastercard through, for example, continuous monitoring of transactions to detect fraudulent card use as quickly as possible, asking for a PIN if the profile of transactions suggests that there is greater risk of fraud.

Mastercard's fraud prevention activities and the subsequent trust placed in the brand enable Mastercard to respond quickly to changing customer needs in response to external shocks. During the COVID-19 pandemic, Mastercard, in collaboration with other players in the ecosystem, substantially increased the contactless limits in response to public health concerns about the spread of germs from CHIP and PIN. Increasing the contactless limit was facilitated by Mastercard's success in detecting fraud, engagement with issuers, and mitigation of the associated risks. Mastercard's ability to bring about this change at speed, and despite the potential for increased fraud, is testament to the trust that issuers, acquirers, cardholders and merchants place in its scheme.

Through each wave of innovation, Mastercard reduces the transaction time and effort required from customers, aligns the payment experience to consumer preferences, and continues to mitigate risk.

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[23] Mastercard (2018), 'Mastercard brand mark guidelines'.

[24] UK Finance' (2017), 'Contactless Transit EMV Framework', Annex B, December.

[25] Mastercard (2020), 'Contactless brings a more convenient commute to London'

3. Facilitating new entry

A. Introduction

The Mastercard scheme is open to a range of new banks and 'non-bank' issuers and acquirers; it is not limited to established banks, nor existing payment devices. Where new payment devices (such as mobile devices) have required technological updates to function securely, these have been possible through Mastercard's scheme. The scheme is structured openly to support Mastercard's commercial incentives to grow payment volumes regardless of its members' business models.

As a result, Mastercard has positively impacted the payment services sector, as well as other sectors and industries.

An important element of the competitiveness of a market is the ease with which new competitors or technologies can enter a market to compete with established firms and disrupt existing business models. Reductions to barriers to entry can therefore allow for more competition and help to deliver the associated benefits for consumers in the form of increased output, lower prices, and technological progress.

Mastercard has traditionally played an important role in reducing these barriers. For example:

- Mastercard has substantially quickened the onboarding process for new players, increasing their speed to market (while also mitigating the risks associated with these new players).

- Mastercard reduces barriers to entry for payment facilitators and fintechs and offers new services that cater to their needs. For example, Mastercard initiatives have allowed players such as Adyen (which entered as a payment facilitator and is now an acquirer) and Monese (a third-party player offering current accounts and money transfer services) to enter and expand within the payments ecosystem.

- Mastercard enables third-party players to operate in the Mastercard ecosystem, encouraging them to provide services that complement Mastercard's services and benefit the ecosystem as a whole. Mastercard makes its standards public, enabling other players to operate by these standards.

- Mastercard actively works with other players and technology companies that provide new services and encourages them to enter the ecosystem. For example, the Mastercard Network Facilitation Program helps new players to integrate Mastercard products and services into their offerings, boosting their performance as a result.

- Mastercard also reduces barriers to entry in markets outside the financial services sector.

B. Changes in scheme activities: facilitating new entry

The scheme reduces barriers to entry at different levels of the supply chain in a number of ways. This section explores how Mastercard has done this for participants in acquiring, issuing and the broader financial services space.

Speeding up the onboarding process for new players

In both the acquiring and issuing markets, Mastercard's franchise team has worked to speed up substantially the onboarding process for new players, increasing their speed to market.
Enhancements to the franchise onboarding process have resulted in an average decrease in onboarding time of 40% per year, from an average of eight weeks in 2020/21 to 3.5 weeks at the time of writing. At the same time,

Mastercard has implemented processes to ensure that faster onboarding does not lead to additional security risks.

For example, in 2020 Mastercard introduced Parallel Path, a direct licensing process enhancement through which Mastercard allows the pre-release of ICAs and BINs for customers to engage in implementation and testing to reduce time to market, while also ensuring speed, efficiency and safety. During this process, the franchise team consults with the customer and conducts pre-qualification checks and operational risk mitigation reviews, focusing on anti-money laundering (AML) and financial risks, among others. Mastercard has also implemented controls to prevent players from going live prior to completion of all risk reviews.

While these onboarding speed increases benefit all new players in the ecosystem, they have been especially relevant for new third-party players, such as payment facilitators and fintechs, who benefit the ecosystem through the introduction of new services. The increase in onboarding speed has allowed for the rapid onboarding of large numbers of new payment facilitators, who, together with former payment facilitators, now onboard the vast majority of new merchants.[26] For fintechs, who benefit especially from faster speeds to market, the onboarding process has been sped up further, from 4–5 months to an average of 20 days in 2022, through the Fintech Express initiative, as discussed in section 3.2.3 below.

Acquiring market

Mastercard has played an important role in reducing entry barriers in order to enable payment facilitators to enter the market and thereby promote competition, while at the same time maintaining resilience in the system. Mastercard has encouraged the entry of payment facilitators, which benefit the market by serving formerly underserved market segments.

For example, following the introduction of the first Payment Services Directive (PSD I), which facilitated entry into the acquiring market in Europe, Mastercard made additional efforts further to enable entry by payment facilitators, including providing advisory support to new and potential entrants and increasing the volume threshold for payment facilitators to allow market expansion.

Providing advisory support to new and potential entrants. One way in which this has been done is through providing support to those looking to enter the market and become acquirers or payment facilitators.

Increasing the volume threshold for payment facilitators to allow market expansion

An acquirer is liable for settlement in the event that a merchant is unable to settle itself. Mastercard does not monitor the transactions of payment facilitators, as these are monitored by acquirers. As such, Mastercard monitors the outstanding positions. Mastercard therefore mitigates risk by imposing a threshold on the size of merchants that payment facilitators can serve (measured by volume of transaction, per merchant). In 2015, Mastercard increased this threshold to encourage the growth of payment facilitators as well as to facilitate the acceptance of micro-merchants. This was further increased in 2022.

Mastercard also allowed several other exceptions to its scheme rules for payment facilitators serving micro-merchants, such as removing the requirement for a prospective merchant entering the system to require a credit check if the merchant has an annual Mastercard transaction volume of less than £100,000.[27] There are several

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[26] As the PSR notes in its 2021 card-acquiring market review, payment facilitators (and former payment facilitators) now onboard the majority of new merchants. Over 80% of merchants onboarded between 2014 and 2018 were onboarded by the largest payment facilitators (and Stripe, which has since become an acquirer). See Payment Systems Regulator (2021), 'Market review into card-acquiring services', November. PSR analysis provided by acquirers and payment facilitators. All merchants are included (including those that have not transacted).

[27] Mastercard (2014), 'Revised Standards for the Payment Facilitator and Service Provider Programs', October.

instances where Mastercard has made exceptions to the threshold limit in order to expand acceptance to the types of merchant that would not otherwise use acquirers, such as hospitals and education providers. Further, Mastercard helps ensure a level playing field by providing payment facilitators with training, as well as partnering them with acquirers.

Encouraging the entry and expansion of new players

Mastercard provides support to those looking to enter the market to become acquirers or payment facilitators. For example, the scheme encourages new players to enter the payments ecosystem and expand into other authorised activities as they grow. An example is Adyen, which entered the market as a payment facilitator but has since expanded into the acquiring space. As the PSR notes in its 2021 card-acquiring market review, Adyen has significantly grown its share of supply in the UK market between 2015 and 2018, now serving approximately 5–10% of large merchants.[28]

The Mastercard Payment Gateway Service (MPGS) is a payment processing platform that allows payment facilitators to accept electronic payments securely and efficiently.[29] The service accepts a variety of payment methods and provides value-added services like fraud detection, reporting and reconciliation tools, and customisable checkout options. The program is fully integrated with Mastercard's global payment network and supports multiple currencies, making it ideal for merchants looking to expand internationally. MPGS is designed to help payment facilitators get started and grow by providing them with a dependable and adaptable platform to process electronic payments on behalf of their merchants. This service has contributed to payment facilitators entering the market and serving a previously underserved market of small merchants, and to new acquirers being able to expand within the market.

Mastercard has also supported the expansion of new acquiring entrants by developing services which support the specific needs of these players. An example is the Acquirer Intelligence Centre (AIC), launched in 2020, a self-service analytics software platform that provides insights into acquirer portfolio performance. With AIC, acquirers have a view into key datasets such as authorisation, declines, fraud, chargebacks, interchange and points of interaction, among others. AIC allows users easily to drill down on any KPI and flexibly cut data by merchant category, merchant, time period, channel, geography, and more. The service allows acquirers to access data directly through the self-service platform, without waiting for static reports. While useful for all players in the acquiring space, this tool is especially useful for players who are new to market and may therefore gain the greatest value from the market insight provided.

Issuing market

Encouraging the entry of new players

The Mastercard Send Partner Program provides comprehensive assistance, training, and product knowledge to customers all over the world, enabling them to integrate Mastercard Send into their digital solutions and grow their businesses.

Examples of other initiatives include Mastercard's prepaid card products, which have enabled non-bank companies (e.g. N26 and Transferwise) to enter the retail payments markets. These new entrants have been able to quickly launch current-account 'like' payment services (under a restricted banking license), and to start testing their apps with real customers straight away. As a result of the Mastercard scheme, new entrants can enter the market quickly and compete with global incumbents, subsequently expanding into other spaces. Furthermore, this can serve as a starting point for expansion into other authorised activities, such as applying for a banking license to offer current accounts. For example, Monese entered the market in 2015 as the UK's first mobile app

[28] Payment Systems Regulator (2021), 'PSR card-acquiring market review – final report', November.

[29] Mastercard, 'Mastercard Payment Gateway Services'.

alternative to digital banks; it now offers a current account and debit card, as well as some fee-free international payments and ATM withdrawals.[30]

Alongside the entry of principal customers (who are directly licensed by Mastercard), Mastercard facilitates the entry of affiliate customers (who are licensees sponsored by a principal customer). For example, Mastercard's BIN sponsorship program allows companies to launch and manage Mastercard card programmes after being sponsored by a Mastercard-licensed issuer. This enables them to launch prepaid, debit and credit card programmes faster, providing entities with more flexibility and choice in how they work with Mastercard. There are around 100 institutions in the UK that are allowed to issue Mastercard cards under this model. Many of the institutions currently issuing cards in this way in the UK are fintechs, and these include PPS, Paysafe and Contis.

Enabling connectivity to the Mastercard system

Through a single point of connectivity via Mastercard Edge, customers can access the Mastercard network, products and value-added services from anywhere, including from their chosen public cloud presence. Additionally, the Network Enablement Partner Program, discussed below, is relevant for fintechs that have not entered as issuers or acquirers.

Mastercard supports the swift onboarding of new fintech players through Fintech Express (2019)

This programme is tailored to the needs of fintech players, as both newly founded and established fintechs tend to operate at a faster pace than traditional issuers. Fintech Express supports fintech builders by speeding up and simplifying the process to launch new card programmes, resulting in a decrease in onboarding times from 4–5 months to an average of 20 days in 2022. The initiative also provides adaptable licensing frameworks through a single point of contact with in-market experience and knowledge of best practices, while also enabling fintechs to benefit from a global network of experts to help them scale. The programme provides three different pathways, catering to fintechs with differing needs:

- Access helps regulated fintechs swiftly become licensed and integrated within the Mastercard network and provides streamlined onboarding and a flexible commercial framework;
- Connect allows non-regulated fintechs to connect and partner with issuing partners that are part of Mastercard's Engage programme;
- Build helps fintech enablers partner with Mastercard to become issuing partners and launch new programmes for fintechs.

In creating this initiative, Mastercard takes on the collateral risk and caters to the needs of fintech players, leading to benefits for the ecosystem as a whole.

Developing services which support the needs of fintechs

Many fintech players have different needs compared to traditional issuing and acquiring players, such as requiring tools, which give them specific insight into their markets. As many of these players are recent entrants to the market, they are likely to especially benefit from tools providing them with insight into their performance.

Many of these players also operate in specific market niches, such as cross-border transactions or the cryptocurrency space and require tools catered to these needs. Mastercard has developed a range of tools and services that specifically support the needs of these fintech players, including Trends Platform, which provides information on the market for fintech players specifically, and analytics tools such as the Mastercard Intelligence Centre (MIC), which enables new players to analyse their performance against market trends. Mastercard also

[30] Fintech Future (2021), 'Challenger banking player Monese makes its first acquisition', 21 Dec; and Monese website, last accessed 29 March 2023.

provides specific programmes and coaching to support fintechs' solutions and partner with them to help them to scale.

Box 2 Tools catering to the needs of fintechs

Trends Platform, launched in 2020, provides a simple, curated view of reliable market insights, including industry insights, competitive intelligence, and technology trends from around the globe.

Trends Startpath, released in 2022, is Mastercard's global start-up network, created to ignite relationships between vetted start-ups and corporate members. It allows customers to benefit from the changing payments ecosystem and growing number of fintechs by enabling players to access the latest innovation from fintech start-ups, ranging from blockchain to fraud solutions.

Mastercard Intelligence Centre (MIC), launched in 2019, is a self-service and pre-defined analytics tool offered for to players free of charge. The tool offers insight on players' portfolio performance across factors including spend, fraud, authorisation and interchange compared to custom benchmarks for a full view of business performance and actionable insights. This is specifically useful for fintech players which, as newer entrants to the ecosystem are likely to benefit substantially from this innovation.

Test & Learn (T&L) Lite, launched in 2016, is a customer analytics tool which identifies key drivers of customer performance and sets out a clear action plan going forward. T&L offers customers the ability rapidly to drill down into large datasets; organisations report analysing tests six times faster with T&L than with previous analytical methods.

Portfolio Optimiser, launched in 2015, is a solution that leverages Mastercard's data assets and expertise to allow issuers to identify and increase revenue opportunities within their credit and debit portfolios.

Mastercard Loyalty Solutions is a suite of products and services which provide end-to-end solutions to deliver customer value and drive engagement. Mastercard's customers are able to plug into an array of agile platforms and services which provide a comprehensive solution enabling customers to build deeper relationships with their own customers, gain satisfied and more loyal customers, and increase incremental card spend. These solutions drive value for a range of Mastercard's customers, but they are especially valuable for new-to-market players offering innovative solutions.

Other solutions: Mastercard also provides solutions that cater to the needs of diverse players in the ecosystem, including FX solutions, enabling cross-currency transactions. For example, Mastercard's Dynamic Currency Converter enables smooth and convenient cross-border payments by converting from the transaction or ATM currency to the card's currency in real time.

Source: Mastercard

Wider ecosystem

In addition to facilitating the entry of new issuers and acquirers, Mastercard has made changes to support the entry of other players in the wider payment ecosystem and beyond. For example, several Mastercard initiatives encourage the entry of small merchants that might not otherwise be able to enter the scheme, enabling payment efficiency and security for these players while also facilitating greater choice of payment methods for cardholders.

- **MDES facilitating mobile payments**. As discussed above, Mastercard has significantly improved MDES over recent years. The expansion of MDES into mobile payments grants increased flexibility for cardholders to pay using their payment method of choice. It also provides opportunities for small merchants, which might not otherwise be able to participate in the Mastercard scheme, to accept payments safely and securely if cardholders choose to pay by phone.

- **Enabling smaller merchants to compete with larger ones**. Mastercard undertakes specific initiatives to make it easier for smaller merchants to accept cards. For example, the scheme has revised its rules on the use of PIN pads and magnetic stripes in payment terminals, following collaboration with smaller merchants about the high costs of adoption. As discussed above, Mastercard has also enabled merchants to accept mobile payments, while initiatives such as 'PIN on Glass' have made enabled merchants to accept payments without a card terminal, which can have a high cost for smaller merchants. Mastercard has also partnered with the fintech Square to provide the free business debit card Square Card. The card helps small businesses manage their cash flow by reducing the time between making a sale and having their funds ready for another purpose.[31]

- **Network Enablement Partner Program**. This programme, launched in 2018, reaches out to customers to help them integrate Mastercard products and services into their offering. By doing so, it extends the franchise to players who choose opt in to benefit the ecosystem as a whole. Partners are then able more easily to become issuers and acquirers. This provides a key point of entry for players that are neither issuers nor acquirers, enabling them to benefit from Mastercard's products and services and to operate by scheme rules, which benefits the security and stability of the ecosystem as a whole and boosts the quality of the transactions.

- **Standards are made freely available**. Mastercard's open approach to sharing its protocols enables other businesses to leverage the existing Mastercard knowledge and capabilities in order to enter the market. In other jurisdictions, domestic card schemes have benefited from the openness of Mastercard's sharing of rules and standards. EMV 3DS, the industry standard on which all of Mastercard's identity solutions are built, is a publicly accessible standard that any entity can use to develop PSD2-compliant authentication solutions that work on the Mastercard network (and those of other EMVco members). These open standards have led to the emergence of third-party providers of authentication solutions in some markets.

[31] World Finance Informs (2023), 'Square launches new Mastercard-powered business debit card', 29 March.

4. Ensuring security and stability in the payment network

A. Introduction

The Mastercard payment scheme is a uniform, interoperable system that enables issuers and acquirers around the world to exchange transaction information efficiently, accurately and rapidly. The functioning of the Mastercard payments network depends greatly on how much the user trusts the scheme rules, and in particular the predictability and reliability of those rules in terms of facilitating stability, certainty and confidence in the network.

The Mastercard network faces continuous and dynamically evolving threats. To ensure the integrity of the system, Mastercard invests in the maintenance and monitoring of its network, providing benefits to acquirers and issuers, as well as to the broader payments ecosystem.

The Mastercard scheme faces and manages four main types of risk.

Digital risk

The Mastercard network faces continuous and dynamically evolving threats from digital payment fraud and digital identify theft. Digital security is an increasingly important area in the economy due to the unprecedented amount of data being created and shared, the risk of the sharing economy, and the coming of age of the first digital generation. Addressing fraud is not a static process, as groups and individuals conducting the fraud will respond to any preventative measures that are introduced. In particular, introducing a new security solution in one area often results in fraudulent activities moving to other areas, which then become relatively easier to target.

Cyber risk

Similar to anti-fraud activities, addressing cyber-attacks requires constant development and monitoring as cyber-attack technologies evolve rapidly. At the same time, the underground market for stolen data has matured, which facilitates the monetisation of any stolen information.[32] As a result of these developments, more sophisticated cyber-attacks, through malware, ransomware and distributed denial of service (DDoS) attacks have evolved and risen rapidly, bringing with them greater threats. For example, in 2022 alone, DDoS attacks rose by 22%.[33] To protect the security and integrity of its payment scheme, Mastercard has to invest in the latest technology, monitor the network constantly, and conduct regular tests to ensure that the system is resilient.[34]

Financial crime risk

The growth of financial crime risks, which include money laundering and scam fraud, has been driven by a variety of factors, including the increased sophistication of criminal organisations and the increased attack surface within the payments chain. Another contributing factor is the growth of cryptocurrencies in payments, which have increased in transaction value by 400% in the UK between 2018 and 2021 alone. As cryptocurrency transactions can be anonymous and cross-border they can be difficult to track, leading to a higher risk profile.

Systemic risk

This reflects risks to the entire payments system, such as through settlement risks . Mastercard manages risks associated with the Settlement Guarantee, through which the scheme ensures that acquirers, and ultimately

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[32] See FastCompany (2022), 'New research shows that darknet markets net millions selling stolen personal data', July.

[33] FS-ISAC and Akamai (2023), 'The Evolution of DDoS: Return of the Hacktivists', January.

[34] The switch retains a limited set of transaction detail information (such as amount spent, merchant and primary account number, or PAN), and does not retain other personally identifiable information. This limits the value of the data that can be stolen.

merchants, will always be paid in the case of issuer settlement failure. With the proliferation of new players, including a large volume of fintechs, in the issuing space, settlement risk has increased.

In this section, we explore how Mastercard has responded to these growing risks in the ecosystem. This includes changes Mastercard has made through improvements to its internal activities, such as monitoring of high-risk players and updating scheme rules, and to the services it has rolled out.

B. Changes in scheme activities: ensuring security and stability

The various Mastercard scheme activities associated with the range of fraud risks are explored in turn below.

Digital risk

The scheme develops rules and standards to ensure confidence in the system and invests in technologies that keep pace with the evolving fraud activities. Key steps to the risk mitigation strategy are as follows.

- **Identification of fraud**. The scheme works together with the issuers and acquirers to identify suspicious activity (e.g. potential money-mule networks). In recent years, Mastercard has launched several tools, including Mastercard Early Detection System (introduced in 2017) and Mastercard Decision Intelligence (launched in 2016), among others, which provide targeted information on the real-time risks to issuers and acquirers. These services leverage the scheme's access to system-wide data and advanced modelling techniques. A number of recent acquisitions, including Brighterion (2017), NuData (2017), Riskrecon (2020) and Ekata (2021), have also strengthened the tools available to issuers and acquirers to identify fraud These services use a range of tools, including biometric indicators and AI, to reduce fraud.

- **Updating rules and standards**. Mastercard evaluates how scheme rules should change in response to wider changes in the ecosystem. Mastercard updates its standards based on the parameters of external engagement, analysis of industry trends, and trusted experts in the fraud space. For example, through regular industry engagement (such as through hosting consumer forums and quarterly business reviews), Mastercard is able to engage with issuers, acquirers and other players to understand current issues of concern, including those relating to fraud. Mastercard also attends UK Finance working groups in the fraud space. Based on information from these sources, Mastercard updates its rules and standards to increase the security and stability of the ecosystem and reduce fraud.

- **Due diligence checks**. To protect against harmful merchant activity, acquirers are required to carry out due diligence checks on merchants before entering into a relationship with them. The acquirer has an incentive to perform these checks as it may ultimately be liable for the merchant's actions under the scheme rules.

- **Developing technology**. The scheme needs to invest continually in best-in-class technology to stay ahead of attackers that could destabilise the network. Examples of some of these scheme activities include tokenisation (2018, see section 2), as well as the acquisition of NuData and Ekata.

- **Ensuring adoption of the technology**. As well as investing in the development of new secure technology solutions to stay ahead of fraudsters and hackers, the scheme needs to ensure adoption of these solutions by all participants in the network. A critical part of this is ensuring that strong customer authentication (SCA) is quick and convenient, and therefore more likely to be used by cardholders (see section 2). The Mastercard scheme rules are designed to put in place incentives to facilitate this adoption.

- **Ensuring the integrity of the payment system**. Mastercard preserves the integrity of the payment system by identifying merchants who introduce more than an acceptable level of risk into the system. For example, Mastercard's Business Risk Assessment and Mitigation (BRAM) Program restricts merchants' access to the system, ensuring that Mastercard cards are not associated with transactions that may pose significant fraud, regulatory and/or legal risks, or may cause reputational damage. While introduced in 2015, the service continues to be updated to reflect the changing risk landscape. Updates in 2022 reflected measures to prevent the sale of counterfeit goods, as well as attempts to circumvent card scheme requirements in respect of miscoding gambling transactions.

- **Monitoring the fraud of scheme participants**. Mastercard monitors the fraud events and quality of fraud defences of its scheme participants. This is done using internal dashboards of key information, including Data Integrity Online, which lists metrics associated with players in the ecosystem, including any violations of key rules. If scheme rules are violated, Mastercard intervenes and engaged with players directly. As well as ensuring the central reporting of fraud events by its participants, Mastercard analyses the data to help scheme participants reduce potential security gaps. Some recent improvements to performance programmes are captured in Box 3 below.

Box 3 Improvements to performance monitoring programmes

Mastercard is constantly adapting its performance programmes in response to new risks in the ecosystem. Examples of new and recently updated performance programmes include the following.

- **Excessive chargeback program** is a performance programme through which Mastercard monitors the number of chargebacks associated with each player, distinguishing high-risk from non-high-risk merchants. Through this, Mastercard incentivises high-risk merchants to reduce their levels of chargeback, encouraging the use of more robust security measures and ensuring a smoother customer journey. While introduced over two decades ago, the programme continues to be updated and enhanced. For example, in 2019 Mastercard improved the functionality of its excessive chargeback programme via the introduction of a new data integrity platform, through which data is captured on the system automatically, increasing the accuracy and transparency of the data collected. This further incentivises a reduction in chargebacks, encouraging better fraud prevention measures by merchants.

- **New programmes for third-party players**, including the Network Partner Program (introduced in 2021) and the payment facilitator review process (introduced in 2015), are specifically aimed at new players, such as payment facilitators and fintechs, which have entered the ecosystem in recent years and bring with them increased fraud risks. These programmes cater to the needs of these players while reducing risks to the ecosystem as a whole. They are discussed further in section 2.

To allow it to monitor these players in the context of increasing fraud risk, Mastercard has also substantially increased its monitoring capabilities through the creation of new internal dashboards that provide real-time updates and metrics on each player within the ecosystem. For example, Data Integrity Online, an internal platform, lists violations of scheme rules by customer.

Source: Mastercard.

Mastercard has developed several services specifically aimed at helping players prevent fraud. Examples include the following.

- **Mastercard Early Detection System,** introduced in 2017, allows issuers to take proactive measures to mitigate fraud, by providing issuers with targeted information on real-time risks. The system identifies active criminal trading of account data (e.g. on the dark web) and cards being tested prior to being used for fraud. In doing so, the service leverages the scheme's access to proprietary system-wide data and advanced modelling techniques.

- **Mastercard Decision Intelligence**, launched in 2016, helps merchants, issuers and acquirers to make better, more informed decisions about transactions. The service uses advanced analytics and machine-learning techniques to identify and flag potentially fraudulent transactions in real time. This innovation uses a wide range of data sources to identify patterns and anomalies that may indicate fraud, including transaction data, device data, location data and behavioural data.

- **Mastercard's Prevent Retail Payment Fraud initiative**, introduced in 2022, is designed to help customer protect themselves from fraud and scams in account-to-account payments. The solution enables financial institutions to request risk scores and intelligence based on network-level intelligence and state-of-the-art machine learning to enhance their existing fraud prevention capabilities. In doing so, it enables then to stop fraud in real time, before money leaves a customers' account.

- **Risk-Based Insights (RBA),** introduced in 2018, was developed by Mastercard to help detect fraud and reduce false declines. This service provides issuers in the authorisation message with additional data, which is obtained from the merchant in the EMV 3DS authentication request message. With this new service, it is expected that approval rates will increase, and fraud will decrease—ultimately benefiting merchants, acquirers, issuers, and their cardholders.

- **Mastercard's AI Account Intelligence**, introduced in 2021, is a service that provides issuers with real-time insights and alerts into account activity, allowing them to detect and prevent fraudulent transactions. The service uses a combination of machine-learning algorithms, big data analytics and other advanced technologies to examine account activity and identify unusual or suspicious behaviour. The service provides issuers with a wide range of tools, including real-time fraud detection, behavioural analysis, risk scoring, and more.

In addition to fraud prevention and detection, Mastercard engages in fraud recovery activities. Examples include Mastercard's chargeback programme (see section 1), as well as data recovery, profit and loss management, and investigation activities.

A number of recent acquisitions have also strengthened the tools available to issuers and acquirers to identify fraud using a range of tools from biometric indicators to AI. Some examples are below:

- **Brighterion**, acquired in 2017, is an enhanced AI solution which uses real-time analysis of long and short term trends to isolate patterns and minimise the risk of fraudulent behaviour. The platform reduces the need for business rules by a factor of 1,250 and reduces false positives by a factor of 20, while also reducing fraud by 3%.[35]

- **NuData**, acquired in 2017, allows Mastercard customers to speed up their customer authentication processes, while making them more secure.

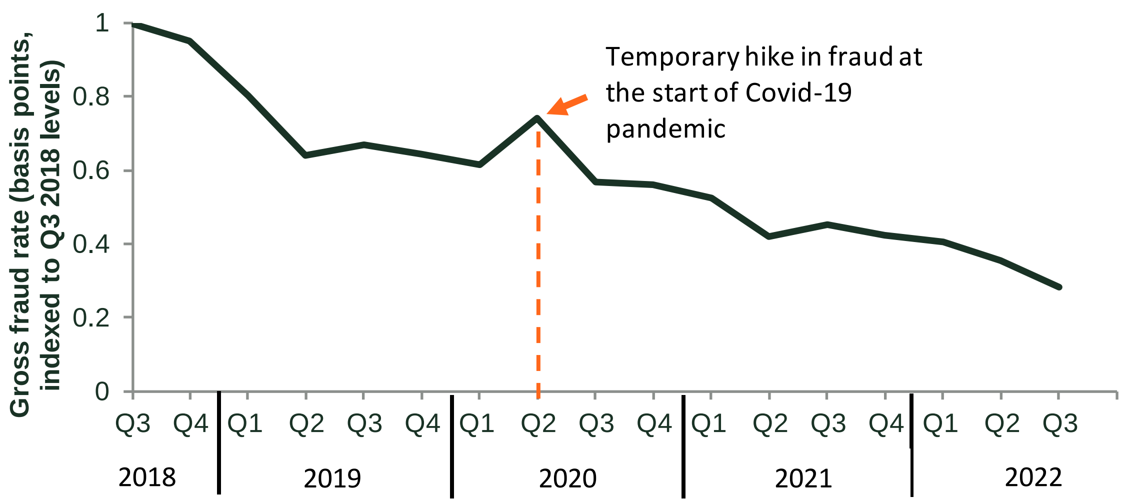
- **Riskrecon**, acquired in 2019, analyses over 40 security and infrastructure criteria to assess the cyber risk profile of each merchant in an acquirers' portfolio.

- **Ekata**, acquired in 2021, is an AI-powered identity-verification tool that works with a range of global merchants, financial institutions, travel companies, marketplaces and digital currency platforms to verify customers' digital identity and drive growth. The tool uses insights from AI to deliver unique scores, data attributes and risk indicators which businesses use to make more informed decisions.

[35] See Brighterion website, last accessed 31st March 2023.

As a result of Mastercard's innovations in relation to fraud, cybersecurity and financial crime, the overall fraud cost per value of transaction (the fraud rate) has reduced over recent years. As shown in 2, fraud per value of transaction within the Mastercard system in the UK has declined by 72% between 2018 and 2022. This is despite a temporary hike in fraud during the start of the COVID-19 pandemic, which was in part driven by the vast increase in e-commerce transactions during the period.

Figure 2 Reduction in UK fraud on Mastercard system between 2018 and 2022



Source: Mastercard data.

The reduction in fraud in the Mastercard scheme has clear benefits for issuing and acquiring players that experience a reduction in fraud. It also benefits cardholders through increasing their trust in payment methods. For merchants, there are numerous benefits of reducing fraud, including a reduction in counterfeit goods.

The performance of other card schemes in relation to fraud has differed, such as the French domestic card scheme, Cartes Bancaires. The value of CNP fraud as a share of overall transactions is higher in France than in the UK, despite fewer CNP transactions in France.[36]

[36] In France, for example, the local card scheme is Cartes Bancaires, a bank-owned domestic scheme that is the country's most widely used card payment method. While the UK has seen a decline in card fraud in recent years, in France it remains high—at 7bps of transaction value compared to 6bps in the UK as at 2019—despite France having a lower e-commerce share and less well-developed card market. If one were to correct for these factors, it is likely that card fraud would be higher. As the European Central Bank flags, while most countries with well-developed card markets such as the UK (i.e. those with high card penetration and transaction volumes) have high fraud rates, 'France and Spain also show relatively high fraud shares compared with other countries, despite having slightly more moderate card markets.' Moreover, the value of CNP fraud in France as a share of overall transactions is higher than in the UK (at 5.3bps compared to 4.8bps) despite the fact that France has a lower e-commerce share overall. The value of CNP fraud as a share of overall transactions grew by 2% in France between 2018 and 2019, while it reduced by 4% in the UK in the same year. See Adyen, 'Cartes Bancaires' and European Central Bank (2019) 'Seventh report on card fraud'. See Adyen, 'Cartes Bancaires' and European Central Bank (2019) 'Seventh report on card fraud'.

Cyber risk

Mastercard must invest in the latest technologies to protect scheme participants from malicious cyber-attacks. It also needs to allocate resources to monitor and detect abnormal activities. The number of cyber-attacks has increased substantially in the UK in recent years, with over 80% of companies experiencing a cyber-attack in 2022.[37]

Similar to fraud risks, cyber risks are tackled partly through the activities of Mastercard's franchise team, which carries out monitoring of key industry trends and updates scheme rules to reflect these. Additionally, Mastercard has carried out significant innovation and investment in releasing new products in the cyber-security space. Examples of its risk mitigation measures are as follows.

- **Developing tools to help the industry**. For instance, Mastercard developed Safety Net (2015), a global tool that reduces the impact when banks and processors are hacked.[38] It adds a layer of security to an issuer's existing tools and defences, providing continuous screening of transactions. By automatically enrolling issuers for this service, Mastercard ensures that the latest security tools are easy for issuers to deploy. Examples of other industry tools include Cyber Secure (2020), Threat Scan (2018), Cyber Quant (2021), and Cyber Front (2022)—see the box below.

- **Investing in the latest technology**. Mastercard has to keep pace with the evolving cyber-attack technologies in order to ensure security in the system. To do that, Mastercard invests in a wide variety of the latest technologies to protect itself from different types of cyber-attack.

- **Constant monitoring**. Mastercard's systems are under 24/7 monitoring, allowing abnormal activity to be identified early and actions to be taken before the threat leads to greater damage.

Box 4 Developing tools to help the industry: CyberSecure

Mastercard **Cyber Secure**, introduced in 2020, combines AI insights and an integrated suite of tools to prevent and predict cybercrime. It does this by providing comprehensive solutions that combine advanced technologies, compliance, incident response, and educational resources, in order to ensure that businesses can detect and respond to cyber threats quickly and effectively. The service also hosts Mastercard's **Account Data Compromise (ADC),** which prevents and reports fraud in the event that a data breach occurs. This functionality has undergone investment and improvement since 2020. Improvements include alerting customers to compromised cardholders/merchants; predictive notifications of likely future vulnerabilities, based on a combination of threat intelligence alongside AI-based models; and an improved case management system allowing customers to view, submit and respond to cases all in one place.

ADC, introduced in 2009 and enhanced over time, handles all occurrences that result, directly or indirectly, in the unauthorised access to or disclosure of account data or the unauthorised manipulation of account data controls, known as ADC events. As the breach or theft of cardholder data affects the entire payment card ecosystem, Mastercard's early identification and notification of breaches benefits not only the affected cardholders and players but trust in the ecosystem as a whole. During the course of an event, the programme ensures that acquirers, merchants and third-party players are fully remediated for the event, while also alerting issuers to any Mastercard accounts that have been determined to be potentially at-risk

[37] See CyberEdge (2022), '2022 CyberThreat Defense Report'.

[38] Mastercard SafetyNet for Acquirers was introduced in 2019 in the UK. Mastercard Safety Net for issuers was introduced at an earlier date (2015).

and in danger of incurring subsequent fraud. **The number of ADC cases opened has fallen significantly in recent years, from 119 cases in 2016 to 37 in 2021 in the UK.**

Through the acquisition of **RiskRecon** in 2019, the CyberSecure platform provides acquirers with a Cyber Risk Snapshot by assessing the vulnerabilities within a given financial institution's and its merchants' digital environment. The platform is able to provide acquirers with cyber-risk ratings for each of their merchants, which are determined by analysing over 40 security and infrastructure criteria in the merchant's own cyber environment. Acquirers can also access a cyber-risk assessment for any of their merchants that are under active investigation for an ADC event. Moreover, through CyberSecure, Mastercard assesses the cyber risks to a wider range of players, through assessing the security posture of all Mastercard issuers, acquirers and merchants every ten days.

The improvements to the service have led to substantial benefits to issuers, acquirers and merchants, and subsequently cardholders.

- Through predictive notifications, cyber-risk ratings and wider monitoring, CyberSecure enables the prevention of fraud before it has taken place. This is due to the high correlation between poor cyber-security health and data breaches.

- The platform enables the easy exchange of information, which significantly shortens breach-resolution timeframes in the event that a breach occurs.

CyberSecure has been highly successful at preventing fraud. Since its introduction, attempted fraud prevented by issuers has increased by 150%, from £8.3m per month to £21m per month on average. To give an indication of the significance of these cost savings: in one instance in which account data on over 4000 PANs was compromised, Mastercard was able to quickly identify the breach and alert issuers before the occurrence of fraud, saving approximately $175 per compromised PAN.

Source: Mastercard

In addition to CyberSecure, Mastercard has introduced several other services that play a large role in enabling issuers and acquirers to reduce cybercrime.

- **Mastercard's Threat Scan service**, introduced in October 2018, is a cybersecurity solution that helps businesses to identify and remediate vulnerabilities in their systems and applications. The service uses a combination of automated scans and manual assessments to identify potential vulnerabilities and weaknesses in an organisation's IT environment and infrastructure. The resulting insights enable issuers to assess their fraud exposure and take targeted actions that shore up the weakest links in their defences before fraud occurs.

- **Mastercard's SafetyNet service**, introduced in January 2015, is a fraud-detection and fraud-prevention solution that uses advanced analytics and machine-learning algorithms to identify and flag potentially fraudulent transactions.[39] The service provides real-time monitoring of transactions across a wide range of payment channels, including card-present, card-not-present, and digital payments. The SafetyNet service can detect and prevent different types of fraud, such as account takeovers, identity thefts, and payment frauds. It can also be customised to meet specific business needs, such as monitoring for specific types of

[39] Mastercard SafetyNet for Acquirers was introduced in 2019 in the UK. Mastercard Safety Net for issuers was introduced at an earlier date.

fraud or for specific transaction data. The service helps businesses to detect and prevent fraud before it can cause significant damage to the business. It also provides guidance on how to manage identified risks, including strategies for monitoring, mitigating, and remediating them.

- **Cyber Quant**, released in 2021, measures an organisation's cybersecurity risks, flags security gaps, and estimates the impact of new cybersecurity controls on the business within an organisation's relevant threat landscape, creating personalised results and recommendations.

- **Mastercard's Cyber Front service**, launched in 2022, is a comprehensive cybersecurity solution that helps businesses protect themselves from cyber threats through real-time threat detection, vulnerability management, incident response, and compliance. The service leverages a global threat intelligence network and utilises advanced analytics to identify and mitigate cyber risks. Cyber Front provides a holistic approach to cybersecurity that includes both technical and non-technical solutions. It is designed to help businesses identify and mitigate cyber risk proactively, and provides guidance on how to manage identified risks, including strategies for monitoring, mitigating, and remediating them.

- **Cyber Shield**, launched in March 2023, is a cloud-based cyber technology solution that uses the latest in AI technology to stop attackers from penetrating or taking down cyber systems. The solution includes a Threat Protection Service to counteract malicious internet traffic, and it has a track record of mitigating and preventing costly and potentially catastrophic breach cyber events. To counter increasing cyber threats, Mastercard is integrating this solution with the other solutions described above to provide a single cyber service solution available to all customers worldwide. This further strengthens Mastercard's broader service offering and adds value beyond the payment transaction.

Financial crime risk

Financial crime risks, which include money laundering and scam fraud, are a further type of risk in the payments ecosystem. The growth in financial crime risk has been driven by a variety of factors, including the increased sophistication of criminal organisations and increased attack surface, and the increased use of cryptocurrencies in payments (see Box 5 below).

Box 5 Cryptocurrency and financial crime

Growth in cryptocurrency transactions, which increased by over 400% in the UK between 2018 and 2021 alone,[40] has been a large driver behind the increase in financial crime in recent years.

As transactions in cryptocurrency can be anonymous and cross-border, they can be difficult to track and have increased the risk of fraud and money laundering. Moreover, many cryptocurrency transactions are facilitated by fintech companies, which are often not subject to the same regulations and oversight as traditional financial institutions, making it harder for payment providers to mitigate risks associated with these transactions.

As a result of this, cryptocurrency exchanges are less likely to have robust procedures in place for AML and know-your-customer (KYC), and less likely to be able to protect customers against financial crime. For example, 50% of cryptocurrency exchanges have poor KYC procedures.

Source: Mastercard

[40] Cybercrew (2023), 'Cryptocurrency statistics UK edition', March.

As a result of these factors, in 2021 unauthorised financial fraud losses across payment cards, remote banking, and cheques totalled £730.4m in the UK.[41] Moreover, as financial crime risks increase, European banks have found it challenging to keep up. In 2021 alone, over $3bn (€2.82bn) was issued in regulatory fines to organisations in Europe for AML and KYC, with one in five European banks receiving fines for non-compliance with AML and KYC regulations.[42]

To tackle the risks associated with financial crime, Mastercard monitors developments in cryptocurrency through its franchise programme. Mastercard has also rolled out tools to issuers and acquirers to help them mitigate against financial crime risk. For example, **Crypto Secure**, introduced in 2022, is a service that aims to help financial institutions and merchants securely accept and process cryptocurrency payments. The service uses a combination of hardware-based security and advanced software to secure the transaction process and protect against fraud.

Systemic risk

Mastercard carries out a number of activities to mitigate against systemic risk to ensure that it continues to deliver on its customer promise of ensuring payment continuity.

Examples of measures include the following.

- **Assessing the risk of customers.** Mastercard chooses to bear settlement risk associated with transactions on its network, meaning that it commits to paying acquirers in the case of an issuer settlement failure. This settlement guarantee rule is formally embedded in Mastercard's rulebook. By acting as the payer of last resort, Mastercard provides confidence in the integrity of the system. Mastercard has a dedicated underwriting team—the Customer Risk Management (CRM) team—to manage and mitigate its risk arising from Settlement Guarantee. CRM protects the Mastercard scheme and its users. By ensuring that issuers and acquirers remain financially viable, Mastercard ensure that cardholders and merchants can continue to make and receive payments. The CRM teams have different tools and processes in place to manage the settlement risk and reduce the risk profile of its exposure book. These include the below.
  - Mastercard use risk standards as part of the risk assessment of the credit status of its customers (i.e. rating standards, balance sheet strength, and enforcement action standards). For customers that do not satisfy these risk standards, the CRM team will carry out a commercial underwriting, based on various sets of information, to determine whether it is comfortable taking exposure to a customer, and in what amount (the 'exposure appetite'). If the estimated exposure exceeds the established exposure appetite, Mastercard may then require the customer to provide a protective arrangement (i.e. collateral in the form of cash, letter of credit, guarantee) to cover the excess exposure. Furthermore, Mastercard holds collateral to cover variability and future growth in issuer and acquirer programmes. Although the scheme rules do not contractually oblige Mastercard to step in following an acquirer failure, Mastercard may choose to do so to protect brand integrity. These provisions act as a buffer for Mastercard in the case of settlement failure.
  - **Customer exposure monitoring (CEM).** Mastercard carries out continual real-time monitoring of authorisation volumes using CEM. This identifies behaviour that is significantly out of pattern and enables action to be taken where necessary (e.g. analysing individual transactions and blocking authorisations). This helps Mastercard to pre-empt and protect itself from situations that may result in significant losses.

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[41] UK Finance (2022), 'Annual Fraud Report', June.

[42] Mastercard

- **Daily review of settlement activities.** Mastercard carries out a daily review of the previous day's settlement activity reconciliations to identify any potential settlement failures. It works alongside the account management teams and their customers to examine the cause of the failure and to find a remediation action. Settlement failures may be due to technical issues or issuers not having sufficient funds available on a particular day, for example. While most are caused by technical issues, by closely monitoring the pattern, Mastercard is able to identify larger potential issues earlier in the process.

- **Investing in supply-chain management**. Mastercard's Systemic Risk Assessment (SRA) service, released in 2019 in collaboration with Interos, is a supply-chain risk management solution that helps businesses identify and manage risks in their supply chain. The service uses advanced analytics and machine learning to identify potential risks in the supply chain, such as financial, operational, and regulatory risks. It also provides guidance on how to mitigate identified risks, including strategies for monitoring, mitigating, and remediating them. The service also includes risk assessments of suppliers and partners, to identify potential vulnerabilities and provide actionable insights on how to improve supply chain resilience. The SRA service helps businesses to identify and mitigate supply-chain risks proactively, also helping businesses to comply with relevant laws and regulations related to supply-chain risk management.

There has been substantial growth in the entry of new players in recent years, including payment facilitators and fintechs, to the payments ecosystem. As discussed above, there has been a large volume of new entrants in the issuing space, including many new fintech players. Meanwhile in the acquiring space, payment facilitators and former payment facilitators, which entered the market following PSDI, onboarded over 80% of merchants between 2014 and 2018.[43] While these players bring many benefits to the payments ecosystem, they also bring new risks, as outlined below.

- Fintechs tend to be newer players and as such are more financially unstable and lacking in experience in the financial industry, which typically results in fewer controls being in place.

- Fintechs and payment facilitators also tend to serve market niches which are underserved by traditional issuers and acquirers and sometimes associated with greater risks. For example, fintechs tend to cater to online transactions and cross-border payments which are associated with higher fraud rates.

- Payment facilitators specifically cater to smaller merchants, allowing them to accept card payments. However, many of these smaller merchants are associated with additional risks and experience higher fraud rates, driven by factors including lower use of fraud prevention systems.[44]

- Many fintechs, including payment facilitators, also sit as an additional player or link in the payments chain (in the case of payment facilitators, sitting between acquirers and small merchants), which increases the attack surface on which fraudsters and criminals can operate.

- Fintechs are not always subject to the same rules and regulations as issuers and acquirers, making them more susceptible to cyber and fraud risks.

A number of the risks associated with these new players are managed by the Mastercard franchise team. As discussed earlier in this section, one of the franchise team's core activities is to carry out monitoring and

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[43] PSR (2020) 'Market review into the supply of card-acquiring services: interim report', September.

[44] Ginovsky, J. (2014), 'Smaller merchants bigger fraud risk', in Banking Exchange, October.

implement performance programmes that improve the performance of players, and therefore the health of the ecosystem as a whole. For example, the payment facilitator review process, introduced in 2015, provides an annual review and guidance for payment facilitators specifically, to ensure that they are meeting Mastercard's required standards. Details of this are set out in Box 6 below. Additionally, the Network Partner Program helps players to integrate Mastercard products and services into their offering.

Box 6 Payment facilitator review process

As part of its Franchise Management Program, Mastercard runs a payment facilitator review process, launched in 2015 to serve the emerging needs and market risks associated with payment facilitators. Specifically, the 'program works with customers and service providers to ensure that they understand and operate within franchise architecture and standards to minimize operational, financial, reputational and compliance risk.' The Program includes an annual review of each payment facilitator, from which key findings are shared with the payment facilitator.

Source: Mastercard (2020), 'Mastercard Franchise Management Program: Third Party Review (Payment Facilitator)'.

5. Driving innovation

A. Introduction

Innovation plays a key role in payment systems. A complex and multi-dimensional process, innovation often encompasses various parties and competencies. The genesis of innovation is the result of systemic links between knowledge and the market. In particular, the diffusion of successful innovation depends on good market relationships between individuals, organisations and institutions in the system.

In the sections 2 and 4, we described a number of important innovations that Mastercard has made in the form of product developments aimed at improving the security and convenience of its payment services. In this section, we look at Mastercard's innovation activities more widely, and at its important role as central coordinator, whereby the scheme acts as an enabler that ensures the take-up of desirable innovations across the scheme participants.

There are two key characteristics of innovation in payment systems.

- **High risk**—innovations can be high-risk activities, often with benefits that are not realised until years later, if at all. Innovation involves firms taking risks, with the associated investment frequently not paying off. For example, while Mastercard's investment in contactless has been successful, Mastercard as also carried out intense innovation in some products which either never made it to market or were withdrawn having failed to achieve sufficient adoption, which is in itself an indication of the competitive landscape within which Mastercard operates. As Mastercard's scheme is global in scope and includes financial institutions on both the issuing and the acquiring side of the payments market, these long-term and risky investments will frequently be more viable for it than for individual banks acting alone.

- **Collective innovation**—many of the benefits of the investments lead to innovation at the network level, rather than at the private level. In circumstances where the private incentive to invest in innovation is not sufficient, there can be great value in the existence of a central party (like the scheme) to align incentives, facilitate the coordination, and encourage innovation.

B. Changes in scheme activities: driving innovation

Mastercard works with others to promote the adoption of new technologies

Due to the nature of the payment system, Mastercard has an incentive to ensure successful adoption of the latest technologies among issuers, acquirers, merchants, and cardholders. The scheme plays a coordination role and instils the right incentives to promote adoption.

- MDES / tokenisation is one example of how Mastercard has helped consumers and merchants to benefit from innovation. MDES has facilitated both security and convenience of payments, supporting the reduction in transaction declines by 58% in the UK in 2022.

- Contactless payments continue to be popular in the UK, with 86% of people making contactless payments at least once a month or more frequently.[45] Indeed, analysis by UK Finance suggests that by 2031, contactless debit and credit payment volumes are expected to reach nearly 20bn—a near 7bn increase compared to 2021 volumes of 13.1bn.

[45] UK Finance (2022), 'UK Payments market summary'.

- Another example includes Mastercard's active promotion of the adoption of SCA through issuing recommendations as part of 3D Secure 2.0 (3DS2), a protocol in relation to biometric authentication. By encouraging the industry to upgrade to two-factor authentication, Mastercard is driving the adoption of new technology and protocols.

Mastercard works with others to generate new ideas

For example, Mastercard Start Path (see section 3) sees Mastercard partner with start-ups from around the world to help them scale, uncover opportunities to innovate, and create new experiences for their customers. More than 250 start-ups have taken part in the programme since 2014.[46] Start Path has since launched various new initiatives to reflect the changing ecosystem, such as Start Path Crypto and Start Path Open Banking in 2021 and 2022 respectively.

Box 7 The Start Path program

Hi, a fintech that enables businesses to access quick, low-cost working capital and pay employees more flexibly, was accepted into the Mastercard Start Path initiative in 2022. The programme sees Hi paired with mentors for six months to refine business strategy, forge connections, and gain access to new markets and Mastercard's global ecosystem.

Source: Financial IT (2022), 'Hi secures a spot in Mastercard start path programme', April.

Mastercard continually monitors the payments ecosystem to identify customer needs and provide innovative tools in response

For example, by identifying gaps in the market for fraud prevention tools, Mastercard is able to develop innovative solutions to help the ecosystem to reduce fraud. One example is SafetyNet, which scans transactions at the Mastercard network level to identify large-scale attacks, specifically looking to identify patterns that suggest that an issuer's defences might have been compromised or hacked by fraudsters.

Mastercard has also introduced a range of changes to the specification on POS terminals to enable customers to authenticate with biometrics, responding to the trend of increased mobile wallet use.

In recent years, there has been a significant demand for access to data via APIs. Many banks in digital services wanted to get services not just through ISO connection, but through APIs. Mastercard has innovated on this front, introducing and improving existing infrastructure (like Cloud Edge) to enable them to send API messages. Additional commentary on Mastercard's API service is outlined in Box 9 below.

Mastercard develops innovative solutions to facilitating new entry in the payments ecosystem

Mastercard has helped to deliver innovative solutions in the various parts of the payments ecosystem, enhancing competition and promoting better system-wide outcomes. For example, in the acquiring market, Mastercard piloted 'PIN on Glass' with Square in the UK, encouraging innovation and lowering costs in the industry, even though at the time this method was not compliant with the scheme rules. This allowed merchants to accept PIN transactions on a mobile device without having to set up a stand-alone, dedicated PIN pad; instead, the consumer enters their PIN on the MPOS application on the merchant's mobile device. This was trialled as part of a sandbox initiative that was made available and open to all other players in the market to trial; at the time, Mastercard published a bulletin saying that anyone who wanted to trial the method could do so. Further, Mastercard worked with the Payment Card Industry (PCI) organisation for over a year to contribute towards industry standards for PIN on Glass; these were officially published at the beginning of 2018.

[46] Mastercard Developers website, 'Startup Programs'. Mastercard Developers website, 'Startup Programs'.

Mastercard is committed to advancing 'blue-sky' or wider innovation in payments

Mastercard Labs acts as an internal incubator, its principal aim being to bring innovative payment solutions to market. As Mastercard is concerned with the whole ecosystem, the case for such high-risk research and development investment is more compelling than it would be for any individual entity within its ecosystem. As part of Mastercard Labs, Mastercard clients can leverage a team of experts to augment and accelerate their goals. Mastercard works alongside its customers to turn ideas into full market deployment by offering the tools, resources, and technology required. Examples of recent Mastercard Labs initiatives are set out in the box below.

Box 8 Mastercard Labs

Through industry partnerships, Mastercard Labs collaborates with other industry participants and technology providers to develop new innovative solutions and build a more seamless and interconnected payments ecosystem. Some recent innovations include the following.

Mastercard Digital Wellness, launched in 2019, was developed to assist banks and their customers in managing their digital identities and protecting themselves from fraud. Customers can use tools to detect potential fraud or identity theft and take action to protect their information.

Mastercard Track, launched in 2018, is a B2B platform developed to help businesses simplify and improve their procurement process. By leveraging Mastercard's global network and infrastructure, Track offers businesses a streamlined and secure platform for exchanging payment and transaction data, as well as for managing their supply chain and payments processes.

Mastercard Blockchain, launched in 2019, is a payment and transaction platform that uses blockchain technology to provide a secure and transparent method of tracking and managing transactions. Mastercard is able to provide a faster, more efficient, and more secure way to transact by utilising blockchain technology, reducing the potential for fraud and errors in the payments process.

Source: Mastercard website, 'Labs as a service: Explore, build, commercialize'; Mastercard (2019), 'Mastercard Digital Wellness Program to Enhance Transparency, Security and Choice for Online Shopping', press release, 7 June; Mastercard website, 'Mastercard Track: Modernizing B2B payments with Mastercard Track'.

Box 9 Open API service

The Open API service from Mastercard is a platform that gives third-party developers access to a variety of Mastercard APIs.[47]

Developers can use Mastercard's Open API platform to access APIs in several categories, including payments, data, security, and loyalty. These APIs can be used to create new applications or to integrate Mastercard functionality into existing software solutions.

Some examples of the APIs available through Mastercard's Open API platform include:

- APIs for payment processing, which enable developers to incorporate Mastercard's payment-processing capabilities into their applications;

[47] APIs are collections of protocols, routines, and tools that allow various software applications to communicate with one another.

- APIs for fraud and risk management, which offer tools for detecting and preventing fraudulent transactions;
- data APIs, which enable developers to gain access to Mastercard's vast transaction data for use in analytics and reporting;
- APIs for loyalty and rewards, which allow developers to incorporate loyalty programmes and incentives into their applications.

The Open API platform from Mastercard is intended to foster innovation and collaboration in the payments industry by providing developers with the tools and resources they need to create new and innovative solutions. Developers can gain access to the platform and APIs via a developer portal, which includes documentation, sample code, and other resources to get them started.

Source: Mastercard

While innovation is critical for Mastercard's growth and success, it is important to recognise that not all ideas will be successful. While some innovations have significantly improved the payments ecosystem, others have failed to gain traction with scheme participants and wider ecosystem users. Nevertheless, even failed innovations can provide valuable insights and lessons for future development, ultimately leading to better consumer outcomes.

6. Promoting wider benefits

A. Introduction

Some of Mastercard's activities have wider social benefits that do not accrue directly to its participants. They are largely a by-product of Mastercard following its own unilateral incentives to grow the card market, such as encouraging people who did not previously use cards to do so. Easy access electronic payments is good for Mastercard commercially, but also benefits wider society through the reduction of 'financial exclusion' and associated social costs.

Mastercard's activities to facilitate new entry, discussed in section 3, also benefit wider society by bringing about better competitive outcomes, which benefits consumers through increased innovation, increased quality, and cheaper goods and services.

There may also be cases where Mastercard explicitly partners with public-sector organisations to achieve specific public goals i.e. where its technology enables the public sector to achieve a greater level of impact for a lower level of cost than it could otherwise.

B. Changes in scheme activities: promoting wider benefits

Privacy and data management

Financial data can be very useful in helping companies to make better decisions and enabling better understanding of wider society. However, it is also highly personal and sensitive. Many of Mastercard's activities strike a balance between these two concerns in innovating the management of data.

One example is the launch of Truata (2018), a data trust that helps companies to extract data insights while complying with GDPR. For privacy reasons, under GDPR, data analytics can be done only on anonymised data. The regulation grants individuals the 'right to be forgotten', which can be difficult to implement for companies with data held in multiple places. Mastercard saw the potential difficulties for businesses to comply with GDPR and proactively developed a solution that provides business with end-to-end data hosting—facilitating data analytics and enabling data controllers and processors to handle consent quickly and easily.

Working with regulators and market participants to ensure positive market outcomes

Mastercard works with regulators and policymakers to ensure that legislative changes can be practically implemented and do not create distortions in the market. Once guidelines are published, there tend to be many complicated issues that the industry needs to resolve collectively in order to comply with the rule changes. Mastercard typically acts as an industry coordinator, facilitating feedback across the market on potential unintended consequences and guiding the conversation with industry and policymakers on how to implement the rule changes.

For example, in the case of the European Commission's PSD2 RTS on SCA, Mastercard completed a market-wide engagement around PSD2 and helped the large digital merchants with PSD2 compliance and SCA performance analysis. Merchants wanted to understand PSD2 regulation in more detail and ensure that they were optimising approval rates. Mastercard held numerous issuer and acquirer seminars and conferences across the region, providing common industry guidance and direction. It also provided testing facilities, took the lead in fostering industry positions with the other competing schemes (such as Visa and domestic schemes), and produced external material setting out best practice on how to comply with the RTS. This included Mastercard's Authentication Guide for Europe, first published in 2018 and updated in 2019 and 2020, which covers in detail the general authentication requirement and Mastercard expectations, and how players can meet these. It also lays out the various PSD2 exemptions and exclusions, as well as specific use cases of SCA under PSD2.

Public health

Mastercard increased its contactless limits during the COVID-19 pandemic in response to both public health concerns and governmental pressure. It went beyond the recommendations of the World Health Organisation and governments around the world by enabling cardholders to avoid all physical contact with a CHIP and PIN terminal for larger transaction values than before. It also responded to the needs of cardholders, 82% of whom viewed contactless as a cleaner way to pay.[48]

Social issues

As part of its drive to ensure that only lawful activity is conducted on its network, Mastercard has taken a strong stance on social issues. For example, in recent years, the ability to upload content to the internet has grown, resulting in a sharp growth in the UK adult industry—alongside an increase in unauthorised and illegal content. In response, Mastercard has introduced particularly strong content control measures. In March 2021, Mastercard extended its existing Specialty Merchant Registration requirements, under which banks are required to ensure that sellers of adult content have effective controls in place to monitor, block and remove all illegal content. Mastercard has also introduced documented age and identity verification requirements for all people who are depicted and uploading content. It has also introduced a content review process prior to publication, a complaint-resolution process that addresses illegal or non-consensual content within seven business days, and an appeals process allowing any person depicted to request that their content be removed. Mastercard has gone further on this issue than it has in other sectors, in some cases blocking sellers of illegal content from the network.

Financial inclusion

Mastercard drives financial inclusion through initiatives such as Strive UK, which supports entrepreneurs and small businesses to thrive in a changing world. Through this initiative, Mastercard supports the resilience of the UK's entrepreneurs, connecting them with the right digital technology and skills tailored to their business.[49] This includes providing them with digital tools, as well as focused, one-on-one support where it is needed. The company has also committed to bringing 1bn people and 50m micro, small and medium enterprises into the digital economy by 2025, including 25m women-owned businesses.[50]

At the same time, Mastercard works to improve financial inclusion among cardholders and the population more generally. The 'Leave Nobody in the Dark' initiative provided support for consumers and businesses to improve their online skills, which helps them to manage their money effectively. Support was provided through hints and how-to guides, including through the *Quids In!* magazine, which provided advice on topics including Universal Credit and Housing Benefit, and how to manage finances post-lockdown.

Finally, through the Mastercard Centre for Inclusive Growth, the scheme advances equitable and sustainable economic growth and financial inclusion around the world and administers the philanthropic Mastercard Impact Fund.

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[48] Finextra (2020), 'Covid-19 spurs contactless payments takeup – Mastercard', April.

[49] Mastercard (2023), 'Empowering small businesses for a digital future'.

[50] Mastercard (2021), 'Doing well by doing good: Corporate Sustainability Report 2021', June.

The competitive landscape for payment services in the UK.

April 2023

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1 Executive summary

This report assesses the competitive landscape for payment services in the UK. The key points of each of this report's sections are presented in this executive summary.

1.1 Analytical framework

Before providing our analysis of the competitive landscape, we set out the framework for our analysis. As mentioned below, the framework we have adopted for this assessment is based on those commonly used by the Competition and Markets Authority ('CMA') and Financial Conduct Authority ('FCA'), as well as other regulatory authorities in their market reviews and studies.

Our framework consists of four elements:

- key economic characteristics of payment systems and the implications of this for competition;
- the structure of the market (types of payment methods and providers);
- the competitive process and dynamics;
- market outcomes.

The market for payment services is complex and has specific economic characteristics that affect how the competitive process works. Using a clear framework for analysis helps identify these economic characteristics and the implications for the competitive dynamics, and ensures a robust assessment.

1.2 Economic characteristics

Payment systems are characterised by two-sided network effects: an increase in the number of users of a particular payment method makes it more attractive to accept, and an increase in merchant acceptance makes the payment method more attractive to users.

Payment systems are able to support sustainable competition, even though they are characterised by strong network effects. Multi-homing on both sides of the market (i.e. consumers holding and merchants accepting multiple payment methods) is common in payment systems, and increasingly so due to technological developments and regulatory support. This network-to-network competition is further supported by the prospect of tipping points (i.e. a rapid and substantial shift towards an alternative payment method). In particular, where one payment method offers substantial mutual advantages to merchants and customers when compared to rival payment methods, widespread multi-homing can be expected to facilitate rapid switching to that payment method.

This means that in markets with strong network effects and multi-homing, simply analysing changes in market shares is unlikely to provide a rigorous understanding of the degree of competition, and is likely to overlook the underlying competitive dynamics in the market.

1.3 Market structure

The payments landscape in the UK encompasses many different types of transactions. These can be categorised in various ways, for example, according to who is making or receiving the payment (including consumers, government and businesses), the value of the transaction, whether the transaction is in-store or remote, the extent to which the payment is recurring or one-off, whether the payee or the payer initiates the payment (i.e. push or pull payment) or the type of merchant sector.

Some payment-method providers operate in specific segments, while others (such as cards) operate in a wider range of segments. For many payment methods (including card schemes in the UK) the core product offering will be the same across different sectors. This means that card schemes (as well as other providers of payment methods) need to ensure that their product is competitive in all segments in which they operate in order to be able to maintain or increase their share of transactions.

Different payment methods may be used to various extents within each segment. Therefore, the need for various payment methods to compete in each segment has competitive effects on the other segments in which they participate.

While in some segments card schemes have become widely used, in other segments their use is much more limited and they are seeking to expand their usage. For example, repeated payments such as subscriptions and utilities bills are often paid with Direct Debit (e.g. electricity and gas bills are paid with this method in c. 70% of UK households) and card schemes are actively competing to grow their presence in this segment. Another example is the trades sector, where credit transfers (with invoicing) and cash are positioned as the primary payment methods, and card schemes and other players (such as GoCardless and other credit-transfer-based payment methods) are competing to gain transactions. Card schemes will only be successful in these sectors if their product is competitive in terms of new innovations, quality and price.

1.4 Competitive process and dynamics

The competitive process should be assessed by analysing the ways in which providers compete. This includes competition for the customer base (acceptance by merchants and holding by consumers) and for the use of payment methods at the point of sale (online and in-store). We analyse front-end and back-end competition, multi-homing, steering and new entry and their impact on incumbent providers.

Aware of the risk of steering and entry, incumbent payment platforms need to compete on innovation, quality and pricing in order to maintain market share, creating competitive outcomes in the payments market without necessarily significant volatility in market share.

1.4.1 Front-end and bank-end competition

A large user base and effective tools for consumer and merchant steering can be effective and sufficient for exerting significant competitive pressures on existing payment methods.

Digital wallets in particular can impose front-end competition and 'back-end' competition. Front-end competitions refers to the competition for the use of payment methods (e.g. PayPal competes with Mastercard and other payment methods to be used on each transaction made by a consumer). Back-end competition refers to the competitive pressure that a digital wallet may exert on the different payment methods they give their users access to fund transactions (e.g. a PayPal transaction may be completed with funds from a bank account or from cards, so PayPal induces competition between card schemes and credit transfers). This is because digital wallets' large user bases (customers and merchants) and effective tools for steering users provide them with stronger bargaining power.

PayPal provides a case study to illustrate the effect of digital wallets on competitive dynamics in practice. PayPal now operates as a digital-wallet service for both online and in-person purchases, offering to fund payments with money transfers directly from a bank account (originally via Direct Debit, and more recently through Open Banking) or by linking a payment card. In addition, if both the payer and payee have a PayPal account then the payment can be made using the PayPal balance.

The competitive constraints faced by PayPal to retain such a large user base have been pushing the company to launch new products to satisfy new consumer demands. PayPal has also invested in fraud prevention systems, which has enabled it to offer buyer protection for transactions based on bank transfers.

This means that PayPal can, in essence, be seen as two products in one: it offers a convenient way to pay by various cards and it also offers a credit-transfer-based payment method with buyer protection which competes with cards and other payment methods. In other words, PayPal is both a customer of card schemes, but also a direct competitor to card schemes.

Although in the UK, many PayPal transactions are funded by cards, the important point is that PayPal can change and influence this to impose competitive constraints on card schemes. The fact that PayPal has already implemented Open Banking and developed fraud prevention systems to offer buyer protection means that its own credit-transfer-based payment product can compete well with cards. Having this option available allows it to impose competitive pressure on card schemes.

PayPal competes with cards but also with other digital wallets, Buy-Now Pay-Later ('BNPL') payment methods and credit-transfer-based payment methods. Although in the UK, digital wallets such as Amazon Pay have not yet given its users the choice to fund transactions by credit transfers, they could do so relatively quickly (and has indeed already done so in other countries) if cards do not offer enough value to their business and their customers. Moreover, Amazon has already invested in fraud prevention systems and has access to relevant data and systems to be able to offer buyer protection.

1.4.2 Multi-homing and steering

A key feature of the functioning of networks is the degree of multi-homing on each side of the market. Consumers increasingly multi-home in terms of the payment options they hold, and technological developments are continuing to make it even easier, lowering the costs of holding multiple payment methods and making it easier to switch between them for different transactions.

Payment providers earn most of their revenue when customers use their product for transactions, not from just holding the product. Thus, payment providers are put under competitive pressure by merchants steering consumers towards their preferred payment methods. The examples discussed in this report demonstrate that merchants are able to steer consumers.

Although cards remain an attractive payment method, many alternatives are available and used by merchants. For example, a recent survey among SME's showed that online bank transfers were the preferred (57%) and most commonly accepted (79%) payment method. Merchants also have the tools to steer consumers towards alternative payment methods, if cards no longer provided a competitive offering. In markets with strong network effects, the threat of steering, as long as it is credible, is enough to impose significant competitive constraints on payment methods.

1.4.3 Entry

The payments landscape is characterised by strong network effects, where threats of entry and switching to alternative providers result in competitive constraints. New entry, and the potential for rapid market share changes mean incumbent providers compete by 'running to keep still'—i.e. they need to price in a competitive way and innovate to maintain their existing positions.

In the past few years, new entrants have shown that barriers to entry can be overcome. New entrants have successfully used the credit transfer infrastructure (via Open Banking) to develop new payment methods, built user bases by developing new service propositions or by leveraging existing large customer bases from other sectors. The growth rates experienced by new entrants in the UK and other countries suggest that they are capable of achieving considerable scale.

Importantly, it is not necessary to observe widespread entry—the threat of entry is able to produce competitive pressure on incumbents, as long as it is credible and new providers are indeed bringing new products into the payments services landscape. Different types of entry have been observed, including companies with large user bases, digital wallets, and new companies with innovative propositions (such as Super Payments and GoCardless).

1.5 Market outcomes and conclusion

The functioning of a market can be assessed by the outcomes it delivers for end-users. In the case of payment systems this includes both payers and payees (consumers and merchants). We can categorise these outcomes in four groups: volumes, innovation, quality and choice, and prices.

We observe that volumes continue to shift towards more efficient methods, as payment players compete to expand. Merchants increasingly have the option to accept payment via more efficient methods, switching away from cash and/or invoicing with a request for a credit transfer.

This, in part, has been made possible through continued innovation—facilitated by card schemes (e.g. contactless payments and new standards that make electronic payments possible for smaller merchants). This innovation has improved the services provided to end-users throughout the whole UK payments ecosystem.

Innovation has also been introduced directly by new entrants using new technologies and new propositions. In turn, this has driven existing players to continually develop their own propositions in order to keep a competitive position in the payments landscape. This innovation has delivered good outcomes for merchants and consumers (e.g. Mastercard optimising the check-out process in terms of convenience and speed and PayPal introducing instalment credit in response to the entry of BNPL products).

Furthermore, the changing payment systems landscape has led to both greater **choice** of payment methods, and an increased **quality**. Both consumers and merchants typically have a variety of options for any given payment. Although all payment methods provide a minimum level of service, they vary significantly in their product features (for instance the degree of buyer protection that is offered).

This variation in product offering is reflected in the **pricing** of various payment methods. The fees charged to merchants for card payments are similar to those charged for other payment methods that offer some form of buyer protection (such as Klarna Pay Now and Revolut Pay), and are also similar to the fees charged for payment methods with a more limited service offering after adjusting for differences in product proposition. Overall, consumers and merchants have an increasing choice of payment options with different functionalities and services, with fees that reflect these differences. This is consistent with a well-functioning and competitive market.

Market outcomes that can be observed in the UK payments landscape are consistent with a well-functioning market, characterised by existing players being competitively constrained by other existing players, new entrants and the credible threat of further entry.

Overall, this report concludes that the observed competitive dynamics and outcomes are consistent with a competitive market with strong network effects and multi-homing on both sides of the platform. As incumbents face credible threats of entry, fostered by multi-homing and steering, they must compete on innovation, quality and prices to maintain their customers and transactions, leading to positive outcomes for consumers and merchants.

2 Introduction and scope of this report

Payment systems perform a vital role in almost all economic transactions in a modern society. In the past five years, the global payments landscape has been going through a period of considerable change, driven by technological advances, shifts in consumer behaviour and habits, regulatory changes such as the introduction of PSD2 in Europe, and Open Banking in the UK. These changes are leading to the emergence of new players and new business models. The COVID-19 pandemic has also played a facilitating role by accelerating and accentuating some of the changes in consumer behaviour.

Oxera was commissioned by Mastercard to inform the Payment Systems Regulator's ('PSR') review of card scheme and processing fees by undertaking an assessment of the competitive landscape for payments in the UK. The purpose of this analysis is to describe the competitive dynamics and constraints on Mastercard's fees, and ultimately the market outcomes that emerge from these.

This report builds on previous Oxera analysis of the competitive landscape for payments across Europe.[1] In this new report, we focus specifically on the UK, but also draw on insights from other countries where relevant.

To understand the competitive constraints that card schemes are subject to, as well as the competitive dynamics in the market, it is important to analyse the payments across all sectors. As we will see in this report, the market shares of payment methods and providers vary substantially across the sectors in the economy, illustrating the wide range of competitive dynamics that influence and constrain card schemes.

This report is structured as follows:

- Section 3 sets out the framework for our analysis;
- Section 4 discusses the economic characteristics of payment systems and the implications of these for an analysis of the competitive landscape and dynamics;
- Section 5 analyses the UK payments landscape, including the main methods used to make payments;
- Section 6 analyses the competitive dynamics in the UK payment services market;
- Section 7 sets out the market outcomes in terms of volumes, innovation, choice and quality and prices.

[1] Oxera (2020), 'The competitive landscape for payments: a European perspective', March.

3 Analytical Framework

The starting point for our work, as with any assessment of this kind is to set out a framework for our analysis. The framework we have adopted for this assessment is based on those commonly used by the CMA and FCA and other regulatory authorities in their market reviews and studies.[2]

It is essential to employ a suitable analytical framework to identify the characteristics that impact the dynamics and competitive process within a market, as well as the ultimate effect on end-users.

The CMA has set out their framework for analysis in some of their guidance documents.[3] For example, in the context of a recent market study, the CMA explains that as part of its assessment it seeks to:[4]

'[…] understand the main **characteristics of the market** being studied, including the number and sizes of market participants, their business models, and roles within the market. This helps the CMA **to frame the analysis of competition issues**, […] we **also analyse the outcomes of the competitive process** for consumers in this market. Outcomes may include both those that are more observable and measurable, such as **prices and costs**, and those that may be less quantifiable yet also important to consumers, such as **quality and innovation**.' [emphasis added]

The choice of an unsuitable framework, or a lack of it, can result in an incorrect interpretation of observed data and other evidence, leading to erroneous conclusions about the functioning of a market. Our framework (see Figure 3.1) consists of four elements: (i) key economic characteristics of payment systems and the implications of this for competition; (ii) the structure of the market (types of payment methods and players); (iii) the competitive process and dynamics; (iv) market outcomes.

Key economic characteristics

We set out the main economic characteristics of payment systems in section 4 of this report. Central to understanding the market dynamics in payment systems are the economic concepts of two-sided network effects and multi-homing. The former is a type of market where two

[2] See, for example, CMA reports on its market studies and investigations and papers published by the FCA, such as Financial Conduct Authority (April 2013), 'Applying behavioural economics at the Financial Conduct Authority', p. 38.
[3] See CMA (2017), 'Market Studies and Market Investigations: Supplemental guidance on the CMA's approach', paras 3.46 and 3.50.
Guidance on CMA market studies also explains how 'market studies consider the relationship between consumer behaviour in a market, the behaviour of firms in that market, and the market's structure. See OFT (2010) 'Market studies – Guidance on the OFT approach', para. 2.16.
[4] CMA (2023), 'Housebuilding market study statement of scope', para. 2.6. The framework is also set out in the following way: '(a) understand how the market is structured, the relationships between key participants, and other aspects of the way the industry operates, at each key stage […]; (b) establish whether there may be market distortions […]; and (c) explore and seek to measure, where possible, whether and to what extent any of the competition issues that we may identify, as described above, may lead to consumer harm, by looking at prices, profitability, quality, and innovation in the sector' (para. 1.11).

types of users (such as a card issuer and a merchant) use a common platform to make a transaction. Where users employ several of these platforms, this is known as multi-homing.

Market structure

The structure and composition of the broader payments landscape is important for understanding competitive dynamics. In section 5, we set out the different segments and players in the industry, explaining their main differences and similarities.

Competitive process and dynamics

Next in section 6, we analyse how the identified economic characteristics of the industry shape the dynamic process of firm strategy and consumer choice. These dynamics are key to understanding how new competitors and products can enter the payments landscape. Are there potential barriers to entry, and how may these be overcome? What do new players need in order to credibly threaten entry into payments?

The sources of competitive pressure faced by payment systems are highlighted. What is the role of competition between established incumbent players? Which new entrants can we observe, and how have they entered the market? Does the threat of new players entering the market influence current incumbents? How can merchants influence consumer behaviour?

Analysis of market outcomes

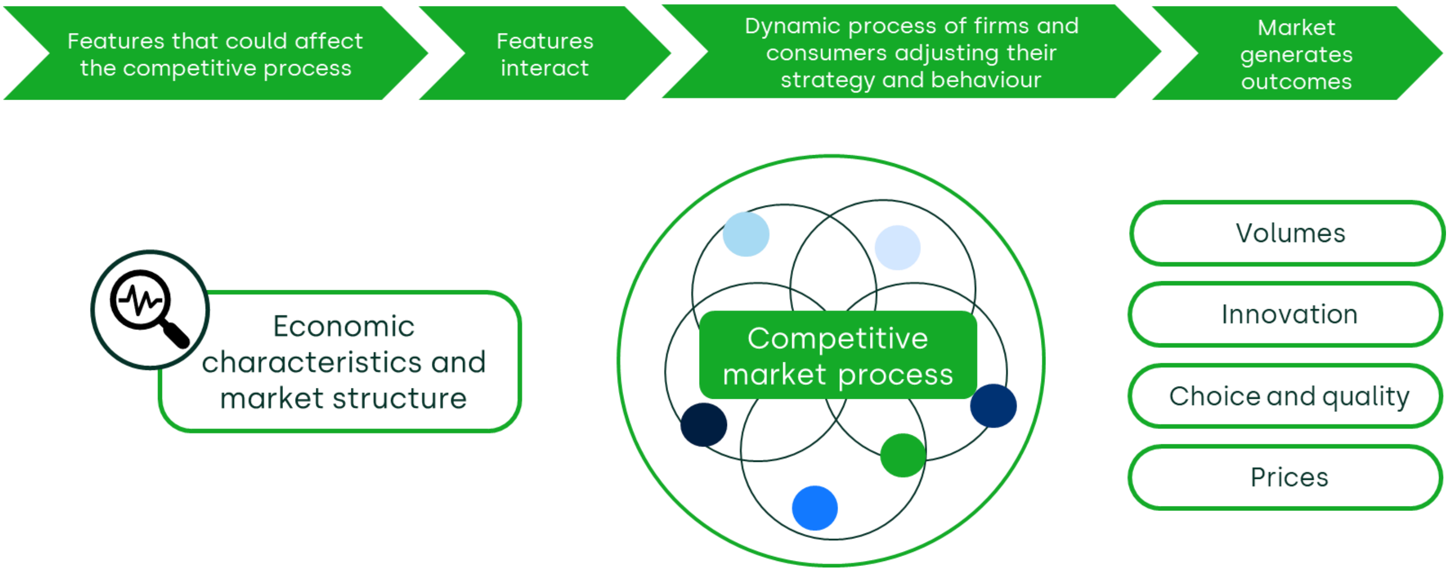
The final stage of our analysis, section 7, looks at market outcomes for consumers and merchants when making payments in the UK. If competition is working as expected, this should be visible in the outcomes for users of payments.

When assessing the functioning of markets, economists and regulatory authorities typically consider four high-level market outcomes:

- **Volumes**. Which part of the market is served? Which payment methods are used by different segments and is this changing over time?
- **Innovation**. Have new products, services and/or more efficient processes been introduced?
- **Choice and quality**. The variety of services that are being offered; to what extent are the needs of (different types of) users met? Are end-customers satisfied with the levels of service?
- **Prices**. In this case, the total costs incurred by end-users in using the payment methods for the given service offering. Are the prices for different payment methods consistent with the differences in the value propositions?

Using this framework, this report shows how the observed outcomes in terms of volumes, innovation, quality, choice and pricing (section 7) are consistent with a competitive market, given the economic characteristics of payment systems (section 4) and the observed competitive dynamics (section 6).

Figure 3.1 Framework for assessment of market functioning



Source: Oxera.

4 Economics of payment systems

This section is structured as follows.

- Section 4.1 provides a working definition of a payment system for the purposes of this report.
- Section 4.2 explains the key economic characteristics of payment systems, with a particular focus on network effects and economies of scale and scope. These are crucial to understanding the dynamics of entry by payment providers.
- Section 4.3 explains how networks compete in practice, how the network effects work in the competitive context and when they can drive competitive outcomes.

4.1 Economic features of payment systems

Payment systems enable funds to be transferred between two or more parties. They involve a number of participants and generally consist of a set of rules for a transaction (including technical standards), and the infrastructure that is used to process the transaction. For the system to be useful in practice, it will generally include provisions to allow convenient access, prevent fraud, and ensure operational resilience.

Payers and payees typically have a choice of systems, with the most appropriate system being influenced by the nature of the transaction itself. For the payment to go ahead, both payer and payee need to agree on a suitable system.

Hence payment systems as economic goods exhibit three main economic features:

- two-sided network effects between payers and payees;
- economies of scale;
- economies of scope.

The rest of this section explores these important economic characteristics of payment systems, and the implications for the competitive process.

4.2 Economic characteristics of payment systems

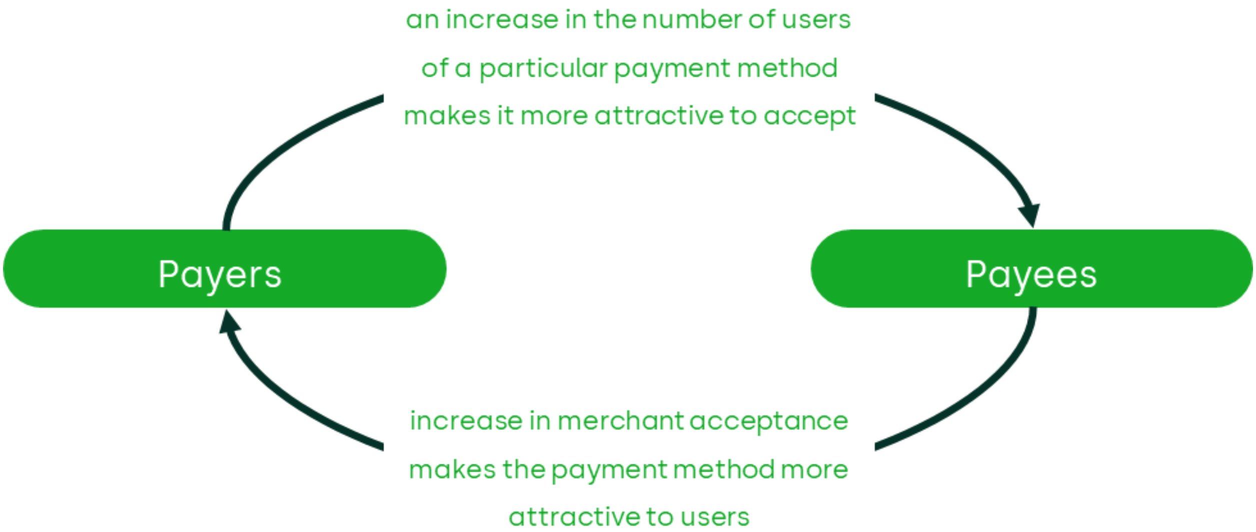
The two-sided nature of payment systems means that providers need to present competitive offerings for both sides of the market, while the economics of scale and scope mean that providers can grow their scale and range of activities effectively once they have entered.

4.2.1 Two-sided network effects

Payment systems bring together payers and payees, and thus must attract and serve two distinct users. There are two elements to two-sided markets: first, how to encourage *participation* on both sides; second, on-going *interaction* between the two sides.

Payment systems bring together consumers (who are able to make a payment), and retailers and other types of recipients (who adopt the means to accept payment). The attractiveness of participating in a payment system is a function of the level of participation on the other side of the market—called a 'network externality'. Payees want to be able to accept payment with a system that payers are able to use; similarly, payers want to have access to systems that payees typically accept.

Figure 4.1 Network effects in payments



Source: Oxera.

Even if both sides have chosen to participate in a payment system (e.g. hold and accept cash, have a PayPal account and accept PayPal), there is still a choice on both sides in terms of which payment system to use in any given transaction. Transacting necessarily implies a joint decision of the two parties. However, typically a payer does not consider the costs and benefits of a selected system to the payee, nor vice versa. This leads to 'usage externalities', where a payer's (or payee's) choice will result in costs and benefits to the payee (or payer). These usage externalities may be asymmetric.

Asymmetries in the strengths of the interactions between the two sides of an exchange naturally gives rise to **skewed pricing structures** in two-sided networks. We would expect to see one side pay less than the other, or use the network for free, or even be subsidised to do so. We see this on platforms such as YouTube, where users are able to view videos at no cost, but are shown adverts. This is a feature of the network externalities described above; with the platform's pricing acting to internalise the costs and benefits across its users. From an economics perspective, such skewed pricing structures are efficient. They help to deliver the necessary critical mass for networks to grow and to gain (and keep) users on both sides.

4.2.2 Economies of scale

Economies of scale arise when average costs fall as volumes produced increase. When fixed costs are substantial, larger firms will have an underlying cost advantage, through this genuine efficiency. With respect to payment systems, the fixed costs of setting up the system (i.e. the scheme and processing infrastructure) are usually high relative to the variable cost of processing an additional transaction. As such, the more transactions a supplier processes, the lower the cost per transaction.

Such economies of scale reward size; having more transactions leads to more efficiency, which in turn leads to greater competitive strength.[5] This can lead to a more concentrated market, as smaller providers may face a cost disadvantage as they enter and compete for scale.[6]

The extent to which scale economies act as a barrier to entry in practice depends on the extent of such scale economies (lower fixed or upfront costs reduce their importance) and the dynamics of two-sided competition in the market. For example, technological developments have reduced the costs of developing payment systems over time, lowering the fixed costs for new competition.

4.2.3 Economies of scope

Economies of scope arise where it is cheaper to produce a range of products from a common cost base. Economies of scope can also be enhanced by consumer convenience benefits (one-stop shop) and the ability to cross-sell.

For payment systems, if a supplier performs one activity within payments (e.g. card processing), the cost of performing another activity may be lower. This is because the infrastructure, personnel, and servers can be used for multiple purposes. Historically, such synergies have been centred on different types of payment product; for example, card schemes providing consumer cards will typically be well placed to provide commercial cards as well (albeit there are differences across segments that may mean outcomes differ).

There is also increasing interest in payments from businesses providing other services, but with large user bases, building on economies of scope from their customer relationships. The digital service providers (such as Meta) exemplify this but it is also the case elsewhere. We discuss this issue in more detail later in this report.

4.3 How do networks compete?

Payment systems are characterised by two-sided network effects and extensive multi-homing on both sides, which has become easier over time. In this section we further explain how these features can shape the competitive constraints among different payment methods.

4.3.1 Features of network competition

The way in which organisations (including networks) compete will differ according to the features of the market. In some cases, price will be the most important determinant of competition where goods are relatively homogenous. However, where firms have differentiated products, quality and additional value-added services can play an important role.

[5] The more transactions a payment system processes, the lower the average cost per transaction. This makes the system more attractive to users, which in turn further increases volumes and reduces the average cost per transaction.
[6] In payment systems, as in most markets, economies of scale may have a limit after which diseconomies of scale start to become more important. This could include, for example, the challenges of extending a currency across multiple countries when this expands the scope of a currency beyond its optimal currency area. Mundell, R. A. (1961), 'A theory of optimum currency areas', *American Economic Review*, **51**:4, pp. 657–65.

In general, the conditions for entry and exit will have a profound impact on how competition works in practice. A key insight is that falling barriers to entry can be associated with increased competitive pressure on incumbent firms, even if no or only limited entry is observed and incumbents' market shares are stable.[7] For instance, in a market where there are no barriers to entry and exit (known as a contestable market), an incumbent firm is incentivised to follow a strategy of working to maintain competitive prices in order to deter entry.

Box 4.1 Contestable markets

A contestable market, originally described by economist William Baumol, is one characterised by free entry and exit. Challenger firms have the option of a 'hit-and-run' strategy should the product offering of incumbent firms prove uncompetitive. Aware of this threat, incumbent firms are therefore incentivised to follow a strategy of working to maintain prices and quality standards at a competitive level in order to deter this entry. There can therefore be competitive constraints on incumbents, irrespective of whether entry is actually observed *ex post*.

Source. Baumol, W. J. (1982), 'Contestable Markets: An Uprising in the Theory of Industry Structure', *The American Economic Review*, **72**:1, pp. 1–15.

The insights from contestable markets—that the threat of entry can discipline incumbents—are highly relevant in payments because competition between networks may lead to a 'tipping point'.

Consider an example of a credit card incumbent and a challenger offering a payment method using bank transfers. In a situation where the credit card proposition became less attractive than a bank transfer-based payment method, cardholders might quickly switch to using the alternative method for some of their purchases. As this makes accepting the payment method more attractive to merchants, they will increase adoption. However, this in turn makes the method more attractive to the cardholder, and therefore more cardholders will switch and usage will increase, resulting in a 'virtuous circle' for the challenger and a cycle of lost users and transactions for incumbents.

In short, in two-sided markets, a new provider with an innovative offering can attract sufficient customers to achieve a critical mass on one side of the market. The new provider would then be able to leverage even a small competitive advantage to drive shifts in market share.

The possibility that a market can tip is itself a competitive constraint on incumbents. Incumbents must continually enhance their service to be ahead of potential entrants and maintain their market share in order to avoid approaching a 'tipping point'. Features that indicate 'tippiness' include: the ability of new players to successfully enter and build a customer base (especially in a specific segment); and in two-sided markets, whether new players and/or users at one side of the market have the ability to influence the behaviour and choice of services by users at the other side of the market.

While some of the features that can lead to a tipping point can be identified, it is inherently difficult to predict whether a market will tip. Indeed, it is this uncertainty that drives ongoing innovation, both in entrants hoping to unseat incumbents and incumbents who know it may be too late to respond at the point at which they see the next innovation from a challenger.[8]

While network effects can lead to strong incumbency, many sectors also support multiple competing networks. In mobile telephony, competition is sustained between different cellular networks, and handset operating systems, despite strong network effects and scale economies. In other words, the fact that an industry exhibits network effects does not in itself mean that the market cannot sustain multiple providers, as has been well documented in the academic literature.[9] Importantly, sectors where users can and do use more than one platform (known as multi-homing) see competition between networks.

4.3.2 Multi-homing

A user who joins only one network is said to 'single-home', whereas someone who joins more than one network is said to 'multi-home'. Widespread multi-homing can increase competition between platforms. If two parties want to make an exchange, and require a platform to do so, the platform will enjoy a powerful position where it is the only one that is accessible to both sides. In practice, however, many parties multi-home.

Consider online marketplaces: a seller might list a product for sale on Amazon. However, this does not result in market power to Amazon if the seller can also offer the same good on eBay. As both platforms are accessible to the buyer, the buyer can check both options and select the better deal. Not all sellers and buyers need to multi-home for there to be a constraint. Multi-homing ensures that two-sided network effects enjoyed by one platform do not preclude other platforms benefiting from having similar network effects. In the previous example, two competing marketplaces can both benefit from large user bases that will include many of the same people.

In general, the relevant literature in this area indicates the following factors can determine the extent of multi-homing on a particular side of an exchange:[10]

- **The extent of multi-homing on the other side of the exchange**—if one side of the market (e.g. sellers) chooses to single-home, the other side of the market will be likely to multi-home in order to look

[8] Accurately assessing whether a market is contestable can indeed be challenging. For example, a European Commission decision commented on Nokia's position in the mobile handset market; '… it seems unlikely that any new entrant could challenge the position of Nokia in the short term.' This decision was published one month after the launch of the iPhone 3G in Europe. See European Commission 2 July 2008, Commission Decision in Case No. COMP/M.4942 – Nokia/Navteq, recital 259.
[9] Armstrong, M. (2006), 'Competition in Two-Sided Markets', *The RAND Journal of Economics*, **37**:3, Autumn, pp. 668–691.
[10] See, for example, Evans, D. and Schmalensee, R. (September 2005), 'The industrial organization of markets with two-sided platforms', NBER Working Paper No. 11603.

- across multiple platforms (e.g. buyers looking to get access to all the sellers). The same holds in reverse. For example, if all energy suppliers are available on all price comparison websites (PCWs), there is less incentive for customers to use multiple PCWs.
- **The extent of platform differentiation**—if networks are horizontally differentiated (the platforms have different product offerings), multi-homing is more likely. Many users will have social media accounts with both Facebook and Twitter since the two networks have different product offerings. Some viewers may wish to subscribe to both Netflix and Amazon Prime Video. Even though they are both video streaming platforms, users may see them as differentiated offerings.
- **The costs of joining the platform**—if the costs of joining a platform are high, users are more likely to single-home. If, however, they are much lower for one type of user than for another type, one would expect the former to multi-home and the latter to single-home. For example, as a smartphone is a high-value purchase, most users will purchase either an Android or an iOS-based device. App developers, on the other hand, usually develop apps for both operating systems, as the costs of doing so are low compared with the benefits of reaching the users on both operating systems.

Hence multi-homing is an important determinant of competition in two-sided networks. A strong preference for single-homing on both sides, for example, tends to lead to 'winner-takes-all' outcomes, as participants on both sides eventually settle on a single commonly preferred platform.

In general, platforms compete more intensely for the side of the market which has more single-homing. In simple terms, this is because acquiring a user who single-homes means that the user is exclusive to that platform, and thus more valuable. By attracting users on the single-homing side of the market, the platform significantly increases its value to the other side of the market.[11] For example, video platforms at times pay a large premium to be able to host attractive content exclusively. As the single-homing side of the market is the side on which platforms compete most closely, it is also the one that is likely to result in lower platform fees to its users.[12] One example of this is newspapers, which are often sold below cost, or given away for free. Single-homing readers are subsidised by multi-homing advertisers.

Multi-homing on both sides of a platform means it is likely to be competitively constrained on both sides by the presence of alternative, competing platforms. Any attempt to increase prices above competitive levels (or reduce quality below competitive levels) on either side, would be met with users migrating to rival platforms.

[11] See Armstrong, M. (2006), 'Competition in Two-Sided Markets', *The* RAND Journal of Economics, **37**, pp. 668–691.
[12] This says nothing about platform prices overall, but rather about the relative prices on the two sides of the market. While the single-homing side is likely to benefit from lower prices through competition, the (relatively) multi-homing side is likely to experience higher prices due to the platform exercising its market power.

Markets with multi-homing user bases on both sides are therefore likely to be competitive and less likely to trend to a single large provider.[13]

4.3.3 Implications for competition between payment methods

The economic factors set out above explain why payment systems are able to support sustainable competition, even though they are characterised by strong network effects.

Multi-homing on both sides of the market is common in payment systems, and increasingly so due to technological developments and regulatory support.

- In physical stores, merchants usually accept cash as well as a range of electronic payment methods (such as cards and digital wallets). Consumers typically carry both cash[14] and at least one card, and often have access to other electronic payment methods (including transfer-based payment methods using Open Banking, digital wallets on mobile phones and additional cards) as well.
- Online, the range of options for electronic payment extends well beyond cards to include methods such as BNPL providers, PayPal or other methods that make use of bank transfers. The use of smartphones has reduced the costs of multi-homing for consumers—the only action required is to download the relevant app and sign up.

Where one payment method offers substantial mutual advantages to merchants and customers when compared to rival payment methods, multi-homing can be expected to facilitate rapid switching to that payment method.

Economies of scale are reducing through technology changes and regulatory developments. Smaller players can enter more quickly and establish attractive offers for consumers and merchants. For example, PayPal and Klarna have been successful in building their own systems, whereas Open Banking allows new entrants to set up their own payment method using interbank infrastructure at relatively low cost.

There are important interactions with economies of scope in this respect. In a digital economy, economies of scope can be driven from a much wider range of offerings than other forms of payments or financial services. For example, in a peer-to-peer (P2P) payment network, the technical infrastructure and associated data of a social network uses—and benefits from—the provision of an associated payment method. Technology also allows merchants that would not historically have experienced economies of scope through offering a payment method to do so: they are able to cross-sell effectively to a loyal user base and potentially benefit from the data generated by these users. Large merchants around the world, such as Amazon, are following this strategy.[15]

[13] Growth in accessing one network is possible without being at the expense of access to another network, thereby breaking the winner-takes-all dynamic that can apply in markets where single-homing is prevalent on both sides.
[14] Evidence from a consumer survey reveals that 61% of consumers use cash at least once a month. Survey conducted by YouGov for Bank of England (2022), 'The digital pound: a new form of money for households and businesses?', 7 February.
[15] More information on these examples is set out in section 6.

5 UK payments landscape: recent trends and developments

5.1 Introduction

The economic characteristics of payment systems (set out in section 4) explain that sustainable competition can be consistent with evidence of strong network effects. We now consider the overall structure and composition of the UK payments landscape, including the different types of payments options available to consumers and merchants.

This section is structured as follows:

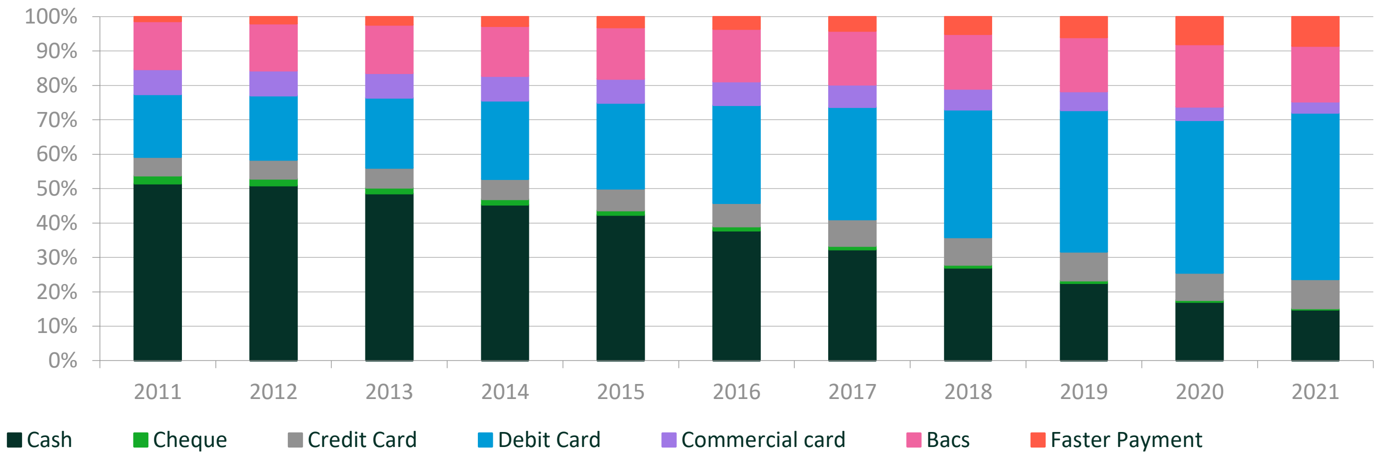
- Section 5.2 presents a summary of the data on the current use of payment methods in the UK and how this has evolved over time.
- Section 5.3 discusses the variation in the use of payment methods across different types of transaction and sector within the payments landscape in the UK, and the implications for competitive dynamics.

5.2 Different types of payment methods in the UK payments landscape

Payers in the UK use a variety of different payment methods, such as cash, different types of card, Direct Debits, bank transfers and bank transfer-based methods, BNPL payment methods, and digital wallets such as PayPal and Amazon Pay.

Figure 5.1 below shows all payments made by consumers, businesses and government, by payment method, according to the total number of payments between 2011 and 2021.[16] Cards (including debit, credit and commercial cards) are popular, as are account-to-account based methods (such as Faster Payments and BACS (Direct Debit and Direct Credit)). Figure 5.2 shows the same split according to the value of payments.

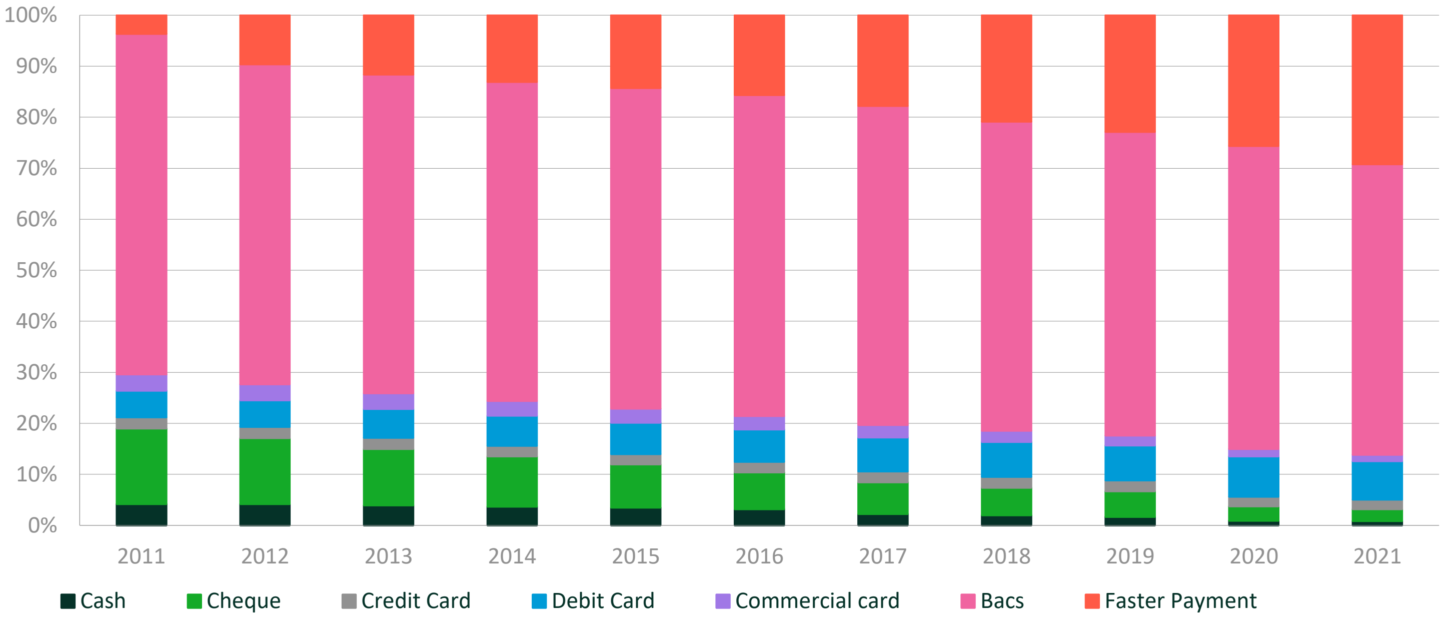
Figure 5.1 Total number of transactions by payment method (consumer, business and government payments) 2011–21



Note: Bacs includes Direct Debit and Direct Credit; CHAPS payments are not included in this chart.
Source: Oxera analysis based on UK Finance (2022), 'UK Payments Markets', August.

[16] These numbers do not include payments made through the CHAPS system.

Figure 5.2 Total value of transactions by payment method (consumer, business and government payments) 2011–21

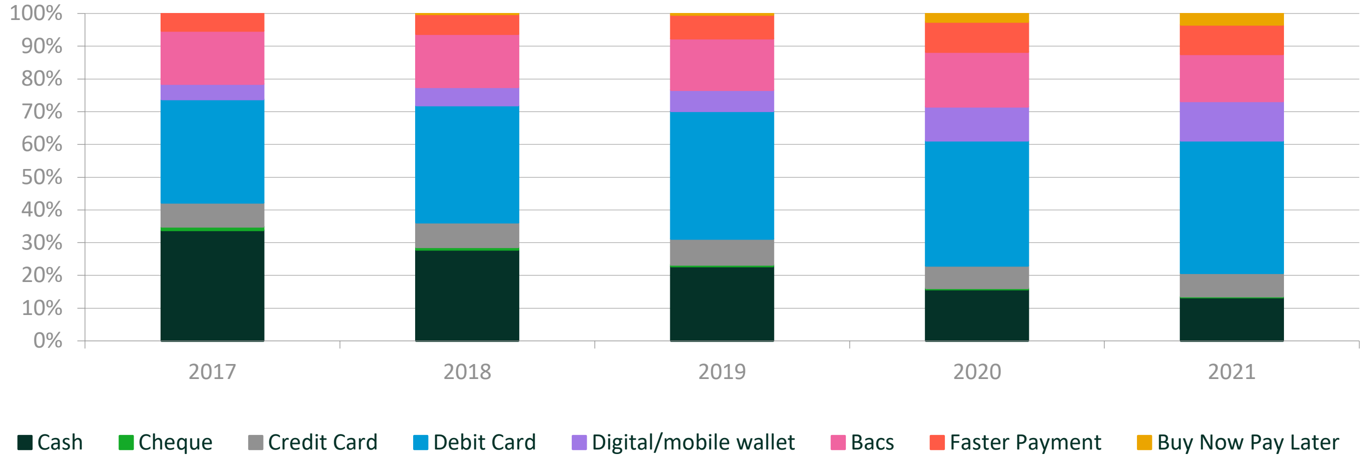


Note: Bacs includes Direct Debit and Direct Credit; CHAPS payments are not included in this chart.
Source: Oxera analysis based on data from UK Finance (2022), 'UK Payments Markets', August.

The data above relates to all types of payment including business and consumer. Turning to payments made by consumers more specifically, Figure 5.3 below shows the share of *consumer* payments using different payment methods over time. Debit and credit cards accounted for around 45% of total transactions in 2021, with account-to-account transactions representing over 25% and cash just over 10%.[17] BNPL and digital wallet payment methods currently account together for approximately 15% of the number of transactions in 2021.[18] Data on transaction value suggests that Faster Payments and Direct Debit each accounted for 25% in 2021, debit cards for 24%, credit cards 8%, digital wallets 10%, with cash and BNPL each accounting for 3%.[19]

[17] Cheque use in the UK has declined substantially over time and has now become negligible.
[18] We have estimated the shares of BNPL transactions and digital wallet transactions by debit and credit cards in proportion to the overall use of credit and debit for consumer payments in the UK. These are presented separately to show this type of disintermediation of card schemes. The debit card and credit card categories in this chart reflect transactions which are carried out with a card directly, instead of with the use of a digital wallet or a BNPL payment method. In practice, some BNPL and digital wallet transactions will be funded by credit transfers and digital wallets may internalise some transactions within their own systems.
[19] Oxera analysis based on UK Finance (2022), 'UK Payment Markets', August; and WorldPay (2023), 'Global Payments Report'. Shares from WorldPay (2023) are used to calculate the proportion of BNPL and digital wallet transactions. BNPL are assumed to be made with debit cards and digital wallets are assumed to be made with both credit and debit cards according to the split of credit and debit card usage in the UK.

Figure 5.3 Total number of transactions by payment method (consumer) 2017–21



Note: Data from Statista has been used to calculate the shares of debit and credit card transaction value in card transactions. Data from the Global Payments Report on the proportions of e-commerce and point-of-sale payments has been used to reconcile the total. In this chart, Faster Payment refers to credit transfers initiated by consumers (i.e. excluding businesses).
Source: Oxera analysis based on UK Finance (2022), 'UK Payment Markets', August; Statista (2023), 'Market share of cash, credit cards, and other payment methods at point of sale (POS) in the United Kingdom (UK) in 2017, 2019, 2020 and 2021', March; Statista (2023), 'Market share of credit cards, wallets, BNPL, and other payment methods in e-commerce in the United Kingdom (UK) from 2016 to 2021', February; WorldPay (2022-18), 'The Global Payments Report'.

Despite the widespread use of cards, a large number of transactions which could take place on cards currently are made through other payment methods (including cash, Direct Debit, and Faster Payments). Furthermore, some payment methods are more popular for certain types of transaction or in certain merchant sectors. We return to this point in the next subsection (5.3).

Below, we describe three of the alternative payment methods that are currently widely used in the UK (Direct Debit, Faster Payments and BNPL). The widespread adoption and use of digital wallets and other players also has implications for the competitive dynamics in the UK; we return to this in section 6.

Direct Debit

A Direct Debit is a transfer initiated by the payee (in some cases via their payment service provider), and is a method that competes with a Continuous Payment Authority (a type of direct debit) on debit and credit cards. Direct Debits are often used for recurring payments, and require a pre-authorisation (or 'mandate') from the payer.[20] Direct Debit volumes have been increasing, and accounted for approximately 11% of the number of payments in 2021.[21]

[20] In the UK, these payments are protected by the Direct Debit guarantee. This is offered by all building societies and banks who accept direct debits, and protects consumers against payments made in error or fraudulently. Consumers are entitled to a full an immediate refund where an error occurs and a payment is taken when it should not have been. See for example, GoCardless website, 'The Direct Debit Guarantee: your rights as a customer'.
[21] UK Finance (2022), 'UK Payment Markets 2022', August, p. 9.

In merchant segments where customers make regular repeat payments (such as utility bills, subscriptions, rental payments, charity donations), Direct Debit is a popular payment method. For instance, in 2022, 69% of UK households paid for their electricity bill using Direct Debit, and 70% for gas.[22]

Many of these payments could be made using other methods, with cards providing a viable alternative, spurring competition between payment providers. Cards have been competing successfully to attract transactions that could otherwise be made using Direct Debit.

We can observe this among merchants who accept both cards and Direct Debit (among other payment methods). For example, the Financial Times accepts card payments as well as Direct Debit,[23] as does The Times.[24] Many gym brands also accept payments via both Direct Debit and cards,[25] as do certain mobile phone operators.[26]

There are also merchants who accept either cards *or* Direct Debit (but not both). For instance, consumers can pay for certain video streaming services via cards rather than Direct Debit, e.g. Netflix[27] and Disney+.[28] The Economist magazine also accepts card payments for its subscription service, though not Direct Debit.[29] This is also the case for various meal subscription services (such as HelloFresh and Gousto), [30] subscription services for shaving products (e.g. Cornerstone or Gillette), and certain mobile phone operators (e.g. Giffgaff).[31]

In these examples, companies have a choice over whether to accept Direct Debit or cards. Indeed, in some cases, the merchant accepts both but steers consumers towards one or the other. The fact that we can observe such as range of businesses choosing to accept either cards or Direct Debit is an indication of the competition between the two payment methods. Moreover, the fact that some merchants are choosing to accept only cards where Direct Debit is both a viable (and in many cases an incumbent) method suggests that cards offer a more attractive proposition for these merchants.

Faster Payment System

[22] Department for Business, Energy & Industrial Strategy (2022), 'Quarterly energy prices', December, Chart 2.2.
[23] See FT website, 'How can I pay for my subscription?', accessed 5 April 2023.
[24] The Times website, 'What payments methods are available for the purchase of a Times subscription?', accessed 5 April 2023.
[25] For example Buzz Gym accepts cards and Direct Debits (through GoCardless). Pure gym Fitness First also accept Direct Debit, with options to pay via cards for certain transactions. See Buzz Gym website, Pure Gym website and Fitness First website, accessed 5 April 2023.
[26] For example Vodafone and EE accept Direct Debit as the default, though consumers can choose to make payment via card. See Vodafone website 'How do I pay my bill', and EE website 'How do I change my payment method?', accessed 5 April 2023.
[27] Netflix website, 'How to pay for Netflix', accessed 3 April 2023. It is also possible for consumers to pay using PayPal, or indirectly for a Netflix subscription in a package through their bill with certain telecoms partners
[28] Disney+ website, 'Payment methods for Disney+', accessed 3 April 2023. Disney+ also accepts payments via PayPal.
[29] The Economist website, 'Paying for your subscription', accessed 5 April 2023.
[30] See HelloFresh website, accessed 5 April 2023, Gousto website, accessed 5 April 2023.
[31] Giffgaff website, accessed 5 April 2023.

The Faster Payment System in the UK processes credit transfers, i.e. the transfer of money from one bank account to another, initiated by the payer. It allows funds to be transferred into the payee's account within 2 hours. The Faster Payment System is used for many different types of payment and its use has grown rapidly in the last 10 years. The overall growth in the number of payments from 2016 to 2021 almost tripled (275%), from 1.3bn in 2016 to 3.6bn in 2021.[32] Faster Payments accounted for 10% of the number of transactions in the UK in 2021, and approximately 50% by value.[33]

The introduction of Open Banking has enabled the development of alternative payment methods that use credit transfers (Faster Payments) as the processing infrastructure to transfer funds. Recently developed services such as Request to Pay (see Box 5.1) are expected to further increase the use of Faster Payments credit transfers for payments by consumers. We discuss Open Banking in the UK, and the implications of interbank payments for the competitive landscape in detail in section 6.

Box 5.1 Request to Pay

Request to Pay ('RtP') is a messaging service developed by Pay.UK, which complements existing bank transfer infrastructure—giving payees the ability to request payment for a bill rather than sending an invoice. Payers have the option to pay a bill in full, pay in part, ask for more time, communicate with the payee, or decline to pay—providing an alternative to other payment methods. Current use cases include one-off or recurring bill payment, and peer-to-peer applications (such as NatWest's PayMe). RtP can also be used in ecommerce and point of sale payments.

Sources. Pay.UK website, 'Request to Pay', NatWest website 'Payme', Ordopay website, accessed 3rd April 2023.

Buy Now, Pay Later services

BNPL services are a new type of payment method which has developed rapidly in the UK. BNPL providers offer consumers a payment option which comes with various forms of credit facility and instalment payment options. Typically BNPL provides the consumer with a short-term, low cost credit arrangement as well as an integrated shopping app.

BNPL payments can be made in two ways. Users can select the BNPL method at the point-of-sale (either online or in person) from among the payment options accepted by the merchant (which merchants themselves can and do influence– this is discussed in Section 6). Alternatively, BNPL transactions can be made through the providers'

[32] UK Finance (2022), 'UK Payment Markets Summary 2022', August.
[33] UK Finance (2022), 'UK Payment Markets 2022', August, p. 12.

own app or website. In this case, the platform functions in a similar way to an online marketplace with but the BNPL method is the only option for payment.

BNPL benefits consumers through convenience and low-cost credit facilities, and merchants through the ability to attract customers and decrease cart abandonment (i.e. where a potential customer starts a checkout process but leaves before finalising the transaction). In this way, BNPL payments also encourage additional sales for merchants, adding a marketing dimension to their offer. This has helped drive the growth in acceptance.

Several providers of BNPL services have successfully entered and built up a customer base relatively quickly on both the consumer and merchant sides. Around 12% of adults in the UK used a BNPL service to make purchases in 2021.[34] BNPL represented 8% of total e-commerce spending in the UK in 2022, 2% of total physical sales,[35] and is expected to nearly double its share of e-commerce payments to 12% by 2025.[36] The entry of new providers (e.g. Klarna, ClearPay, LayBuy, StudioPay) has also driven existing payment method providers and merchants to develop their own instalments proposition, such as PayPal's 'Pay in 3' product,[37] Amazon's 'Monthly Payments' (where consumers can pay in five instalments),[38] and Barclays Partner Finance (which provides point of sale financing for large consumer purchases).[39]

Although BNPL accounts are currently often linked to an underlying card, the two are distinct. Consumers may settle a bill for multiple BNPL transactions by a single card transaction, or pay for a purchase in multiple instalments.[40] Moreover, BNPL bills can also often be paid by credit transfer. Furthermore, as discussed in section 6, BNPL Klarna has now developed its own credit transfer-based methods as an alternative to cards (Klara Pay Now is a payment method without a credit facility).[41]

On the merchant side, BNPL providers may adopt different acceptance models.[42] For instance the provider may pay the merchant on a card-based model, or on an alternative model. For in-person transactions, BNPL payments in the UK can be made via a QR code, or through a payment card (for instance Klarna offers both options).[43]

Providers have successfully signed up large numbers of merchants, either through individually negotiating acceptance, or through aggregators (allowing the BNPL provider to integrate across multiple

[34] UK Finance (2022), 'Payments Market', August, p. 9.
[35] WorldPay (2023), 'Global Payments Report'.
[36] WorldPay (2022), 'Global Payments Report'.
[37] See PayPal (2023), 'Buy now and pay later with Pay in 3', accessed 5 April 2023.
[38] Amazon website, 'About Monthly Payments', accessed 5 April 2023.
[39] See Barclays website, 'Barclays Partner Finance', accessed 5 April 2023.
[40] For instance Klarna offers the option to pay in full up to 30 days after purchases, or to pay in three interest-free instalments. See Klarna website, 'Terms and conditions'.
[41] Klarna (2021), 'Klarna expands and strengthens UK offering including launch of 'Pay Now' immediate payments'.
[42] Adyen website, 'Buy now, pay later: how can it work for my business?', accessed 3 April 2023.
[43] Klarna website, 'Klarna: What the future has in-store', accessed 29 March 2023.

retailers more easily). Providers are now expanding beyond their initial core market (e.g. fashion retailers), and are now accepted in various other segments—for instance Deliveroo (food delivery),[44] Expedia (travel agent)[45] and Wickes (home improvements retailer)[46] now accept BNPL as an alternative payment method to cards and others.

5.3 A payments landscape with competition across many types of transaction

The payments landscape in the UK encompasses many different types of transaction, as seen from the charts above. These can be categorised in various ways, for example according to who is making or receiving the payment (including consumers, government and businesses), the value of the transaction, whether the transaction is in store or remote, the extent to which the payment is recurring, or the type of merchant sector.

5.3.1 Payment methods compete for share across different sectors, with variation in use of payment method across sectors

Some payment method providers operate in specific segments, while others (such as cards) operate in a wider range of segments. For many payment methods (including card schemes in the UK) the product offering will be largely the same across these different sectors.

This means that card schemes (as well as providers of other payment methods) need to ensure that their product is competitive in all segments in which they operate in order to be able to increase their market share. Furthermore, different payment methods may be used to various extents within each segment. The need for various payment methods to compete in order to maintain or grow their share in any given segment has competitive effects on the other segments in which they participate.

While card schemes have become a widely used payment method in some segments, in other segments where for example credit transfers (with invoicing), Direct Debits or cash are the primary payment method, card schemes seeking to expand their share of transactions will only be successful if their product is competitive in terms of quality, new innovations and price against these alternatives.

The use of Direct Debit to pay certain merchants for subscription services, paying utility bills and other services are examples of these other segments.

Another case is the use of credit transfers (with invoice) and cash to pay trade professionals who offer a service at the customer's premises. Card schemes and alternative payment methods such as GoCardless are competing for market share in this 'tradesperson' sector; see Box 5.2.

[44] Deliveroo (2022), 'Deliveroo and Klarna Partner to Offer Smooth, Flexible Payments, Whether You Pay Now Or Pay Later', 10 October, news article, accessed 3 April 2023.
[45] Affirm website, 'How to use financing with Affirm at Expedia', accessed 3 April 2023.
[46] Wickes website, 'Who is Klarna?', accessed 3 April 2023.

As explained above, Direct Debit is a widely used method (accounting for around 75% of transactions) for certain sectors where payments are typically made on a regular or recurring basis (such as rent, utility bills and subscription fees). Cards are also competing for share in this segment, starting from a relatively low base (under 15% of such transactions in 2021).[47] Regular payments are also made by consumers for various financial services (approximately 1.3m transactions in 2021) including payments on mortgages, savings, insurance premiums or paying off credit card bills.[48] The payment methods used to pay these include Direct Debit (69% of the total number of such payments), standing order (18%) and other bank transfers using Faster Payments rails (6%). Cards and cash only represented 5% and 2% respectively of all financial payments.[49]

Box 5.2 Payments for trade invoicing

'Trade invoicing' refers to payments made to trade professionals who offer a service, typically for work undertaken at the customer's premises. For instance this may include payments to plumbers, builders, decorators, cleaners or electricians, who may act as sole traders or be employed by companies.

Payments in this segment have traditionally relied on cash and paper invoicing requesting bank transfer payments, and merchants are now also accepting payments through Faster Payments. New entrants are facilitating the implementation of alternative payment methods, such as QR codes that facilitate the use of bank transfers, without the need of paper invoicing, keeping acceptance costs low. Providers such as GoCardless or new entrants such as Tomato Pay use Open Banking technology to compete for a share of this segment (see section 6). Card schemes are also competing to grow their transactions in this segment.

Tradespeople may send an invoice requesting payment by credit transfer or card, and some of these may ask the consumer to call the merchant during opening hours if they intend to pay by card; in other words, they steer their customers towards paying by credit transfers (see section 6.3.2).

Survey data from Payments UK shows the growth of non-traditional payment methods in this segment. The use of credit, debit and charge cards has increased from 8% in 2016 to 41% in 2022 with other forms of payment including mobile banking, credit transfers, and online payments (among others) which was not reported in 2016, now accounting for 17% of payments.[50]

[47] UK Finance (2022), 'UK Payments Market 2022', August, p. 35.
[48] UK Finance (2022), 'UK Payments Market 2022', August, p. 36.
[49] UK Finance (2022), 'UK Payments Market 2022', August, p. 36.
[50] UK Finance (2016, 2022), 'UK Consumer Payments'.

Source: Oxera.

Many merchants have the *ability* to choose not to accept card payments at all, and many in fact accept only payment methods such as cash, or credit-transfer-based methods. Small businesses in particular often choose not to accept card payments. According to research from 2019, approximately 40% of the UK's micro businesses (companies with fewer than ten employees) did not accept card payments. [51] Almost 50% of the UK's small to medium-sized businesses still rely heavily on cash. [52] A recent survey commissioned by the Bank of England showed that among SMEs, online bank transfers were the most commonly accepted payment method – accepted by 79% of SMEs, whereas debit cards were accepted by only 43% of SMEs surveyed.[53]

Payment service providers seeking growth will look to increase their share of transactions in new segments. They will generally offer a similar product range to all segments they operate in. Innovative solutions will be focused both on meeting current segment needs and targeting new potential channels for a given payment technology. To encourage uptake of card acceptance in (for example) the trade invoicing segment, card schemes need to compete on price, product quality and provide value in the services to end-users. Card schemes are seeking to enter these segments and are constrained by merchants not only choosing whether to accept cards, but also influencing which method their customers use by steering them to their preferred payment.

5.3.2 The UK payments landscape is broad, and includes consumer, business and government payments

The payments landscape also includes many transactions where the payer is a commercial business, a not-for-profit organisation, a public institution or government with the recipient is either another (public or private) organisation or an individual.

There were 3bn payments made between organisations ('B2B') in 2021.[54] Account-to-account payments (primarily Faster Payment credit transfers and Direct Debit) represented 85% of these payments.[55] Cash and cheque payments are also used (primarily by smaller businesses), this accounted for just over 1% of payments between organisations.[56] Commercial cards issued by various different

[51] Small business (2019), '40% of the UK's micro businesses do not accept card payments', June.
[52] Fintech magazine (2022), 'Almost 50% of UK's SMBs say cash is essential, report says', December.
[53] The survey included a nationally representative sample of 2,022 consumers and 1,022 SMEs. Consumer and SMEs survey conducted by YouGov for Bank of England (2022), 'The digital pound: a new form of money for households and businesses?', 7 February.
[54] Faster Payments, Bacs Direct Credit and Direct Debit are considered to be account-to-account payments. UK Finance (2022), 'UK Payments Market 2022', August, p. 47.
[55] UK Finance (2022), 'UK Payments Market 2022', August, p. 53.
[56] UK Finance (2022), 'UK Payments Market 2022', August, p. 53.

schemes such as Mastercard, Visa, Amex and Diners account for 14% of all payments between organisations.[57]

Businesses and government bodies are also payers to individual consumers (2.5bn payments in 2021). Payments made by a commercial business to consumers ('B2C' payments) include one-off payments such as refunds, payments to employees (e.g. wages) or disbursement transactions (such as insurance claims payments) and are largely made using credit transfer-based methods. Alternative payment methods are also competing to enter here—for instance Mastercard Send enables payment transfers to be made directly to bank account, cards or mobile wallets.[58]

Individuals also make payments to each other. P2P payment methods are typically not based on card rails (but rather cash, bank transfer and 'on-us' P2P platform transactions including Revolut, PayPal, Monzo). This is one example of where distinctions between payment categories are blurring, as certain smaller merchants and sole traders have the option to use such methods to accept payments.[59]

Payments made by public institutions to consumers includes government disbursements, benefits and state pension payments. Different types of government-to-consumer transaction may use different mixes of payment methods. For instance pension and benefits payments are largely made by bank transfer. Disbursements have traditionally been made through cash or paper voucher schemes. Though more recently, cards have also been competing in this space, in particular through the use of prepaid cards. For example, disbursements to asylum seekers is made through prepaid cards, the NHS 'Healthy Start Scheme' provides funds to mothers through a prepaid card,[60] and certain local councils use prepaid cards to disburse funds to carers and for emergency card payments.

Card schemes are therefore competing to be adopted and used across many different types of payment transaction. Payment methods seeking to expand their share of transactions in B2B, B2C and consumer payment sectors will only be successful if their product is competitive in terms of providing an innovative offering compared with existing providers, of good quality and at an attractive price.

5.4 Summary

The UK payments landscape is characterised by various competing payment methods. Use of each method substantially varies depending on the type of transaction and merchant segment. Some payment methods compete for transactions across several different segments, meaning that competition in one area will affect the offering in other segments. Cards in particular compete across many different sectors and types of transaction—requiring them to compete fiercely on many

[57] UK Finance (2022), 'UK Payments Market 2022', August, p. 53.
[58] Mastercard Send is a product which enables disbursements to be made across various use cases including insurance disbursements, gig workers accessing earnings, humanitarian aid disbursements and gaming payouts, as well as peer-to-peer transfers. See Mastercard website, 'Mastercard Send', accessed 3 April 2023.
[59] We describe the entry of P2P players in other countries in section 6.4.3.
[60] NHS website, 'The new Healthy Start Scheme', accessed 5 April 2023).

fronts in order to retain share in certain areas, and to expand in those areas where their share is relatively small currently.

As explained in section 4, in markets with strong network effects, simply analysing (changes in) market shares is unlikely to provide a complete understanding of the degree of competition and is likely to overlook the underlying competitive dynamics in the market. A more detailed analysis is required. This is presented in section 6.

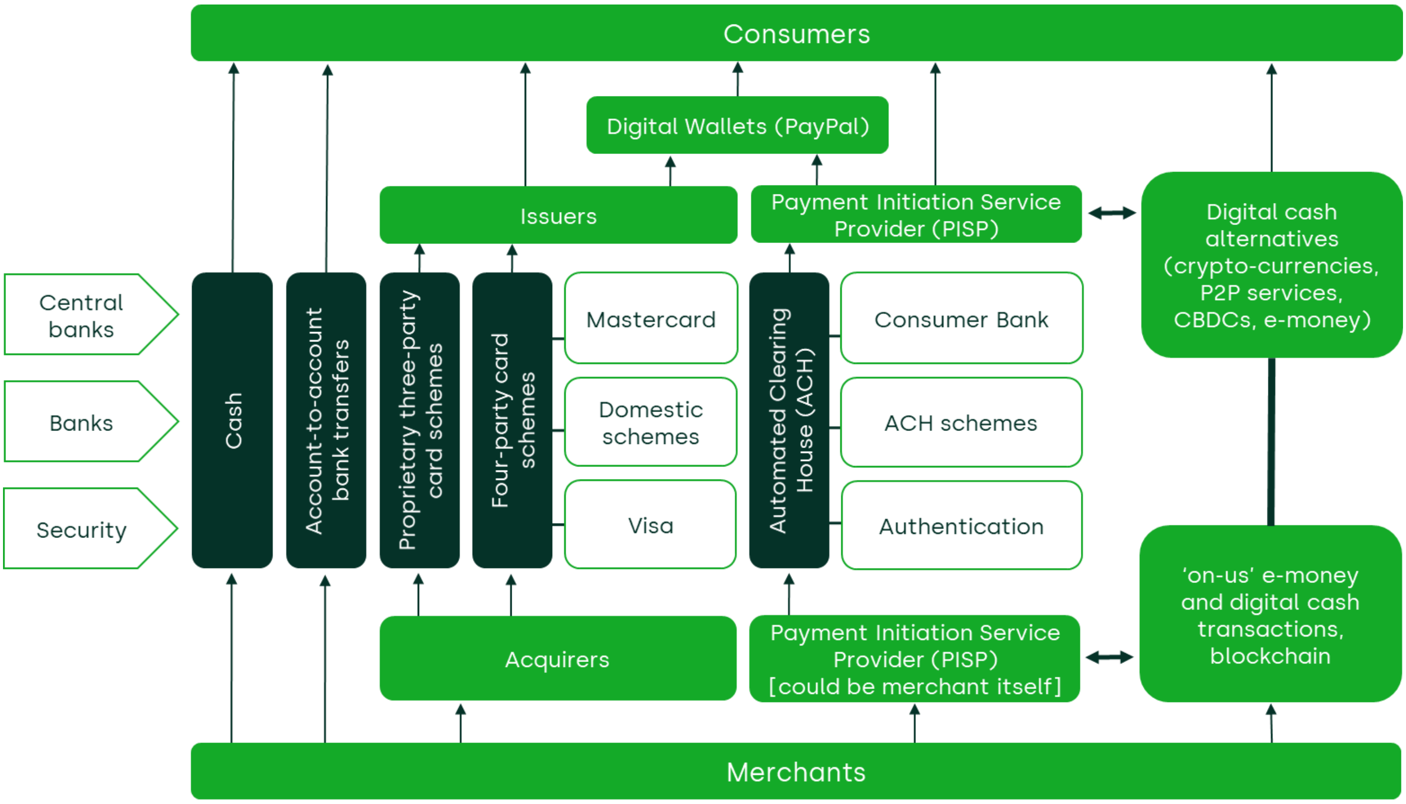
6 Competitive dynamics in the UK payments landscape

6.1 Introduction: the payments value chain

We now bring the assessment together by focusing on the competitive process. We analyse the ways in which providers compete for the customer base (acceptance by merchants and ownership/holding by consumers) and for the use of payment methods at the point-of-sale (online and physical). We examine new entry, assessing their growth and impact on incumbent providers. The threat of the future success of new entry can lead to competitive outcomes, manifesting through incumbent payment platforms competing on quality, innovation and pricing to maintain their share.

Changes in technology, regulation and consumer preferences described in the previous sections have had a significant impact on the payments value chain over the last decade. This value chain is shown in Figure 6.1, which also reflects the description of payment services competition in a recent European Commission study.[61] It shows the many ways in which consumers and merchants can transact. We now explore the competitive dynamics at play in this landscape, and how these dynamics affect and create competitive pressure on payment service providers.

Figure 6.1 The payments value chain



Source: Oxera.

[61] This picture is an updated version of the value chain described in Oxera (2020), 'The competitive landscape for payments: a European perspective', March, which also informed the description of the value chain in European Commission (2023), 'A study on the application and impact of Directive (EU) 2015/2366 on Payment Services (PSD2)', February.

Technological developments have played a major role in enabling more players to act as intermediaries. A range of innovative services driven by technology and Open Banking are now a key part of the payments value chain. This represents a structural change to the payments eco-system. As will be discussed in section 6.2 these changes highlight important developments that mean there is both front-end (customer-facing) and back-end (alternative rails) competition, with each imposing different competitive constraints on other payment methods. Front-end competition refers to competition between payment methods to be held and used on the consumer side, and to be accepted and used on the merchant side. Back-end competition refers to the competition between the underlying payment methods (cards or credit transfers) to be used to fund transactions initiated by some front-end competitors, such as BNPL and digital wallets.

We can also observe the range of different payment methods in the payments value chain. Payers can, and usually do, have multiple payment methods at their disposal for any given transaction (i.e. they multi-home). The increasing prevalence of multi-homing (some of which is also technology driven) on both sides of the payments market and the different types of merchant steering that it enables is discussed in section 6.3, along with the implications for the payments landscape.

Multi-homing and the threat of steering are important drivers of competition, and lead to credible threats of entry. Examples of different types of successful entry are presented in section 6.4, along with the implications for incumbent service providers.

The payments value chain has changed significantly in the last decade and will continue to do so in the future. For instance, the digital cash alternatives will grow, as new applications based on Distributed Ledger Technology provide an alternative payment infrastructure, which would put further competitive pressure on incumbents. This could include, for example, central bank digital currency, such as the proposed digital pound, which, while some way from a possible implementation, could ultimately further increase the number of payment options available to consumers.[62]

6.2 Front-end and back-end competition

Digital wallet providers have seen rapid growth in uptake and use for both the online and physical in-person payments. The UK, together with Italy, has the highest digital wallet use in Europe, with a 35% of e-commerce transactions being paid by this payment method[63].

The increased usage of digital wallets makes it important to draw a distinction between two different types of competition in the payments landscape: front-end competition and back-end competition. This distinction has become increasingly important with the introduction of new products in recent years.

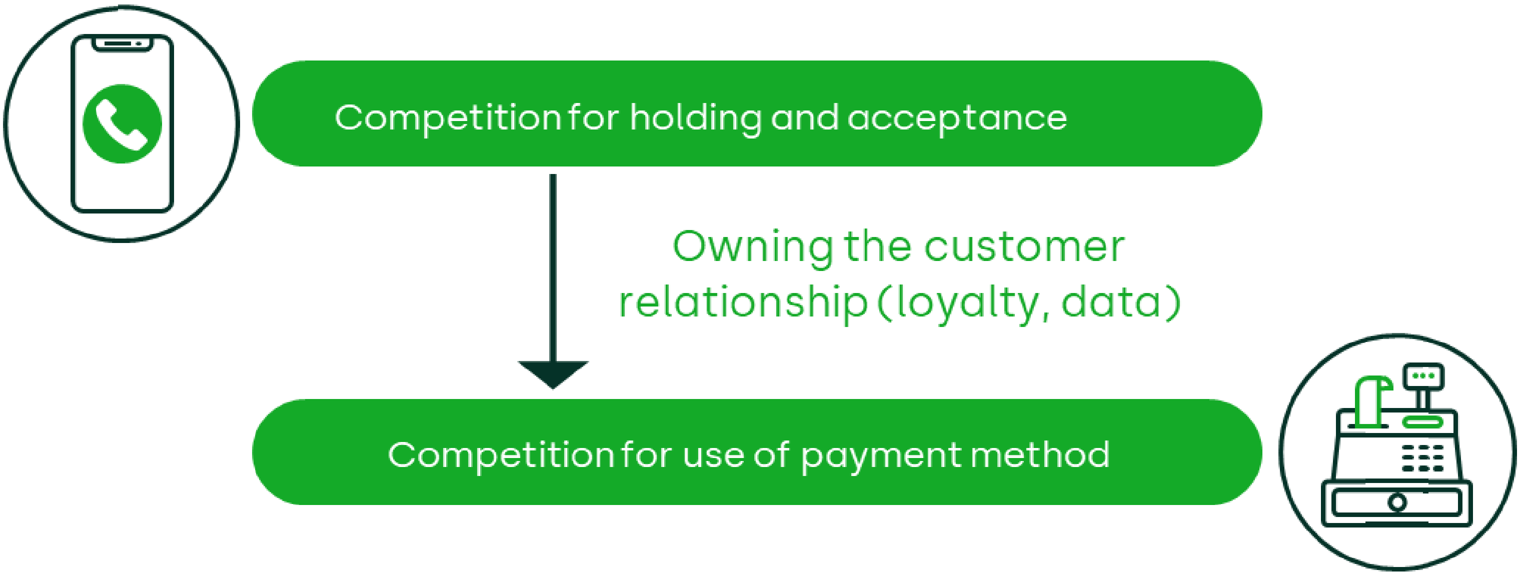
[62] At the time of writing, the Bank of England is consulting on the proposed model for a potential digital pound which would be available for consumers to use to make retail payments. See Bank of England (2023), 'The digital pound: a new form of money for households and businesses?', accessed 28 March 2023.
[63] Worldpay (2023), 'Global Payments Report'.

6.2.1 Front-end competition

There are two levels of front-end competition in payments, as illustrated in Figure 6.2.

- Competition for the customer base, where payment method providers compete to ensure that merchants accept their payment method, and that customers hold or have access to their payment method.
- Competition for the use of payment methods, where merchants and payment method providers try to influence consumer decisions about which payment method to use for each transaction.

Figure 6.2 Levels of front-end competition in payments



Source: Oxera.

Most modern payment methods earn most of their revenue through usage, with the majority of fees based on transactions. Thus, the competition for holding and acceptance is a competition for access to the consumer and merchant and potential future revenue, but not an activity that leads to significant revenue itself.

6.2.2 Back-end competition

Certain types of payment method have also introduced elements of back-end competition, for example, BNPL and digital wallets. When paying with BNPL or a digital wallet, a card or bank account may still be used to transfer funds, but given their functionality and direct interface with their users, they can be thought of as allowing convenient use of different 'back-end' payment methods with a single front-end interface.

In particular, digital wallets have several features that lead to increased back-end competition.

- **They store money or the details** of their users' bank accounts or cards. As such, they can be funded by the user's bank or card details, or directly linked to the user's bank account or cards to request payment approval and initiation (e.g. PayPal).

- They offer customers **multiple ways of loading the wallet** where, as is often the case, their customers often have access to multiple payment methods.
- They provide the option of **aggregating or internalising** a proportion of transactions (saving transaction fees). For example, when two users have an account with a digital wallet provider, a transfer between them does not necessarily require any interaction with the banks or card schemes.
- Digital wallets are a **user-facing service** which customers identify as the payment method. Hence, digital wallet providers are in a prominent position in their interaction with customers.

Digital wallets operate different business models and offer different features, which is positive for consumers. Different business models also impose different degrees of competitive constraint on other payment methods.

6.2.3 Digital wallets increase back-end competition, in addition to front-end competition

Some digital wallets can impose additional competitive pressure on the payment methods they give their users access to, through influencing how the wallets are loaded (back-end competition). This comes from their large user bases (customers and merchants) and effective tools for steering users, which will provide them with stronger bargaining power.

Several digital wallets have already gained widespread adoption in the UK. PayPal is one of the most successful digital wallets, and we use it as a case study to illustrate how digital wallets and back-end competition can act as a competitive constraint on other payment methods.

Back-end competition: how PayPal is creating competitive pressure

PayPal offers a means for consumers to hold several different payment options in one wallet, while at the same time it competes with other payment methods for front-end use in transactions (i.e. there is back-end and front-end competition). PayPal can also be used as a P2P payment method, enabling consumer-to-consumer transfers.

PayPal entered the UK market in the early 2000s by offering a unique proposition that helped consumers to make payments with just their username and password, providing the address details directly and automatically to the retailer. From the merchants' perspective, PayPal offers a simple sign-up process that allows them to accept it without the need of signing up with an acquirer.

PayPal now operates as a digital wallet for both online and in-person purchases, allowing users to fund payments with money transfers directly from a bank account (originally via Direct Debit, and more recently through Open Banking) or by linking to a payment card. In addition, if both the payer and payee have a PayPal account, then the payment can be made using the PayPal balance, which removes the need for external payment processing.

The consumer-centric nature and overall convenience of their offering has contributed to the success of PayPal in the UK with over 20m users, representing its largest European market,[64] and with 400m users globally.[65] Recent estimates suggest that 73% of digital payment users in the UK use PayPal.[66]

The competitive constraints faced by PayPal to retain its large user base led to the launch of new products to satisfy new consumer demands. These range from BNPL products, 'Pay in 3', credit products, 'PayPal Credit', cryptocurrency offerings and extending to in-person payments, through the use of QR codes or payment links.

PayPal has also invested in fraud prevention systems, which has enabled it to offer buyer protection for transactions based on bank transfers. For transactions funded by cards, PayPal can rely on the protection provided by the card schemes.

This means that PayPal can in essence be seen as two products in one: it offers a convenient way to pay by various cards and it offers a credit-transfer-based payment method with buyer protection which competes with cards and other payment methods. In other words, PayPal is both a customer of card schemes, and a direct competitor.

PayPal has also implemented Open Banking payments through Tink, a third-party payment initiation service provider ('PISP'). When adding a new payment method to the PayPal wallet, the consumer can use Open Banking as the default way to select and add their bank account to make payments. PayPal uses the customer login to confirm customers' identities, to gather data and to run its fraud prevention systems and offer buyer protection.[67]

The popularity and availability of funding methods differs by country, which will have an impact on the costs incurred by PayPal.[68] Estimates suggest that PayPal saw approximately 60% of transaction volume funded through automated clearing house ('ACH') transfers in 2019 globally,[69] with an even higher proportion in certain countries.[70]

For PayPal, its financial performance is heavily influenced by the mix through which its transaction volumes are funded. More expensive funding mixes translate to higher costs. As a result, PayPal actively monitors its funding mix, as the company reports that it is a major component of their own transaction expenses. [71]

This implies that if card scheme fees were to increase substantially relative to other payment methods, PayPal would have the incentive to steer consumers to cheaper payment methods, such as bank transfers (with PayPal's buyer protection).

64 PayPal website, 'PayPal', accessed 28 February 2023.
65 PayPal website, 'PayPal'; Business of Apps website, 'PayPal Revenue and Usage Statistics (2023)', accessed 28 February 2023.
66 Statista (2022), 'PayPal brand awareness, usage, popularity, loyalty, and buzz among digital payment users in the UK in 2022', December.
67 The introduction of buyer protection on credit transfer-based payments through PayPal is one reason why the payment method based on underlying bank transfers has become a popular option in countries such as Germany.
68 PayPal (2021), '2021 Annual Report', December.
69 Earnest Analytics (2019), 'Can you Venmo me?', August. Note that the data relates to PayPal funding mix excluding Venmo (a P2P proposition owned by PayPal).
70 For instance, in Germany, an estimated 80–85% of PayPal transactions are funded using credit transfer and Direct Debit. See IT Finanzmagazin (2018), 'Die girocard ist vermutlich zu spät – Interview mit Hugo Godschalk, PaySys Consultancy', 19 September.
71 PayPal (2021), '2021 Annual Report', December, p. 139.

The company would not only have the incentive, but also have the ability to do this since it has already implemented Open Banking technology and developed fraud prevention systems to ensure that its credit-transfer-based payment product is a credible alternative for card users. Having that option available imposes competitive pressure on the card schemes.

PayPal has been successful in reducing its transaction expense rates over time at global level.[72] Table 6.1 below illustrates PayPal's transaction expense rate over time. This metric has been falling from about 1% in 2017 to just over 0.8% in 2021.

Table 6.1 PayPal's transaction expense rate over time

	2017	2018	2019	2020	2021
Transaction expense rate	0.97%	0.96%	0.95%	0.85%	0.83%

Note: The transaction expense rate is calculated by dividing transaction expenses by the total payment volume.
Source: Oxera analysis of PayPal annual accounts, 2022 and 2019.

PayPal can steer consumers in relation to which methods of funding PayPal they use. Except for setting internalisation (when available) and credit transfers (if the user has registered for that) as the default for funding transactions, PayPal does not currently actively steer consumers towards one payment method—and as long as card fees are competitive, it has no incentive to do so.

In addition, merchants already can (and do) steer consumers to PayPal in various ways. Below, we provide some examples of how PayPal, and retailers offering PayPal, can and have been able to influence consumer behaviour.

- Some retailers prominently display the PayPal payment method at checkout. (Examples of checkout processes that steer into PayPal or other digital wallets are Boots, Nike, Gatwick Express, Spotify, Argos and Next).
- Others offer permanent or temporary deals to consumers if the purchase is made via PayPal. Examples include getting a three-month music streaming subscription for free in the UK.[73]

In this way, PayPal exerts competitive pressure on card schemes.[74] It has developed its own buyer protection offering, including on transactions based on credit transfers, to better compete with other payment methods during checkout. By having developed buyer protection, PayPal has also given itself the option to steer its users away from cards (for the funding of transactions) should it feel the need to do so.

[72] This is calculated by dividing transaction expenses (primarily composed of the costs it incurs to accept a customer's funding source of payment) by the total payment value, where total payment value is the value of payments, net of payment reversals. PayPal (2015), '2015 Annual Report', December, pp. 61-63.
[73] PayPal website, 'Featured offers', accessed 28 February 2023.
[74] Through both front-end and back-end competition.

Back-end competition: other players are following a similar path

PayPal competes with cards but also with other digital wallets such as Amazon Pay and Apple Pay, BNPL payment methods and credit-transfer-based payment methods.

Although in the UK digital wallets such as Amazon Pay have not yet given its users the choice to fund transactions by credit transfers (using Open Banking), it could do so relatively quickly. Like PayPal, Amazon Pay could use the services of existing providers such as Tink or TrueLayer to connect to banks to initiate credit transfers.

Some large retailers such as supermarkets have developed their own apps for in-store and online shopping.[75] Although most of these apps currently only offer cards as payment methods (as well as vouchers and some other payment methods), it would be possible to add other payment methods such as credit-transfer-based payment methods if supermarkets were to consider cards no longer offering a competitive proposition. The threat of this, in itself, imposes competitive constraints on card schemes.

Digital wallets can impose significant competitive constraints on card schemes and other payment methods, through back-end competition. The degree of those constraints will differ among digital wallets. For some businesses, such as PayPal and Amazon, their competitive threat to card schemes is associated with the ability to steer consumers to other underlying funding methods, such as credit transfers. Other digital wallets such as Apple Pay signal a similar threat, but in a longer term as they would need to develop additional elements to operate without cards.[76] As digital wallets build more complete business propositions, their ability to constrain other payment methods will increase.

6.3 Multi-homing and influencing consumer behaviour

6.3.1 Consumers and merchants multi-home

Consumers and merchants are increasingly multi-homing, which enhances competitive pressure on payment service providers.[77] Customers hold or have access to multiple payment methods at checkout, both in-store and online. In this regard, multi-homing takes several forms, such as ownership of cards from multiple schemes, bank transfer-based payment methods (which can be enabled by

[75] For example, Sainsbury has developed the SmartShop App for in-store purchases and the Sainsbury's Groceries App for online purchases. Other groceries have developed similar apps. In some stores, the SmartShop App allows customers to pay using the app and avoid the checkouts completely.

[76] Although all digital wallets will impose competitive constraints on card schemes, their business model will impact the amount of front-end and/or back-end competition that they will bring into the payments landscape. For some business models, such as PayPal and Amazon, their competitive threat to card schemes is associated with the ability to steer consumers to other underlying funding methods, such as bank transfers. Digital wallets such as Apple Pay have a different business model. Technically speaking Apple Pay is a 'pass-through' wallet and it could convert itself into a 'staged' wallet with a separate stage for the funding of transactions and then offer this proposition to merchants.

[77] Section 4.3.2 explained in principle how the degree of multi-homing on each side of a platform increases competitive pressure.

Open Banking), digital wallets and the introduction of new payment methods.

There is evidence that suggests multi-homing among consumers is increasing.

- 98% of the adult population in the UK have a current account, which enables them to use Open Banking. Furthermore, 54% of the adult population already uses mobile banking, and 43% of the adult population uses mobile banking for 'paying bills or making other payments'.[78]
- In the UK, there are 20m users of PayPal,[79] 16m users of Klarna, 0.4m users of Samsung Pay, 6.3m users of Apple Pay and 1.2m Google Pay users.[80] These users will typically also hold other payment methods, such as bank accounts and cards.
- Individuals hold multiple versions of similar products. For example, adults in the UK hold 1.9 current accounts and 1.9 credit cards, on average.[81]
- A recent survey commissioned by the Bank of England reveals that 57% of consumers had used a new payment method in the last ten years, with over 25% of them having added one in the last year.[82] This is consistent with new observed entry and with how technology has made it easier to register multiple payment options, just by using mobile phones, downloading applications and quickly signing up (see section 6.4).

Multi-homing is also increasingly common on the other side of the market, with merchants being able to accommodate several payment alternatives for their customers.

Recent survey data reveals that merchants accept a wide range of payments methods, from point of sale cards or electronic devices (26%), to banking apps (26%), online checkouts embedded within a website (20%) or smartphones or tablets (11%). The survey also shows that online bank transfers were the preferred payment method for 57% of the SMEs surveyed, and most commonly accepted (79%). The same survey indicates that 52% of merchants have taken proactive steps to widen the range of payment methods available in the last ten years, with 23% of those having done so the last year.[83]

[78] UK Finance (2022), 'UK Consumer Payments 2022'.
[79] Users are defined as UK shoppers that have used PayPal in the last year. PayPal website, 'PayPal', accessed 28 February 2023.
[80] Users are defined as UK shoppers that have used a digital wallet in the last year. Oxera analysis based on information from NFCW (2022), 'More than one in three UK consumers now use a digital wallet', July; and Statista (2023), 'Digital Payments'
[81] UK Finance (2022), 'UK Consumer Payments 2022', section 1, tables 5 and 7.
[82]The survey included a nationally representative sample of 2,022 consumers and 1,022 SMEs. Consumer and SME survey conducted by YouGov for Bank of England (2022) 'The digital pound: a new form of money for households and businesses?', 7 February.
[83] The survey included a nationally representative sample of 2,022 consumers and 1,022 SMEs. Consumer and SMEs survey conducted by YouGov for Bank of England (2022), 'The digital pound: a new form of money for households and businesses?', 7 February.

Furthermore, a survey commissioned by the PSR during the card-acquiring market review found that 96% of merchants accepted other payment methods, in addition to cards.[84]

The distinction between in-store and online transactions is becoming increasingly blurred. Some merchants have integrated the delivery of their service with the payment method, making the distinction between remote and in-store payments less well defined. For example, the Uber app can be used for both ordering a taxi and paying for the taxi journey.[85] Similarly, train ticket apps can be used for purchasing and displaying tickets.[86] Both examples could be viewed as remote transactions but in practice actually compete with in-store payment methods such as cash or cards. Continued growth in this form of integration will mean further competition between online and in-store payment methods.

Hence in the UK payments landscape, there is extensive multi-homing on both sides of the market. Consumers can easily hold multiple payment methods at low or no cost, while technology is helping merchants to accept a wide range of different payment options from their customers. This technology can also help merchants present their preferred payment method in an attractive way to customers. This extensive multi-homing on both sides changes how the different players interact in the payments landscape, which we discuss next.

6.3.2 When consumers have multiple payment methods available, merchants and payment providers can influence the payment method choice of the customer

As previously explained, payment providers earn the vast majority of their revenue when customers use it for transactions and not through the holding of their product (when a consumer has a debit card or has signed up to a BNPL provider). This means that providers must offer value and convenience to incentivise consumers to use their method for each transaction. Similarly, providers will try to steer consumers towards their preferred payment methods in various ways. Some of these are outlined below.

- Making the use of their payment products as convenient as possible at checkout. For example:
  - For physical transactions, this is exemplified by the adoption of contactless technology by card schemes or the use of near-field communication ('NFC') technology on phones.
  - Digital wallets such as PayPal and Amazon Pay offer to enter the customer's address details on the retailer's website. Card schemes have responded to this by developing a similar service. This shows that competitive constraints are not only about price, but also improving the service quality of the various providers.
- PayPal also offers its consumer protection against fraud or non-delivery of service by the merchant, and Klarna offers 30-day free

[84] IFF Research (2020), 'PSR Card-Acquiring Market Review: Merchant Survey Results', p. 42. Considering the sampling was done among merchants that accepted cards, that the survey was done in 2019 and the recent entry of alternative payment methods, multi-homing is now likely more widespread than what is presented in the survey.
[85] For more detail, see Uber website, 'Uber', accessed 5 April 2023.
[86] For example, see GWR website, 'Mobile App', accessed 5 April 2023.

credit 'with no interest or fees' to its users, under the 'Pay later' functionality.[87]

- Offering complementary services, such as cashback, loyalty points or payment in instalments.
- Offering permanent or temporary deals to consumers in conjunction with merchants.

Merchants and digital wallets may have preferences for the payment methods used to receive or fund payments, respectively. Nonetheless, steering from merchants and digital wallets does not need to be extensive to result in competitive constraints. In markets with strong network effects, the threat of steering (made credible through some examples materialising) can impose significant competitive constraints on payment methods.

A survey commissioned by the PSR during the card-acquiring market review further supports this idea. When merchants were asked what they would do if their cost of accepting the main card schemes increased by 10%, 63% of them responded that they would stop accepting that payment method or that they would continue to accept it, but influence consumers into paying with other payment methods.[88]

The same survey shows how credible this threat is: although a small fraction of merchants had recently attempted to influence consumers to pay with a payment method different to cards, 83% of them were successful in their attempt.[89]

We now describe some of the steering alternatives that can be effectively found within merchants and digital wallets.

Non-acceptance

Merchants and digital wallet providers may steer consumers by choosing not to accept cards or certain other payment methods. As explained in section 5.3.1, the acceptance of debit and credit cards varies by sector and for example many merchants in the 'tradesperson'[90] sector do not accept cards, preferring to be paid in cash or to invoice their customers and request payment by bank transfers, as well as using new alternative payment methods such as GoCardless.

No longer accepting cards, or threatening to stop using them, imposes constraints on the schemes. A recent example that played out in the public domain occurred in November 2021, when Amazon notified its customers in the UK that they would no longer be able to pay with Visa credit cards. The reason given by the retailer was the 'high fees Visa

[87] Klarna website, 'Pay later'.

[88] IFF Research (2020), 'PSR Card-Acquiring Market Review: Merchant Survey Results', September, p. 47. The merchants that would steer to other payment methods signalled cash and bank transfers as preferred methods, although this does not consider the changes that have occurred in the payments landscape in the last 5 years.

[89] IFF Research (2020), 'PSR Card-Acquiring Market Review: Merchant Survey Results', September, p. 45.

[90] Skilled manual workers. For example, the YouGov survey conducted for Bank of England (2022), 'The digital pound: A new form of money for households and businesses?' 7 February; has a category of 'Tradesperson (e.g. cleaner, plumber, electrician, locksmith)', while the UK Finance survey has a category of 'builders, decorators, plumbers', as described in section 5.3.1.

charges for processing credit card transactions'. Two months later, days before the announcement was due to come into effect, the companies reached agreement in the UK and shortly after a global agreement was announced.

This type of threat can be especially effective for digital wallets and merchants that have their customers' cards and other payment-method details on file; this means that they understand the extent to which their customers multi-home and can easily switch to alternative payment methods. PayPal has invested in making it easy for its users to register for Open Banking thereby giving it further leverage over card schemes.[91]

Implicit consumer influence

Rather than not accepting certain payment methods, merchants and digital wallets may implicitly influence consumer-decision making at the check-out (in store or online) in various ways. Merchants control the design of their checkout process, so they can nudge their customer into selecting the payment method that they prefer. It is well-established that the design of online choice architecture can have a big impact on consumer decision-making.

For example, a certain payment method may be set as the default option. This is the case for PayPal, which prioritises internalisation of transactions and using Open Banking to fund transactions by credit transfers, over the use of cards:[92]

'If you're sending a PayPal payment, we'll always use any available money in your PayPal balance to fund the payment. If you don't have enough money in your balance, we'll try to take the money from your bank account. If you haven't added a bank account to your PayPal account, we'll try to take the money from a linked card instead.'

Another typical case of steering, especially for online merchants, is when the checkout process presents the different payment options in a particular order, or makes some of them more visible. For example, some utility companies offer all payment methods on their webpages, but invite you to register only a Direct Debit payment when reaching out through email.

Something similar is common with BNPL payments such as Klarna, where merchants display the alternative of paying with this payment method even before the check-out step[93]. With BNPL, the offer for 'free-credit' acts as a steer between payment methods and, at the same time, an incentive to purchase at that merchant. In a similar way, some online retailers prominently display the PayPal payment

[91] PayPal has invested in two Open Banking fintechs, Tink and Modulr. It currently uses Tink as its Open Banking partner to register bank accounts to enable the initiation of credit transfers in the UK. For further information about PayPal investment, see 'PayPal Ventures', accessed 3 March 2023.
[92] PayPal, 'PayPal App Help – How will my payments be funded', accessed 3 March 2023.
[93] See, for example, the websites of retailers Harrods, Puma or Avon, which have a banner offering BNPL from Klarna, even before the checkout process

method at checkout, and consumers then only get the option of paying by card by clicking on 'secure checkout'.[94]

Explicit consumer influence

Merchants can attempt to influence consumer behaviour in a more explicit manner. The most basic example, and more likely in physical points of sale, is when the seller directly communicates to the buyer the payment method that it prefers.

It is also possible for merchants to discourage some payment methods by making it more costly for customers to pay with them. For example, some merchants, in particular in the tradesperson sector, may send an invoice requesting payment by credit transfer or card, but ask the consumer to call the merchant during opening hours if they intend to pay by card.

Another explicit way of influencing the payment method choice is by offering direct financial incentives to consumers. These may be in the way of discounts, vouchers or coupons to consumers for choosing a specific payment method. For example, British Gas, as well as some other utility companies, offer discounts to customers that pay through Direct Debit.[95] Other similar cases for discounts when paying with Direct Debit are SSE[96], Octopus Energy[97] and Shell Energy.[98]

These financial incentives can also be offered jointly by payment methods and merchants looking to steer consumers into a certain payment method, while looking to grow the merchant's sales. For example, users can receive a 15% discount using Apple Pay when booking a ticket for a film in Everyman's app.[99] Cashback offers are also being used by various platforms to encourage consumers to shop through particular apps or payment methods (for example Super Payments, see section 6.4.3).

Finally, online merchants may offer an alternative payment method during checkout, after the consumer has initially selected his payment choice. An example of this method is the 'Transformer' service, from fintech company, Volt. This service identifies the bank while the customer is entering the card details at checkout, and quickly sends a prompt offering to switch to an Open Banking-based payment method:[100]

> 'Ah, you bank with Monzo! Did you know it's faster and easier to check out directly from the Monzo app?'.

Card fees per transaction are higher in the airline and car rental sectors (because of the high transaction value), so it is not surprising that Volt's Transformer service is a particularly attractive service for companies in these industries. Additionally, Volt recently entered into

[94] There are many examples of this, such as the shoe retailer Schuh in the UK, which offers quick checkout buttons for Google Pay, Klarna and PayPal.
[95] British Gas website, 'Paying by Direct Debit', accessed 12 March 2023.
[96] SSE website, 'Setting up and changing a Direct Debit', accessed 04 April 2023
[97] Octopus Energy website, 'Why are tariffs sometimes cheaper if I pay by Direct Debit?', accessed 4 April 2023.
[98] Shell Energy website, 'Paying by monthly Direct Debit', accessed 4 April 2023.
[99] Everyman (2023), 'Everyman & Apple Pay', January.
[100] Volt website, 'Transformer: Convert card payments into open banking payments', accessed 4 April 2023.

a partnership with Worldline, a global acquirer, that will give many more merchants access to Volt's Open Payments infrastructure.[101]

6.3.3 Implications of multi-homing and steering

Consumers increasingly multi-home in terms of the payment options they hold, and technological developments are continuing to make it even easier, lowering the costs of holding multiple payment methods and making it easier to switch between them for different transactions. Although cards remain an attractive payment method, many alternatives exist, and merchants have the tools to steer consumers towards them, were cards not to remain a competitive offering.

The examples discussed above demonstrate that merchants are able to steer consumers, and that new services, such as Transformer by Volt, have made it even easier to get customers to switch to cheaper alternative payment methods.

6.4 Entry: how have new players entered the payments landscape?

As explained in section 3, the payments landscape is characterised by strong network effects, where threats of entry and switching to alternative providers result in competitive constraints. New entry, and the potential for rapid market share changes mean incumbent providers compete by 'running to keep still'—i.e. they need to price in a competitive way and innovate to maintain their existing positions.

In the past few years, new entrants have shown that barriers to entry can be overcome. New entrants have successfully used the credit transfer infrastructure (via Open Banking) to develop new payment methods, build user bases by developing new service propositions (to attract consumers and merchants) or by leveraging existing customer bases from retail businesses.

The growth rates experienced by new entrants suggest that they are capable of achieving considerable scale. In this section, we analyse the entry path of some of the new players.

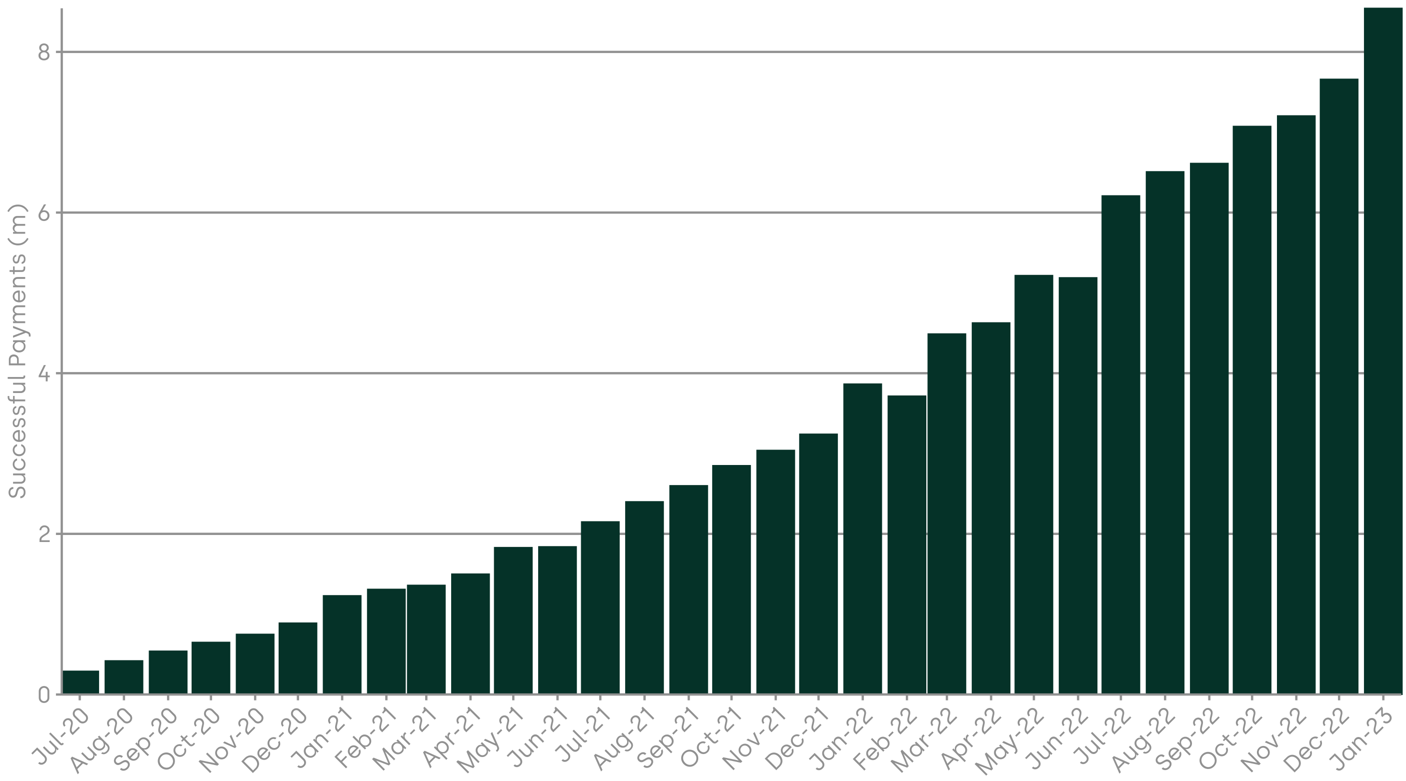
6.4.1 Open Banking as an enabler of current and future entry

The introduction of Open Banking has made entry into the payments landscape significantly easier. Although its implementation is recent, more than 220 third-party provider (TPP) fintechs are already registered for its use in the UK.[102]

Adoption of Open Banking payment methods has increased with over 7m regular users in January 2023.[103] Figure 6.3 below shows a rapid growth of Open Banking payments, increasing from less than 250,000 monthly payments in July 2020 to over 8.5m payments by January 2023.

[101] Volt (2021), 'Worldline partners with Volt to bolster 600+ enterprise-level merchants with open banking payments', October.
[102] Konsentus (2023), Q4 2022 Konsentus Third Party Provider Open Banking Tracker', January.
[103] OBIE (2023), 'UK reaches 7 million Open Banking users milestone', February.

Figure 6.3 Number of successful monthly UK Open Banking payments (m)



Note: The figure shows the number of successful monthly payment initiations made by third party providers using Open Banking APIs.
Source: Oxera analysis of OBIE (January 2023), 'API performance stats'.

The number of transactions using these new propositions is currently still relatively small—however these examples show that it is possible to enter with payment methods that compete with card schemes.

Open Banking is also expanding to in-store payments, including through the use of QR code payments and payment links. Another use case example is Variable Recurring Payments ('VRPs'). Current UK regulations mandate the largest nine banks to enable VRPs to be used in 'sweeping' use cases (i.e. the movement of money between accounts held by the same person). 'Non-sweeping' VRPs will expand the potential of Open Banking, for example as an alternative to card-on-file for subscriptions, recurring bills or other repeat payments. VRPs could also enable frictionless one-click e-commerce payments by replacing card-on-file with 'account-on-file'. PayIT, the Open Banking proposition of NatWest[104], is soon to pilot a non-sweeping VRP functionality.

Looking forward, the development of non-sweeping VRPs is a new option that could enable large retailers to develop a method to allow customers to pay directly from their bank account, as an alternative to card schemes, digital wallets and other current payment methods.

[104] NatWest website, 'PayIT: a new NatWest payment innovation', accessed 3 April 2023.

6.4.2 Developing a proposition and user base

Successful entry into payment services often requires a value proposition that is appealing to consumers and merchants. New providers have developed differentiated propositions in order to drive adoption. Just like PayPal, which at the time entered the market with something new and innovative that appealed to both consumers and merchants, recent entrants have developed new propositions such as instalment credit (BNPL) and lower fees (various low-cost credit-transfer-based payment methods).

The search for new propositions results in payment products that will have different characteristics on various dimensions (different degrees of buyer protection, credit offering, price structure differences, in-store or online, among many others). These new options will benefit a broad group of consumers and merchants by not only being an alternative to card payments, but also to other methods like Direct Debit or regular bank transfers, which are heavily used in some segments, such as trade invoicing (see section 5).

Various new players have been successful in bringing new propositions into the payments landscape, competing alongside traditional methods such as cash and cards. Some examples of entry that we have observed in recent years in the payments landscape include the following.

- Some providers have successfully entered the payments market without having an existing customer base. Examples include Revolut, Klarna and Super Payments. These firms have developed unique consumer propositions and used these to grow their own user bases.
- Large businesses with an existing customer base introducing new payment methods that exploit synergies with their wider business such as Amazon's development of an e-wallet service for online payments.

Below, we discuss some relevant examples of each type of entry and how they play a role in the expansion of competing payment methods and the competitive constraints in the payments landscape.

6.4.3 Competitive threat from entrants offering new propositions

The rise of e-commerce in the UK has substantially increased the number of opportunities for new providers of payment services to expand to provide alternative options for in-store payments. In many cases such entrants have been able to grow despite a lack of a pre-existing user base, which is increasingly easy thanks to technological development and the ease of multi-homing.

New players specialise in a range of products, from BNPL products to financial 'super apps', fully integrated marketplaces where users can satisfy their financial, leisure and lifestyle needs all in a single app. These products often offer speed, convenience, ease of use and financial incentives; features that are designed to attract the largest user bases and connect to consumers' lifestyles. The entry of this diverse group of providers has not only added to the competitive pressure on other payment methods, but has also increased choice for consumers and merchants.

Some of these new propositions have gained such popularity, that they are extending their services to the acceptance of online and in-person payments, developing in-house payment processes that remove the need for external payment processing and compete directly with card schemes.[105]

Klarna

- Founded in 2005 and introduced their BNPL product in 2016.
- Acquired Sofort in 2014, which is now offered as Klarna Pay Now, widening the scope of their payment offerings.
- Has 150m users globally, in 45 different countries, as well as 500 thousand retail partners.
- In the UK, their app was downloaded 2.6m times during 2022.

Source: Klarna website, 'Klarna in Society', accessed 15 March 2023. Oxera analysis of Statista (2023), Biggest buy now, pay later (BNPL) apps in the United Kingdom (UK) from 1st quarter of 2015 up until 1st quarter of 2023, by number of downloads', February.

One of the additions to the payments landscape has been BNPL, where Klarna is the largest provider in the UK and worldwide. Klarna quickly grew its customer base after the launch of its BNPL products, offering zero-interest short-term financing for online purchases. Klarna's services are also extending to in-person payments, through the creation of single-use digital cards or QR codes, which are presented at checkout.

Klarna has also developed its 'Klarna Pay Now' service, a way of shopping online using Open Banking, removing the need for cards or accounts. With this service, online merchants can receive a real-time confirmation of the transfer order. This is powered by Klarna's own Open Banking platform, Klarna Kosma.[106]

As is the case of other new entrants that have been described in this report, purchases made with any Klarna product are covered by Klarna's Buyer Protection. When there is a problem with a purchase, the policy ensures the consumer receives a refund. This could be the case if the goods are not received, in which case Klarna assists in contacting the merchant and seeking information or action.

Klarna is one example of a successful provider that has managed to bring new payment methods to consumers by focusing on user experience and convenience.

Other providers have seen adoption and promoted the use of alternative payment methods through providing direct financial incentives, such as cashback or unique consumer offers. Super is one example of this, offering payment processing at no charge. It charges merchants who use the 'growth plan' a commission per new customer acquisition and allows merchants to advertise in the Super app.

Super offers an instant cashback service, when the 'Pay with Super' payment method is selected by the consumer. The cashback is taken off the total purchase price and funded by the merchant. Super takes a commission from this cashback amount.

Super is an example of a new payment option that is entering the market with no previously built customer base, but with a business model that is novel for merchants and customers. This adds to the

[105] For instance this is the case with Revolut Pay.
[106] Klarna (2022), 'Annual Report 2022', December. Kosma has the largest reach of any Open Banking platform with access to 15,000 banks in 26 countries through a single API. Kosma processes close to a billion information requests to bank accounts each year.

range of participants, and therefore also competitive constraints to the other players in the market.

Another case of a new proposition that was able to build a strong user base is Revolut. It currently has over 25m users, and has grown while continuously adding additional services and functionalities for both customers and merchants.

As has been the case for many digital wallets, they are also working on systems that would allow merchants to steer away from card-based payments. Merchants can accept payments online or in-store using Revolut portable readers, displaying QR codes or sharing payment links. The customer is then re-directed to choose their preferred method. If both the customer uses Revolut Pay and the merchant accepts payments with Revolut, the transaction is carried as an in-house transaction using instant transfers, bypassing cards and their fees. This service also offers Buyer Protection.

New and varied propositions are flourishing with Open Banking. As was shown above, the recent growth of Open Banking licences and transactions is a sign that this type of entry will continue in the future. An example of an Open Banking use case is IATA Pay, a payment method introduced by the International Air Transport Association ('IATA'), an airline industry trade association.

IATA Pay offers a white-label payment option for airlines that provides consumers an alternative option to pay for tickets and ancillary services through instant bank transfers. For instance Emirates used IATA Pay to launch Emirates Pay in 2021.

Once this method is selected at checkout, the airline uses an API to connect to IATA Pay, which then sends a payment request to the customer's bank account, using Token as a PISP. The funds are then transferred from the consumer's account to IATA's bank account.

IATA is not the only provider offering alternative payment options for airlines based on Open Banking. For example, Trustly is facilitating Open Banking payments, including to airBaltic, Norwegian Air and Wizz Air, allowing consumers (including UK consumers) to pay directly from their bank account. According to a recent Trustly report, 71% of airlines are now actively exploring implementing an account-to-account payment option.[107]

Another type of entry into the payments sector that has been seen in Europe is through building user bases with P2P transaction platforms. Examples of this are Swish in Sweden, Bizum in Spain, Blik in Poland, MobilePay in Denmark and Vipps in Norway. These providers have developed expansive user bases by offering a free and easy way of transferring funds. Providers have built on these user bases and expanded their services to offer online and in-store payments. One of the many success stories with this approach is Blik, which was launched in 2015 and has quickly turned into the preferred online payment method in Poland. During 2022, more than 700m e-commerce transactions (60% of the total in Poland), 76m P2P payments and

[107] Trustly (2022), 'Trustly partners with Wizz Air to bring innovation to airline payments', August.

220m in-store payments were made with Blik[108]. In March 2023 Blik entered the Romanian market, the second largest in Central and Eastern Europe.

Examples of innovative propositions powered by Open Banking

- IATA Pay
- PayIt by NatWest
- Pay With Bank Transfer by American Express
- Instant Bank Pay by GoCardless
- MoneyHub
- TrueLayer
- NuaPay
- Trustly

Source: Oxera.

These are only a few examples of recent entry by providers that built their user bases with innovative product propositions for consumers and merchants. There are of course many more. NatWest has used Open Banking to develop PayIt. American Express launched an Open Banking-enabled product, 'Pay With Bank Transfer', available for all users of most UK banks (not only for Amex cardholders). GoCardless is another example of an innovative proposition that has expanded with the help of Open Banking. Its product 'Instant Bank Pay' offers merchants a simple way of sending instant payment requests to consumers, by email or a request link, which are then redirected to their bank to authenticate the transaction.

This strategy is not new. PayPal entered into payments with a simple and innovative solution for its customers, before transforming itself into the complex company that it is today. In a similar way, Klarna expanded as a BNPL company, but is already broadening its business with additional services, such as Klarna Pay Now. Some of the newer entrants mentioned above will likely follow a similar path.

6.4.4 Competitive threat from large companies with established user bases

Large players (such as retailers and marketplaces) have the ability to leverage their existing user bases to steer consumers towards their preferred payment methods. Some examples include large supermarket chains, such as Sainsbury's and Tesco, which have the user bases and consumer relationships needed to succeed in steering their customers into alternative payment methods if the options they currently use do not offer good value.

Furthermore, some large merchants have also entered the payments market to offer their own digital wallets at checkout, granting them additional ability to influence the choice of payment method. These include Amazon Pay, which is actively competing with PayPal as a payment method; Meta Pay, a solution for purchases on the company's social media platforms, such as the Facebook or Instagram marketplaces; or the Tesco Payment Wallet.

Amazon Pay is a digital wallet that offers merchants an efficient and easy checkout for the more than 300m active Amazon customer accounts.[109] In addition to traditional retail purchases, Amazon Pay enables recurring payments, to make it easy for its customers to start a subscription, pay a recurring bill, or make a future purchase (for example, purchasing music or games), with the need to authorise the transaction only once.

[108] Blik website, 'Breakthrough year for BLIK: more than one billion transactions and nearly 13 million active users at the end of 2022', accessed 3 April 2023.
[109] Amazon Pay website, 'Introducing Amazon Pay', accessed 17 March 2023.

Amazon Pay is also expanding its payment business by offering BNPL products on external merchant sites, starting with partnerships with financial entities in Spain and France.[110] As part of its service proposition, Amazon Pay offers its own buyer protection policy, the 'A-to-z Guarantee for buyers'.

Amazon has also started to use account-to-account payments as a way of funding transactions made with their wallet. As other digital wallets have done, Amazon could extend bank transfer funding to the UK, particularly if its current wallet funding method, primarily cards, does not deliver the expected value relative to its price.

Meta Pay is a newer addition, launched in 2019. Meta Pay is a digital wallet that lets users make secure payments on Facebook, Instagram and Messenger. With Meta Pay, users can shop seamlessly while browsing in their social media, without leaving the app and being redirected to external sites.

Meta platforms, such as Facebook or Instagram, have significant user bases —a total of 3.71bn monthly active users worldwide.[111] Meta Pay supports most major credit and debit cards, as well as PayPal at checkout.[112]Meta Pay has also introduced its own buyer protection policies, with payments to sellers held until buyers mark purchases as received, or for up to seven days after the payment has been successfully made. During this time, a buyer can dispute an order if an item was not received, was damaged or was significantly different than described.[113] Additionally, purchases are protected when the merchant does not follow their stated refund policy or there are unauthorised purchases.

In Brazil and India, Meta's messaging platform, WhatsApp, has also introduced a feature to carry out peer-to-peer account transfer payments, using instant payments platforms. Recently, the Brazilian Central Bank approved the initiative for merchants to accept payments in this way too.[114]

As with the other examples discussed in this section, Meta Pay is another example of a large player leveraging its user base to enter into the payments market, creating its own proposition, adding new choices for consumers and exerting additional competitive pressure on traditional and new competitors.

Another example of businesses with large user bases expanding into payments is the case of WeChat in China. The company started as an instant messaging service and decided to expand into payments after it had built a large enough user base.

Their offerings have further grown, in payments and other services, turning into what has been considered a 'superapp'[115]. Users may create applications that are embedded into the WeChat application,

[110] Amazon Pay website, 'Buy now and pay in instalments', accessed 28 February 2023.[110] Amazon Pay website, 'Buy now and pay in instalments', available at: https://pay.amazon.eu/cofidis-amazon-pay, accessed February 2023.
[111] Filgueira, R. (2022), 'Facebook Payment: How Does Facebook Pay Work?', November.
[112] Meta website, 'Store Help Centre', accessed 12 March 2023.
[113] Facebook website, 'Purchase Protection Policies', accessed 27 March 2023.
[114] Reuters (2023), 'Brazil central bank greenlights Meta's WhatsApp merchant payment system', March.
[115] BBC (2021), 'The race to create the world's next super-app', accessed 4 April 2023.

creating a proposition that integrates many other products and services.

6.4.5 In less than 10 years, WeChat Pay reached more than 1bn users and, together with Alipay, completely changed the payments landscape in China.[116][117] **Entry is not only possible and credible, it is happening**

As discussed in section 3, in two-sided markets with strong network effects even small new entrants can lead to strong competitive forces. Incumbents are forced to compete on quality, innovation and pricing to maintain their position in the market and because of the fear that a new rival offering can quickly attract a large number of transactions.

The threat of entry is able to produce competitive pressure on incumbents, as long as it is credible. As discussed in previous sections of this report, new providers are indeed bringing new products into the payments services landscape. Different types of entry have been discussed, including companies with innovative propositions and companies with large user bases. In both of these categories we can observe concrete examples of entry into the payments landscape.

6.5 Forward-looking developments

The current value chain described at the beginning of this section reflects the evolution of the payments landscape during the last decade. Technological and regulatory changes have led to new types of provider and competitive dynamics.

Nonetheless, changes in this industry will continue during the next decades, fostering further change in the way consumers, merchants and payment methods interact in the market. This subsection sets out some of the most relevant trends and developments we might see in the future.

Stablecoins and Central Bank Digital Currencies

A stablecoin is a digital currency pegged to a fiat currency (such as the US Dollar or the Euro) and backed with reserve assets. They are privately-issued crypto-assets that are designed to remove the volatility in price associated with cryptocurrencies (such as Bitcoin).

At the time of writing the Bank of England is consulting on the proposed model for a potential digital pound which would be available for consumers to use to make retail payments, as an alternative to card payments and other methods (any digital pound introduced would move to 'build' phase from 2025 at the earliest).[118] The Bank of England has stated that one of the aims of any digital pound would be

[116] Statista (2021), 'Number of users of Alipay and WeChat Pay in China in 2020, with forecasts from 2021 to 2025', accessed 4 April 2023.
[117] Daxue Consulting (2022), 'Payment methods in China: How China became a mobile-first nation', accessed 4 April 2023.
[118] See Bank of England (2023), 'The digital pound: a new form of money for households and businesses?', working paper, p. 19.

to further 'promote innovation, choice and efficiency in domestic payments'.[119]

A digital pound would work as a form of digital cash issued by the Bank of England for use in day-to-day spending. One model would involve consumers holding and using digital pounds for purchases in store and online through a digital pound wallet. A digital pound may be based on distributed ledger technology (such as blockchain), but would not be a cryptocurrency like Bitcoin, or a private stablecoin.[120]

Embedded finance

Embedded finance is the integration of financial services into non-financial products or platforms. Adding a financial extension to products that are frequently used by consumers and companies opens new business models for platforms and financial institutions.

Some large platforms and marketplaces currently offer their own payment services and wallets to their business customers as part of their core offering. For example, fintech company Stripe enables Shopify to offer payment processing and money accounts to help its merchants grow and manage their business better.[121] This service allows platforms to offer more value to their merchants' businesses, incentivising them to stay and operate within their network.

Another example is RingGo which has been turning itself into a 'super app' solution for parking, with payment facilities fully integrated into the app.[122]

Further growth in embedded finance could also impact the competitive dynamics in the payments landscape, creating more distance between payment methods and final consumers and adding more back-end competition between payment methods, similarly to that which was discussed in section 6.2.2.

Further involvement of 'Big Tech' in payments

Looking forward, one source of change into the payments landscape is the possibility of large technology companies moving further into the payments space. This possibility was highlighted in a recent discussion paper published by the FCA, which depicted three possible entry scenarios for Big Tech: [123]

1 Big Tech firms could provide more services across the card schemes, to capture more of the value chain.

[119] See Bank of England (2023), 'The digital pound: a new form of money for households and businesses?', 7 February.
[120] See Bank of England (2023), 'The digital pound', accessed 27 March 2023. In a speech, Jon Cuncliffe (Governor of the Bank of England) noted 'In a future payments landscape, there could be opportunities for privately issued stablecoins, regulated to the same standards as we regulate other forms of privately issued money. We envisage that these could operate alongside the digital pound and alongside commercial bank money and cash'. See Bank of England (2023), 'The digital pound – speech by Jon Cuncliffe', 7 February.
[121] For more information, visit Stripe website, 'Shopify builds Shopify Balance with Stripe to give small businesses an easier way to manage money', accessed 31 March 2023.
[122] See Ringo website, 'How it works', accessed 6 April 2023.
[123] Financial Conduct Authority (2022), 'The potential competition impacts of Big Tech entry and expansion in retail financial services', October, p.19.

2 Big Tech firms compete with the card schemes directly by facilitating the adoption of non-card payment systems.
3 Big Tech firms widen the scope of payment products, or use-cases, that users access through digital wallets.

The impact of this on the competitive constraints on current payment methods will depend on the business model that different entrants decide on. Nonetheless, any of the previous entry strategies would impose constraints on card schemes, either through increased front-end competition (mainly scenarios 2 and 3) or back-end competition (scenarios 1 and 3).

A recent example of the growth of Big Tech in payments is Apple expanding its service beyond debit and credit card funding, with the US-launch of Apple Cash. Apple Cash is a digital card that lets the consumer have a balance of money within the wallet, to receive and send money to other Apple Pay users. Similarly, Apple has launched 'Tap to Pay', which enables small and large retailers to accept payments with a simple tap in their mobile phone using NFC technology.

Apple Cash balances could be used to pay at merchants with 'Tap to Pay' in the near future. This means that transactions could be processed 'in-house', without the need for external payment processing. Given Apple Pay's popularity, this could significantly raise the adoption of 'on-us' e-money transactions.

6.6 Summary and implications for competitive dynamics

In this section, we have seen that there have been significant developments in the competitive dynamics of payment services.

The payments landscape has evolved in recent years, with new types of providers playing increasingly large roles.

Multi-homing and steering are also central to the competitive dynamics in payment services. The increased prevalence of multi-homing on both sides of the market, with consumers and merchants increasingly having easy access to multiple payment methods, has given merchants more influence to steer consumers towards specific methods. This has added competitive pressure to incumbent payment methods.

Although different types of steering are described in this section, it is important to understand that the most important competitive constraints stem from the threat of steering. Although it is generally subtle, we observe various types of effective steering implemented by merchants and digital wallets, which is enough to transform it into a credible threat and impose constraints.

Increased multi-homing through the development of new payment methods (or new providers in different parts of the value chain) helps to reinforce this effect. We can identify at least two different strategies that firms have successfully used to enter or expand their offer in the payments landscape; one centred on firms delivering innovative propositions to consumers and merchants, and another one where firms with large existing user bases develop payment products.

As with steering, extensive entry is not a requisite for a competitive outcome. As noted in section 4, markets with large network effects may lead to tipping points, and a credible threat of entry has a powerful effect to discipline incumbents. In the context of payments, this constrains incumbents and forces them to compete on innovation, quality and pricing in order to maintain their position in the market. Based on the evidence presented in this section, the threat of entry is not only credible, it can also be observed.

7 Market outcomes

The functioning of a market can be assessed by the outcomes it delivers for end-users. Here, this includes both payers and payees (consumers and merchants). As described in section 3, we consider four market outcomes in turn:

- **Volumes**. What part of the market is served by each payment method? Which payment methods are used by different segments and is this changing over time? This is considered in section 7.1.
- **Innovation**. Have new products, services and more efficient processes been introduced? Section 7.2 sets out some of the notable innovations in the UK payments landscape in recent years.
- **Choice and quality**. The variety of services that are being offered; to what extent are the diverse needs of different types of users met? Are the products delivering value to end-customers? These questions are considered in section 7.3.
- **Prices**. In this case, pricing refers to the total costs incurred by end-users in using the payment methods for the given service offering. Here, the relevant question (addressed in section 7.4) is: are the prices for different payment methods consistent with the differences in the value propositions?

7.1 Volumes

In a well-functioning market we would expect to see competition lead to increasing volumes served by more efficient suppliers, as previously underserved segments are competed for by new players seeking to enter, and incumbents trying to expand.

The competitive process in the UK payments landscape has led to significant changes in the usage of payment methods. As described in section 5, in some parts of the payments landscape more traditional and less efficient methods—such as cash, cheque and standard (BACS) credit transfers—are being replaced with more efficient, electronic transfers. This includes growth in the use of Direct Debit and Faster Payments by both consumers and businesses (see section 5.2).

As noted above, in general the share of transactions made via cash or cheque in the UK has been declining in recent years (albeit cash represents an important payment method for certain groups of consumers and merchants). This trend has coincided with the card schemes' development of technology and standards, in order to make electronic payments possible for smaller in-store payments. The increase in the number of cards and other modern payment methods is likely to have benefited a large number of consumers and merchants by reducing transaction, management and storage costs. This includes small merchants, who increasingly have been able to accept a wider range of payment methods through advances in technology, and through other players in the value chain such as payment facilitators.

New solutions are being developed to lower the cost of acceptance for small merchants by turning smartphones into payment terminals.[124]

[124] See, for example, Mastercard (2023), 'Mobile Point-of-Sale (MPOS) program' accessed 14 March 2023.

Through enabling mobile devices to accept contactless cards and mobile payment transactions directly, the need for a separate payment terminal is removed completely. Other new players, such as Zettle (owned by PayPal) and SumUp, have also targeted smaller business owners.[125]

There is, however, significant variation between different merchant sectors. Some merchant segments still have a higher proportion of payments made through more traditional methods, with multiple players (such as GoCardless, Tomato Pay, PayPal, Klarna Pay Now) and card schemes competing to grow their share of transaction volume. Therefore, shifts in usage pattern are likely to continue being observed in various segments of the UK payments landscape.

Consumers and merchants in the UK now have a range of payment options available in most payment situations, both online and in-store. The large shifts in usage patterns for payment methods being observed (and which will continue to occur) reflect consumers and merchants responding to changes in innovations, prices, choice and quality.

7.2 Innovation

Innovation—the introduction of new products, services and processes—is often seen as the most important outcome in a well-functioning market, since new demands are met. Innovation by new entrants may enable them to rapidly build a user base, through a desirable new offering. Where competition is working well, incumbents must therefore continually strive to introduce their own innovative products and services, lest they lose users to other players in the market or to potential new entrants.

Evolving consumer preferences will drive merchants (and in turn acquirers) to innovate. This will also put competitive pressure on payment methods to develop innovative products.

In the case of the UK payments landscape, there has been a significant amount of innovation in recent years. This includes the development of new, alternative payment methods and propositions—which has driven existing players to develop new services in response (for instance PayPal introducing instalment credit in response to the entry of BNPL providers).

Innovation has also been driven through investment from existing players such as card schemes, which has resulted in new products and services, and more efficient processes. Indeed, payment schemes have an incentive to ensure successful adoption among issuers and acquirers, and merchants and cardholders of the latest technologies, as well as to instil the right incentives to promote adoption. For instance, the introduction of contactless technology turned cards into a very convenient payment method for low-value in-store transactions. It was widely adopted from 2015, having received the buy-in from issuers, acquirers, and merchants and support from technology providers.

[125] See Zettle website, 'Zettle', and SumUp website, 'SumUp', accessed 14 March 2023.

Card schemes have continued to invest in the development of contactless technology and in fraud prevention systems which enabled the limit for contactless transactions to be increased from £30 to £100. The fact that a stage of identification is removed from the process is managed through: (i) continuously monitoring transactions in order to detect fraudulent card use as quickly as possible; (ii) asking for a PIN to prevent fraudulent use of the card if the profile of transactions suggests that there is greater risk; (iii) allowing contactless payments only for transactions with a certain (low) value. This has contributed to the increase in mobile payments in the UK, which has provided a channel for alternative payment methods to be used for in-person transactions (such as PayPal mobile and Klarna Pay Now).

More generally, innovations in the UK payments landscape have been benefiting end-users, both merchants and consumers. These innovations cover a wide spectrum of improvements for the payments ecosystem—supporting entry and new services, improving the speed, security and convenience of transactions. Examples of recent major innovations in the UK payments landscape include the following.

Supporting entry and new services

- **Application programming interfaces (APIs) and Open Banking**. As described in section 5, the UK Open Banking standards have enabled multiple innovative new entrants to develop products and services based on access to consumers' current accounts through APIs. As discussed in section 6, this has led to the development of new payment methods (such as Super Payments, Atoa or Pay with Bank Transfer), and to existing players making use of this technology (e.g. PayPal).
- **Innovative credit facilities and instalment payments**. BNPL providers (such as Klarna and ClearPay) have introduced innovative credit options, benefiting consumers through convenience and low-cost credit facilities. Merchants also benefit from the ability to attract customers and decrease cart abandonment. This innovation has driven existing players to develop their own instalments proposition, such as PayPal's 'Pay in 3' product.[126] Cards now also offer functionalities to pay for goods in instalments at checkout in order to compete with the BNPL offerings (e.g. 'Mastercard Instalments' or 'Visa Ready BNPL').[127]
- **Accepting physical transactions with mobile devices**. As enabled by the development of NFC technology, companies like Apple have launched their own Tap to Pay services, which allow merchants to accept payments with iOS devices by simply downloading an app. Similarly, Stripe has launched a Tap to Pay functionality for Android devices in the UK.

Improving the speed, security and convenience of transactions

- **Tokenisation**. In order to securely store consumer data and lower compliance costs, the major card schemes introduced tokenisation

[126] See PayPal website, 'Buy now and pay later with Pay in 3', accessed 5 April 2023.
[127] See Mastercard website, 'Enabling merchant participation in the Mastercard Instalments Program', accessed 12 March 2023.

into their payment infrastructures. Tokenisation is the process of replacing a sensitive piece of information—in this case a card's primary account number, the 16-digit number on the plastic card—with a non-sensitive, unique alternative card number, or 'token'. This creates an EMV-like security for each transaction, which reduces the risk of the credit card number being misused or stolen, and therefore helps to prevent fraud. Tokenisation and NFC technology has enabled subsequent innovations,[128] for instance the development of **wearable payments** (e.g. using wearable devices, including smartwatches, smart jewellery, and fitness trackers).

- **Fraud prevention innovations.** The payments industry has developed various innovations in response to the Strong Consumer Authentication ('SCA') requirements through new technology and protocols. For example, Mastercard has actively promoted the adoption of SCA through issuing recommendations as part of 3D Secure 2.0 (3DS2), a protocol in relation to biometric authentication. More widely, new technologies and processes in relation to fraud detection and prevention have directly benefited merchants as well as consumers. For instance new decision intelligence systems based on innovative data analytics and machine-learning techniques—including from providers such as Feedzai and Featurespace—benefit merchants directly by enabling increased approval rates.[129] As discussed in section 7.3.2 below, fraud rates in the UK have been declining, despite an increase in the proportion of riskier transactions (such as e-commerce transactions).

This list is far from exhaustive, and several further technologies are potentially on the horizon (such as digital currencies, embedded payments, and micropayments). Innovation is continuing at rapid pace, as new entrants compete to enter, and incumbents respond to competitive pressure, bringing about improvements in consumer and merchant experience.

In addition to new players, payment schemes, such as Mastercard and Visa, have driven innovation in several areas by developing technology and standards. These innovations can then spread to other payment methods, and in turn enable potential entrants to continually exert competitive pressure on incumbent providers.

7.3 Choice and quality

The changing payment systems market has led to greater choice and quality of payment methods. This benefits both consumers and merchants.

[128] Quick response (QR) codes, an advanced type of barcode, are an alternative to NFC technology that can be read by digital devices that are equipped with a camera, such as smartphones. The QR code can be generated by the merchant or by the customer's smartphone ('merchant-presented QR' or 'customer-presented QR') and allow transactions to be conducted using the customer's digital wallet. While currently less widely used in the UK context, the popularity of QR codes increased during the COVID-19 pandemic as brands and venues such as restaurants sought to limit contact through items such as money, paper or tickets.
[129] See Feedzai website, 'Feedzai', and Featurespace website, 'Featurespace', accessed 4 April 2023.

7.3.1 Choice

The increase in the number and type of players involved in the payment systems market means that consumers and merchants have a variety of payment methods available to them for both in-store and remote payments.

Both consumers and merchants will often have a variety of options for any given payment, as multi-homing is common. For in-store payments, consumers can typically use cash, debit, prepaid and credit cards, mobile payments and digital wallets. For remote payments, consumers can typically use cards, digital wallets, payment methods based on Direct Debit and credit transfers, traditional bank transfers and Open Banking-enabled credit transfers.

Another important trend is that the distinction between remote payment methods and in-store payments is becoming increasingly blurred, as explained in section 5.3.

Although all payment methods provide a minimum level of service, they vary significantly in their product features. Some product features such as provision of credit, convenience (such as digital wallets saving payment details) are attractive to consumers, which makes these payment methods indirectly attractive to merchants. Other services are directly attractive to merchants such as instant authorisation, notification of payment, and timely clearing of transactions. Other features directly benefit both consumers and merchants. For instance contactless technology is convenient for consumers and lowers transaction costs in terms of time spent at point-of-sale.

Buyer protection—choice

Consumers also have choice when it comes to 'buyer protection'. When paying for a product or service, consumers face different types of risks. Some risks relate to the payment itself while others relate to the delivery of the product or service. For example, there are risks in relation to the money transfer itself due to scams and other fraudulent activities; there is a risk of not receiving the product or service when conducting online purchases; and there are risks in relation to the product itself: receiving a faulty or damaged product, or the service not being in line with how it was described when purchased.[130]

Debit and credit cards protect consumers against these risks and offer a chargeback mechanism.

The risks that consumers face, and thus the type and degree of protection that they might need, will depend on the type and context of the transaction. There is little that can go wrong when paying for a coffee in a café, whereas there are clearly risks when paying for an electrical appliance or other product online. There exists a spectrum of transactions between these examples. For instance consumers will often make repeat transactions with large retailers—e.g. consumers may typically do their weekly shop at a particular supermarket. These

[130] In some sectors such as the travel and leisure industry, there may also be the risk of losing money if the company goes bankrupt and the service has not yet been provided.

merchants will also invest in their brand, and in maintaining customer loyalty. Major supermarkets will often refund or replace damaged or missing groceries. For these types of purchases then, there may not be as much of a need for the same level of buyer protection as with other transactions.

In terms of alternative payment methods available in the UK, there is a mix of payment methods with and without buyer protection giving both consumers and merchants choice.

Payment methods such as PayIt, Atoa, and Pay with Bank Transfer do not offer buyer protection whilst various others do, such as PayPal, Klarna Pay Now (which uses credit transfers via Open Banking to fund transactions), various BNPL products, and Revolut Pay. In addition, in other countries, examples also exist of payment methods that can provide consumers with protection for a fee.[131]

As explained in section 6, over the years PayPal has invested in developing fraud prevention systems. This means that when transactions are funded by a credit transfer (rather than a card payment), PayPal is able to offer buyer protection (and when the transaction is funded by a card payment, the protection can also be provided by the card schemes).

Furthermore, there are various marketplaces and platforms that offer buyer protection. For example, marketplaces such as Amazon Marketplace, Etsy or Allegro offer protection against goods that are not received, or that are damaged or not in line with how they were described. These marketplaces can offer buyer protection even in cases when consumers use credit-transfer-based payment methods that do not offer buyer protection.[132] Also, travel agencies such as Trailfinders offer their own buyer protection, which helps them steering customers towards using a credit-transfer based payment method.

7.3.2 Quality

A well-functioning payments market is characterised by continuous improvement in quality, as incumbents are driven to continually invest in the products and services they offer. By contrast, where fewer competitive constraints are present, there is less incentive for players to invest in improvements to their offerings, as they do not risk losing customers to current or potential competitors. The evidence shows that payment systems have been competing to deliver increasing degrees of service quality in the UK.

There are several dimensions to quality associated with payments, including the speed of payment, user experience, effectiveness of authorisation and authentication. Two important quality outcomes in payments are in relation to fraud prevention and operational system

[131] In the case of Twint (a mobile wallet widely used in Switzerland), transactions funded by credit transfer are not, by default, covered by a buyer protection mechanism. However, consumers can choose to buy monthly insurance coverage for all their online transactions, which Twint offers in partnership with an insurance provider. See Twint website, 'TWINT – one app, many functions', accessed 28 March 2023.
[132] For example, in the Netherlands, both Amazon and Etsy accept iDEAL, a credit-transfer-based payment method that does not offer buyer protection. The buyer protection is then offered by the marketplaces themselves.

resilience.[133] Our analysis of these outcomes shows that quality of services in the UK payments landscape has improved in recent years, and continues to do so.

Fraud prevention—quality

The payment networks face continuous and dynamically evolving threats from fraudsters. Digital security is an increasingly important area due to the unprecedented amount of data being created and shared, the risk of the sharing economy, and the coming of age of the first digital generation. Addressing fraud is not a static process, as groups and individuals conducting fraud will respond and adapt to any preventative measures that are introduced. In particular, introducing a new security solution in one area often results in fraudulent activities moving to other areas, which then become relatively easier to target.

Developments driven by various players have increased quality in this regard. Card schemes in particular develop and update rules and standards to ensure confidence in the payments system. Key activities include working with issuers to identify suspicious activity, using biometric indicators and AI to reduce fraud, undertaking due diligence checks, and monitoring the quality of fraud defences of scheme participants.

This has led to an increase in fraud prevention measures in the payment systems market more generally, which has led to reductions in instances of fraud, ultimately benefiting all consumers and merchants.

Furthermore, card schemes and other players have continuously innovated to introduce new technologies that are helping to prevent fraud, as discussed in more detail in section 7.2 above. Despite the increase of e-commerce and card-not-present ('CNP') transactions in the UK resulting in a riskier transaction mix, the overall fraud cost per value of transaction (the fraud rate) in the UK has reduced over recent years. The value of CNP fraud as a share of overall transactions is lower in the UK than other comparable countries with other card schemes.[134]

[133] We note that there may be a degree of overlap between the 'innovation' outcome and the 'quality' outcome. Innovation is discussed separately in section 7.2. The discussion in this sub-section should therefore be taken as a non-exhaustive description of the various ways in which quality has been, and is being, improved for consumers and merchants in the UK.

[134] In France, for example, the local card scheme is Cartes Bancaires, a bank-owned domestic scheme which is the country's most widely used card payment method. While the UK has seen a decline in card fraud in recent years, in France it remains high—at 7bps of transaction value compared to 6bps in the UK as at 2019—despite France having a lower e-commerce share and less well-developed card market. If one were to correct for these factors, it is likely that card fraud would be higher. As the European Central Bank notes, while most countries with well-developed card markets such as the UK (i.e. those with high card penetration and transaction volumes) have high fraud rates, 'France and Spain also show relatively high fraud shares compared with other countries, despite having slightly more moderate card markets'. Moreover, the value of CNP fraud in France as a share of overall transactions is higher than in the UK (at 5.3bps compared to 4.8bps) despite the fact that France has a lower e-commerce share overall. The value of CNP fraud as a share of overall transactions grew by 2% in France between 2018 and 2019, while it reduced by 4% in the UK in the same year. See Adyen, 'Cartes Bancaires';

Operational system resilience—quality

The operational resilience of a payment system relates to the ability to prevent, respond to and recover from operational disruptions that might mean a payment system is unavailable for a period of time or that it might not function at sufficient speed.[135]

Such system failures are rare, and the system is usually back online within a few hours. Furthermore, payment systems have invested in several risk-mitigation measures, such as the following.

- **Authorisation stand-in services.** If an issuer does not respond to an authorisation request quickly enough, a back-up solution is provided to prevent transactions from failing due to the non-availability of the issuer.
- **Setting minimum availability requirements for clearing and settlement.** For example, a payment system might require that clearing and settlement systems provide currency conversion for transactions where the purchase currency does not match the card currency. Disputes could arise from duplicate or incorrect transaction processing. Requirements can be set to ensure clearing systems have appropriate dispute-resolution mechanisms in place to deal with these situations.

7.4 Prices

Different payment methods offer different value propositions. Some providers will compete by offering a broad value proposition, while other players offer a more limited scope. We would expect to see this reflected in differing prices charged for these payment methods.

We look at a comparison across different payment methods to analyse the extent to which different service features are reflected in the pricing. We look specifically at the merchant service charge ('MSC'). Consumers are not typically directly charged for using payment methods, except for example for the use of credit, foreign exchange, and other specific features.

Although there are various differences between payment methods, for example in terms of convenience, speed, fraud prevention, and costs, in our comparison, we focus on one of the main differences: buyer protection, which requires a range of activities to be undertaken by the payment system.

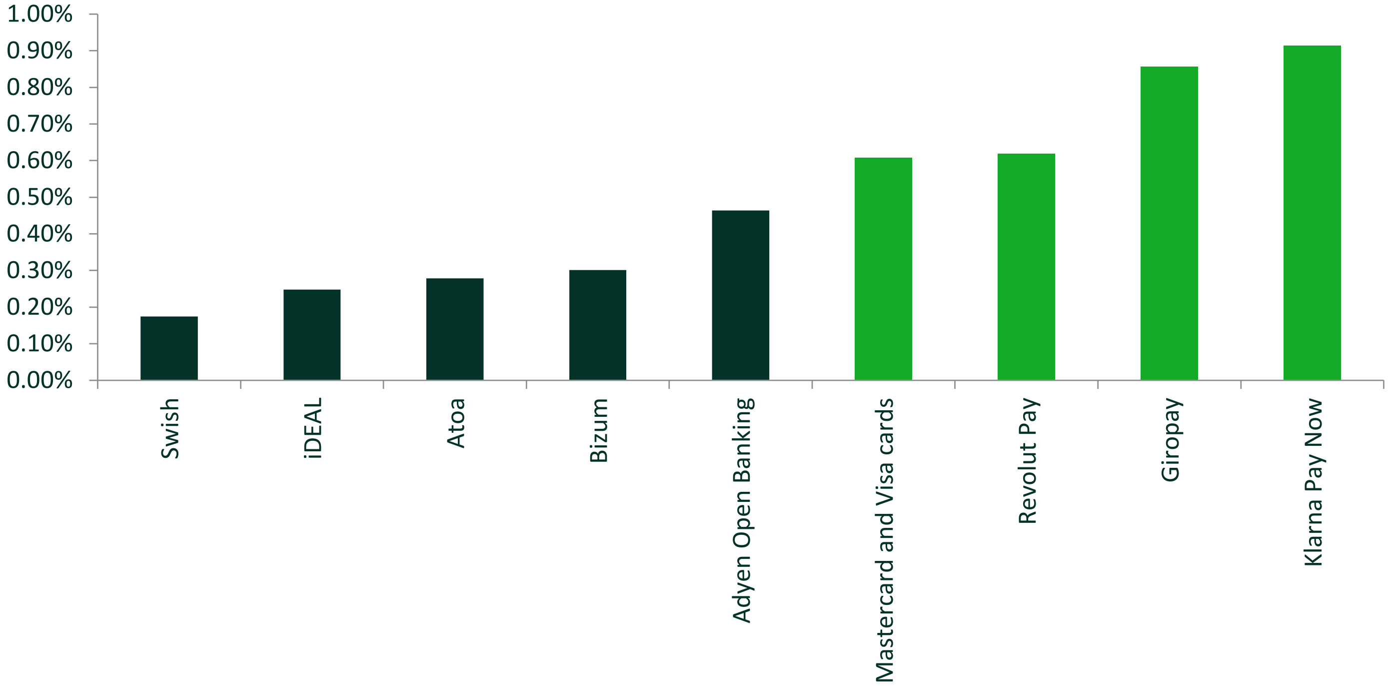
Figure 7.1 below presents MSCs for a range of payment methods in the UK: some payment methods with buyer protection such as cards, Klarna Pay Now, and Revolut Pay,[136] and some without buyer protection such as Atoa and Adyen Open Banking.

and European Central Bank (2019), 'fraud'. See Adyen, 'Cartes Bancaires'; and European Central Bank (2019), 'Seventh report on card fraud'.

[135] For example see Bank of England, (2021), 'Operational Resilience: Recognised Payment System Operators and Specified Service Providers', p. 4.

[136] We note that there may be differences in the scope and functioning of the buyer protection offered. We do not quantify the impact of these differences.

Figure 7.1 Comparison of payment methods' MSCs for an average merchant



Note: The light green bars denote payment methods that offer some form of buyer protection. In order to estimate the MSCs for the various payment methods, we collected publicly available data from the website of various acquirers. As these listed MSCs are mostly representative of the costs incurred by the smallest merchants only, we adjust the listed MSCs in order to reflect the costs faced by a more representative merchant sample (i.e. a volume-weighted average-sized merchant). We adjust the listed MSCs using the data provided in Annex 2 of the final report of the PSR's card-acquiring services market review which sets out the card payment MSCs for merchants of different size classes. We apply this merchant-size discount based on UK card data to the listed MSCs of the other payment methods. For payment methods that are available in various countries (e.g. Klarna Pay Now), we use specific MSCs for the UK market whenever possible. Our estimate for payment cards is derived from Annex 2 of the final report of the PSR's card-acquiring services market review, and includes both Visa and Mastercard credit and debit card MSCs. As such, the data from Annex 2 of the PSR study may overestimate the MSCs for debit cards given that credit cards have a higher interchange fee. In order to estimate the MSC in percentage terms for the payment methods which have fees per transaction rather than ad valorem fees, an average transaction value of €60 for CNP transactions has been assumed.
Source: Data for the MSCs of the various payment methods was obtained from the websites of the following acquirers: Adyen, PayComet, Stripe, Mollie. We also use data from PSR (2021), 'Market review into the supply of card-acquiring services: Final report. Annex 2, Pass-through analysis', November.

MSCs for other online payment methods such as PayIt and Pay by Bank Transfer are not in the public domain and are therefore not included. To have more data points and include payment methods that are well-established and have reached scale, we have included credit-transfer-based payment methods that are popular among consumers and merchants in other European countries such as iDEAL (the Netherlands), Giropay (Germany), Bizum (Spain) and Swish (Sweden). These payment methods do not offer buyer protection and are therefore similar to PayIt and Pay by Bank Transfer, except for Giropay which does come with buyer protection and is therefore, in terms of service offering more similar to cards and other payment methods such as Klarna Pay Now.[137] We have not included PayPal since PayPal

[137] As explained in section 7.3.1, there are also marketplaces that offer buyer protection and insurance policies.

combines two products into one (a digital wallet for cards and a credit-transfer-based payment method with buyer protection) and there is no data in the public domain to allow the fees for these two products to be separately identified.

Figure 7.1 presents the MSCs charged to an average (weighted by transaction value) merchant for different online payment methods including payment cards (which refers to Mastercard and Visa debit and credit cards). It results in the following observations:

First, the MSCs for payment cards are similar to those of the payment methods that also offer some form of buyer protection (Revolut Pay, Giropay and Klarna Pay Now, in light green bars), all of which have similar or higher MSCs.

Second, payment methods that do not offer buyer protection have lower MSCs than payment cards.

Third, we estimate that the provision of buyer protection accounts for approximately 40–70 basis points in the MSC of a well-established payment method.[138] If we adjust the MSCs of the payment methods without buyer protection upwards to account for this difference in functionality and service offering (or if we adjust the MSCs of payment methods with buyer protection downwards), the MSCs across the different payment methods are comparable.

This is consistent with a well-functioning and competitive market where consumers and merchants have a wide range of payment options with different functionalities and services, with MSCs that reflect these differences.

7.5 Summary

The market outcomes that can be observed in the UK payment landscape are consistent with a well-functioning market, characterised by existing players being competitively constrained by other existing players, new entrants and the credible threat of further entry.

Volumes continue to shift from traditional payment methods (e.g. cash and cheque) towards more efficient methods, as players compete to expand. Certain merchant types (e.g. smaller merchants) and segments (e.g. tradespersons) increasingly have options to accept payments via more efficient methods.

This, in part, has been made possible through continued innovation, which has improved the services provided to end-users through the whole UK payments ecosystem.

[138] This estimate is based on a comparison of the MSCs of Revolut Pay, Giropay and Klarna Pay Now (three credit-transfer-based payment methods with buyer protection) with the MSCs of Swish, Bizum and iDEAL (three methods that are also credit-transfer-based and well-established in their countries). We obtain similar results if we compare the MSCs of the three payment methods without buyer protection with the MSCs of debit cards in the relevant countries (i.e. Spain for Bizum, the Netherlands for iDEAL and Sweden for Swish).

Innovation has also been introduced directly by new entrants using new technologies and new propositions. In turn, this has driven existing players to continually develop their own propositions in order to keep a competitive position in the payments landscape. This innovation has delivered, and continues to deliver good outcomes for merchants and consumers.

Furthermore, the changing payment systems landscape has led to both greater choice of payment methods and an increased quality of payment methods. Both consumers and merchants typically have a variety of options for any given payment. Although all payment methods provide a minimum level of service, they vary significantly in their product features (for instance the degree of buyer protection that is offered).

This variation in product offering is reflected in the pricing of various payment methods. The credible threat of new entry acts as a source of competitive constraint on the existing pricing of incumbents. We find that the trends observed in terms of volumes, innovation, quality and choice are consistent with the pricing of the services being provided within a well-functioning competitive landscape for UK payments.

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NatWest Group

<u>PSR card scheme and processing fees market review</u>

<u>NatWest submission in relation to PSR paper on competitive constraints in card payment systems</u>

Natwest Group (Natwest) welcomes the publication by the PSR of its papers on competitive constraints and profitability. It is very helpful for the PSR to set out initial stakeholder feedback at this stage of its market review. NatWest would like to address a couple of the themes raised in the PSR's paper on competitive constraints in card payment systems (the "Paper").

<u>Theme: Differences in the competitive dynamics on the issuing and acquiring sides</u>

Paragraph 3.28 of the Paper notes that some stakeholders have argued that the higher degree of competition on the issuing side creates powerful incentives for the card schemes to organise financial flows from the acquiring side to the issuing side. At the roundtable, the PSR indicated that it is interested to understand how competition on the issuing and acquiring sides of the market may interact, through an assessment of a form of "system level competition".

To ensure the adoption of a robust analytical framework when considering the nature of any interactions between the issuing side and the acquiring side, Natwest would point to the recent Competition Appeal Tribunal judgment in BGL (Holdings) Limited v. Competition and Markets Authority ("BGL").[1] This case highlights the importance of defining the relevant market for each focal product before moving to an analysis of competitive dynamics in respect of each market. The Tribunal in BGL rejected the CMA's basis for defining a single two-sided market in relation to the multi-sided platform of price comparison websites. In particular, the Tribunal stated that "as a general precept, the markets in which the different Focal Products provided by Platforms are sold should always be assessed separately".[2] In the case of payments, Natwest sees two focal products that form the basis for two distinct markets (making payments and taking payments).

As the PSR is no doubt aware, there are typically asymmetries at play across such "two sided" markets, where the revenue the platform generates on one side of the market (one relevant market) may subsidise its customer acquisition activity on the other side of the market (the other relevant market). The BGL case is a reminder that the consideration of cross subsidies across markets on each side of a platform should be kept conceptually distinct from an assessment of the competitive dynamics at play in each market. In each relevant market, rational commercial actors will price at a level that the market will bear. The ability to cross subsidise one market with the revenues from the other market may determine whether a platform activity (such as operating a card scheme) is commercially viable. However, it should not influence the commercial proposition in each relevant market: that should be a function of the competitive constraints at play in that market.

Applying this to payments, Natwest submits that there are two distinct relevant markets: the making of payments and the taking of payments. It may also be the case that Visa and Mastercard to a limited extent (but certainly not entirely)[3] cross subsidise the acquisition of issuers through the revenues they generate from acquirers. However, any such cross subsidisation is unlikely to be what determines the level of fees that Visa and Mastercard charge acquirers. Visa and Mastercard's commercial propositions will solely be a function of the competitive constraints they face in each of the two markets they operate in. The extent to which they pass on revenue from acquirers to issuers will affect their profitability, but not their commercial propositions to acquirers: if Visa and Mastercard are able to charge higher fees on the acquirer side, they will do so irrespective of whether they pass on the revenue to issuers Any finding of a connection between the prices charged to

[1] https://www.catribunal.org.uk/sites/cat/files/2022-08/20220808%201380%20BGL%20v%20CMA%20Approved%20Judgment%20%5b2022%5d%20CAT%2036%20-%20Website%20(1).pdf

[2] Paragraph 147

[3] The costs of switching card schemes (principally the costs of re-issuing millions of plastic cards) are very significant: this gives the existing scheme provider a strong incumbency advantage.

acquirers and the rebates or incentives paid to issuers would go against this fundamental economic logic, and would need to be supported by strong evidence.

Theme: "Lack of transparency" around rebates and incentives paid to issuers

We note that some stakeholders have expressed concern around a "lack of transparency" around the rebates and incentives paid to issuers by Visa and Mastercard.[4] NatWest considers that these concerns are ill founded, as a requirement to disclose or publicise rebates and incentives would undermine the competitive tension that exists between Visa and Mastercard for issuers. Given that competition thrives on uncertainty, any increase in transparency in this area would be counterproductive and likely lead to an increase in profitability for Visa and Mastercard through a levelling down of rebates and incentives and a consequential increase in the net fees payable by issuers, again without any corresponding benefit in terms of lower fees on the acquirer side.

[4] Paragraph 3.30

Revolut

Revolut

PSR Competitive Analysis Paper on Scheme and Processing Fees

Key messages:

- We do view Visa and Mastercard as 'must take' payment schemes in the UK.
- While non-card based alternatives are emerging, none are yet mature enough to be a true variable alternative to the main card schemes.
- Issuers have some ability to negotiate with Visa and Mastercard, and we do not see a need for intervention on that side of the market.
- Acquirers have less ability to negotiate. It would be useful for the PSR to look at how to enable more choice on that side of the market, by ensuring more fees are genuinely optional, making new fees opt-in not opt-out, forcing schemes to allow other solutions in key areas like FX, etc.
- We believe looking at how to create new 4PS or accelerating non-card based alternatives are the only medium term solutions.
- The PSR should include 3PS in its assessment given they can be considered as essential for some merchant categories.

Question 1: Do you think competition in card payment systems is working well? If not, what would it look like if it did?

We believe competition between issuers in the UK is effective.

We believe competition between acquirers in the UK is largely effective but can be improved. We support the measures to boost transparency adopted by the PSR as a result of the Acquiring Market Review in 2022. We would support additional measures to enable new entrants to more effectively compete with legacy providers, notably targeted at supporting small merchants who continue to pay almost double what larger merchants do. For example, we would support regulatory interventions like Open Banking for Merchants, which would enable small merchants to shop around more effectively for the best card acceptance deal tailored on the real world transaction data they have.

[redacted] While the main card schemes clearly create value for end users and PSPs, we recognise that measures may be needed to boost competition - notably on processing rules and acquiring fees. We would note that some other card schemes, such as American Express, can have strong market positions in certain merchant categories and that the PSR should consider if rules are being applied effectively (notably when they are effectively expanding beyond a pure 3PS model by working with co-brands, aggregators, etc).

We believe that there are emerging risks to competition from new entrants to the card ecosystem and the PSR should include them in its market analysis, [redacted] Apple Pay and Google Pay [redacted] customers expect the service to be available.

We believe the PSR should look at creating a competitive retail payments market, leveraging card and non-card solutions.

Question 2: What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

[redacted]

While the increasing competition and innovation in payments referenced in Theme 1 is correct (notably with API based account to account payments, PISPs, VRP, etc) in reality to present an effective retail offering to consumers PSPs need to offer a debit or credit card from one of the main card schemes. This is partly due to customer expectations and habits, and also due to the fact that as yet there is no payment method which can offer the ubiquity or reliability (domestically or internationally) of the main card schemes. While instant payments are the closest competitor, success rates for API based A2A remain suboptimal (e.g. conversion rates for instant payments at 78.3% versus the 99.6% for cards, <40% are settled in under 30 seconds, PIS top up user completion time varies from 17-64 seconds, etc).

The differences between the dynamics of the issuing and acquiring sides referenced in Theme 2 are again largely correct, but both issuing and acquiring are relatively competitive markets with relatively low barriers to entry. Internationally the issuing and acquiring market dynamics can vary significantly notably in markets where there are scheme level alternatives (e.g. France Carte Bancaire, Netherlands IDEAL, India UPI, etc) which make Visa and Mastercard optional for end users (card holders and merchants).

Theme 3, related to transparency boosting competition at the scheme level, is the least compelling in our point of view. We fully support, and actually would call for even more fee transparency within the payment ecosystem, for example on card issuing, FX, non-local currency settlement and account fees, on acquiring fees, and on fees associated with increasingly important intermediaries such as digital wallet providers. However, transparency will only increase competition and put a downward pressure on fees (or an upward pressure on value / services) when participants have a real choice. [redacted]

Question 3: Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

- **Cards create value for end users - True:** We agree that the international card schemes are providing a significant value for end users (consumers, small business and merchants) and industry participants like Revolut. Without the ability to offer ubiquitous payment solutions based on the card scheme's rails, it would be very difficult for companies like Revolut to scale initially. The Open Access provisions which ensure the 4PS offer non-discriminatory access to issuers and acquirers has helped to ensure that while the schemes have become dominant in card payments, competition at the issuing and acquiring levels has remained fierce. This has helped to drive value for end users.

- **Alternatives to cards constrain card schemes' ability to set rules and prices - False:** A2A, stablecoins and CBDCs will present competition to cards, but none are yet developed enough to enable issuers to not offer a card product with at least one of the two main card schemes (see answer to Q2). Evidence for this is shown in the performance of A2A payments (see answer to Q2) and the penetration of non-card payment products. We would stress though that at some point these methods of payment will provide a real alternative to cards, and would encourage actions to accelerate their development and adoption.

- **4PS schemes are particularly effective at facilitating coordination between parties to a transaction - False**: While 4PS do manage a range of activities which impact settlement times, authentication processes, fraud management and other key areas of the payment ecosystem they (i) are not unique in doing so (as 3PS, and other alternatives like A2A schemes, manage similar features, sometimes delivering better end user outcomes) and (ii) do not often bear the main cost (e.g. fraud liability remains normally on the issuer, settlement times impact the merchant's cash flow primarily, etc). While historically a 4PS or 3PS model has been needed to coordinate rules amongst multiple parties at scale, API based and CBDC / stablecoin based payment ecosystems will likely offer a viable alternative model at some point in the next 5-10 years.

- **Increasing optionality of services - False:** [redacted] Overall there has been a [redacted] increase in the number and types of fees [redacted] since the IFR was introduced. We estimate that Visa had [redacted] distinct fees in 2019, and had increased this to [redacted] distinct fees in 2022. We estimate that Mastercard had [redacted] fees in 2019, and increased this to [redacted] in 2022.

- **Consumers decide which payment methods they want to adopt - Partially true:** Consumers and businesses can make a choice both when adopting / signing up for a new payment product and when choosing which payment product to use at a merchant that accepts multiple payment products. However (i) such choices can be influenced by non-payment related factors (e.g. overall benefits of a Bank or EMI provided account or wallet - cashback, FX, service, etc), (ii) we see no evidence in our UK business of consumers actively choosing between Visa / Mastercard brands (as they see them as interchangeable), and (iii) even at POS (aside from very tangible value propositions such as rewards, cashback, FX, interest free credit) most consumers increasingly pay with the most convenient product (i.e. fastest, least friction). Business users, who make a wider range of payments, can be more sophisticated in making choices - but again we see no evidence of such users actively choosing between Visa / Mastercard brands. However, we do see customers expecting to have Apple and Google Pay available to them (we believe these services are now a basic requirement in the UK.)

- **Merchants choose which payment methods they are willing to support - Partially true:** Merchants have increasing power to direct users to use a particular payment method. Their power has increased since the introduction of Open Banking, with most users with a current account now able to quickly make a payment when the merchant has chosen to incentivise or force the usage of it over a debit or credit card. However we would generally see such a choice as only being effective today in certain specialised areas (e.g. car purchases, taxes, etc) where the payment convenience / friction does not lead to high abandonment rate of the transaction. Many merchants (notably those in e-commerce and F2F retail settings) still will face pressure to accept Visa and Mastercard products due to (i) consumer expectations and (ii) the lack of viable alternatives which can operate with the ubiquity and reliability of card based payments. We would add that for some merchant segments, the pressure to accept cards is not limited to 4PS but also would extend to major 3PS. Increasingly we believe merchants will rely on digital wallets to remove the fiction of making payments (increasing the power of such digital wallets within the payments ecosystem). This may lead to increased merchant choice, notably if such solutions allow A2A payments as well as cards (for example as RevPay does). [redacted] No matter the future market developments, we expect larger merchants to be the best placed to take advantage of the new payment options becoming available.

- **Pricing as a whole is set in order to encourage activities that are beneficial for all users of the system - Partially True.** In general we see fees being charged by providers to maximise their own revenue rather than to benefit the overall payment ecosystem. While certain activities have ecosystem wide benefits, and must be supported by valid economic models, the incentive of all the commercial entities involved within the ecosystem is to maximise their individual margins. The only major limits on this incentive are their market power or regulation.

Question 4: Please provide evidence and/or views on the extent to which Mastercard and Visa are currently competitively constrained (or likely to be competitively constrained in the near future) in their ability to set their scheme and processing fees (in general or for certain services), on either the issuing or acquiring side, by:

- other card payment systems
- other payment systems (please identify)
- other payment intermediaries who use Mastercard and Visa infrastructure (please identify)

- other third parties – for instance, providers of specific services such as authentication, clearing or fraud detection (please identify), and/or
- the existence of shared standards and protocols between or within schemes

- **Other card payment systems:** Limited. 3PS do provide some competition to the main 4PS, notably in travel and lifestyle and when they are working with co-brands or aggregators.

- **Other payment systems:** A2A products by major merchants or alternative providers will put competitive pressure on cards. They present a particular opportunity for larger merchants and will enable them in the short term to press for reductions in the total cost of acceptance for cards. However, (1) not yet and (2) it will not necessarily impact the ability of the schemes to increase fees on acquirers (leading to a compression on acquirer margins with large merchants). See answers to Q2/3.

- **Other third parties:** While more competition and choice could be enabled for the provision of certain services within the 4PS model, [redacted]

Question 5: Do you agree that users have different payment options, which can reflect either the requirements for specific transactions or the characteristics of the available payment methods? In particular, it would be helpful if you could reference the choices available to different groups of users (consumers, merchants, issuers and acquirers) and expand on:
- the needs of those who want to make payments and of those who want to receive payments, and how issuers and acquirers cater for those needs
- the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems have few alternatives.
- the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems would be easier to substitute with other payment systems
- any studies you are aware of on the relative frequency and importance of the different types of payment transactions

Yes, we agree that users have a variety of payment options available, and the range of alternatives are increasing. See Q3 references to the choices made by card holders and merchants.

Overall, card based payments (i.e. those made on card rails) are most effective for (i) high volume F2F retail transactions, (ii) high volume e-commerce retail transactions, (iii) international spending and (iv) purchases where Section 75 protections provide value (e.g. high value delayed receipt purchases like holidays, furniture, etc). Low volume but high value / immediate consumption transactions (e.g. car purchases) can be more easily substituted.

Question 6: What are the main factors that limit the entry and/or expansion of payment schemes other than Mastercard and Visa? To what extent do those factors result in limited entry or expansion and how does limited entry or expansion affect the competitive constraints on Mastercard and Visa in setting the level of scheme and processing fees?

- **Interchange caps:** There is no ability for new 4PS to offer greater revenue to issuers for domestic transactions than Visa and Mastercard due to the regulated interchange caps applied to domestic debit and credit card transactions. If non-dominant schemes were able to offer higher interchange [redacted] to issuers (compressing scheme and acquirer fees to still offer a lower overall merchant service charge) then new card schemes may be started and scaled to provide a genuine alternative. With issuers only able to make less money (e.g. via A2A schemes) they have little incentive to support alternatives to the current dominant schemes. This means that change in the market will either (i) be driven by large merchants (with a shift of the cost burden for payment systems moving from merchants to consumers) or (ii) be driven by new intermediaries who have the scale and consumer connection to disintermediate issuers (e.g. digital wallet providers).

- **Network effects:** The challenge of developing new card schemes is the need for both consumers and merchants to accept them at scale. A2A schemes based on FPS solves this dilemma as thanks to the CMA / OBIE anyone with a current account in the UK can take advantage of a new A2A payment method offered by a merchant. The only other entry point would be a brand with a large consumer and merchant base (e.g. Amazon, Apple, Google, Facebook, etc).

Question 7: To what extent do you agree with the view that the fees Mastercard and Visa charge to issuers and acquirers for scheme and processing services are 'largely reflective of the value' of those services? To what extent do you consider fees for scheme and processing services to be reflective of the costs of providing those services? Please provide examples and explain to what extent you think 'being reflective of the value' or 'cost-orientation' are relevant criteria in assessing the competitiveness of such fees.

We believe that Visa and Mastercard both provide value to issuers, acquirers and end users, however some of their fees do not reflect the value received correctly.

We do not have detailed knowledge of Visa or Mastercards core costs for providing certain services, however we do believe schemes should not charge scheme participants for non-use of a service [redacted] and should not auto-enrol participants in a new fee paying service.

Overall, we believe it will be very complex for the regulator to determine whether a service is 'reflective of the value' of the fee charged. We believe it will be more effective for the regulator to focus on (i) whether scheme participants have a real choice in whether to use the service or not and (ii) to what extent the fee charged for their service is open to negotiation.

Question 8: Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

No major comments on the summary presented.

Question 9: How would you describe the nature and intensity of competition between Mastercard and Visa for issuers and cardholders? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to issuers?

c. Do issuers currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

d. Does the intensity of competition between Mastercard and Visa differ between issuers? For example, does the negotiating power of issuers vary with certain characteristics?Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by issuers, or for specific requirements of different transaction types?

We can't comment on Visa or Mastercard's overall approach to engaging issuers, only Revolut's own interactions. We do seek to negotiate as an issuer between Visa and Mastercard, managing our portfolio of issued cards to avoid becoming overly dependent on either. We are able to negotiate on some fees with both Visa and Mastercard, and seek to maximise the benefits to our users through these negotiations.

[redacted] we are seeking to support alternatives such as A2A payments. At present we believe issuers need to offer a variety of payment options to consumers, businesses and merchants. We believe as new alternative payment methods become available (e.g. stablecoins, CBDCs) end users will expect to have them integrated into simple to use solutions. This is part of our strategy of RevPay, enabling our users to have an ability to make payments using card and non-card rails.

We cannot comment on the extent to which the intensity of competition between Visa and Mastercard differs between issuers, [redacted]

Finally we would note that the ability for issuers to negotiate with Visa and Mastercard is essential to enable new entrants into the payments and Banking ecosystem in the UK. Had Revolut as an issuer been forced to have exactly the same economics on all its card based payments as legacy institutions operating a significantly larger scale, it would likely not have succeeded in bringing competition to the retail payments market (and the broader retail financial ecosystem). We therefore would urge caution on any attempts to further regulate the relationships between issuers and VIsa and Mastercard, given the potential for it to have major knock-on impacts on competition in the broader retail payments and banking ecosystem.

Question 10: How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. What are the dimensions or features on which Mastercard and Visa compete?

b. Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?

c. Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

d. Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?

e. Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?

We believe most acquirers and most merchants must offer the acceptance of both Visa and Mastercard products. It is also more difficult to manage the volumes you receive from each scheme, making avoiding dependency on either more difficult. Overall there is therefore less ability for acquirers to negotiate fees with each scheme. [redacted]

Question 11: Can you describe, to the extent you consider, that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?

Increasing fees to issuers is possible, but we believe it is limited while there remains a choice for issuers between using either of the two main international card schemes. Issuers who invest in maintaining a portfolio with both main card schemes will likely be better able to manage their overall costs. While in theory the costs could be passed on to consumers (e.g. by increasing card fees) we would expect in reality for these fees to be paid for out of general card and non-card revenue streams.

Increasing fees to acquirers is possible, and given the pressure for acquirers to enable acceptance of both major card schemes it will be difficult for many to refuse. We expect most to pass on the increased costs to merchants. How this is passed on may vary from acquirer to acquirer. It is likely smaller merchants will have less time, expertise and market power than larger merchants, and therefore will bear more of the burden for these increased fees. However the PSR's remedies following the Acquiring Market Review may help mitigate this risk.

We would note that merchants and consumers / businesses both benefit from secure, fast and ubiquitous card payments. Legitimate costs should be shared.

Question 12: Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We agree with the summary of issues laid out under Theme 3. Over the last few years the schemes have transitioned their scheme fee charging structure from transaction based fees to event based fees (e.g. tokenization, authentication, authorisation and clearing messages). There is [redacted] complexity in the scheme fees, [redacted] (see data referenced in Q3 [redacted]

Question 13: Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

No. Transparency is not the issue, but rather the lack of viable alternatives for retail payments. This will change over time as API based A2A payments increase in adoption, and stable coins and CBDC's offer radically lower costs for acceptance.

The main area where more transparency could help is costs for small merchants. We would support further interventions to enable small merchants to share their real world acquiring data over the last 12 months with third parties via APIs to get tailored quotes that enable them to pick the best available deal.

Question 14: Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

We believe complexity is suboptimal but not the biggest obstacle to effective competition. [redacted]

Question 15: Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We agree with the summary of issues laid out in Theme 4. [redacted] We believe enabling alternative payment schemes / products (card and non-card) to emerge in the UK is the only medium term solution. While alternative payment methods are emerging, they are not yet operating at a level of scale and reliability to be a truly viable alternative (see Q2/3). Rather than looking to further cap and control individual fees or services within the 4PS models, we would encourage the PSR to look at interventions to accelerate the growth of alternatives.

Question 16: Would you describe Mastercard and Visa as 'must-take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:
a. Do merchants have any alternatives to accepting both Mastercard and Visa-branded cards if they decide to accept cards? In what situations or under what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?
b. Do acquirers need to sign up with both Mastercard and Visa to have a viable business model? In what situations or under what conditions is it a viable option for an acquirer to sign up with just one of these two? What would be the consequences for the acquiring services offered to merchants?

We believe that all issuers and the vast majority of merchants in the UK must offer or accept either Visa or Mastercard branded cards to successfully engage consumers and businesses. We would note that some merchants also see acceptance of American Express as a key requirement (e.g. travel, hospitality).

We would note that in other non-UK markets this is not necessarily the case, for example in markets where there are local schemes or well developed non-card payment products (e.g. France Carte Bancaire, Netherlands IDEAL, India UPI, etc).

The rapid changes in the UK payments landscape being driven by new technologies means the market will look very different in the new future than it does today.

Question 17: How do you think that the optionality of different services related to Mastercard and Visa payments has changed in recent years? When answering, please also consider and provide specific examples on the following aspects: a. Which of the services offered (and fees charged) by Mastercard and Visa are unavoidable for issuers (and cardholders) and/or for acquirers (and merchants) that want to participate in the Mastercard and Visa schemes? b. Which services can instead be procured from third parties (or simply rejected)? Who are these third-party providers and, if you have used these, what has been your experience with their services? c. How does the situation regarding the optionality of services affect the ability of different users to optimise their costs?

No major comments to share at this time.

Teya (formerly SaltPay)

teya

PSR's scheme and processing fees review

Response to MR22/1.4 Competitive Constraints in Card Payments

April 11th 2023

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About Teya

Teya is bringing a one-stop solution to European businesses. Formerly known as SaltPay, Teya combines payment acceptance and business management tools in one ecosystem - including electronic-point-of-sale, merchant account services, a digital loyalty platform, and other software-as-a-service solutions. Teya is headquartered in London, has offices in 15 countries across EMEA, and has 300,000 merchants using its products globally.

Teya exists to ensure that every small, medium and growing business in Europe has the opportunity to thrive. Our payments and business management technology is designed to help the people running businesses to take hassle-free payments, manage their business, and find and reward their customers - all on fair terms. We want to free business owners from the everyday complexities and headaches that stop them from being successful. With our commitment to care and innovation, they can feel confident in making the most of every opportunity and experience the joy of running a business.

General

Question 1

Do you think competition in card payment systems is working well? If not, what would it look like if it did?

[redacted]

1. Business models centred around direct competition for end-users

In order to ensure price competition, providers should only derive revenue from the direct beneficiaries of their products and services. [redacted]

A healthy form of competition in a developed card payment system, with no need for incentivization of card usage, would be one where all players recoup their costs and generate a profit from the end users they serve and compete for, [redacted]. This is generally already the case on the payee side of the market. Acquirers compete directly for merchants and make their revenue from the acquirer margin on the Merchant Service Charge, as well as from any value-added service they provide merchants.

On the payer side, this would mean that issuing banks recover the cost of issuing cards and being members to the schemes by charging cardholders. [redacted] As argued by payment antitrust economist Alen Frankel (1998):

> *"If each bank that is party to credit card transactions were free to negotiate fees directly with its own customers, then even in a par collection credit card system, competition among banks would ensure that all costs incurred by banks would be compensated. [Issuing] Banks could charge fees to card users to cover costs incurred on the consumer side of the business and [acquiring] banks could assess charges to merchants to cover the costs incurred on the merchant side"*[1]

[1] Alan S. Frankel "Monopoly And Competition In The Supply And Exchange Of Money" (Antitrust Law Journal, 1999)

Finally, payment schemes would derive their revenue, as they do know, by charging issuers and acquirers. [redacted]

Nevertheless, this scenario could not occur without effective competition between payment systems that could place competitive pressure on dominant digital payment systems, [redacted].

2. Interoperability between payment systems and dynamic end-user choice

Consumers have the ultimate control of the payment method utilised in a transaction. While a merchant can always refuse to accept a payment method, for widespread cards such as Visa and Mastercard, this would risk losing a significant amount of business. [redacted]

In a [redacted] market, meaningful competition between payment systems would occur dynamically at point of sale, with both end-users (consumers and merchants) responding to price signals on the cost of payment processing. This could occur through two main ways.

Firstly, merchants could surcharge transactions to pass their acceptance cost down to the consumer. The consumer would then be incentivised to use the payment method which incurs the smallest or no surcharge, thereby putting downward pressure on acceptance costs. [redacted]

[redacted]

Secondly, another way of achieving this dynamic end-user choice and competition could be through co-badging and merchant routing. Co-badging refers to inclusion of two or more payment brands or payment applications of the same brand on the same card-based payment instrument. Co-badging is essentially a way of multi-homing from issuing banks that, in some countries, provides a merchant with a routing choice. A combination of multi-homing on the issuing side and merchant routing can help mitigate the reverse competition effect in card payments by allowing the payee side of market to exert direct competitive pressure on the schemes. This is the reason why, to be advantageous for merchants, one cannot go have one without the other: issuing co-badging (multi-homing) and the sovereignty of the routing choice made given to merchant and not the cardholder, as currently prescribed by the Interchange Fee Regulation.

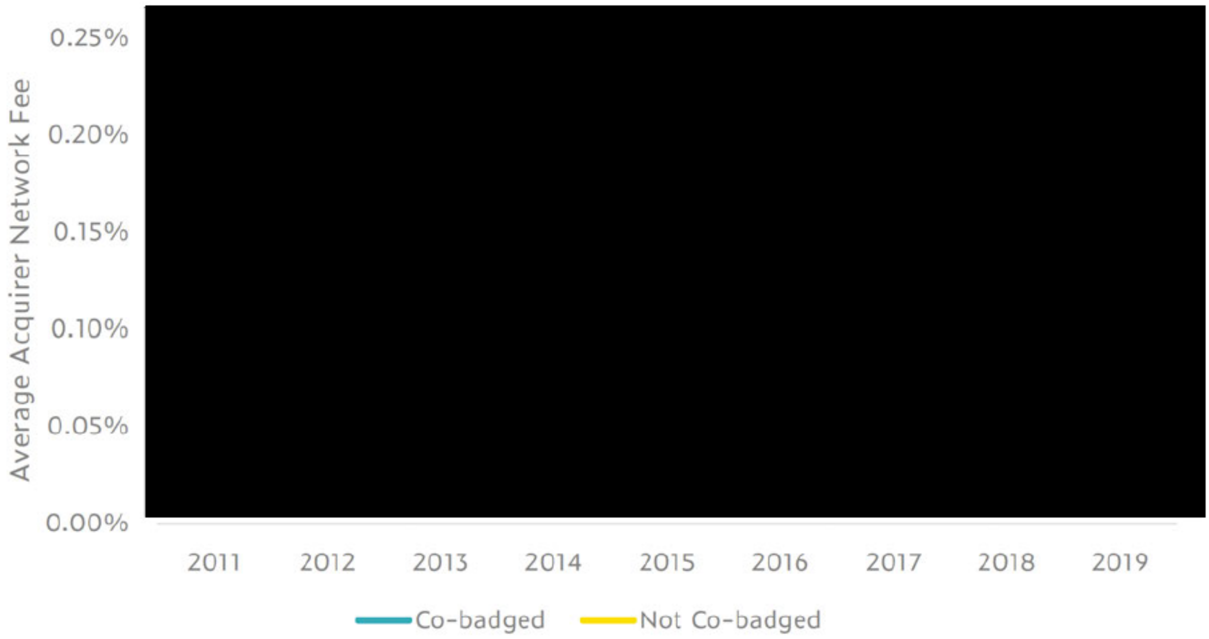
If these conditions are met, then the merchant can choose the least costly route of acceptance, with the help of the Payment Service Provider. Co-badging enables merchants to accept the cardholder's chosen payment method while still having a say on the routing choice. This solution could be effective especially given the agnosticism of consumers towards payment rails, meaning merchants could make routing choices without infringing on any meaningful consumer choice.

The United States provides an interesting example of co-badging [redacted]. The United States is to date one of the developed countries with the highest card acceptance costs. The only substantial form of card regulation, to address competitive bottleneck issues mentioned previously, came in 2011 with the Durbin Amendment (DA, also known as Regulation II). The DA capped the interchange fees in debit transactions at 0.05% plus twenty-one cents.

An additional requirement set by the Durbin Amendment was that issuers were prohibited of restricting the number of networks over which debit transactions could be processed to less than two unaffiliated networks. This essentially mandated co-badging for debit cards. An important note however is that only single message transactions (PIN transactions) fell under the scope of DA while dual message transactions (signature transactions) were exempted from the co-badging mandate. Additionally, the DA prohibited issuers and networks from inhibiting a merchant's ability to direct the routing.

Given that interchange fees were regulated at the same time as the co-badging and routing mandate, the most informative way to see if co-badging and routing exerted a competitive pressure on schemes is by analysing the evolution of scheme fees. The payments consultancy CMSPI compared the evolution of scheme fees in the U.S. of dual-message debit transactions (no mandate) with single-message debit transactions (mandate). They found that the average acquirer scheme fees increased from 0.16% to 0.21% from 2011 to 2019 while the same fees for single-message transactions remained stable at around 0.10% (even briefly lowering to 0.9%) over the same period (Figure 1). This is indicative of a competitive pressure exerted thanks to the routing option between schemes given to the merchant. Note that, given their impact on scheme fees, the schemes are being accused of circumventing their effect, as discussed further in section 17.3.

Figure 1 – CMSPI analysis of Average Acquirer Network Fees for co-badged versus non-co-badged cards



Source: CMSPI

In the UK, mandating two processors, perhaps making use of the existing ATM network infrastructure to create a UK domestic scheme, could introduce competition at the scheme and processor level, creating downwards pricing pressure. Alternatively, the Bank of England could make use of its own clearing and settlement services to create an alternative processor which any certified entity could use to process domestic transactions. Several domestic schemes around Europe including MB in Portugal or Bancomat in Italy are based on solutions build on top of the National Central Bank infrastructure for clearing and pan-European infrastructure (TARGET2) for settlement.

More fundamentally, solutions such as routing underline the interoperability of payments systems as an important feature of a competitive market, removing the centralised control of payment transactions from the payment operator, and giving it back to end-users of payment systems. In [redacted] payment systems, such as Brazil's instant payments scheme Pix, interoperability is guaranteed by the creation of a regulated scheme with lower barrier to entry to incumbent and nascent PSPs. Through the use of standardised aliases such as telephone numbers and QR codes, PSPs can easily provide payment acceptance solutions to consumers and merchants alike, and all PSPs can communicate with each other.

As a not-for-profit and regulated scheme, there is no cross-subsidisation between payees and payers, and decisions to change or introduce features are therefore more likely to be made in the interest of all end-users. In the UK, the infrastructure for this type of interoperable payments solution at point-of-sale has existed for over a decade in Faster Payments. Yet [redacted], Faster Payments has yet to penetrate retail payments. [redacted]

[redacted]

3. Gradual commoditisation of payments through market forces and widespread proliferation of value-added services

Executing digital payment transactions has become technologically trivial. It's also an absolute necessity for the vast majority of UK businesses. [redacted]

As discussed further in Question 3 (Point 3), from the perspective of cardholders, this commoditisation has already occurred. No account provider wanting to attract customers differentiates themselves when they issue a card. Providing a convenient and widely accepted payment method is a basic service all customers expect. While issuers still make significant revenue from cards, this is not due to the fact that consumers are willing to pay for the differentiating value they provide, it is a result of [redacted]. It is the other terms and services on that account that can differentiate a provider, such as access to credit, an improved user experience, spending analytics among other value-added services which providers charge for.

On the acceptance side, we have not seen the same effect. [redacted]

Question 2

What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

[redacted]

[redacted]

Theme 1: The intensity of competition and innovation in the payments ecosystem

Question 3

Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Below we identify and respond to the main arguments made the relevant stakeholders under Theme 1.

1. Visa and Mastercard's wide acceptance network

Summary of Theme 1 argument

A wide acceptance network is a key driver of the value Visa and Mastercard create.

Teya Response

Teya fully agrees that the global acceptance of the dominant international card schemes is a key driver of the value they create for issuing banks. As discussed further in our response to Question 6, they have been able to achieve this by leveraging their first-mover advantage in an industry characterised by strong network effects, [redacted]

2. Pricing constraints on schemes

Summary of Theme 1 argument

Emerging payments technologies shape and ultimately constrain the commercial strategies of Mastercard and Visa. Pricing for scheme and processing fee services is constrained by the competitive pressure Mastercard and Visa exercise on each other, by competition from existing operators in the payment services industry (including competing card payment schemes), and by potential entry and growth from new operators.

Teya Response

It is important to differentiate between Visa and Mastercard competing on the acceptance and issuing side of the market. [redacted]

It is nevertheless true that the schemes compete with each other and, to a much lesser extent, other payment schemes. However, rather than constrain, this process of competition between schemes for issuers leads to a reverse competition effect [redacted]. Mastercard seems to recognize as much in its response to the Treasury Select Committee's inquiry on the cross-border interchange fee increases:

> *"Competition from rival payment providers (be these other four party payment providers such as Visa, increasingly China Union Pay or alternative providers such as three-party cards) can also create a commercial imperative to change rates. To remain competitive and continue to offer benefits of electronic payments to consumers, Mastercard must be able to attract issuing and acquiring banks to the scheme. Interchange fees at the right level allow this by ensuring the costs of issuing and acceptance are properly and fairly balanced in the system.* ***The rates Mastercard offers must be comparable with its competitors, otherwise its cards will simply not be issued.****"*[2] *(emphasis added)*

While Mastercard claims that it must attract issuing and acquiring banks and therefore ensures the costs are balanced between both sides, [redacted], the schemes care principally about issuing cards, and the rates it sets are designed to achieve this primary objective.

3. End-user choice

Summary of Theme 1 argument

Competition in payments is about the choices that different participants in the value chain can make, including end users (both merchants and consumers). Consumers decide which payment methods they want to adopt and which one to use for a specific transaction. Merchants choose

[2] https://committees.parliament.uk/publications/28458/documents/171157/default/

which payment methods they are willing to accept and may try to steer customers towards the ones they would prefer to be used.

Teya response

[redacted]

End-user choice: [redacted]

[redacted]

[redacted] merchants exert very little influence on the choice of payment method when compared with consumers, who are the ultimate sovereign in a payment transaction. In Europe, the EU and UK IFR even mandate that the routing choice, when available, be ultimately made by the cardholder.

It has been argued that the situation is different in the online environment, where PSPs can help merchants steer consumers to their preferred payment method. In their response to a Reserve Bank of Australia's review of Retail payments Regulation, Visa outlines the ways in which merchants can control the online checkout experience, as it argues that there is "increased merchant control" in the online environment when compared to card present:

> *"Merchants can influence the choice of payment method online through several options – for example:*
>
> - *The choice to display some payment options upfront over others;*
> - *The order in which the payment methods are displayed;*
> - *Providing consumers with information on security, features and benefits associated with different payment methods;*
> - *Providing consumers with information on fees associated with different payment methods; and*

- *Potential discounting for use of preferred payment options – for example, BNPL providers have current end of financial year sales where consumers may be offered savings on particular goods and services."* [3]

All of these options have clear caveats. [redacted] At best, they may act as [redacted] nudges on consumers to user different payment methods. In the UK, these nudges are also limited by Article 10(4) of the IFR which places obligations on payees to inform consumers of payment methods available for both physical and distance sales:

> *"10(4) Payees that decide not to accept all cards or other payment instruments of a payment card scheme shall inform consumers of this, in a clear and unequivocal manner, at the same time as they inform consumers of the acceptance of other cards and payment instruments of the payment card scheme. Such information shall be displayed prominently at the entrance of the shop and at the till.*
>
> *In the case of distance sales, this information shall be displayed on the payee's website or other applicable electronic or mobile medium. The information shall be provided to the payer in good time before the payer enters into a purchase agreement with the payee."* [4]

[redacted] Online retailers are therefore much more sensitive to the preferences of consumers and hesitant at adding any additional friction to the checkout flow that may deter them and thus lead to higher levels of cart abandonment.

[redacted] Therefore, as the ultimate sovereign in a payment transaction, consumers can easily overcome these steps and pay with their usual payment method. It is thus unsurprising that there is no material evidence that these practices are successfully employed by merchants.

End-user choice: The commoditisation of payment rails for consumers

As stated above, consumers have the ultimate choice in the payment method utilised for a transaction. Consumer Debit cards are by far the most utilised payment method at point of sale. They are also the card type with the lowest interchange fee and thus likely to attract the least rewards for cardholders. This indicates how digital payments for most consumers are a commodity,

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[3] Visa Inc.'s Response to The Reserve Bank of Australia's Consultation Paper on Preliminary Conclusions to the Review of Retail Payments Regulation (link) Page 12
[4] Interchange Fee Regulation, Article 10.

merely a basic tool which they expect to receive from whatever account they store their funds with and want to be as frictionless as possible. This is particularly true when considering that while the cost of acceptance is (at least in part) passed down to consumers, this is an invisible cost to them.

[redacted]

4. System development

<u>Summary of Theme 1 argument</u>

Pricing as a whole is set in order to encourage activities that are beneficial for all users of the system (such as fraud prevention for individual customers/businesses or system-wide improvements and innovation).

<u>Teya Response</u>

[redacted]

5. Emergence of alternatives

<u>Summary of Theme 1 argument</u>

Recent market trends and technological innovation have greatly increased the range of methods that consumers and merchants can use to pay or be paid. Merchants are being offered new payment products that compete with card schemes. Similarly, mobile wallet operators have developed increasingly strong relationships with final consumers, to the extent that they are seen to 'own' the customer relationship. Additionally, before consumers can make payments, there is a funding stage that is important for competition. Mastercard and Visa each stated that they compete against each other and against these alternative payment systems to secure access to sources of funds.

<u>Teya Response</u>

[redacted]

[redacted] Visa has itself argued that payment methods used to fund accounts should not be considered C2B payments in the CMA judgment of Visa/Plaid:

> *In respect of Plaid's PIS transaction volumes in the UK, the Parties confirmed to the CMA that application users make PIS-enabled payments into their [removed] portal accounts to, respectively, [removed].[114] The Parties submitted that in both instances the actual use of the transferred funds is a subsequent transaction that is unrelated to Plaid or PIS and that, if anything, it is the subsequent use of the funding to pay for goods or services that might fall within the scope of a C2B purchase.*
>
> *The CMA observes, however, that once the PIS-enabled payment into the portal account is made, no further payment is made by the application user. The flow of money from the consumer to the business therefore occurs when the portal account is funded. The Parties' submissions are consistent with this position; they refer to the subsequent transaction as the use of the transferred funds' but not as a subsequent payment (i.e. the movement of money).[117] In this way, the CMA considers that the subsequent transaction consists of the final use of the transferred funds for the purpose for which they were transferred in the first place, that is for a consumer to purchase goods, assets or services from a business. For completeness, the CMA notes that, despite the subsequent transaction being unrelated to Plaid or its PIS offering, the PIS-enabled payment enabled by Plaid is the step that enables the money to move from a consumer to a business.*[5]

Therefore, when considering the level of competition in retail payments, Teya believes the PSR should focus on the payment methods that are ultimately utilised for payment transactions.

6. Schemes as the infrastructure for alternative payment methods

Summary of Theme 1 argument

Wide acceptance of cards and open standards have enabled the development of alternative payment methods. Four-party card schemes are a particularly effective way of facilitating coordination between parties to a transaction, by creating confidence and trust in a common set of rules and standards. As such, they are a key enabler of further innovations that – in some cases – present a competitive threat to the card schemes themselves.

Teya Response

[5] Anticipated acquisition by Visa International Service Association of Plaid Inc.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

So far, in the Buy-Now-Pay-Later (BNPL) space, we have seen merchants choosing to accept or not these costlier instalment payment options as premium to attract more customers and improve checkout conversion. [redacted]

[6] https://www.apple.com/newsroom/2023/03/apple-introduces-apple-pay-later/
[7] https://www.mastercard.co.uk/en-gb/business/issuers/instalments.html

[redacted]

[redacted]

[redacted]

7. Different use cases, different payment methods

<u>Summary of Theme 1 argument</u>

The choice between payment methods for both merchants and consumers is influenced by the requirements of the specific payment transactions. As a result, competition differs depending on the payment type, and competition in payment services is based on multiple product dimensions alongside price, including security, convenience and consumer protection considerations.

<u>Teya Response</u>

As discussed in our response to Question 5 below, for the vast majority of retail transactions, which are one-off payments between and unknown payer and payee, Visa and Mastercard are [redacted] with few widely available alternatives. [redacted]

8. Increasingly availability of alternative scheme services.

<u>Summary of argument</u>

Many of the services offered by a specific card scheme are also offered by others, including providers of alternative card schemes, providers of alternative payment methods and a broad range of distinct specialised suppliers. There is increasing availability of these alternatives and therefore consider card payment systems to be characterized by increasing optionality of services.

<u>Teya Response</u>

[redacted]

[redacted]

[redacted]

[redacted]

Question 4

Please provide evidence and/or views on the extent to which Mastercard and Visa are currently competitively constrained (or likely to be competitively constrained in the near future) in their ability to set their scheme and processing fees (in general or for certain services), on either the issuing or acquiring side, by:

- **other card payment systems**
- **other payment systems (please identify)**
- **other payment intermediaries who use Mastercard and Visa infrastructure (please identify)**
- **other third parties – for instance, providers of specific services such as authentication, clearing or fraud detection (please identify), and/or**
- **the existence of shared standards and protocols between or within schemes**

[redacted]

On the issuing side, while Mastercard and Visa are competitive restrained by each other in the incentives that they pay to issuers, [redacted]

[redacted]

[redacted]

Question 5

Do you agree that users have different payment options, which can reflect either the requirements for specific transactions or the characteristics of the available payment methods? In particular, it would be helpful if you could reference the choices available to different groups of users (consumers, merchants, issuers and acquirers) and expand on:

- **a. the needs of those who want to make payments and of those who want to receive payments, and how issuers and acquirers cater for those needs**
- **b. the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems have few alternatives**
- **c. the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems would be easier to substitute with other payment systems**
- **d. any studies you are aware of on the relative frequency and importance of the different types of payment transactions**

There are very limited payment options at point of sale beyond card payments. This includes both consumer-to-business (C2B) (e.g., consumer card) and business-to-business (B2B) (e.g., commercial card) merchant payments, as well as face-to-face and online payments.

This contrasts to the situation of C2B, B2B, business-to-consumer (B2C), and consumer-to-consumer (C2C) *recurring* payments (such as subscriptions) – or other situations where the payee and payer have an existing relationship. In those circumstance, account-to-account payments, such as Faster Payments offer a ready alternative to card payments. These are distinct situations, where there is far less payment risk such as credit risk and payment fraud.

In contrast, in all situations where there is significant payment risk, i.e., for one-off payments where the payer and payee are not well known to each other, then card payments almost invariably represent the only choice available. This is especially true for remote merchant payments but also increasingly for face-to-face merchant environments, owing to the steady decline of cash.

[redacted]

Question 6

What are the main factors that limit the entry and/or expansion of payment schemes other than Mastercard and Visa? To what extent do those factors result in limited entry or expansion and how does limited entry or expansion affect the competitive constraints on Mastercard and Visa in setting the level of scheme and processing fees?

Payment systems are characterised by significant network effects. Coupled with the habitual nature of payments for consumers, this creates a significant first-mover advantage in digital payments. [redacted]

As a two-sided market, building a payment system requires gathering end-users on both sides and creating a critical mass for widescale adoption. This is not an easy task, [redacted]

[redacted] As has been previously reported on the Financial Times:

> *"These days, consumers have more ways than ever to pay for things. Companies from Apple and Starbucks to PayPal and Amazon have all devised new ways for [consumers] to make purchases. In theory, their rise is supposed to disrupt the lock that credit card companies have on the payment business. In practice, they simply offer different ways to connect a card to execute a transaction. As a result, credit card issuers and processors*

have seen their positions strengthened, not weakened, by the proliferation of payment options.

[...] All this is translating into good times for [the] credit card industry.[8]

[redacted] on low-cost bank transfers, rather than high-cost card payments. In response to this threat, Mastercard and Visa made bilateral agreements with PayPal to stop PayPal steering its customers away from high-cost card payments. [redacted]

PayPal has long been both a friend and a foe to credit card companies. But to Visa CEO Charlie Scharf, it's either one or the other.

At a tech conference hosted by JPMorgan Chase this week, Scharf said he wants PayPal to stop urging its users to fund their PayPal accounts with their bank accounts — a method called ACH — instead of debit or credit cards. Such an arrangement is more profitable for PayPal, but a problem for card companies like Visa.

> *'I've been very, very clear on this one which is if you are a foe, you're not a friend. And PayPal's historic model, on the one hand, 50% of the volume is ACH, the other 50 percent is general purpose cards of which we're half of it. So, they drive a lot of business our way. That's supposedly the friend part of it.*
>
> *The foe part is where they then use historically those transactions to do everything they can to get those to ACH where we and our clients get disintermediated from the transaction, the entire experience, and it causes tremendous customer service problems for the bank specifically.'*

He wasn't done.

> *'And so, anyone that's trying to take your customers and disintermediate you is not a friend. And so, that's the reality of the way we viewed PayPal historically. And so, we've said, listen, historically, they were the only game in town. But as we just talked about, there are lots of other opportunities for us to capture that share.*
>
> *We'd love to figure out a different model with them where it's consumer choice first whether or not disintermediating. If we can figure that out with them, great. We'll think of them more as a partner. They need to do things differently in order to do that.'*

[8] "Best of Lex Midweek: New York gets credit for subway switch", Financial Times, 16 October 2019.

> *The other door is where we go full steam and compete with them in ways that people have never seen before. Because you've never seen us go target PayPal in the marketplace in any meaningful way.'*[9]

Soon after, both the schemes struck a deal with Paypal [redacted]

Apple Pay can also be seen in this light. [redacted]

Consequently, the improvements in user experience brought about by solutions such as PayPal and Apple Pay serve to foster the usage of cards, rather than place any competitive pressure on card networks, as argued in Theme 1. This view is supported by the CMA in their Visa/Plaid decision in 2020:

> *"Constraint from payment applications*
>
> *256. The CMA has assessed whether payment applications such as Apple Pay, Google Pay, Amazon Pay and PayPal also compete for the supply of services enabling C2B payments.*
>
> *257. Third party evidence provided to the CMA was mixed. One third party thought that these payment applications were competing with card-based payment providers. However, another third party emphasised that applications do not compete with card-based payment providers, citing the following quote from a recent press article: 'These days, consumers have more ways than ever to pay for things. Companies from Apple and Starbucks to PayPal and Amazon have all devised new ways for [consumers] to make purchases. In theory, their rise is supposed to disrupt the lock that card companies have on the payment business. In practice, they simply offer different ways to connect a card to execute a transaction. As a result, card issuers and processors have seen their positions strengthened, not weakened, by the proliferation of payment options'.*

[9] https://www.vox.com/2016/5/25/11768854/visa-ceo-paypal-threat

258. The CMA considers that that these payment applications at present mainly provide another way for consumers to make card-based payments. For this reason, they are not direct competitors to card schemes, but rather facilitators of card transactions [...]."

Within the same context, the CMA also states:

"However, as with card payment providers, banks and merchant acquirers, payment applications may be well-placed to develop their own PIS-enabled payments solution or to partner with existing PIS providers."

[redacted]

However, it is important to recognise that this has long been the case but has never happened. Even beyond the Apple Pay and PayPal example, banks have direct relationships with virtually all cardholders and merchants and have had access to a widely adopted instant payment infrastructure since 2008 in Faster Payments. Yet even with the advent of Open Banking Payment Initiators, the PSR has found no material substitution of cards for account-to-account.[10] [redacted]

[redacted] the OFT's own 2013 assessment on the need to reregulate payment systems given the competition issues that may emerge from the characteristics of the industry:

"1.4 The OFT considers that this sector has a number of characteristics that mean competition may not always work well. These characteristics include high fixed costs and economies of scale in the infrastructure that enables electronic payment systems, as well as network effects, where the value of a payment system is dependent on the number of users it attracts. When combined, these characteristics give rise to a significant first-mover advantage in this sector, such that competition may not be an effective discipline on those that own or control the existing payment systems.[11]"

[10] PSR Strategy 3.12 and 5.63
[11] UK Payment systems: how regulation of UK payment systems could enhance competition and innovation - Part of the OFT's Programme of Work on Retail Banking; July 2013; Page 4

[redacted]

Question 7

To what extent do you agree with the view that the fees Mastercard and Visa charge to issuers and acquirers for scheme and processing services are 'largely reflective of the value' of those services? To what extent do you consider fees for scheme and processing services to be reflective of the costs of providing those services? Please provide examples and explain to what extent you think 'being reflective of the value' or 'cost- orientation' are relevant criteria in assessing the competitiveness of such fees.

[redacted]

[redacted]

[redacted] In a recent book on the anticompetitive behaviour of Big Tech firms, competition law professors Ariel Ezrachi and Maurice E. Stucke point to this phenomenon:

> *"[Big Tech firms] not only govern the competition with their tightly controlled ecosystems, but they also determine the nature of innovation that makes it to the market, And to*

protect their interest, they make sure to only advance and allow innovation that does not disrupt their business models and profits."[12]

[redacted]

Theme 2: Differences in the competitive dynamics on the issuing and acquiring sides

Question 8

Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

[redacted]

The PSR's initial analysis found that the average EBIT margin over the last five years was 66% and 56% for Visa and Mastercard respectively. Teya's view is that [redacted] This competitive dynamic means that [redacted]

[12] How Big-Tech Barons Smash Innovation – and How to Strike Back (Page 2)

[redacted] Addressing this [redacted] was the impetus of the Interchange Fee Regulation (IFR) which capped consumer debit and credit cards interchange fees and forbade the circumvention of the caps through any other equivalent fees (i.e., scheme and processing fees).

[redacted]

- **Price competition.** Issuing banks periodically hold Request for Proposals (RFPs) in which they pit Visa and Mastercard against each other to provide them with the best incentives to issue a card under their respective schemes. The main dimension for issuing bank's decision is which proposal provides them with the most card revenues so the schemes' pricing will be the determining competitive tool.

- **Homogenous product.** At core, Visa and Mastercard are homogenous products in the eyes of issuers which typically alternate between card schemes, even simultaneously issuing different types of cards with different schemes.

Economic theory stipulates that a duopoly competing on price under a homogenous product will end up pricing at marginal cost, as the two companies undercut each other until reaching that level. This is referred to in the literature as the *Bertrand duopoly*. As such, the duopoly's margins would be zero. If the two companies colluded to keep prices (and thus margins) high, the significant reward from deviating from the agreed price would render this sort of coordination strategy very unstable.

Equilibrium outcomes, however, would change if the same duopoly was competing as schemes in a card payment system. In the same way competition between card schemes leads prices to increase, the same dynamic would lead margins to stabilise at high levels. Since the increase in price is felt by the acquiring side and received by the issuing side, we would expect the increasing impact on margins to be observed in issuing banks' bottom lines, as a function of pass-through to cardholders. [redacted]

[redacted]

Question 9

How would you describe the nature and intensity of competition between Mastercard and Visa for issuers and cardholders? In particular:

a. **What are the dimensions or features on which Mastercard and Visa compete?**
b. **Do Mastercard and Visa offer bespoke deals, rebates or discounts to issuers?**
c. **Do issuers currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?**
d. **Does the intensity of competition between Mastercard and Visa differ between issuers? For example, does the negotiating power of issuers vary with certain characteristics?**
e. **Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by issuers, or for specific requirements of different transaction types?**

[redacted] from the perspective of payers, Visa and Mastercard are essentially substitutes. Given the ubiquity of cards and how often issuing banks switch between the two, we believe there is no evidence that consumers have a preference between them. They simply utilise the card issued by their account provider, whom they have chosen for a myriad of other reasons.

Mastercard and Visa have near-identical merchant acceptance in the UK and globally (98% of all UK merchants as found by the PSR in its card-acquiring market review merchant surveys) – and there is also no other functional difference between Mastercard and Visa, i.e., from the perspective of issuers and cardholders, especially as Mastercard and Visa develop and set their technical standards jointly via EMVCo. [redacted]

[redacted]

[redacted]

Question 10

How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

- **What are the dimensions or features on which Mastercard and Visa compete?**
- **Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?**
- **Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?**
- **Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?**
- **Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?**

[redacted]

Only the largest of merchants are able to negotiate bespoke deals with schemes. For example, in 2021, Amazon threatened to stop accepting UK-issued Visa credit cards on Amazon.co.uk. It is widely reported this led to Visa offering a bespoke deal to Amazon, meaning lower interchange fees and/or scheme and processing fees. [redacted]

Similarly, only the largest acquirers are able to access better deals with schemes. [redacted]

Additionally, the vast majority of businesses [redacted]

[redacted]

Question 11

Can you describe, to the extent you consider that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?

[redacted]

[redacted]

Theme 3: The impact of transparency on competitive pressure at all levels of the value chain

Question 12

Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Below we identify and respond to the main arguments made the relevant stakeholders under Theme 3.

12.1 Competition-Restricting role of Opaque Scheme and Processing Fees

<u>Summary of Theme 3 Argument</u>

[redacted] There are two slightly different perspectives on this argument from stakeholders: a) lack

[13] https://coadec.com/wp-content/uploads/2023/04/Axe-the-Card-Tax-Report-FOR-RELEASE.pdf

of transparency as a symptom of competition not working well; or b) lack of transparency as a direct cause of competition not working well.

Teya's Response

[redacted] In summary, merchants accept Visa and Mastercard even in instances where the marginal cost of acceptance is higher than the marginal benefits in order to avoid losing the business of a cardholder to another merchant that does. Acquirers aim to mitigate this business stealing effect, which is particularly strong in the UK considering that it has one of the highest rates of card usage in the world, by offering both Visa and Mastercard acceptance to their customers as the bare minimum to remain competitive. As the PSR noted in its survey on for the card-acquiring market review, 98% of all merchants in the UK accept Visa and Mastercard.[14]

[redacted]

[redacted]

[redacted]

[14] https://www.psr.org.uk/media/vkbmjqny/psr-card-acquiring-market-review-merchant-survey-results-iff.pdf.

12.2. Obstacles for Competition Between Acquirers

Summary of Theme 3 Argument

[redacted]

[redacted]

Teya's Response

[redacted]

[redacted]

[redacted] Larger acquirers have more resources to forecast transactions costs for a particular merchant and also weather unsustainably priced customers. [redacted]

[redacted] Teya notes that industry practice in recent years, in particular following the rise of payment facilitators, has meant that small merchants often prefer blended pricing in order to forego the resource strain of having to deal with scheme and processing fees themselves. [redacted]

[redacted]

[redacted]

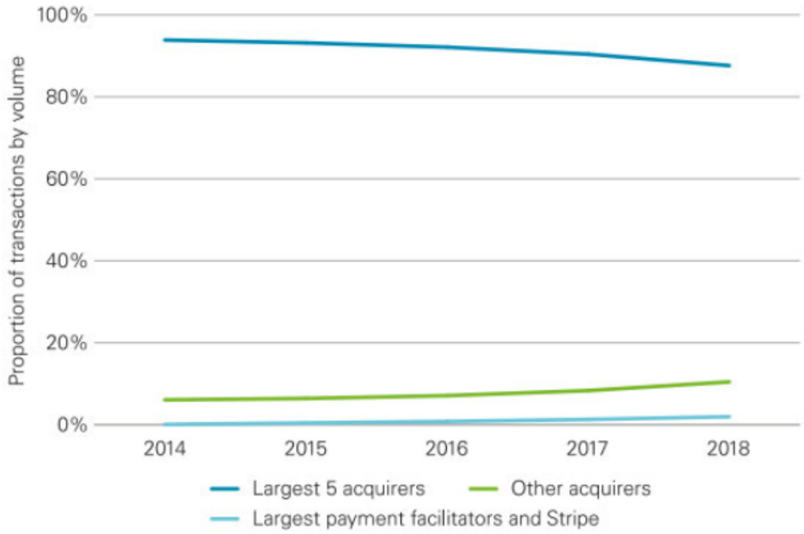
[redacted] Teya believes that such changes would also be instrumental in achieving the aims of the card-acquiring market review and its remedies by increasing the ability of acquirers to be transparent with merchants.

Question 13

Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

[redacted] This is evidenced by data published by the PSR in its card-acquiring market review, which shows the high degree of concentration of payment volumes among the five largest acquirers in the UK.

Figure 3 – Volume of card transactions acquired by merchants by providers of card-acquiring services (2014-2018)[15]



[redacted]

Question 14

Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

[redacted] This translates to lower barriers to entry for new entrants in the acquiring space of the card value chain, and an ability for merchants to better understand the costs of their business. [redacted]

[redacted]

[15] Source: https://www.psr.org.uk/media/p1tlg0iw/psr-card-acquiring-market-review-final-report-november-2021.pdf.

[redacted]

Theme 4: The 'must-take' status of Mastercard and Visa-branded cards (in many retail environments)

Question 15

Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Below we identify and respond to the main arguments made the relevant stakeholders under Theme 4.

15.1. Must-Take Status

Summary of Argument

Mastercard and Visa cards have been seen as 'must-take' as discussed in case law at the European Commission, European Courts, and UK Courts, leading up to the Interchange Fee Regulation in 2015. [redacted]

Teya Response

The PSR correctly notes that the introduction of the IFR was a consequence of Visa and Mastercard-branded cards being seen as must-take, which then justified price regulation of direct and indirect interchange fees. The European Commission first considered the must-take nature of Visa and Mastercard cards in its 2007 Mastercard judgment, in dismissing Mastercard's claim that merchants' willingness to accept cards is a function of the benefits they derive from card acceptance as opposed to other forms of payments:

> *"There is, however, consensus in the recent academic literature that...merchants, as strategic players are willing to accept cards in order to avoid a competitive disadvantage relative to other merchants.*
>
> *Merchants will accept cards, in part, to attract customers from each other and this will increase the amount they will be prepared to pay to accept cards above a level determined solely from the transactional benefits they obtain from accepting cards."*[16]

This decision involved the Commission finding that interchange fees were contrary to Article 101

[16] Non-Confidential Version of the Commission Decision of 19 December 2007 COMP 34.579 – MasterCard, paras 704-705.

of the TFEU, as it did not find any legitimate exception under Article 101(3) such as bringing technical progress to the market or cost-savings for end-users. Therefore, when the EC subsequently decided to accept a commitment from Mastercard regarding the level of its interchange fees, it used the Tourist Test or Merchant Indifference Test[17] to determine the appropriate level to set the fees at.

This test is based on the EC's own conclusions in the substantive judgment, namely that the 'business stealing effect' of not accepting cards means that merchants lack the power to refuse card payments. Accordingly, Rochet and Tirole's work has shown that merchants often accept cards in cases where the marginal costs of acceptance exceed the marginal transactional benefits they get from accepting cards as opposed to alternative forms of payment.[18] As such, the merchant indifference test was used to cap the level of multilateral interchange fees set by Visa and Mastercard at a level where merchants became indifferent between accepting cards in comparison to cash.

This line of reasoning was upheld in the EU Courts and used by the EU Commission in the decisions of Visa Europe (Debit Card) Commitments [2010] and Visa Europe Commitments [2014], where the schemes committed to having their interchange fees capped at 0.2% and 0.3% for consumer debit and credit cards respectively. Therefore, when the Commission proposed the IFR in 2013, it outlined the line of reasoning it had established in the past decade:

> *"The 0.2% and 0.3% caps...are based on the so-called 'Merchant Indifference Test'...It thereby stimulates the use of efficient payment instruments through a promotion of those cards that provide higher transactional benefits, while at the same time preventing disproportionate merchant fees...Excessive merchant fees might otherwise arise...as merchants are reluctant to turn down costly payment instruments for fear of losing business."*[19]

Following the IFR, the most prominent discussion of the must-take nature of Visa and Mastercard-branded cards was in the UK Supreme Court judgment in Sainsbury's v Visa [2020], where the apex court considered the business stealing effect that leads to merchants being forced to pay costs of acceptance that are higher than the marginal benefits they gain:

> *"If [the merchant service charge] a merchant could in principle be better off by refusing to accept scheme cards because other forms of payment would be cheaper, in reality, if he did so, he would probably lose sales to rivals who did accept them ("the business-stealing effect"). There are "must-take cards" that merchants cannot turn down."*[20]

Considering the long line of case law that found [redacted] to be anticompetitive [redacted]

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[17] Jean-Charles Rochet and Jean Tirole, Must-Take Cards: Merchant Discounts and Avoided Costs, 9(3) J. Eur. Econ. Ass'n 462.
[18] Ibid.
[19] Proposal for a Regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions (COM.2013.0550 final 2013/0265), pp 5.
[20] Sainsbury's Supermarkets Ltd v Visa Europe Services LLC and Mastercard Incorporated [2020] UKSC 24, para 132.

[redacted] Moreover, considering the levels of card penetration in the UK today, whereas of 2021, 83% of total retail turnover came from card payments,[21] the business-stealing effect would be more acute. [redacted]

15.2. Competition Among Acquirers

Summary of Argument

Acquirers compete for merchants by offering a bundle of Visa and Mastercard acceptance, due to the must-take nature of Visa and Mastercard. Like the business-stealing effect faced by merchants, an acquirer that does not offer either Visa or Mastercard would be unable to compete in the market.

Teya Response

[redacted]

[redacted] Among the most mature card markets in the world, the UK has a lower number of cards per capita at 2.2 in comparison to, say, the USA at 3.9.[23] This indicates a higher likelihood that a cardholder holds either Visa or Mastercard as opposed to both.

[redacted]

Accordingly, acquirers have no choice but to bundle their offerings of Visa and Mastercard

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[21] British Retail Consortium, Payments Survey 2022.
[22] Mark Armstrong and Julian Wright, Two-sided markets, competitive bottlenecks and exclusive contracts [2007] Econ. Theory 32(2) 353.
[23] Global Data (2022).
[24] Tim Muris, Payment Card Regulation and the (Mis)application of the Economics of Two-Sided Markets' [2005] Columbia Business Law Review 3 515.

acceptance to remain competitive. Teya has seen no instances of merchants requesting one international scheme but not the other as acceptance of both Visa and Mastercard is taken for granted as a bare minimum offering from an acquirer. The PSR's merchant surveys for the card-acquiring market review also highlighted that 98% of all UK merchants accept Visa and Mastercard.[25] This is furthered by the schemes' use of the same standards, which means that the incremental costs for acquirers' integration with both Visa and Mastercard are much lower than the opportunity cost of them failing to provide both schemes. Furthermore, merchants, in particularly small businesses, are often unwilling to contract with more than one acquirer due to the transactional costs this carries, as this would mean, for instance, that a merchant would have to own two different POS terminals and pay a terminal rental fee for both.

15.3. Monopoly Behaviour

<u>Summary of Argument</u>

Given that merchants have no choice but to accept both Visa and Mastercard-branded cards, acquirers play no role in contributing to competition between the schemes. Therefore, Visa and Mastercard act as monopolists in each of their networks, with little competitive pressure exerted on them in the setting of their fees towards acquirers and in turn, merchants.

<u>Teya Response</u>

[redacted] as Guthrie and Wright note, this leads to a pricing for merchants that is the same as would be in a monopoly:

> *"When consumers hold only one card, the effect of competition between card schemes is to make it more attractive for each card scheme to lower card fees to attract exclusive cardholders to their network. Cardholders provide each card scheme with a bottleneck over a merchant's access to these cardholders...<u>Thus, despite competition between the schemes, their fee structure is unchanged from the case of a single scheme</u>."[26] (emphasis added)*

[redacted]

[25] https://www.psr.org.uk/media/vkbmjgny/psr-card-acquiring-market-review-merchant-survey-results-iff.pdf.
[26] Graeme Guthrie and Julian Wright, Competing Payments Systems [2003] Department of Economics NUS Working Paper 0311.

15.4. Exploitation of the 'Must-Take' Status

Summary of Argument

Mastercard and Visa can [redacted] their must-take status to [redacted] to their members, both acquirers and issuers. The must-take status of Visa and Mastercard-branded cards continue to mean [redacted]

Moreover, despite the obligations for schemes under the IFR to separate scheme and processing services, fees [redacted]

Teya Response

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

In response to the same, Teya would like to note firstly that APMs can only be considered to provide competitive pressure on Visa and Mastercard if they are non-card based i.e., operate on rails that do not belong to the card networks such as Faster Payments. [redacted]

[redacted] Accordingly, the PSR's FSBRA powers include both encouraging competition within and between payment systems.

Considering this, card-based payments remain the most prominent form of retail payments in the UK. For instance, the UK Finance Payments Market Report 2022 shows that there were around 23 billion card payments (57% of all payments made) in the UK in 2021 compared to only 3.6 billion payments made through Faster Payments or 4.6 billion through Direct Debit. This is discounting the fact that these statistics reflect all payments made in the UK, not just retail payments. As such, given that Faster Payments is the primary means of payment for high value wholesale transactions, the payment volumes for the primary competitor of cards in the UK (A2A) are heavily skewed upwards. Accordingly, Statista data on the share of payment methods at point of sale shows that card-based methods had an 87% share of the number of transactions in 2022.[27]

[redacted] Considering the rapid decline of cash payments at retail POS, going from 22% of all POS payments in 2017 to 10% in 2022, has substantially reduced competition between payment systems.[28] Nevertheless, the PSR's Discussion Paper notes that Visa and Mastercard argue that they face competitive constraints from entities that provide services building on top of their infrastructure. In other words, they believe that although digital wallets such as Apple Pay and BNPL providers such as Klarna[29] currently build on top of card payments, they can leverage their increasingly closer relationships with end-users to switch between payment systems. This, the schemes argue, is an inherent feature of four-party card schemes i.e., that the schemes do not control relationships with end-users.

[redacted]

[redacted]

[27] https://www.statista.com/statistics/972376/distribution-of-payment-methods-used-for-card-present-transactions/.
[28] Ibid.
[29] For instance, Klarna's POS BNPL offering generates a single-use virtual card.
[redacted]

[redacted]

15.4.3. Pro-competitive regulation such as the separation between scheme and processing services have not added to the competitive pressure faced by Visa and Mastercard

The IFR introduced a requirement for four-party card schemes to separate their scheme and infrastructure activities, stating the following rationale in the Recitals of the legislation:

> *"(32) …In order to enhance effective market functioning in the non-regulated parts of the sector and to limit the transfer of business from the regulated to the non-regulated parts of the sector, it is necessary to adopt a series of measures, including the separation of scheme and infrastructure…*
>
> *(33) …On the basis of the separation of scheme and infrastructure, card schemes and processing entities should be independent in terms of accounting, organization and decision-making process…"*

As a result of this legislation, both Visa and Mastercard provide their scheme and processing services through different entities. Considering that both scheme and processing fees form a portion of the MSC, Article 7 IFR intended to provide price competition on processing fees. For instance, Visa Europe Ltd provides scheme activities and Visa Technology and Operations the processing activities. In this example, issuers and acquirers that wish to issue or accept Visa cards need only have a contract with Visa Europe. Beyond this, they may choose to use the services of an independent processor that is certified with Visa and/or Mastercard.

[redacted]

[redacted]

15.5. Lack of Competition for Ancillary Services Provided by the Schemes

<u>Summary of Arguments</u>

Aside from scheme and processing services, Visa and Mastercard provide a wide range of other optional services. However, the operation of scheme rules and the conduct of the schemes has meant that fees for many of these non-mandatory services are unavoidable. Due to Visa and Mastercard's ability to effectively prevent scheme participants from procuring ancillary services provided by them from other providers, they do not face competitive constraints and remain must-take for merchants.

[redacted]

Teya Response

[redacted]

[redacted]

[redacted]

[redacted]

Question 16

Would you describe Mastercard and Visa as 'must-take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:

a. **Do merchants have any alternatives to accepting both Mastercard and Visa-branded cards if they decide to accept cards? In what situations or under what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?**

As mentioned under part 15.1., there is a long line of case law from EU and UK competition authorities and courts which states the must-take nature of Visa and Mastercard. Must-take in this regard refers to a narrow economic definition, which serves as the basis of regulating the card schemes under the IFR, namely that merchants accept cards even when alternative payment methods would be cheaper for them. Alternatively put, merchants continue to accept cards even when the marginal costs of acceptance exceed the marginal benefits, [redacted] Teya agrees with the PSR's use of this definition of 'must-take' in analysing whether Visa and Mastercard retain this status in the context of the UK market today, [redacted]

The schemes as noted above argue that competition from alternative payment methods (APMs) has increased in recent years, [redacted]

Firstly, retail APMs in the UK are overwhelmingly card-based because [redacted]

[redacted]

[redacted] merchants do not have the ability to steer consumers towards non-card APMs, as the PSR found in Annex 1 to the Final Report of the Card-Acquiring Market Review:[32]

> *"1.347. Our survey findings also suggest that the vast majority of small and medium-sized merchants do not wish, or are unable, to influence their customers into paying another payment method (other than a Mastercard or Visa card). Only 7% of participants had taken steps to influence their customers in this way in the last year. 91% of merchants had not taken steps to influence their customers into paying with a payment method other than Mastercard or Visa cards in the last year."*

Related to the above finding of the PSR that merchants are unlikely to refuse or steer payers towards alternatives that are not Visa or Mastercard, [redacted]

In terms of other card-based providers such as American Express, Teya notes the findings of the PSR from Annex 1 to the card-acquiring market review final report:

> *"1.342. We found that many merchants accept cards other than Mastercard-branded and Visa-branded cards. However, cards issued under other card payment systems, such as American Express, are unlikely to represent an effective substitute for merchants that accept Mastercard-branded and Visa-branded cards because:*
>
> - *our survey shows that, generally, nearly all merchants accept Mastercard and Visa but they don't always accept other card brands*

[32] https://www.psr.org.uk/media/qawnsi5q/psr-card-acquiring-market-review-final-report-annex-1-nov-2021.pdf.

- *together, Mastercard-branded and Visa-branded cards accounted for around 98% of all card payments at UK outlets in 2018, both by volume and value"*

In light of the above discussion and considering that since the introduction of the IFR in 2015 the number of card transactions in the UK has increased significantly,[33] Teya believes that the business stealing effect of not accepting Visa and Mastercard payments for merchants and as such their must-take nature is stronger today. The PSR concluded the same in 2021:

> *"1.350. In summary, we have not seen evidence that currently there are effective substitutes to Mastercard and Visa cards for merchants, which would exert a competitive constraint on the supply of card-acquiring services for these cards..."*[34]

b. Do acquirers need to sign up with both Mastercard and Visa to have a viable business model? In what situations or under what conditions is it a viable option for an acquirer to sign up with just one of these two? What would be the consequences for the acquiring services offered to merchants?

Acquirers compete for merchants and thus provide the methods of payment that their customers ask for. Similarly, as indicated above, the must-take nature of Visa and Mastercard for merchants is linked to consumer demand for paying with such payment instruments. Accordingly, as explained in detail under part 15.2., acquirers must provide both Visa and Mastercard as a bundle as a baseline for gaining merchants.

This is further linked to the economic structure of the four-corner model, wherein cardholders and thus issuers single-home whereas merchants and thus acquirers multi-home. Furthermore, the low cards per capita statistics in the UK compared to countries with comparable level of card penetration such as the United States indicate that a larger number of cardholders will have either a Visa or a Mastercard as opposed to both a Visa and a Mastercard card. Accordingly, acquirers must mitigate the business stealing effect for their merchants by offering both.

Question 17

How do you think that the optionality of different services related to Mastercard and Visa payments has changed in recent years? When answering, please also consider and provide specific examples on the following aspects:

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[33] https://www.ukfinance.org.uk/system/files/2022-08/UKF%20Payment%20Markets%20Summary%202022.pdf.
[34] https://www.psr.org.uk/media/qawnsi5q/psr-card-acquiring-market-review-final-report-annex-1-nov-2021.pdf.

a. **Which of the services offered (and fees charged) by Mastercard and Visa are unavoidable for issuers (and cardholders) and/or for acquirers (and merchants) that want to participate in the Mastercard and Visa schemes?**

[redacted]

17.1. Lack of Cooperation

[redacted]

This issue is further compounded when Teya attempts to clarify billing lines or fines imposed by the schemes, Visa and Mastercard take severely long to respond and often fail to clarify doubts despite the delays. The schemes' market practice towards acquirers also generally involves long SLAs, which effectively prevents Teya's ability to understand the optional fees that it is charged, and thus to optimise its costs.

[redacted]

17.2. Lack of Transparency

[redacted]

[redacted]

[redacted]

[redacted]

17.3. Non-Compliance Fees

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

b. **Which services can instead be procured from third parties (or simply rejected)? Who are these third-party providers and, if you have used these, what has been your experience with their services?**

In recent years, ancillary services to payments are being provided by several providers, including providers of alternative card schemes, providers of alternative payment methods and a broad range of distinct specialised suppliers. As shown in Teya's response to part a. above, the non-compliance fees levied by Visa and Mastercard on principal members that do not use their services, even though they may achieve the same purpose through third-party providers, makes it unfeasible for competition to arise for optional services provided by the schemes. This is particularly acute for acquirers, who are unlikely to receive rebates or fee waivers for optional services from the schemes.

[redacted]

[35] https://www.ftc.gov/system/files/ftc_gov/pdf/2010011mastercardorder.pdf.

[redacted]

[redacted]

c. **How does the situation regarding the optionality of services affect the ability of different users to optimise their costs?**

[redacted]

The Startup Coalition (formerly Coadec)

Coadec Response to MR22/1.4: Market review of card scheme and processing fees
Call for evidence: Competitive constraints in card payment systems

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About Coadec:

The Coalition for a Digital Economy (Coadec) is the policy voice of tech startups and scaleups in the UK. Since 2010, Coadec has worked to engage on behalf of tech startups in public policy debates in the UK across a range of priority issues for startups including access to finance, immigration and skills, and technology regulation.

About Axe the Card Tax

Coadec is a member of the **Axe the Card Tax** campaign alongside the British Retail Consortium, the Federation of Small Businesses, the Association of Convenience Stores, the Charity Retail Association and the Federation of Independent retailers.

The Axe the Card Tax campaign is a coalition campaign to end the tax imposed on businesses accepting card payments in the UK – a tax imposed by long standing anti-competitive agreements between UK banks and global payment card schemes, Mastercard and Visa. Regulators must bring this to an end – to enable new competition and innovation in its place.

Response to Consultation Questions

We welcome the opportunity to respond to the PSR's Market review of card scheme and processing fees Call for evidence on competitive constraints in card payment systems (**the PSR Call for evidence**).

Question 1: Do you think competition in card payment systems is working well? If not, what would it look like if it did?

No. In our view, competition in card payment systems is not working well. This is ultimately because the economics of card payment systems means that competition is unlikely to work well. In particular, card payment systems, and payment systems generally, are characterised by large *network effects* that create significant economies of scale (and associated *monopoly bottlenecks*).

Such network effects are essentially that: the value of a card payment system to cardholders (e.g. Mastercard or Visa) depends on whether the merchants those cardholders may want to visit accept that card payment system, and vice versa. For Mastercard and Visa, such network effects are very high, as Mastercard and Visa now have near-universal acceptance among UK merchants, and most merchants in the world. This is clearly of great value to cardholders (given the ease and convenience of payment that such scale brings). Merchants similarly value the near-universal holding of Mastercard and/or Visa cards among consumers (and hence the similar ease for merchants of accepting payments). No other payment system comes close.

The downside of such network effects (and convenience to cardholders and merchants) is that it considerably limits the prospects for effective competition, and therefore offers the opportunity for Mastercard and Visa to exploit their scale advantage. Such lack of effective competition, and realistic prospect for such competition, must therefore be addressed by regulation, i.e. *economic regulation*.

We note that these reasons are already very well established, and were of course the reasons why the PSR was created, namely:

> "*The nature of the [payment systems] market, with its strong network effects, means that [the] issue [of competition] can only be addressed effectively by establishing a new system of economic regulation.*
>
> *The […] existing economic regulators […] have significant experience of [economic] regulation in industries which, like payment systems, exhibit strong network effects ([namely] tending to natural monopoly).*"[1]

The Government explains the same reasons in its *Principles for Economic Regulation:*[2]

> "*Competitive markets are the best way in the long run to deliver these services to consumers and provide incentives to invest and improve efficiency and service quality. In certain sectors [though] network effects and/or [other] economies of scale create circumstances, such as natural monopolies, which, under current technological patterns, limit the prospects for effective competition. In these areas, independent economic regulation will be needed over the long term to continue to provide vital consumer protections and ensure consumers' interests are promoted through efficient provision of good quality, reliable and sustainable services. [emphasis added]*
>
> *In the UK, economic regulation has aimed to promote effective competition where this is possible, and to provide a proxy for competition, with protection of consumers'*

[1] Opening up UK payments, HM Treasury, 2013 [3.16, 3.26].
[2] Principles for Economic Regulation, Department for Business, Innovation and Skills, 2011.

interests at its heart, where it is not meaningful to introduce competition. Regulation has typically capped the prices that dominant companies can charge in order to promote efficiency and fairness, while providing them a return on their assets and investments. In doing so, these regulators have delivered significant benefits to consumers." [2-3]

The Government has also recently reaffirmed these *Principles* as an "*important foundation*" of the UK's framework of strong and independent economic regulation – and that they "*remain sound and […] not in need of significant reform*".[3]

Accordingly, competition between card payment systems is not a realistic prospect and must be subject to effective economic regulation.

Question 2: What key aspects of the four themes in your view most accurately capture how competition affects the setting of scheme and processing fees?

Of the four themes in the Call for evidence, the two that most accurately capture how competition affects the setting of scheme and processing fees are themes 2 and 4, namely:

- **Theme 2**: *Differences in the competitive dynamics on the issuing and acquiring sides*; and
- **Theme 4**: *The "must-take" status of Mastercard and Visa-branded cards (in many retail environments)*.

In contrast, **Theme 3** (*The impact of transparency on competitive pressure at all levels of the value chain*) only partly captures how competition affects the setting of scheme and processing fees. Transparency is necessary to drive more effective competition, but not in itself sufficient.

Lastly, **Theme 1** (*The intensity of competition and innovation in the payments ecosystem*) does not capture how competition affects the setting of scheme and processing fees. This is because scheme and processing fees are not subject to any competitive intensity nor meaningful innovation.

In our view, Themes 2 and 4 are also closely linked. Namely, the fact that Mastercard and Visa-branded cards are "*must take*" for almost all merchants is itself a direct result of the competitive dynamics on the issuing and acquiring sides of card payment systems.

[3] Department for Business, Energy & Industrial Strategy, Economic Regulation Policy Paper, 2022, p. 6-7.

On the **acquiring side**, Mastercard and Visa do not compete for acquirers or merchants in a meaningful way. This reflects the fact acquirers and merchants generally have no choice but to accept both Mastercard and Visa, rather than only one of Mastercard or Visa. This itself reflects that most consumers generally have either a Mastercard debit card or a Visa debit card (or Mastercard credit card and Visa credit card), but not both. Hence, for acquirers and merchants to be able to serve all consumers, they must accept both Mastercard and Visa. Accordingly, from the perspective of acquirers, and most merchants, Mastercard and Visa are *essential trading partners*. In other words, they are "*must have*" cards.

The effect of this is that there is no competitive constraint on scheme and processing fees charged by Mastercard and Visa to acquirers and merchants. This has unsurprisingly resulted in excessive scheme and processing fees. It is likely that under competition law this would be called an "*exploitative*" practice. The effect of this is that acquirers and merchants will be charged too much.

In contrast, on the **issuing side**, Mastercard and Visa compete for issuers (and cardholders). They do this though by using scheme and processing fees (charged to acquirers and merchants), to cross-subsidise issuers and cardholders, i.e. they set negative fees to issuers and cardholders.[4]

In competition law these are called "*exclusionary*" (or "*predatory*") practices. The effect of this is to *exclude* potentially more efficient and/or more innovative competitors from the market, i.e. alternative payment methods such as Open Banking payments, or even cash.

These market dynamics means that acquirers and merchants are said to "*multi-home*", i.e. they participate in both Mastercard and Visa. In contrast, issuers and consumers are said to "*single-home*", i.e. they participate in only one of Mastercard or Visa (at least for a given bank or other card account).

Such differences in the market dynamics between the issuing and acquiring sides of card payment systems, and multi-sided/platform markets generally, has been long understood. It was first described by economist Professor Mark Armstrong, namely:[5]

> "*There are many examples of markets in which two or more groups of agents interact via intermediaries or 'platforms.' […] such […as]: credit cards […]*

[4] What Visa calls "*Client incentives*" and Mastercard calls "*Rebates and incentives (contra-revenue)*". (See Mastercard Inc, Visa Europe, and Visa Inc Annual Reports.)
[5] Competition in two-sided markets, Mark Armstrong, 2006.

When an agent [such as cardholder, merchant, issuer, or acquirer] chooses to use only one platform, it has become common to say the agent is 'single-homing.' When an agent uses several platforms, she is said to 'multi-home.' It makes a significant difference to outcomes whether groups single-home or multi-home. In broad terms, there are three cases to consider: (i) both groups single-home, (ii) one group single-homes while the other multi-homes, and (iii) both groups multi-home. If interacting with the other side is the primary reason for an agent to join a platform, then we might not expect case (iii) [or case (i)] to be very common […].

By contrast, there are several important markets that resemble configuration (ii), […] termed 'competitive bottlenecks.' Here, if it wishes to interact with an agent on the single-homing side, the multi-homing side has no choice but to deal with that agent's chosen platform. Thus, platforms have monopoly power over providing access to their single-homing customers for the multi-homing side. This monopoly power naturally leads to high prices being charged to the multi-homing side […] A competitive bottleneck is present […]

By contrast, platforms do have to compete for the single-homing agents, and high profits generated from the multi-homing side are to a large extent passed on to the single-homing side in the form of low prices (or even zero [or negative] prices). […]

[It] does not make sense [therefore] to speak of the competitiveness of 'the market.' There are two markets: the market for single-homing agents which is, to a greater or lesser extent, competitive, and a market for multi-homing agents where each platform holds a local monopoly. The excessive prices faced by the multi-homing side do not necessarily result in excess profits for platforms, since platforms might be forced by competitive pressure to transfer their monopoly revenues to the single-homing agents. Rather, the market failure is a <u>suboptimal balance</u> of prices to the two sides of the market." [emphasis added]

This paper has had considerable influence on competition law and economic regulation, especially among UK and EU regulators and courts.[6] Firstly, the European Commission's 2007 prohibition decision against Mastercard's cross-border interchange fees defined separate *issuing* and *acquiring* markets, on grounds that "*there are two groups of consumers in the payment cards industry: cardholders and merchants*" [258] each with different characteristics.[7] The EU General Court subsequently confirmed the Commission's finding, finding that:[8]

[6] And very widely cited. See Google Scholar.
[7] European Commission, *MasterCard I* Case AT.34579 Prohibition Decision, 2007.
[8] *Mastercard v European Commission*, Case T-111/08, Judgment of the General Court, 2012.

"*services provided to cardholders and those provided to merchants can be distinguished, and, moreover, cardholders and merchants exert separate competitive pressure on issuing and acquiring banks respectively*" [176-177].

Secondly, a recent appeal judgement at the UK Competition Appeal Tribunal (**the CAT**), *Compare The Market v CMA*, strongly affirmed that when assessing two-sided/multi-sided platform markets it is essential to consider competition on each side of the market separately, namely:[9]

"*[When] there are two quite different Focal Products being supplied (admittedly, by the same Seller […]) to two quite different sets of Buyers […and] it comes to the application of the Hypothetical Monopolist Test [for defining the relevant product markets], the constraints that exist separately, distinctly, and above all <u>differently</u> in relation to each Focal Product […must not be] wrongly conflated.*" [120(8)]

"*Each Focal Product ought to be considered separately […] because different substitutes may exist in relation to each. […to] <u>not</u> to do so is liable to lead to error, precisely because it fails to pay proper regard to the fact that the substitutes for each Product sold by the Seller […] may very well be different.*" [120(9)]

"*[As] a general precept, the markets in which the different Focal Products provided by Platforms are sold should always be assessed separately.*" [147]

Lastly, the European Commission is currently evaluating its Market Definition Notice, an essential tool for application of EU competition law. As part of this, the Commission's review Support Study similarly finds that in the case of multi-sided platform markets "*It is [always] appropriate to look at both market sides*" (p. 51).[10] *Compare The Market v CMA* cites the same European Commission finding, at [146].

Question 3: Are there specific elements described under Theme 1 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

No, we strongly disagree with almost all of the elements described under Theme 1 (*The intensity of competition and innovation in the payments ecosystem*), for similar reasons as explained in answer to Question 2.

[9] *(1) BGL Holdings Ltd, (2) BGL Group Ltd, (3) BISL Ltd, (4) Compare The Market Ltd v Competition Markets Authority* [2022] CAT 36.
[10] European Commission Support study accompanying the Commission Notice on the evaluation of the definition of relevant market for the purposes of Community competition law: Final report, 2021.

In particular, we strongly disagree that competition from other card schemes, from existing alternative payment systems, or from emerging payments technologies shapes and constrains the commercial strategies of Mastercard and Visa [3.10]. We also disagree that pricing for scheme and processing fee services is constrained by the competitive pressure Mastercard and Visa exercise on each other, by competition from other existing payment services operators, or by potential entry and growth from new operators.

On the contrary, Mastercard and Visa's ever growing of share of the overall UK payments market, including all other payment methods, and at the same time ever increasing scheme and processing fees, demonstrates that other card schemes, existing alternative payment systems, and potential emerging payments technologies exert no meaningful constraint on Mastercard and Visa's commercial strategies and pricing.

We further strongly disagree with the Theme 1 claims that:

- recent market trends and technological innovation have greatly increased the range of methods that consumers and merchants can use to pay or be paid;
- consumers decide which payment methods they want to adopt (for example, which card brands to carry, which payment apps to register with) and which one to use for a specific transaction; and
- merchants choose which payment methods they are willing to accept and may try to steer customers towards the ones they would prefer to be used [3.12-3.13].

On the contrary:

- all such recent market trends and technological innovation have in practice just meant new ways to pay by *card* – not alternative ways to pay that are *not* by card;
- decline in access to cash in the UK has itself reduced the range of methods that consumers and merchants can use to pay or be paid;
- consumers do not generally choose which payment methods they want to adopt (from among card and non-card payment methods) – financial institutions choose which payment methods that consumers can use, generally either a Mastercard card or Visa card; and
- merchants similarly have very limited choice in which methods they are willing to accept (and generally have limited if any scope to "*steer*" customers to merchants' preferred payment method) – as Mastercard and Visa are invariably "*must take*" cards for the very large majority of UK merchants.

Question 4: Please provide evidence and/or views on the extent to which Mastercard and Visa are currently competitively constrained (or likely to be competitively constrained in the near future) in their ability to set their scheme and processing fees (in general or for certain services), on either the issuing or acquiring side, by:

- **other card payment systems**
- **other payment systems (please identify)**
- **other payment intermediaries who use Mastercard and Visa infrastructure (please identify)**
- **other third parties – for instance, providers of specific services such as authentication, clearing or fraud detection (please identify), and/or**
- **the existence of shared standards and protocols between or within schemes**

For the reasons as explained in answer to Questions 1-3, Mastercard and Visa are not competitively constrained in their ability to set their scheme and processing fees on the *acquiring side* (i.e. to acquirers and merchants), either by each other, by other card payment systems, other payment systems, payment intermediaries, or any other parties.

In comparison, on the *issuing side* (i.e. to issuers and cardholders), while Mastercard and Visa are notionally "*competitively constrained*" by each other in the incentives that they pay to issuers, such competition is ultimately harmful to end-users (both cardholders and merchants), as it has an *exclusionary* effect on lower cost/more efficient and/or more innovative payment alternatives.

Further, Mastercard and Visa do not competitively constrain each other in terms of innovation – as almost all Mastercard and Visa technical innovation are developed jointly, i.e. as part of the EMVCo global payment systems standards setting body, alongside American Express (**Amex**), Discover, JCB, and UnionPay.

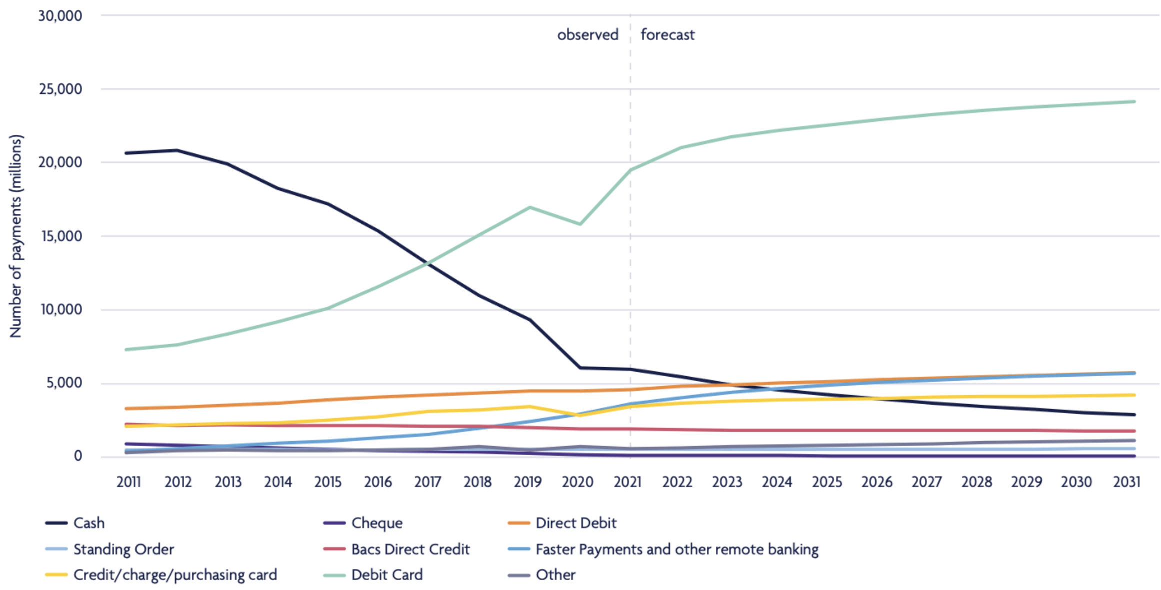
Neither do payment intermediaries act as competitive constraints on Mastercard and Visa. On the contrary, mobile/online wallet payment intermediaries – in particular, Apple Pay and PayPal – primarily just offer another way to pay by card, but not a way to pay that is not by card.

Further, Coadec believes that there is evidence to suggest that Apple and PayPal have also acted in concert with Mastercard and Visa to restrict other (non-card) methods from either Apple Pay or PayPal. For example, we understand that Apple agreed with Mastercard and

Visa to restrict Apple Pay to card payments only – and that PayPal agreed with Mastercard and Visa that PayPal will not steer users to lower-cost non-card payment methods.[11]

Neither does cash represent a constraint on card payments. The demise of cash, shown in Figure 1, could be itself the result of concerted action by Mastercard, Visa, and card issuers to restrict access to and use of cash, rather than as a result consumers deciding themselves to stop using cash. Such concerted action has been through control of and/or influence over ATM/cash machine interchange fees, which has had the effect of an almost complete demise of *free-to-use* ATMs in the UK in the last five years.

Figure 1: Number of transaction by payment method (2011-2031)



Source: *UK Finance*

Question 5: Do you agree that users have different payment options, which can reflect either the requirements for specific transactions or the characteristics of the available payment methods?

[11] See in particular *United States of America v Visa Inc and Plaid Inc*, Complaint, 2020; and Payment Insecurity: How Visa and Mastercard Use Standard-Setting to Restrict Competition and Thwart Payment Innovation, RPCG Group, 2019.

In particular, it would be helpful if you could reference the choices available to different groups of users (consumers, merchants, issuers and acquirers) and expand on:

a. **the needs of those who want to make payments and of those who want to receive payments, and how issuers and acquirers cater for those needs**
b. **the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems have few alternatives**
c. **the circumstances in which, or the types of payment transactions for which, you consider that card-based payment systems would be easier to substitute with other payment systems**
d. **any studies you are aware of on the relative frequency and importance of the different types of payment transactions**

No, in reality, payment users in merchant environments have very limited payment options other than card payments. This includes both consumer-to-business (**C2B**) (e.g. consumer card) and business-to-business (**B2B**) (e.g. commercial card) merchant payments, as well as face-to-face and online payments.

This contrasts to the situation of C2B, B2B, business-to-consumer (**B2C**), and consumer-to-consumer (**C2C**) *recurring* payments (such as subscriptions) – or other situations where the payee and payer have an existing relationship (e.g. either personal or business), or are otherwise well known to each other. In those instances, bank-to-bank payments, such as direct debits or direct credits (e.g. Faster Payments) offer a ready alternative to card payments. These situations are distinct though because there is far less payment risk, e.g. risk of non-payment (credit risk) and/or payment fraud (or other deception).

In contrast, in all situations where there is higher payment risk, i.e. for one-off payments where the payer and payee are not well known to each other, card payments invariably represent the only digital choice available, and cash has declined exponentially over the last decade, per figure 1, and thus also does not represent an alternative. This dominance is especially the case for remote merchant payments (where cards are invariably the only payment method case), as well also for face-to-face merchant environments, owing to the demise of cash.

Such limitation of payment options to card payments also applies to all payment users, i.e. payers (consumers or businesses) and payees (retailers and other merchants), as well as to acquirers, whose business depends on offering card payments. Such limitation does not apply to issuers, however, who could readily choose to adopt non-card payments. Issuers nonetheless have a longstanding, and continuing, commercial interest in card payments, owing to the large revenues that cards generate versus non-card payments, from the interchange fee and from card scheme inducements. The European Commission, and EU/UK courts, have found that such inducements (e.g. interchange fees and/or equivalent financial flows) are themselves a result of concerted action among issuers.

Question 6: What are the main factors that limit the entry and/or expansion of payment schemes other than Mastercard and Visa? To what extent do those factors result in limited entry or expansion and how does limited entry or expansion affect the competitive constraints on Mastercard and Visa in setting the level of scheme and processing fees?

The main factors that limit entry and/or expansion of payment schemes other than Mastercard and Visa are:

1. The large network effects and associated global scale economies and
2. Exclusionary pricing behaviour to further limit entry, competition, and expansion (as described in response to Questions 1-2 above)

Question 7: To what extent do you agree with the view that the fees Mastercard and Visa charge to issuers and acquirers for scheme and processing services are 'largely reflective of the value' of those services? To what extent do you consider fees for scheme and processing services to be reflective of the costs of providing those services? Please provide examples and explain to what extent you think 'being reflective of the value' or 'cost-orientation' are relevant criteria in assessing the competitiveness of such fees.

Any price that a customer willingly pays can be said to be "reflective of the value" of the goods or services that the customer is paying for, even if the price were set by a monopolist, cartel, or result of any other anti-competitive behaviour. Namely, if the customer didn't value them at the price offered, however high, then they wouldn't buy. Hence, whether the fees that Mastercard and Visa charge for scheme and processing services is "largely reflective of the value" of such services does not say anything about whether competition is working well.

In contrast, such fees are unlikely to be reflective of the costs of providing those services, for reasons and evidence of:

- the absence of competitive pressure or other constraints on how such fees are set; and
- the high levels of profitability associated with the provision of such services.

Question 8: Are there specific elements described under Theme 2 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

The description of Theme 2 (*Differences in the competitive dynamics on the issuing and acquiring sides*) in the Call for Evidence is broadly correct, in particular, for the reasons as in response to Questions 1 and 2 above.

Question 9: How would you describe the nature and intensity of competition between Mastercard and Visa for issuers and cardholders?

The nature of competition between Mastercard and Visa for issuers and cardholders is essentially on price, i.e. the level of inducements that Mastercard and Visa can pay to issuers to attract their business. This is because, from the perspective of issuers and cardholders, Mastercard and Visa are close substitutes. In particular, Mastercard and Visa have near-identical merchant acceptance in the UK and globally, and there are also no other functional differences between Mastercard and Visa, i.e. from the perspective of issuers and cardholders, especially as Mastercard and Visa develop and set their technical standards jointly via EMVCo.

There are also fairly limited costs for issuers (and cardholders) to switch between Mastercard and Visa (except only for the issuing of new physical cards, which issuers do on a regular basis in any event). Furthermore, while Mastercard and Visa compete intensely on price for issuers (and cardholders), it could reasonably be suggested that such price competition is a form of *exclusionary*/*predatory* pricing that is ultimately harmful to competition and to consumers.

In particular:

a. **What are the dimensions or features on which Mastercard and Visa compete?**

As above, Mastercard and Visa chiefly compete on price for issuers and cardholders, through predatory/exclusionary pricing.

b. **Do Mastercard and Visa offer bespoke deals, rebates or discounts to issuers?**

Yes, it is readily apparent that Mastercard and Visa offer rebates and discounts to issuers, for example, namely what Visa calls "*client incentives*" (where "*clients*" undoubtedly means issuers) and what Mastercard calls "*Rebates and incentives (contra-revenue)*" (namely, rebates and incentives paid to issuers).

It is also readily apparent that such rebates, discounts, and other incentives are bespoke to individual issuers. For example, Visa Europe's Annual Report 2022 says "*[Visa Europe] enters into long-term contracts with financial institution clients [i.e. card issuers] […] for various programs that provide cash and other incentives designed to increase revenue by growing payments volume […]*" [p. 39]. Such contracts must inevitability be subject to commercial negotiation and therefore bespoke to individual issuers.

In Coadec's view, such "*rebates, discounts, and other incentives*" to issuers could be themselves directly contrary to the IFR, which expressly prohibits circumvention of the IFR "*by alternative flows of fees to issuers*".[12]

c. Do issuers currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?

Issuers have potential alternatives to Mastercard and Visa, such as other international card payment schemes (e.g. Amex) or open-banking/account-to-account based payments. Such alternatives are not necessarily credible though, at least at the current time. For example, in the case of Amex, Amex has a much lower level of merchant acceptance in the UK (compared to Mastercard and Visa). In the case of Open Banking/account-to-account based retail payments, there are currently widespread limitations to the technology at the current time, including merchant adoption, reliability, and stability. For further insight on the limitations facing Open Banking payments today, see Coadec's March 2023 report.[13]

d. Does the intensity of competition between Mastercard and Visa differ between issuers? For example, does the negotiating power of issuers vary with certain characteristics?

Yes, Coadec believes that the intensity of competition between Mastercard and Visa is most likely to vary by issuer size, with larger issuers having greater bargaining power than smaller issuers.

e. Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by issuers, or for specific requirements of different transaction types?

The chief differences in services procured by issuers are card type, i.e. debit cards or credit cards; and consumer cards or commercial cards. Accordingly, the intensity of competition

[12] Recital 31 and Article 5.
[13] https://coadec.com/news/the-4bn-open-banking-ecosystem/

between Mastercard and Visa is greater for cards that pay higher interchange fees (and/or other incentive payments to issuers, as associated with greater scheme and processing fees). All else equal, the intensity of competition is likely to be greater for commercial cards than consumer cards, and greater where issuers can offer a high cardholder propensity for cross-border spending (where interchange fees, and scheme and processing fees are similarly much greater than for domestic UK-only consumer card spending).

Question 10: How would you describe the nature and intensity of competition between Mastercard and Visa for acquirers and merchants? In particular:

a. **What are the dimensions or features on which Mastercard and Visa compete?**

Mastercard and Visa do not compete for acquirers and merchants in any meaningful sense (with very rare exception). This is reflected in the fact that all acquirers offer Mastercard and Visa, and offer Mastercard and Visa as a package, not as alternative services. Similarly, all UK merchants accept both Mastercard and Visa, rather than only Mastercard and Visa. The only known exception was the 2012 Olympic Games, at which Olympic venues and websites accepted Visa only (owing to Visa's long standing Olympic Games exclusive sponsorship).

For example, the European Commission's 2007 Decision in Case COMP/D1/37860 *Morgan Stanley/Visa International and Visa Europe* found that "*The virtually identical number of [UK] merchants accepting Visa (365 661 merchants) and MasterCard cards (365 658) is due to the fact that acquiring banks offer to acquire both card brands together as a package in order to meet merchants' demand for such a package*" [86].

The fact that Mastercard and Visa do not compete for acquirers and merchants (i.e. are not in the same economic product market) is similarly evident from absence of switching by acquirers and/or merchants in the face of substantial price differences, for example of substantially greater scheme and processing fees currently set by Mastercard compared to Visa, as well as historic examples of substantial interchange fee differences between Mastercard and Visa.

b. **Do Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants?**

In general, Coadec does not believe that Mastercard and Visa offer bespoke deals, rebates or discounts to acquirers and merchants. It is likely that the only retailers with the scale to meaningfully negotiate with Mastercard and Visa are the very largest firms, see for example Amazon's threat to stop taking Visa as a result of rising fees in 2022. It is unlikely that the vast majority of retailers would be in a position to make such a credible threat.

c. **Do acquirers and merchants currently have credible alternatives to Mastercard and Visa? How quickly could they effectively adopt alternative card (or non-card) payment schemes?**

No, there are no meaningful alternatives to Mastercard and Visa for the very large majority of merchants. Even where other payment methods exist, such as Amex, buy-now-pay-later (**BNPL**), or Open Banking/account-to-account payment methods, such payments are additional to Mastercard and Visa, not alternative. Namely, it is never an option for merchants to offer such payment methods instead of Mastercard and Visa, and many of these alternative credit based payment methods (e.g. BNPL) require card payments to eventually settle.

d. **Does the intensity of competition between Mastercard and Visa differ between acquirers? For example, does the negotiating power of acquirers vary with certain characteristics, including the types of merchants they cater to, or particular use cases?**

Coadec does not believe that there is any difference in competition for different acquirers. On the contrary, we understand that all acquirers pay the same scheme and processing fees (and same interchange fees).

e. **Does the intensity of competition between Mastercard and Visa differ depending on the specific services procured by acquirers, or for specific requirements of different transaction types?**

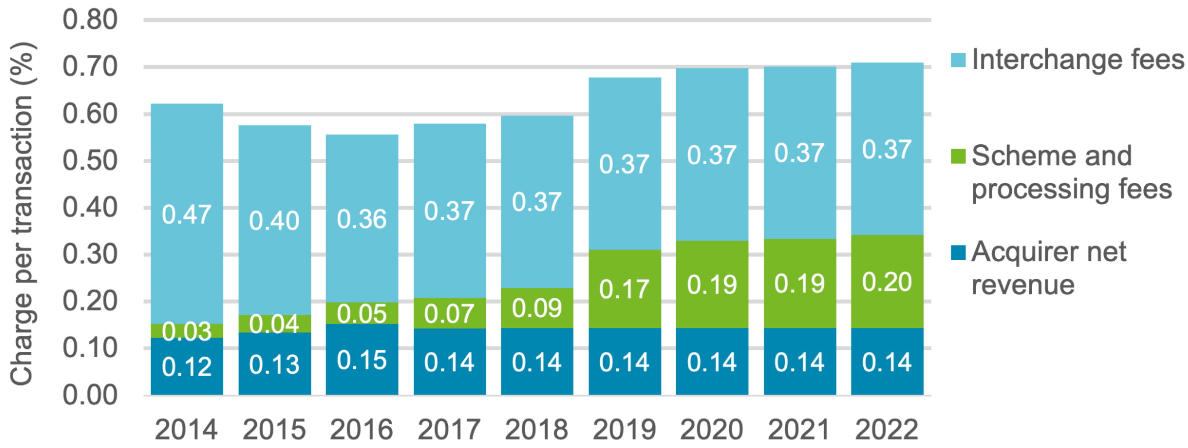
Coadec is not aware of any such differences.

Question 11: Can you describe, to the extent you consider that scheme and processing fees can be raised to either issuers or acquirers, who you think would ultimately bear those higher costs compared to a better functioning market?

Mastercard and Visa have the power to raise scheme and processing fees considerably, as evidenced by:

- the PSR Card Acquiring Market Review's finding that scheme and processing fees to acquirers had increased by several times between 2014 and 2018 (and have continued to increase significantly since then according to our estimates shown in Figure 2);

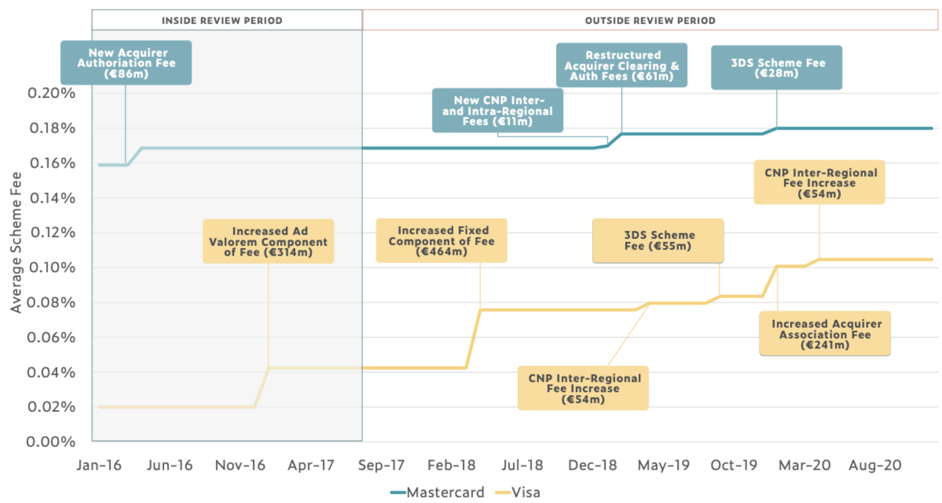
Figure 2: Average UK Merchant Service Charge



Source: PSR Card-Acquiring Market Review and ACT Campaign Analysis Data
Note: The share of interchange fees exceeds the caps as it includes non-domestic transactions and non-regulated card types (e.g. commercial).

- Mastercard's scheme and processing fees continue to be substantially greater than Visa's – albeit both Mastercard and Visa have each increased their scheme and processing fees substantially since 2014 (i.e. after the IFR came into effect), as shown in Figure 3; and

Figure 3: CMSPI Analysis of Scheme Fee Increases since the IFR



Source: CMSPI, 2021 Card Fee Changes: Impact Assessment, 2021

- Mastercard's and Visa's scheme and processing fees are substantially greater in other parts of the world than the UK, especially in the US.

Such higher costs will be ultimately (and directly) borne by end-users of card payment systems, either merchants and/or consumers.

Coadec notes that the extent that they are borne by consumers or by merchants will depend on the extent of pass-on of such costs in the prices charged by merchants to consumers. Such pass-on is generally difficult to observe. To the extent that merchants do pass-on such costs in prices generally, i.e. in absence of surcharging or other differential pricing, then all consumers will be harmed, even those using non-card payment methods.

Question 12: Are there specific elements described under Theme 3 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

We agree with Theme 3 (*The impact of transparency on competitive pressure at all levels of the value chain*) that, in particular, scheme and processing fee are not transparent, and that such lack of price transparency is itself a clear symptom of competition not working.

We also agree that:

- Merchants have poor visibility of the specificity of scheme and processing fees, itself causing a reduction in competitive pressure (i.e. by making it difficult for merchants to compare between acquirers); and
- The complexity of scheme and processing fee structures can similarly make it difficult for acquirers to anticipate their own costs and set their own margins.

Question 13: Do you think lack of transparency around financial flows is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)?

Yes, transparency of financial flows (i.e. transparency of scheme and processing fees charged by Mastercard and Visa to acquirers, and transparency of rebates, discounts, and other inducements paid by Mastercard and Visa to issuers) is an obstacle to effective competition, to some extent, for similar reasons as in answer to Question 13, namely, that merchants and acquirers have poor visibility of such financial flows. Transparency of financial flows is moreover an obstacle to effective regulation, in particular to monitoring and enforcement of the IFR, especially IFR Article 5 ("*Prohibition of circumvention*").

Question 14: Do you think the complexity of scheme and/or processing fees is an obstacle to effective competition? If so, why and for which group(s) of users (issuers, acquirers, merchants and consumers)? If fees were made less complex, do you think the overall cost of participating in card schemes would change?

Yes, the complexity of scheme and processing fees is an obstacle to competition, to some extent, for similar reasons as in our answers to Questions 12 and 13. Making such fees more complex (and more transparent) is <u>necessary</u> for reducing the overall cost of participating in card schemes, but not <u>sufficient</u> alone.

For example, one of the first regulatory actions taken by the EU in relation to Mastercard and Visa – over 20 years ago – was to require transparency of interchange fees and for such information to be made available to merchants.[14] The Commission nevertheless noted that "*the measures to increase transparency, while welcomed by retailers, will not [themselves] significantly increase the negotiating power of merchants*".[15]

Question 15: Are there specific elements described under Theme 4 that you think are factually correct (or incorrect), and what evidence do you have to support your view?

Yes, we agree with most of the elements described under Theme 4 (*the "must-take" status of Mastercard and Visa-branded cards*), in particular that:

- Mastercard and Visa cards have long been defined (i.e. by EU regulators and EU/UK the courts) as "*must-take*" for merchants;
- the "*must-take*" status of Mastercard and Visa cards means that the fees that they charge need close scrutiny;
- the "*must-take*" status of Mastercard and Visa cards means Mastercard and Visa are each effectively act as monopolists when setting the conditions to access their own networks, and the associated fees; and
- the self-reinforcing nature of Mastercard and Visa's must-take status, in hampering the development of alternative payment types.

Question 16: Would you describe Mastercard and Visa as 'must-take', and if so for whom (for example, merchants, acquirers or both)? Please describe in detail what you mean by 'must-take' and the evidence on which you base your views. In particular:

   a. Do merchants have any alternatives to accepting both Mastercard and Visa-branded cards if they decide to accept cards? In what situations or under

[14] See European Commission Decision of 24 July 2002 Case COMP/29.373 — *Visa International — Multilateral Interchange Fee* §3.2.3.3. ("*Transparency*").
[15] Recital 38(g).

what conditions is it a viable option for a merchant to refuse particular card types, either in full or for specific transactions?

Yes, Mastercard and Visa are "*must-take*" cards for the reasons as explained in answer to Question 2 above.

b. **Do acquirers need to sign up with both Mastercard and Visa to have a viable business model? In what situations or under what conditions is it a viable option for an acquirer to sign up with just one of these two? What would be the consequences for the acquiring services offered to merchants?**

Yes, it is not viable for an acquirer to not sign up to both Mastercard and Visa. For example, the European Commission's 2007 Decision in Case COMP/D1/37860 *Morgan Stanley/Visa International and Visa Europe* found that "*Due to the fact that acquiring services for acceptance of Visa and MasterCard should be provided as a package – that is to say, merchants wish to contract for acceptance of both Visa and MasterCard cards with one and the same acquiring bank, exclusion of [a potential acquirer] from Visa membership means that it is prevented from competing in the credit and deferred debit/charge cards UK acquiring market altogether, not from competing in Visa acquiring alone*" [94].

Question 17: How do you think that the optionality of different services related to Mastercard and Visa payments has changed in recent years? When answering, please also consider and provide specific examples on the following aspects:

a. **Which of the services offered (and fees charged) by Mastercard and Visa are unavoidable for issuers (and cardholders) and/or for acquirers (and merchants) that want to participate in the Mastercard and Visa schemes?**

For issuers (and cardholders), the services offered and fees charged by Mastercard or Visa are <u>avoidable</u>, as issuers need to choose only one of Mastercard or Visa, but not both. In contrast, for acquirers (and merchants), the services offered and fees charged by Mastercard and Visa for accessing their networks (i.e. of being able accept Mastercard or Visa) are <u>unavoidable</u>, as acquirers need to choose both Mastercard or Visa, not one or the other. While some ancillary services, such as Mastercard or Visa consulting services, may notionally be additional and therefore avoidable services, even such services can themselves be unavoidable as a necessary means of accepting Mastercard and Visa cards.

b. **Which services can instead be procured from third parties (or simply rejected)? Who are these third-party providers and, if you have used these, what has been your experience with their services?**

We understand that only very limited Mastercard and Visa services (if any) can be procured by acquirers (and merchants) from third parties or simply rejected.

c. **How does the situation regarding the optionality of services affect the ability of different users to optimise their costs?**

Our understanding is that there is limited scope for this.

Visa

VISA Europe's Response to the PSR's Call for Evidence on competitive constraints in card payment systems, April 2023

Executive Summary

Visa Europe (referred to as 'Visa' in this document) responds to the Payment Systems Regulator's ('PSR') Call for Evidence on competitive constraints in card payment systems, published on 23 February 2023.

We summarise our key recommendations to the PSR below:

- It is critical for the PSR to conduct a forward-looking assessment of competitive dynamics in UK payments.
- The PSR's review must recognise that competition in payments is not limited to competition between card schemes.
- The PSR will need to develop a robust evidence base to understand the evolving competitive dynamics at play, including the significant and variable value that consumers and merchants derive from Visa's payment solutions.

We expand on each of these areas in our introduction below.

We expect that the PSR's assessment of the competitive dynamics will be formed on the basis of well-substantiated and robust evidence and analysis. However, given the complexity of the markets and the vast and increasing range of stakeholder interactions, we recommend that the PSR tailors its information gathering to target the highest priority questions it is seeking to answer. Visa looks forward to engaging with this process as the market review progresses.

Following this, our response is structured by the Themes set out in the call for evidence. In particular we note that:

- The PSR's description of Theme 1 – *the intensity of competition and innovation in the payments ecosystem* – omits two clear features of the UK payments ecosystem that Visa has previously raised with the PSR. These are the scale of development of alternative payment architectures and the impact of existing or planned policy interventions.
- Any assessment of the feedback relating to Theme 2 – *differences in the competitive dynamics on the issuing and acquiring sides* – should recognise the multi-sided nature of Visa's payments ecosystem and analyse it in a holistic way. Furthermore, Visa questions the PSR's inclusion of a stakeholder comment that there is a risk of IFR circumvention when there is no evidence that this is taking place.
- On Theme 3 – *the impact of transparency on competitive pressure* - Visa does not agree with the characterisation of Visa scheme and processing fees as complex and not transparent, nor that the way in which fees are communicated to issuers and acquirers has an impact on competition in the payment ecosystem.
- Finally, on Theme 4 – *the 'must-take' status of Mastercard and Visa-branded cards* – Visa strives to the be the best way to pay and be paid and has worked hard for many years to provide products and services to our clients that achieve this. Even so, we do not agree that our market position can be characterised as 'must-take' or that Visa can 'leverage' its position without constraint, as evidenced by known cases of merchants steering consumers away from using particular payment options or not accepting certain product types.

We provide further detail on each of these areas in our response.

Introduction

The PSR's Call for Evidence is an important stage of the market review. We welcome that the PSR is seeking to gather a range of stakeholder viewpoints through working papers and calls for evidence. The information collected will form an important part of the evidence base that the PSR must collect to understand the operational, commercial and competitive dynamics in the UK payments sector. We provide some overarching recommendations to the PSR in its evidence gathering:

- **It is critical for the PSR to conduct a forward-looking assessment of competitive dynamics in UK payments.** The UK Payments sector is undergoing a period of great dynamism and change. In recent years, the sector has been characterised by the significant entry and expansion of new payment solutions and services which are driving greater choice for consumers and merchants in payment methods. These range from fintech companies implementing new technology solutions (Monzo, Revolut), to established technology companies implementing payments into their services (Amazon, Apple), and global payments players with an increasing interest in the UK market (AliPay, WeChat). These developments are further facilitated by significant policy interventions in the UK (e.g. in relation to Open banking and the NPA). Understanding this is important as the potential for future competition has an effect on the way Visa operates in the present, including the innovations and business initiatives in which we engage. Visa is pleased to see that the PSR appears to be considering competitive constraints on a forward-looking basis,[1] and urges the PSR to place greater emphasis on the significant and rapid evolution within the payments sector and the impact this has on competitive dynamics, including the significantly lower barriers to entry in a digital world of app-based solutions that are easy for consumers to access and use.
- **The PSR's review must recognise that competition in payments is not limited to competition between card schemes.** While Visa believes that competition is already intense between card schemes, card payments networks also face significant and growing competition from existing and potential alternative payment networks and methods, as well as from other providers of payment solutions present within the card payments value chain. Card payments from any scheme accounted for only a small proportion of total payment flows in the UK (approximately 13% in 2021) with payments using a Visa card accounting for an even smaller proportion (approximately 9% in 2021)[2]. These figures vary again when looking at consumer and commercial cards separately. Therefore, any consideration of the competitive landscape must recognise that merchants and consumers can *already* access a wide range of payment services which are part of a dynamic market for payment services in the UK.
- **The PSR will need to develop a robust evidence base to understand the evolving competitive dynamics at play, including the significant and variable value that consumers and merchants derive from Visa's payment solutions.** To understand the evolving competitive constraints within which Visa operates, the PSR will need to understand the value – and the variety of factors that contribute towards value – that our clients and their clients obtain from digital payments. This includes, but is not limited to, extremely high levels of security, near perfect operational resilience, and high-quality products and services that cater for changing and emerging consumer and merchant needs. Ultimately, and importantly, if Visa's products do not support downstream services that are competitive and compelling to merchants and consumers' variable needs, this will lead to Visa's

[1] We note that in question 4 of the call for evidence, the PSR refers to views on *'the extent to which Mastercard and Visa are currently competitively constrained (<u>or likely to be competitively constrained in the near future</u>)'*

[2] *Source: RBR, Euromonitor, McKinsey Global Payments Data*

products and services not being adopted or utilised fully.[3] The PSR will also need to understand the requirements on Visa related to its role in maintaining financial stability in the UK through its designation as a 'financial market infrastructure' as well as look at the roles that other financial intermediaries (such as issuers and acquirers), and third-party service providers, including processors, authentication providers, gateways and integrators play when considering the experience of end-users of card payment services.

We note that at this stage the call for evidence is – in the PSR's own words – neither a complete description of the competitive dynamics relevant to the market review[4], nor a description of every detail of stakeholder views.[5] We also note that it is not clear which aspects of the stakeholder views summarised in the call for evidence are supported by evidence, which means that it is not always straightforward for Visa to engage with such viewpoints.

As such, at this stage, our response seeks to highlight where we see the most significant gaps in the description of competitive dynamics in the call for evidence, and where we find the views summarised in the call for evidence to most substantially diverge from the evidence that Visa has observed and provided to the PSR in our engagement on the market review. We structure the remainder of our response by the themes set out in the call for evidence and are not responding to the questions listed in the call for evidence exhaustively.

Theme 1 - The intensity of competition and innovation in the payments ecosystem

Visa welcomes the PSR's acknowledgement that stakeholders see the UK payments sector as being characterised by intense competition and thriving innovation. The PSR's market review takes place against the backdrop of a dynamic UK (and global) payments ecosystem in which a wide variety of established and new providers of payment solutions are investing significantly to introduce innovative and value-enhancing services to meet consumers' and merchants' ever-evolving payment needs and preferences. Any consideration of the competitive landscape must recognise that merchants and consumers can already access a wide range of payment services which are part of a dynamic market for payment services in the UK. Such services include:

- a wide range of card payment schemes;
- Open banking-enabled payments;
- Real-time account-to-account ('A2A') payments;
- Digital wallets, including PayPal, Revolut, x-Pays, Google Pay, Apple Pay and Samsung Pay;
- Buy Now Pay Later ('BNPL') services;
- Payment facilitators;

[3] For example, Visa discusses the various disparate use cases for which end user needs vary considerably with regard to cross-border payment solutions in a recent Visa Economic Empowerment Institute (VEEI) article. Available at: https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-meeting-the-needs-of-end-users.pdf

[4] In paragraph 3.4 of the call for evidence, the PSR observes "*While we have not captured every detail and nuance, we have summarised the range of views in order to provide a basis for seeking further input from stakeholders on how we should view the competitive constraints*."

[5] In paragraph 3.2 of the call for evidence, the PSR observes, "*No single theme provides a complete description of all the competitive dynamics that are relevant to our review*."

- Payment orchestration platforms; and
- Alternative payment service providers.

However, Visa notes that the PSR's description of Theme 1 omits important aspects of Visa's views on the extent of competition in the payments sector. In particular, Visa considers that the PSR's Call for Evidence omits two clear features of the payment system that Visa has previously raised with the PSR, which have especially significant impact on the commercial landscape:

- Significant and increased entry and expansion of alternative payment methods; and
- The impact of existing and planned policy interventions in the UK, such as in relation to Open banking and the NPA.

The UK has a dynamic payments landscape in which a wide variety of providers have entered and expanded their innovative payment solutions offering for consumers/issuers and merchants/acquirers

In order to conduct a robust, forward-looking assessment of competitive dynamics in UK payments, the PSR should examine where market entry has occurred, is still occurring, and is expected to continue occurring, driven by market forces. We welcome the PSR's recognition that such entry comes from a range of sources, and that there is an increasing presence of players with established consumer relationships that can be leveraged to provide alternative payment solutions directly to end users. However, to understand the constraints within which firms such as Visa operate, the PSR must also recognise in its analysis of competitive dynamics the fact that non-card-based payment methods are playing a significantly increased role, and even overtaking the role currently played by cards. These include:

- new entrants to the sector, as observed with buy now, pay later services such as Klarna and online banks such as Monzo;
- existing UK payments sector firms extending into other parts of the payments value chain;
- large firms, particularly from the technology, large retail and banking sector, leveraging their direct consumer relationships to enter or expand into providing services that compete with card payments providers; and
- established payments sector firms from other jurisdictions entering the UK market, leveraging their established presence, scale and assets from those other jurisdictions.

As Visa has expressed in its previous engagement with the PSR, the transformation of a country's payments sector as a result of such developments is not merely hypothetical. In relation to UK e-commerce transactions, non-card-based payment options already play an important role and there is emerging evidence of the role that merchants can play in influencing consumer behaviour. For example, initial research carried out for Visa into the top 50 UK e-commerce websites[6] indicates that alternatives to card-based payments, such as PayPal, were offered in more than 80% of cases. In addition, more than 40% of merchants advertised a particular accepted form of payment in advance of presenting the full range of accepted options at checkout and in 95% of such cases, the advertised solution was a non-card solution.

Such transformations have also been observed in a range of other countries. Non-UK examples that we have already made the PSR aware of include:

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[6] Based on total desktop and mobile visits in October 2022, as tracked by https://www.similarweb.com/blog/sales/selling-to-ecommerce/top-100-ecommerce-companies-in-the-uk/

- **Hong Kong,** which has seen significant use of alternative end-to-end payment networks including those built on interbank infrastructure (specifically the Faster Payments System), on transport network payment cards (Octopus card) and introduced by payments systems operators from other jurisdictions, predominantly WeChat and AliPay entering from mainland China.
- In **Poland,** there is now significant use of alternative payment networks on e-commerce, notably Pay-by-link, and mobile payments, such as Blik, which uses mobile numbers to facilitate interbank transfers and is now used by almost 13 million consumers in Poland.[7]

The dynamic development of the UK payments landscape is expected to continue to intensify including as a result of existing and planned policy interventions in the UK

Theme 1 also omits discussion of the expected impact of existing, planned and potential policy interventions in the UK on competition, and how these interventions will intensify the dynamic development of the UK payments landscape. Visa considers this to be another important factor in understanding the forward-looking evolution of competitive dynamics and has repeatedly raised this point in its engagement with the PSR. The UK payments sector is already characterised by policy and regulatory features that foster competition of payments-related services. Notably, these include:

- Initiatives relating to **Open Banking** (forecasted to be used by 60% of the UK population by September 2023) which has directly boosted competition in the sector by facilitating the entry and expansion of a wide variety of operators in the UK payments sector, as recognised by the CMA.[8] Indeed, the OBIE report the number of open banking payments increased by over 100% during 2022.[9]
- The **New Payments Architecture, ('NPA')**. The NPA forms a core part of the PSR's Strategy for enabling effective competition in the provision of payment services[10] and the PSR has previously noted that the programme has the potential to strengthen competition and innovation in payment solutions and between payment systems.[11] Indeed, the ambition underpinning the development of this programme is in part to 'enable competition between existing and new payment services' and 'facilitate innovation in the interests of users'.[12] We expect the PSR's ambition for the NPA and the PSR's expectations for its impacts on competition to be given due significance as findings develop in this market review.

Beyond the policy and regulatory changes already under development, there are further developments affecting the way consumers can pay merchants. Examples include significant changes regarding the use of so-called '**stablecoins'** and **person-to-business payments**. In April 2022, His Majesty's Treasury ('HMT') announced a plan to enable stablecoins to be a recognised form of payment as part of its aim of

[7] See Blik press release: https://blik.com/en/breakthrough-year-for-blik-more-than-one-billion-transactions-and-nearly-13-million-active-users-at-the-end-of-2022-1
[8] See, for example, CMA 'Corporate report: Update on open Banking', 5 November 2021, available at https://www.gov.uk/government/publications/update-governance-of-open-banking/update-on-open-banking.
[9] Open Banking Impact Report (March 2023), available at: https://openbanking.foleon.com/live-publications/the-open-banking-impact-report-march-2023/
[10] The PSR Strategy (January 2022), available at https://www.psr.org.uk/publications/general/the-psr-strategy/
[11] See paragraph 2.6 of the PSR Policy statement 'Regulatory framework for the New Payments Architecture central infrastructure services' (December 2021), available at https://www.psr.org.uk/media/yexfxxyn/psr-ps21-3-npa-regulatory-framework-policy-statement-dec21.pdf
[12] See paragraph 1.3 of the PSR Call for input: 'Competition and Innovation in the UK's New Payments Architecture' (January 2020), available at https://www.psr.org.uk/publications/consultations/cp20-2-call-for-input-competition-and-innovation-in-the-uk-s-new-payments-architecture/

promoting the UK as a global hub for cryptoasset technology and investment.[13] HMT and the Bank of England are also continuing to explore the introduction of a 'digital pound' (a UK central bank digital currency) which would be designed for everyday payments by households and businesses and would sit alongside cash.[14]

To conduct a robust forward-looking assessment of competition, the PSR will naturally need to take into consideration the impact of planned and potential future regulatory developments. Given its role as the sector regulator, the PSR is well-placed to assess the impact of such interventions.

<u>Theme 2 - Differences in the competitive dynamics on the issuing and acquiring sides</u>

Visa's scheme and processing services must be understood in the context of Visa's multi-sided payments system which focuses on maximising value for consumers/issuers and merchants/acquirers

Visa notes that the competitive dynamics of the issuing and the acquiring side cannot be assessed in isolation from each other. Rather, as recognised by the PSR in its paper, card payment systems function as two-sided markets, where "*the value of having a payment card increases with the number of merchants that accept that card*"[15] and "*Merchants have a greater incentive to accept a card if there are many cardholders who are willing to use it for making payments*".[16] In operating its multi-sided payment system Visa must ensure that it provides sufficient value to all participants, such that: (a) issuers choose to issue Visa cards and consumers choose to pay with their Visa card; and (b) merchants choose to accept Visa cards and acquirers choose to support merchants' acceptance of Visa cards as a method of payment. Indeed, merchants typically seek to accept a wide range of payment methods (including other than card) such that Visa must deliver value on a per-transaction level by providing, among other things, convenient, fast, efficient and safe payment solutions.

Visa disagrees that 'alternative payments [are still] in their infancy'

As highlighted in our comments on Theme 1, a wide variety of businesses now operate within the payments ecosystem. Visa does not agree that many of these alternative payment services can be characterised as being 'in their infancy'. PayPal is over 20 years old and reported over 400m active global users in the last quarter of 2022[17] and Apple Pay launched in 2014 and is widely estimated to now have over 500m global users. Revolut and Monzo, both established in 2015, have over 25m[18] and 6m[19] global users, respectively. These services are also well-placed to expand into other parts of the payments value chain, leveraging factors such as:

- their direct relationships with end-users (both merchants and consumers) and the scale of these user bases;

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[13] See https://www.gov.uk/government/news/government-sets-out-plan-to-make-uk-a-global-cryptoasset-technology-hub.

[14] See the Bank of England and HM Treasury Consultation Paper, 'The digital pound: a new form of money for households and businesses?', February 2023 available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1134845/CBDC_WEB_PDF_-_7_FEB_2023_1130am.pdf.

[15] PSR (2023) MR22/1.4: Competitive constraints in card payment systems call for evidence, para. 2.4 and fn. 11.

[16] PSR (2023) MR22/1.4: Competitive constraints in card payment systems call for evidence, para. 2.4 and fn. 11.

[17] See Paypal's results for Fourth Quarter 2022, available at https://investor.pypl.com/financials/quarterly-results/default.aspx

[18] See https://www.revolut.com/en-GR/news/revolut_tops_25_million_retail_customers_as_global_expansion_continues/

[19] See https://monzo.com/annual-report/2022/

- their understanding and influence over customer behaviour;
- high levels of brand recognition and trust, through existing products and services;
- access to significant amounts of consumer and merchant data; and
- existing installed bases of devices and/or services to expand payments-related services.

In addition, the UK has established payments infrastructure, such as Faster Payments and Open Banking, which continues to grow in the provision of digital payment services. The volume of Faster Payments increased by 23% to 3.6 billion from 2020 to 2021, and in 2020, Faster Payments were used for 1.1 billion consumer transactions (equivalent to 20 transactions per every UK adult).[20] It is therefore important that the PSR recognises, through the market review, that many significant competitors to Visa have developed and will continue to develop.

It is not the case that different dynamics on issuing and acquiring risk IFR circumvention

The call for evidence refers to some stakeholders' views that differences in market dynamics between the issuing side and the acquiring side could lead to pricing structures that 'could effectively amount to a circumvention of the Interchange Fee Regulation ('IFR')'. Visa questions the PSR's inclusion of a stakeholder comment alleging a risk of IFR circumvention when there is no evidence that this is taking place. As the PSR is aware, there are specific *anti-circumvention* clauses in the same legislation which the PSR upholds, and the PSR itself has been monitoring anti-circumvention with periodic information requests since the inception of the policy.

Theme 3 - The impact of transparency on competitive pressure at all levels of the value chain

Visa does not agree with the characterisation of Visa scheme and processing fees as complex and not transparent, nor that the way in which fees are communicated to issuers and acquirers has an impact on competition in the payment ecosystem.

As previously explained to the PSR, Visa seeks to set out its fees in a clear and transparent way including in fee guides, regular and standardised communication to all clients via the Visa Business News as well as through ongoing tailored support to clients to the extent needed. In addition, in Visa's experience, issuers and acquirers are sophisticated and well-resourced institutions, many of whom have a global reach, and will actively engage with Visa on information received relating to fees as well as negotiate on fees.

As such, end-users (consumers and merchants) are not directly exposed to Visa's fee structure. To the extent that end-users face any complexities in fees, these are more likely to relate to the fees that they are charged by their financial intermediary.

Theme 4 - The 'must-take' status of Mastercard and Visa-branded cards (in many retail environments)

We do not agree that our market position can be characterised as 'must-take' or that Visa can 'leverage' its position without constraint.

This is supported by evidence from the market, including that:

- merchants are under no obligation to accept card payments;
- merchants have chosen not to accept card-based payments in the past;

[20] UK Finance (2022) UK Payment Markets Summary 2022, August 2022

- as highlighted in our comments on Theme 1, there is a range of alternative payment options available to merchants, and this is expected to increase going forward;
- merchants can choose to steer shoppers away from card use in various ways (see more below), and
- even when merchants do offer card-based payment options, there is further competition when it comes to the consumer's choice of which payment method to use for any individual transaction. This choice can also be influenced by the consumer's experience of making the payment, something that the merchant has direct influence over through its direct interaction with the consumer. We are aware of examples where the merchant actively 'steers' consumers towards particular payment options, which we describe in more detail below.

Visa has previously mentioned to the PSR examples of merchants actively 'steering' consumers towards using particular payment options. For instance, Visa is aware of merchants presenting payment options to consumers in a particular order in order to influence their choices in certain online contexts.[21] Such examples are becoming increasingly important as more payments are made online, and the boundaries between face-to-face and online transactions become more blurred, for example where in-person purchases are completed via mobile applications.

Finally, Visa is not able to '*effectively act as [a monopolist]*' as suggested by some of the stakeholder views set out under Theme 4 of the call for evidence. The Visa ecosystem can only be successful if all parties benefit. Any action to concentrate benefits to any one party would result in a negative reaction from another party and so undermine the ecosystem as a whole. For example, if the quality and pricing of Visa's products and services were not able to support downstream services that are competitive and compelling to merchants, then they may look to stop accepting cards. Similarly, if consumers lose trust in the Visa ecosystem or are not confident that their Visa credential will be accepted by a merchant, they will seek and adopt alternatives. As such, card service providers such as Visa are constrained by the full range of payment methods available to end-users.

In addition to some of the stakeholder views summarised in Theme 4 implicitly assuming that there are no competitive constraints beyond the merchant's decision to accept cards, we query whether the PSR's questions have been appropriately formulated. For example, in question 16, the PSR asks, '*do merchants have any alternative to accepting both Mastercard and Visa-branded cards if they decide to accept cards?*'.[22] This fails to account for the fact that the competitive landscape for payments extends beyond card-based products and services. As Visa has expressed in its engagements with the PSR and in the additional comments on Theme 1 provided above, Visa is subject to a range of competitive constraints from various sources.

Visa stands ready to work with the PSR to assist in establishing an appropriate and robust evidence base to answer the questions the PSR raises in the Call for Evidence.

[redacted]

[22] Question 15, Call for Evidence [emphasis added]

Respondents to the working paper – profitability analysis

American Express

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American Express Payment Services Limited: Response to PSR working paper MR22/1.5: Approach to Profitability Analysis

6 April 2023

AMERICAN EXPRESS

Confidential

Scheme and processing fees market review team
Payment Systems Regulator
12 Endeavour Square, London, E20 1JN
By e-mail to: cardfees@psr.org.uk

6 April 2023

Dear Team,

I refer to the Payment Systems Regulator's ("**PSR**") working paper MR22/1.5: Approach to profitability analysis, part of its market review of scheme and processing fees. I am pleased to provide a response on behalf of AEPSL.

The information contained in this document is provided to the PSR for the specific purpose of the market review and is provided on a confidential basis. The disclosure of any commercially sensitive data and/ or business secrets contained in this document could seriously and adversely affect the legitimate business interests of American Express, therefore such information should not be provided to any third parties.

Should you have any queries in relation to the responses provided or if you would like to discuss further, please do not hesitate to contact me.

Yours sincerely,

[redacted]
American Express Payment Services Limited

Confidential

American Express welcomes the opportunity to comment on the Payment Systems Regulator's ("**PSR**") working paper on the profitability analysis it proposes to utilise in the market review of scheme and processing services.

As American Express is not in scope of the market review, the comments below are limited to high level observations with respect to (a) the identification of comparators for the purpose of this analysis and (b) [redacted]

We note that the PSR is proposing to adopt a margin-based profitability analysis. We agree that the main challenge to adopting this approach is that such an analysis will only provide meaningful insights if an appropriate comparator can be found to benchmark against. In principle, a comparator should operate the same business model with the same cost structures and risks (i.e. a four party scheme interbank structure where the scheme does not itself issue and acquire transactions), in a fully competitive environment. As a three party scheme, whereby American Express both issues and acquires transactions in its payment system, [redacted]

The PSR rightly acknowledges that benchmark companies must share characteristics with Mastercard and Visa, particularly around business risk. We also welcome the PSR's recognition in the consultation document that American Express operates as a three party scheme[1] and is therefore fundamentally different to Visa and Mastercard's four party scheme model:

[redacted]

- **UK financial information**:
  - American Express' main UK business entities (American Express Services Europe Limited ("**AESEL**") and American Express Payment Services Limited "**AEPSL**") operate American Express' issuing and acquiring businesses. [redacted]

[1] Paragraph 3.64 of the PSR's "Approach to profitability analysis".

Confidential

- As the PSR is aware, the global American Express network is operated on an integrated basis by American Express Travel Related Services Company, Inc. ("**TRSCO**"), a US entity, which does not separately report financial information for the UK as part of its US financial reporting.

- **Network financial information:**
  - Certain functions relating to the operation of the American Express network around the world may be performed by TRSCO's subsidiaries, not all of which publish financial statements.
  - TRSCO's activities are not limited to the operation of the American Express network. TRSCO is also, among other things, a US acquirer, US corporate card issuer and service provider. TRSCO's financial reporting therefore reflects all of these different activities. There will be shared costs and functions that make it challenging to identify and allocate profits relating only to the network business, and only in a particular jurisdiction.
  - The consolidated global financial information published by TRSCO's parent, American Express Company ("**AXP**"), reports AXP's global network and merchant business as a combined segment. AXP does not separately report costs related solely to the network.
- **Availability and comparability of historical financial information:** [redacted]

[redacted] option that the PSR could consider is to explore whether Visa and Mastercard's operations in another jurisdiction, for example one where strong domestic card schemes compete, would provide an appropriate benchmark.

As a general observation, we note that the PSR acknowledges that both Visa and Mastercard have highlighted difficulties in providing historical financial information. If the PSR seeks to involve third parties as comparators similarly, any requests should not place undue or disproportionate regulatory burden on stakeholders that are not the subject of the market review.

Finally, we note that the PSR refers to a separate project to consider whether additional UK regulatory reporting obligations should be introduced on card schemes. [redacted]

Innovate Finance

MR22/1.4: Competitive constraints in card payment systems call for evidence

MR22/1.5: Approach to profitability analysis working paper

Innovate Finance response to the PSR call for evidence and working paper

About Innovate Finance

Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Innovate Finance's mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

The UK FinTech sector encompasses businesses from seed-stage start-ups to global financial institutions, illustrating the change that is occurring across the financial services industry. Since its inception following the Global Financial Crisis of 2008, FinTech has been synonymous with delivering transparency, innovation, and inclusivity to financial services. As well as creating new businesses and new jobs, it has fundamentally changed the way in which consumers and businesses are able to access finance.

Introduction and key points

Innovate Finance welcomes the opportunity to respond to PSR MR 22/1.4 and 1.5.

In preparing this response, we have consulted with our FinTech start-up and scale-up members that span the issuer and acquirer sides of the discussion. All members are aligned that there is an urgent need to explore constraints on competition and innovation in card payment systems.

Given the competition law considerations around sharing commercially sensitive data, we recommend that the PSR engages bilaterally with our members and the wider FinTech ecosystem.

For transparency, we recommend that the PSR sets out publicly how it intends to engage with a diverse cross-section of industry players to explore these issues in detail.

[ENDS]

Mastercard

Mastercard response to PSR Working paper ‘Working paper: *Market review of scheme and processing fees: Approach to profitability analysis MR22/1.5’*

6 APRIL 2023

Overview

Mastercard welcomes the opportunity to assess and comment on the PSR's proposed approach for assessing profitability within the context of its market review of scheme and processing (switch) fees. Before responding to the specific questions within the Working Paper, we make three comments:

First, it is important that profitability analysis is undertaken and interpreted carefully and is not considered in isolation. The Working Paper acknowledges this approach and recognises that profitability should be considered alongside the other evidence gathered as part of the PSR review, as noted in the CMA's Market Investigation guidance.[1]

Second, in its Working Paper, the PSR presents estimates of Mastercard's operating margins for its card business at European and global levels based on an analysis of statutory accounts. Mastercard will not comment on this analysis since scope of the PSR's jurisdiction and this market review is the UK and we have prepared and submitted a detailed fully-loaded P&L for our card business in the UK, specifically for that purpose. We assume that this will form the basis of the PSR's analysis, rather than any non-UK statutory accounts.

Third, we note that the PSR is considering whether to require Mastercard to provide UK-specific financial information on a regular basis through regulatory financial reporting requirements. We invite the PSR clearly to articulate how this will support it in achieving its four strategic priorities for the card payment system as outlined in its strategy paper published in January 2022. We look forward to the opportunity to provide substantive comment when the PSR publishes a more detailed proposal.

Response to Working Paper questions

For the reasons set out in paragraphs 3.45 to 3.48, we think a margin-based approach to calculating profitability is the appropriate approach for this market review. Do you agree? Please provide reasons for your answer.

The PSR identifies various challenges with the application of a Return-on-Capital (ROCE) approach, including how to properly value Mastercard's intangible assets, the most appropriate criteria for allocation to the UK of assets underpinning Mastercard's global network, and the need to adjust asset values from the Historic Cost Accounting ('HCA') approach.

We raised similar concerns in previous conversations with the PSR and our response to its Information Notice.

Mastercard has therefore prepared a fully-loaded P&L for its card business in the UK and submitted this to the PSR. As the PSR also points out, care needs to be taken when assessing operating margins and when selecting benchmarks. Operating margins do not account for past investments and provide only snapshots of a company's performance at particular points in time.

[1] *'In summary, the CC will consider prices and profitability in the context of its overall assessment of the market. While useful, findings that price-cost margins are wide, or profitability is high in a market do not on their own provide conclusive evidence that the market could be more competitive. Such findings are not in themselves causes of competitive harm—they are not features of the market for the purpose of the [adverse effect on competition] AEC test'.* Competition Commission (2013), 'Guidelines for market investigations: Their role, procedures, assessment and remedies', April. Available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284390/cc3_revised.pdf

Please provide details of any comparator companies that we should use as benchmarks for Mastercard and Visa, including the characteristics that make them suitable candidates, particularly the business risks they face.

It is clearly important that the companies used as benchmarks have considerable similarity with Mastercard. Profitability of companies may be affected by a number of factors including for example the risk profile, capital intensity, and the stage in life cycle; for example, in industries that require large investment outlays up front, returns tend to be low in the investment phase but increase over time as the investment starts to generate income.

There are three points which the PSR should consider in its approach to selecting comparators.

Firstly, the PSR seems to restrict its comparator set to companies that are listed on the New York Stock Exchange (NYSE). It is not clear why the PSR has not considered companies listed on Nasdaq for example, which is home to various companies (including in the technology and software industries). More broadly, the PSR does not explain why it has restricted its analysis only to US-listed companies and ignores those listed in other countries, especially considering that Mastercard is a global company with local operations around the world.

Secondly, the PSR's approach for selecting comparators does not seem to capture an appropriate group of companies. Some of the technology companies that have been included in the PSR's sample construct and sell physical goods such as computers or smartphones; the risks that such companies face may be different compared with those faced by a payments network that acts as a two-sided platform and a franchise model with issuers and acquirers. Similarly, the risks incurred by a company that provides credit to consumers, such as Capital One, are likely to be affected by different types of drivers and macroeconomic factors.

Finally, the PSR also included payment card companies such as American Express and Discover in its comparator analysis. If such companies were to be considered as comparators, then the operating margins for their payment card business segments (excluding their credit portfolio segments) would need to be estimated. The PSR has estimated the operating margins for Discover and American Express for both the payment card business and credit portfolio, which makes their margins an inappropriate benchmark for Mastercard.

In summary, Mastercard believes that further analysis is required to understand the characteristics of its businesses, in order to identify industries and companies with similar characteristics as Mastercard.

All queries in relation to this response should be to Simon Grossman, Vice-President – Regulatory Affairs, Mastercard, 1 Angel Lane, London EC4R 3AB – simon.grossman@mastercard.com – 07890 591 702

Teya (formerly SaltPay)

PSR Card Fees

Approach to Profitability Analysis

Response to working paper MR22/1.5

April 6th 2023

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About Teya

Teya is bringing a one-stop solution to European businesses. Formerly known as SaltPay, Teya combines payment acceptance and business management tools in one ecosystem - including electronic-point-of-sale, merchant account services, a digital loyalty platform, and other software-as-a-service solutions. Teya is headquartered in London, has offices in 15 countries across EMEA, and has 300,000 merchants using its products globally.

Teya exists to ensure that every small, medium and growing business in Europe has the opportunity to thrive. Our payments and business management technology is designed to help the people running businesses to take hassle-free payments, manage their business, and find and reward their customers - all on fair terms. We want to free business owners from the everyday complexities and headaches that stop them from being successful. With our commitment to care and innovation, they can feel confident in making the most of every opportunity and experience the joy of running a business.

Teya welcomes the opportunity to comment on the PSR's working paper regarding its approach for the profitability analysis for the PSR's Market Review into Scheme and Processing Fees.

This profitability analysis plays an important role in helping the PSR understand whether card payment systems are working competitively. Combined with the concerns gathered by the PSR in its initial stakeholder engagement regarding competitive constraints in card payment systems,[1] [redacted]

[1] MR22/1.4: Competitive constraints in card payment systems call for evidence

General Comments on the PSR's Profitability Analysis Working Paper

Stable and high card scheme margins are features of the broken card payment system

The PSR's initial analysis found that the average EBIT margin over the last five years was 66% and 56% for Visa and Mastercard respectively. [redacted]

As the initial benchmark comparisons show, the card schemes' profitability stands out even against companies that are themselves widely recognized as exercising significant market power (Big Tech) and against companies that take significantly more risk than the schemes (credit services). [redacted]

[redacted] Card schemes compete for issuers which only issue with one of the schemes (at a time), rather than for acquirers which must offer the acceptance to both card schemes. This competitive dynamic means that schemes [redacted]. By being able to [redacted] from the acquiring side for each of these pricing instruments, [redacted]. With interchange fees, by setting them multilaterally, this happens directly, and with scheme and processing fees, this happens indirectly, [redacted]. Competition between card schemes, then, incentivizes card schemes [redacted]. Addressing this [redacted] was the impetus of the Interchange Fee Regulation (IFR) which capped consumer debit and credit cards interchange fees and forbade the circumvention of the caps through any other equivalent fees (i.e., scheme and processing fees).

While the expected price [redacted] has been widely discussed, the expected outcome on card scheme margins has been less so. Competition between Visa and Mastercard for issuers mimics price competition under a homogenous product:

- **Price competition.** Issuing banks periodically hold Request for Proposals (RFPs) in which they pit Visa and Mastercard against each other to provide them with the best incentives to issue a card under their respective schemes. The main dimension for issuing bank's decision is which proposal provides them with the most card revenues so the schemes' pricing will be the determining competitive tool.

- **Homogenous product.** At core, Visa and Mastercard are homogenous products in the eyes of issuers which typically alternate between card schemes, even simultaneously issuing different types of cards with different schemes.

Economic theory stipulates that a duopoly competing on price under a homogenous product will end up pricing at marginal cost, as the two companies undercut each other until reaching that level. This is referred to in the literature as the *Bertrand duopoly*. As such, the duopoly's margins would be zero. If the two companies colluded to keep prices (and thus margins) high, the significant reward from deviating from the agreed price would render this sort of coordination strategy very unstable.

Equilibrium outcomes, however, would change if the same duopoly was competing as schemes in a card payment system. In the same way competition between card schemes leads prices to increase, the same dynamic would lead margins to stabilise at high levels. Since the increase in price is felt by the acquiring side and received by the issuing side, we would expect that the increasing impact on margins to be observed in issuing banks' bottom lines, as a function of pass-through to cardholders. [redacted]

[redacted]

[redacted]

In Paragraph 2.2, the PSR states:

> *"As part of our market review of scheme and processing fees, we are investigating the profitability of Mastercard and Visa's UK businesses. This will cast light on whether their fees increase may have resulted in high profits. This paper explains how we intend to estimate and assess their profitability."*

[redacted]

As stated in its response to the Terms of Reference consultation, Teya would like to reinforce the importance of identifying the net flows of funds between the card schemes and issuers/acquirers. Recently, the Reserve Bank of Australia published the results of that analysis for the Australian market which shows a clear asymmetry between net flows to issuers and acquirers.

Table 1 – Scheme Fees (Basis points of value of transactions, 2021/22)

	Gross Fees	**Rebates**	**Net Fees**
Domestic Card Transactions			
Debit Cards			
Issuers	15	13	2

Acquirers	10	1	9
Credit Cards			
Issuers	16	12	4
Acquirers	13	2	11
International Card Transactions in Australia			
All Cards	165	8	157

Source: RBA

The PSR's preliminary results reveal the importance for action in the interim

In its last year's annual plan, the PSR included the following as a possible avenue for action in the interim for its card fees workstream:

> *"Examine the basis for card fees and consider the impact of recent changes. If we identify issues, we'll consider what action we might take to address any harm to merchants and consumers. This could include, if appropriate, introducing shorter-term measures while we complete our longer-term work to promote competition – for example, in the form of price caps on scheme fees or cross-border interchange fees."*[2]

[redacted]

[redacted]

[2] PSR Annual Plan 2022/23, Page 26

Question 1

For the reasons set out in paragraphs 3.45 to 3.48, we think a margin-based approach to calculating profitability is the appropriate approach for this market review. Do you agree? Please provide reasons for your answer.

No. Teya recommends that the PSR conducts both asset and margin-based analyses.

In tandem, both methods can mutually reinforce the robustness of their respective findings

Individually, both methodologies exhibit weaknesses that compromise their results. However, if combined, Teya believes each method can provide a robustness check to the other's results as they fill the gaps of each other's analytical shortcomings.

Indeed, while the asset-based approach is better established for the purposes of the profitability analysis, its execution is made more difficult for asset-light businesses because of the challenge of quantifying intangible assets. [redacted] Asset-based approaches, however, don't need benchmark comparators as they are interpretable and meaningful on their own.

There is precedence of using both approaches in profitability analysis for economic regulation. In a report prepared for the Ofwat on water retail net margins,[3] PwC's approach was to lead with a benchmarking approach but cross-checking the results against the ones obtained from a return on capital approach.

In Teya's view, by conducting both analyses, the PSR will achieve findings which are more robust to criticisms and, as such, upon which the PSR can be more confident to base a decisive regulatory intervention on.

While not without its challenges, an asset-based approach is feasible

To execute on Teya's recommendation of conducting both approaches, the PSR would need to overcome the difficulties posed by an asset-based approach for asset-light businesses such as Visa and Mastercard. This requires quantifying intangible assets which the PSR deems "challenging, if not impossible" (3.28). Teya believes there are robust methods at the PSR's disposal that can make the exercise of including estimates of the card schemes' intangibles into the asset base feasible.

[3] "Water retail net margins: A report prepared for Ofwat", PwC (February 2014)

Teya agrees with the PSR that the main difficulty with the asset-based approach relates to the quantification of intangible assets for the purposes of including them in the asset base, a necessary step for the computation of Visa and Mastercard's ROCE. Yet these difficulties aren't exclusive to Visa and Mastercard. They have been experienced by other economic regulators and competition authorities in addressing asset-light industries, and this had not necessarily deterred them from proceeding with an asset-based approach. Indeed, following concerns that it had underestimated the asset base of its ROCE computation by not including intangibles, the Competition Commission revised its approach in the following manner:

> *"Following this review, we recognized that our previous best estimate as presented in our provisional analysis may indeed have underestimated the value of some of the lenders' intangible assets and so overestimated their ROCE. The actual value of a lender's intangible assets is very hard to estimate precisely. Our approach has therefore been to consider a range, within which we believe it is reasonable to consider that the actual value must fall. As we have continued to receive data throughout the course of our inquiry, we have now sought to use this data in order to revise our valuation. However, rather than seek a best estimate of the actual value of a lender's intangible assets, as we did before, we have this time sought to estimate a maximum value of the lender's intangible assets, above which we consider it is highly improbable that the actual valuation will lie. This maximum estimation might be considered as the top of a plausible range. This estimate should not therefore be compared with our previous provisional analysis, which sought a best estimate of the actual value of a lender's intangible assets but should be compared with the top-end sensitivity analysis which we previously performed. In contrast to that previous sensitivity analysis, though, this estimate of the maximum value of a lender's intangible assets is not based on an arbitrary percentage of other 'tangible' capital employed but rather seeks to use the available data to derive an estimate—though still necessarily making some broad assumptions. From this revised maximum estimate of the value of a lender's intangible assets we can derive a minimum estimate of its ROCE, representing the minimum level of profitability that we believe the lender is at least achieving."*[4]

This approach is also mentioned by Oxera, the same economic consultancy whose work the PSR mention in its working paper, as one of the main approaches to assess retail margins in an asset-light industry: *"Intangible asset analysis, where operating expenses are capitalized as intangible assets to augment the tangible asset base."*[5] [redacted]

[redacted] This exercise would provide the PSR with an important robustness check for its margin-based analysis, enabling it then to be more confident to act on its profitability findings.

Question 2

[4] Competition Commission Home credit market investigation, Appendix 3.7: Revised assessment of profitability, using ROCE, 2006 (Home credit market investigation Appendix 3.7)
[5] "Something for nothing? Returns in low-asset industries", Oxera, 2014

Please provide details of any comparator companies that we should use as benchmarks for Mastercard and Visa, including the characteristics that make them suitable candidates, particularly the business risks they face.

From the two proposed sectors, IT companies represent the most appropriate benchmark

Comparing the card schemes' profitability against that of the IT sector is the most natural choice. As the PSR mentions, this is the sector that both card schemes have historically been classified in using the GICS index.

Naturally, not all companies in the IT sector provide a good comparator as some have significantly different business models to the card schemes, such companies focused more on hardware manufacturing and distribution. However, the comparison to tech companies might prove particularly helpful to assess the appropriateness of the level of profits of the card schemes. Mastercard itself begins its Annual Reports by describing its business as a "technology company". Indeed, several technology companies in the list including Microsoft, Apple, Amazon Inc. share, in one way or another, important similarities to the card schemes' business.

Firstly, the harnessing and monetization of data plays a key role in this sector. This is true more broadly for several of the companies in the IT sector, but especially for platforms such as Visa, Mastercard, and Amazon. [redacted] just as [redacted] leverages merchant data to decide on which product lines to develop on its own. [redacted].[6]

Secondly, investment in intangibles such as brand and reputation is cornerstone for several of these IT sector businesses. Trust plays a key role for both card schemes and tech companies. In the former users must trust that transactions will go through consistently and safely, and in the latter users must trust that their data will be stored and used responsibly. The role that the importance of the reputation of the brand plays is seen by the importance given by tech companies to marketing of which Apple is the prime example. Visa and Mastercard and their effort to appear in some of the most prized advertising spots such as the UEFA Champions League (Mastercard) or the FIFA World Cup (Visa) demonstrates a similar level of importance given to these investments.

Another important similarity with the IT sector is the scale and importance of network effects. Platform businesses with global reach such as Amazon or Meta provide good comparators to Visa and Mastercard in that respect. However, as discussed later, these characteristics come with [redacted]

[6] In Visa and Mastercard's case, by competing with other payment providers in providing products and services related to card.

In many respects, the international card schemes are the original big digital platforms

In recent years, both UK and EU competition enforcers have undertaken ambitious plans to reel in excesses of Big Tech's market power.[7] In the UK these efforts have culminated in the setting up of the Digital Markets Unit (DMU), tasked with overseeing *"a new regulatory regime for the most powerful digital firms"*. The EU is more advanced with the Digital Markets Act (DMA) and the Digital Services Act (DSA) entering into force last November.[8]

In the beginning of its recitals, the EU DMA reads:

> *"At the same time, among those digital services, core platform services feature a number of characteristics that can be exploited by the undertakings providing them. An example of such characteristics of core platform services is extreme scale economies, which often result from nearly zero marginal costs to add business users or end users. Other such characteristics of core platform services are very strong network effects, an ability to connect many business users with many end users through the multisidedness of these services, a significant degree of dependence of both business users and end users, lock-in effects, a lack of multi-homing for the same purpose by end users, vertical integration, and data driven-advantages. All these characteristics, combined with unfair practices by undertakings providing the core platform services, can have the effect of substantially undermining the contestability of the core platform services, as well as impacting the fairness of the commercial relationship between undertakings providing such services and their business users and end users."*[9]

[redacted]

[7] Even recently, the FCA has begun anticipating the full-fledged entry of Big Tech companies into the financial sector and the impact it might have in competition.
[8] Although these pieces of legislation are only expected to be fully applicable in Early 2024.
[9] EU DMA, Recitals, Paragraph 2

[redacted]

A noticeable difference between Big Tech and Visa and Mastercard is that the former sells directly to end-users while card schemes don't. [redacted]

The best comparators aren't operating in competitive markets

The purpose of comparing Visa and Mastercard's margins to comparators would be to, ideally, understand how much above a competitive level they are. As the PSR states: *"we will estimate Mastercard and Visa profits from scheme and processing fees in the UK and assess whether they are too high."* For such a comparison to be meaningful it would have to be done against a competitive benchmark. However, several of the companies that the PSR compares Visa and Mastercard against are themselves earning above competitive level margins.

As Teya argues above, IT companies with global scale with strong network effects such as Apple, Microsoft, or Amazon are amongst the companies that draw the most similarity to the international schemes. However, they are themselves also currently the object of economic regulation in the Europe in the form of the EU Digital Markets Act (EU DMA) and in the UK the incoming Digital Markets, Competition and Consumer Bill. These initiatives are recognition that these sectors are currently not operating in an efficient manner which, among other issues, translates into very high margins. For example, in the context of its Market Study into Mobile Ecosystems, the CMA found that Apple, one of the comparators suggested by the PSR, *"overall business has high average Return on Capital Employed"* and that *"These returns are well above any normal benchmark ROCE level and demonstrates that Apple […] has higher returns than might be expected in a competitive market."*.[10] The same would apply to several of the other comparators whose margins are not representative of a competitive market.

[10] Market Study Final Report: Mobile ecosystems", CMA, June 2022, p.137

Since Big Tech companies, arguably the best comparators to Visa and Mastercard businesses, are also benefitting from low competitive pressures, it's important that the PSR does not conclude that the difference between Big Tech margins and the card schemes' margins is the real difference [redacted]

Visa and Mastercard face lower risks than companies in the credit services

In finding comparators, the PSR correctly mentions the importance of finding similar business risks. Since the purpose of the profitability analysis is to assess the appropriateness of returns, it is important to assess risks taken by the business to obtain such returns as greater risk-taking legitimizes greater returns.

In light of this, the comparison of Visa and Mastercard to companies that offer credit services is, in many respects, inappropriate. Contrary to the companies on the list, Visa and Mastercard's business model isn't based on the provision of credit. Although Visa and Mastercard often act as guarantor to transactions in their systems, which entails a risk if participants default, they are also able to extensively mitigate this risk by imposing strict collateral requirements on their users.

[redacted]

The Startup Coalition (formerly Coadec)

www.coadec.com

Coadec Response to MR22/1.5: Market review of card scheme and processing fees Working Paper: Approach to profitability analysis

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<u>About Coadec</u>:

The Coalition for a Digital Economy (Coadec) is the policy voice of tech startups and scaleups in the UK. Since 2010, Coadec has worked to engage on behalf of tech startups in public policy debates in the UK across a range of priority issues for startups including access to finance, immigration and skills, and technology regulation.

<u>About Axe the Card Tax</u>

Coadec is a member of the **Axe the Card Tax** campaign alongside the British Retail Consortium, the Federation of Small Businesses, the Association of Convenience Stores, the Charity Retail Association and the Federation of Independent retailers.

The Axe the Card Tax campaign is a coalition campaign to end the tax imposed on businesses accepting card payments in the UK – a tax imposed by long standing anti-competitive agreements between UK banks and global payment card schemes, Mastercard and Visa. Regulators must bring this to an end – to enable new competition and innovation in its place.

<u>Response to Consultation Questions</u>

We welcome the opportunity to respond to the PSR's Market review of card scheme and processing fees Approach to profitability analysis Working Paper (**the Working Paper**).

<u>Question 1: We think a margin-based approach to calculating profitability is the appropriate approach for this market review. Do you agree? Please provide reasons for your answer.</u>

No. We disagree with the Working Paper that a *margin-based* (*benchmark-comparator*) approach, rather than an *asset-based* approach, is "*more likely*" to give meaningful results for estimating the profitability of Mastercard and Visa's scheme and processing fee services.

We recommend that, instead, the PSR should keep both approaches, but with greater emphasis on the asset-based approach (subject to our further comments below). This is for a combination of reasons.

First, as the Working Paper notes at 3.62, the lack of a standard framework for comparing and benchmarking operating profits across industries (i.e. for applying a margin-based approach) is what makes it difficult for the margin-based approach to produce meaningful results. The chief challenge with the margin-based approach is identifying meaningful company comparators, as the Working Paper indicates.

As the Working Paper says, "*a margin-based approach […] does not provide an objective measure of profitability […] unlike the asset-based approach*" [4.24]. In contrast, the asset-based/return on capital employed (**ROCE**) profitability measurement approach is well-established, being the "*approach typically preferred*" in regulatory and competition analysis [3.7] and the approach to assessing profitability that the Competition & Markets Authority (**CMA**) and sectoral regulators usually take, as "*it allows a focus on both the levels of investment in a business […], and the returns on an investment […]*" [3.8].

Second, the Working Paper nonetheless says that it has identified practical challenges in applying the asset-based approach to assessing the profitability of UK scheme and processing fees [3.41], including:

- the complexity of obtaining an economic value for Mastercard and Visa's UK assets;
- the requirement to make further adjustments to Mastercard and Visa's assets to achieve a robust assessment of profitability; and
- the difficulty of allocating assets and costs to card schemes' UK operations for scheme and processing activities.

In our view, these practical challenges can readily be overcome. Firstly, obtaining an economic value for Mastercard and Visa's UK assets (i.e. of internally generated intangibles) can readily be undertaken using standard approaches. Secondly, the chief adjustments needed to the card schemes' assets are, in our view:

1. Addition of *internally* generated intangibles;
2. Exclusion of *externally* generated intangibles; and
3. Exclusion of excess cash.

In our view, robust adjustments can be made for all of these issues.

Thirdly, assets and costs should be allocated to the card schemes' UK operations in proportion to UK card transaction value. This is a fair and equitable approach, especially reflecting the relevant common assets and shared costs between the card schemes' UK and wider operations, and associated economies of scale. Furthermore, we disagree with the

PSR's rejection of the asset-based ROCE profitability measurement approach, on grounds of sensitivity of results to assumptions about intangibles and cash.

Overall, we agree that persistently high profits may indicate that a firm faces weak competitive constraints and benefits from market power, as the PSR's preliminary assessment of the card schemes' profitability indicate.

Finally, we agree with the PSR's proposal to require the card schemes to provide the PSR with the card schemes' UK financial information – to help the PSR to carry out its regulatory objectives. We comment on each of these in turn.

An economic value for Mastercard and Visa's UK assets – of internally generated intangibles – can readily be undertaken using standard approaches

We agree with the Working Paper that a business's asset valuation on its balance sheet may not be a true reflection of past investments developing the business, such as investments in brand value or R&D [3.27]. We disagree, however, that a robust estimate of the appropriate level of intangible assets, such as brand value, is impossible or necessarily challenging [3.29].

Firstly, we agree that intangibles (chiefly "*goodwill*") recorded on a company's balance sheet should be excluded (or materially adjusted) when evaluating underlying economic profitability [3.33]. Secondly, we agree that accounting values on a company's balance sheet will exclude internally generated intangibles/goodwill, such as relating to the brand, relationships with customers, etc. This is because Generally Accepted Accounting Principles (**GAAP**) do not allow the recognition of such assets for accounting and financial reporting purposes [3.34].

We disagree, however, that such internally generated goodwill is difficult to measure and/or that any such measure would necessarily include an element of future supernormal profit that would need to be further adjusted [3.34]. On the contrary, the CMA has developed approaches for estimating internally generated intangibles in the course of various market investigations. To the best of Coadec's knowledge, this was most recently applied in the Competition Commission (**CC**)[1] 2006 Home credit market investigation[2], namely:

> "*[The] value at which assets are recognized in company balance sheets may not always reflect their economic value and certain intangible assets may not be recognized at all. In order to reflect more accurately the profitability of a company for*

[1] A predecessor body to the CMA.
[2] See Competition Commission Home credit market investigation, Final report, 2006.

the purposes of a competition assessment, it is sometimes necessary to adjust the [profit before interest and tax (PBIT)] and the capital employed used in the calculation of ROCE, both for intangible assets and possibly for other items, either to include items not included or to revalue certain items.”[3]

“*In the SME banking inquiry, […] the CC identified the following categories of intangibles, which were possible candidates to be included in the capital base:*

a. *corporate reputation (brand);*
a. *a trained workforce;*
b. *the customer base; and*
c. *IT systems and development costs.*”[4]

“*[Hence, for example] costs relating to recruiting and training […] staff should be capitalized [to recognise the intangible value of such a trained workforce].*”[5]

“*The actual value of a [firm's] intangible assets is […] hard to estimate precisely. Our approach has therefore been to consider a range, within which we believe it is reasonable to consider that the actual value must fall [… including] a maximum value of the [firm's] intangible assets […which] might be considered as the top of a plausible range […and therefore] a minimum estimate of its ROCE, representing the minimum level of profitability that we believe the [firm] is at least achieving.*”[6]

“*Our analysis […therefore] sought to identify all intangible assets which were not previously recognized on the companies' balance sheets […where such an intangible] asset is defined as an expenditure from which the business derives future economic benefit, rather than current benefit.*” [7] [10]

In our view, the PSR should apply the same approach to estimating Mastercard and Visa's intangible assets (i.e. a range, including maximum value) namely by capitalising Mastercard and Visa's relevant expenditures that give rise to future benefits. Specifically, this includes Mastercard and Visa's:

- brand value – i.e. marketing and advertising expenditure (i.e. brand value);

[3] Competition Commission Home credit market investigation, Appendix 3.6: Provisional assessment of profitability, using return on capital employed, 2006 (**Home credit market investigation Appendix 3.6**) [5].
[4] Home credit market investigation Appendix 3.6 [30].
[5] Home credit market investigation Appendix 3.6 [36].
[6] Competition Commission Home credit market investigation, Appendix 3.7: Revised assessment of profitability, using ROCE, 2006 (**Home credit market investigation Appendix 3.7**) [4].
[7] Home credit market investigation Appendix 3.7 [10].

- trained workforce – i.e. staff recruitment and training costs;
- customer base – i.e. costs of acquiring issuer and acquirer customers; and
- IT – i.e. IT systems and development costs.

Among other things, this approach avoids including an element of future supernormal profit in the value of such intangibles, as it only includes the expenditure that the firms have made in creating such assets (rather than how investors might value such assets, which would inevitably include future expected supernormal profits).

In summary, the PSR should then be able to make robust estimates of Mastercard's and Visa's internally generated intangibles, or at the least the maximum plausible levels of these, and therefore the minimum levels of economic ROCE (i.e. adjusted to include intangibles) that Mastercard and Visa are generating.

Robust adjustments can also be made to other card schemes assets, i.e. internally generated goodwill and cash

Firstly, we agree with the Working Paper that externally generated intangibles (primarily goodwill on acquisition) should be omitted from the card schemes' capital employed, for the purpose of profitability assessment (and thereby replaced with internally generated intangibles).

Secondly, we agree with the Working Paper that Mastercard and Visa may use high cash balances as liquidity for payment settlement or for other day-to-day card scheme operations, whereas cash balances considerably higher than that required for day-to-day operations should be used to invest in new projects, expand the business or be returned to shareholders. It could be a fair assumption to make that, recognising Visa and Mastercard's market dominance, and limited scope for expansion, the most likely direction for excess cash balances will be to return it to shareholders.

Hence, for the purpose of economic profitability assessment, the PSR should assume that such excess cash balances (including cash equivalents and investment security current assets) beyond that which might reasonably be needed as liquidity for payment settlement or for other day-to-day card scheme operations should be assumed to be returned to shareholders, i.e. deducted from Mastercard's and Visa's capital employed (along also with associated deduction to Mastercard and Visa profits for interest earned on such excess cash).

Not doing so will only have the effect of causing volatility in the estimated ROCEs, as the PSR recognises (at [3.37]) and also of unduly diluting the estimated economic ROCEs (by disregarding the potential returns that those excess cash balances could have generated).

Attribution of Mastercard and Visa assets and costs to the UK card schemes can readily be made

The PSR Working Paper says that "*there is not a clear, economically unambiguous way of allocating*" Mastercard's and Visa's assets (or costs) to their UK businesses [3.45]. We disagree. For Coadec, the most obvious way to allocate Mastercard and Visa's assets and costs to their UK businesses is in proportion to total card transaction value (i.e. UK versus wider business card transaction value).

In that way, if the level of Mastercard and Visa's scheme and processing fees were the same (for example) across their European businesses, then the levels of their estimated scheme and processing fee profitability would also be the same. In contrast, if Mastercard and Visa's scheme and processing fees were higher in the UK than the rest of Europe (i.e. as a percentage of card transaction value) then Mastercard and Visa's UK profitability would also be correspondingly higher.

In our view, it is a reasonable assumption therefore to allocate assets and costs in this way (i.e. in proportion to card transaction value), especially given the considerable geographic scale and scope economies that Mastercard and Visa have, and associated common costs that Mastercard and Visa's UK operations share with their wider businesses, and must be implicitly or explicitly reflected in the economic profitability assessment.

In Coadec's view, this approach would be better than allocating costs (and assets) in proportion to revenue (i.e. as the Working Paper suggests, at [3.55]), as such approach would implicitly assume the same level of profitability across Mastercard and Visa's UK and European businesses (by definition), even if the level of scheme and processing fees were substantially different in the UK (compared to the rest of Europe).

"We note also that Mastercard and Visa's functions that are unrelated to scheme and processing services are a relatively insignificant part of Mastercard and Visa's businesses (in terms of revenues). Hence, in our view, these can be safely disregarded as not impacting on the profitability assessment of scheme and processing fees. We nonetheless note significant UK/European acquisitions by Mastercard and Visa in recent years, such as VocaLink (Mastercard) and Tink (Visa), that further cement the card schemes' control over the wider UK payments market.

We agree with the PSR's proposed time frame

We agree that the PSR should consider Mastercard and Visa's profitability for a minimum five-year period, i.e. 2017/18 to 2021/22.

We are surprised that the Working Paper says that Mastercard and Visa's profits were reasonably/broadly consistent over the 2017-21 period, especially given the widely reported increases in Mastercard and Visa's scheme and processing fees over this period, the card schemes' main source of revenue and profit.

It will be difficult for the margin-based/benchmark comparator approach to produce meaningful results

The Working Paper highlights that it needs benchmarks to provide a measure of whether Mastercard and Visa's operating profits are appropriate for their level of risk [3.62] – for the purpose of applying the margin-based/benchmark comparator approach – and that suitable comparators may include businesses operating in competitive markets with similarities to Mastercard and Visa in appropriate key areas [3.63].

In our view, it will be difficult to find such benchmark comparators.

Question 2: Please provide details of any comparator companies that we should use as benchmarks for Mastercard and Visa, including the characteristics that make them suitable candidates, particularly the business risks they face.

As above, in Coadec's view, such readily available (competitive) comparator companies do not readily exist. This is primarily because there are no companies with sufficient similarities to Mastercard and Visa (i.e. exhibiting large network effects and associated economies of scale) that also operate in competitive markets.

On the contrary, companies demonstrating large network effects and global scale economies will almost certainly not operate in competitive markets. This itself is the prime reason for *economic regulation* of such industries, as well also new regulation of digital markets, including the UK Digital Markets Unit (**DMU**) and EU Digital Markets Act (**DMA**), Such regulation is in recognition of the substantial network effects, global scale economies, and associated absence of competitive constraints and high profitability in such sectors.

For example, the Working paper suggests that Amex and PayPal could be considered as comparators to Mastercard and Visa, even though they have differences in business model

[3.64]. Additionally, these firms do not possess nearly comparable scale to Visa and Mastercard.

The Working Paper says though that it has benchmarked Mastercard and Visa against companies listed in the IT sector, of which the biggest was Apple [4.26]. In our view, such a comparison illustrates the problem with the margin-based/benchmark comparator approach, as:

- as found by the CMA in its recent Mobile ecosystems Market study[8], Apple is "*highly profitable*", measured by either ROCE or profit margins[9]; and
- Apple has "*substantial and entrenched market power*" as it operates in a market characterised by "*limited effective competition […and] significant barriers to entry and expansion*" [10].

Overall, the absence of suitable comparators reflects the lack of standard framework for comparing and benchmarking operating profits across industries, as the Working Paper describes [3.62].

Hence, as Figure 4 (and 9) of the Working Paper shows, comparing Mastercard and Visa's profit margins with Apple's shows only that Mastercard and Visa are *even* more profitable than (by approximately two times, or 100%). This can only then be interpreted as Mastercard and Visa being characterised by *even* greater entrenched market power, limited competition (if any) competition, and associated near-insurmountable barriers to entry and expansion than Apple.

We agree with the PSR's proposed regulatory financial reporting approach

We strongly agree that Mastercard and Visa should be subject to UK specific regulatory financial reporting requirements – and that this would have allowed the PSR to have conducted its review at a faster pace [3.66] and allow the PSR to regulate in a more effective manner in general [3.67].

We note that all other sectors subject to economic regulation in the UK are subject to regulatory financial reporting requirements.

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[8] CMA Mobile ecosystems Market study final report, 2022 (**CMA Mobile ecosystems Market study final report**).
[9] CMA Mobile ecosystems Market study final report, [2] Overview of mobile ecosystems: Key findings (p. 9).
[10] CMA Mobile ecosystems Market study final report, [3] Mobile device and operating system competition: Key findings (p. 28).

The PSR's profitability analysis of scheme and processing fees should also adjust for Mastercard and Visa "Client incentives"

Last, in estimating Mastercard's and Visa's ROCE (or profit margins), we agree with the Working Paper that operating profit is the best measure of underlying profit that a company delivers to its investors, and therefore should exclude interest, dividends, tax, and one-off exceptional items [3.13].

In our view, the best measure of underlying profit should be stated gross of "incentives" paid to issuers (e.g. as referenced at [3.25] and [3.28] of the Working paper), as such incentives are themselves just another form of profit, i.e. profit paid to issuers, rather than a necessary cost borne by the card schemes.

Visa

VISA Europe's Response to the PSR's Working Paper on approach to profitability analysis, April 2023

Executive Summary

Visa Europe (referred to as 'Visa' in this document) is pleased to respond to the Payment Systems Regulator's ('PSR') Working Paper on profitability analysis, published on 23 February 2023. We welcome further engagement with the PSR on this topic as it progresses its market review.

The PSR correctly identifies that profitability analysis cannot be relied upon in isolation to assess whether the market is working well and needs to be considered alongside other evidence. In one of the examples cited by the PSR, the CMA noted (in its market investigation on investment consultants) that "….*profitability is only one of the outcomes of the competitive process we consider*."[1]

In this light, we observe that the PSR's review of profitability:

1. Seems to be taking precedence over other areas that the PSR should be exploring as part of its market review.
2. Cannot reflect a forward-looking view of competitive dynamics in UK payments.
3. Is based (at this stage) on a nascent understanding of the sector and how Visa's business operates.

We therefore urge the PSR to prioritise engaging with the sector on the broader evidence base for the market reviews and also, as part of this, establish a forward-looking view of competitive dynamics in UK payments. We also request that the PSR continues to engage with Visa on its assessment of the market and Visa's operations, including analysing Visa's profitability, given the complexities and technical nature of our business and market we operate within.

Our response expands on the three points above. Additionally, in Annex 1, we set out some challenges around margin analysis, and in Annex 2, we address some specific mischaracterisations in the PSR's Working Paper.

Evidence gathering

As the PSR notes in the Terms of Reference for the scheme and processing fees market review, the overall objective of the market review is to understand whether the supply of scheme and processing services is "*working well*" for service-users[2]. To achieve this, the PSR noted that it will look at a wide range of areas including, among others, the competitive dynamics and landscape in the provision of payment services, the process by which Visa sets its fees, and innovation in the provision of new services/service components. Indeed, assessment of profitability was only one of 15 specific areas the PSR identified that it plans to examine[3].

However, given the inherent and recognised uncertainties around profitability analysis, (including margin analysis), its role in informing the market review conclusions should be carefully considered. We therefore recommend that the PSR considers where its efforts and resources are most appropriately utilised. For example, we remain unclear at this stage how the PSR will be exploring the critical topic of cardholder and merchant outcomes.

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[1] CMA, Investment Consultants Market Investigation (December 2018) Appendix A7.

[2] PSR, Market review of card scheme and processing fees Final terms of reference paragraph 3.3. (October 2022). We note the PSR lists issuers, acquirers and merchants in this paragraph 3.3, but cardholders should also be part of the PSR's assessments.

[3] PSR, Market review of card scheme and processing fees Final terms of reference paragraph 3.5. (October 2022).

Competitive dynamics

Any analysis of profitability is by definition backwards looking, i.e. profitability represents the return on investments made over several decades. Today, the UK Payments sector is undergoing a period of great dynamism and change with significant market entry driving greater choice in the ways of making payments, from fintechs implementing new technology solutions (Monzo, Revolut); more established technology companies implementing payments into their services (Amazon, Apple), global payments players with an increasing interest in the UK market (AliPay, WeChat), and policy interventions (Open banking, NPA). The PSR's recent Annual Plan also recognises changes in the market, for example stating: "*We're seeing significant growth in account-to-account payments, including those initiated within open banking*"[4].

It is critical for the PSR to establish a forward-looking view of competitive dynamics in UK payments in its market reviews. As set out in further detail in our response to the PSR's Call for Evidence on Competitive Constraints, the PSR's forward-looking view should consider the following points:

- The PSR's review should recognise the increasing complexity of the UK (and global) payments sector and the impact on competitive dynamics. Competition in payments is not limited to just competition between card schemes. While competition between card schemes is already significant, card payments networks also face significant and growing competition from existing and potential alternative payment networks and methods, as well as from other providers of payment solutions present within the card payments value chain.
- The PSR's review should reflect the evolving nature of consumer and merchant choice of payment solutions. UK cardholders and merchants are becoming increasingly sophisticated end-users of payment solutions, with evolving preferences and use cases in terms of how to pay and be paid. As a greater proportion of consumers and merchants become digitally active (and native), there will continue to be significant implications on the competitive dynamics in the UK payments sector.

Visa is pleased to see that the PSR appears to be considering competitive dynamics on a forward-looking basis,[5] and urges the PSR to place greater emphasis on the significant and rapid evolution within the payments sector and the impact this has on competitive dynamics.

Stage of market review

Finally, we note that the PSR's Working Paper represents only its initial view on the proposed approach to assessing the profitability of card scheme operators, being only one of many factors that the PSR is considering as part of its market review. Visa notes that it has provided a significant volume of evidence on a number of different factors relevant to the PSR's review, including following the publication of the profitability Working Paper itself.

We request that the PSR continues to engage with Visa on its assessment of the market and Visa's operations, including Visa's profitability, given the complexities and technical nature of our business and market we operate within.

In the Annexes that follow, we set out some of the examples of challenges around margin analysis (Annex 1), and we address some specific mischaracterisations in the PSR's Working Paper (Annex 2).

[4] PSR, Annual Plan 2023/24 page 10. (March 2023)

[5] See for example the PSR's Call for Evidence on Competitive Constraints.

Annex 1 - Challenges with margin analysis

We provide some important considerations for the PSR below on margin-based approaches. While a margin-based approach may appear superficially straightforward to perform, it involves a significant degree of complexity which is not sufficiently identified in the PSR's Working Paper. In particular:

- Margins calculated by reference to the financial statements are accounting measures of profitability (reflecting accounting standards, judgments and policies applied) and not economic measures of profitability. Margins do not therefore necessarily say much about economic profitability. In particular, there is no such thing as a *robust operating profit percentage* in the context of assessing economic profitability[6]. Consequently, understanding why different firms may have higher or lower margins based on their accounting data is not straightforward.
- Further to the above, any margin-based assessment requires comparing data *between* companies, which is very complex and challenging due to data comparability and other issues. For example, different companies may have different accounting standards, and even where the same accounting standards are used, specific policies and judgments might differ that can cause significant differences in margins (depending on the margin examined). These include: (i) whether R&D costs are capitalised or expensed; (ii) the recognition of assets and hence depreciation / amortisation that are not recognised if internally generated; (iii) estimates of the useful economic life of assets; (iv) impairment policies; (v) the treatment of one-off costs; and (vi) the effects of leasing assets.
- As the PSR acknowledges, there are difficulties in identifying comparators for the purposes of margin benchmarking, for example due to different business models and stages of growth. As such, there is significant subjectivity when identifying comparators. The PSR's initial analysis compares Visa Inc. and Mastercard Inc. to the "IT" and "credit services" sectors listed on the NYSE but does not explain how it will address the comparability issues.
- A further complication is that the PSR will be relying on bespoke UK-specific accounting allocations provided by Visa (and we assume the same may be true of Mastercard). By definition, UK-specific bespoke allocations will not be available to the PSR for any of the comparator companies (for which we understand the PSR would rely on public information).
- Finally, the PSR has referred to how it may analyse "UK" profitability and potentially separately for scheme and processing activities[7]. However, the PSR has not indicated that it will consider the profitability of different services or groups of services within each of scheme and processing activities. We recommend that the PSR considers the complexity of the payment sector and understands the extent to which different services or groups of services could have different levels of profitability, and the reasons for any differences.

[6] PSR Working Paper, para 3.20.

[7] PSR Working Paper, paras 3.50 to 3.55.

Annex 2 – Specific mischaracterisations in the PSR's Working Paper.

We are concerned by certain mischaracterisations in the PSR's Working Paper. In particular:

- When showing some figures related to Visa's and Mastercard's European profitability, the PSR made an adjustment for intercompany charges for Mastercard but no equivalent adjustment for Visa. We asked the PSR to clarify one of the graphs presented, which omitted this adjustment and therefore showed (misleadingly) that Mastercard Europe's profitability is significantly lower than Visa Europe's. Our request was rejected, which concerns Visa as it does not serve the market review process well if misleading (or even potentially misleading) analyses are published by the PSR.
- At 3.19, the PSR states that the margin-based approach "*does not require information on capital employed or information on the assets that comprise it*." This is incorrect, since margins are affected by the capital employed through depreciation and amortisation charges, or if certain costs are expensed (in particular if costs are expensed outside of the review period) rather than capitalised. A robust margin analysis should consider the asset bases of the firms and any differences between them.
- While the PSR shows that EBITDA, EBIT and PBT are all broadly similar *to each other* for both Visa and Mastercard, the PSR's Working Paper fails to acknowledge this may not be the same for any other comparator company.

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