

Completed acquisition by Diebold, Incorporated of Wincor Nixdorf AG

Provisional findings report

Notified: 20 December 2016

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The Competition and Markets Authority has excluded from this published version of the provisional findings report information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Some numbers have been replaced by a range. These are shown in square brackets. Non-sensitive wording is also indicated in square brackets.

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Glossary

Summary

1. On 30 August 2016, the Competition and Markets Authority (CMA), in exercise of its duty under section 22(1) of the Enterprise Act 2002 (the Act), referred the global acquisition by Diebold, Incorporated (Diebold) of Wincor Nixdorf AG (Wincor) (the Merger) for further investigation and report by a group of CMA panel members (the Group). Throughout this report, where relevant, we refer to Diebold and Wincor collectively as the Parties.
2. Diebold is a US public company and a provider of financial self-service (FSS) products and solutions. These include (i) services; (ii) software; and (iii) hardware (essentially terminals which are also referred to as automated teller machines or 'ATMs').
3. Wincor is a German public company serving customers in the financial and retail sectors and provides FSS products and solutions, comprising: (i) hardware (including ATMs); (ii) software; and (iii) IT services. In addition, Wincor also offers 'point-of-sale' (POS)¹ solutions and self-service solutions designed for retail customers.
4. ATMs are machines which dispense cash and which may also offer facilities such as cash/cheque deposit, transaction enquiry, printed statement, account-to-account transfer, bill payment or PIN change.² Some ATMs also provide options for topping up mobile phones and electronic wallets and making charitable donations, as well as options to withdraw foreign currency.³ There are two main categories of ATMs – customer-operated and teller-assist.
5. In addition to the Parties, there are a number of other competitors in the UK. These include NCR, the largest ATM provider both globally and in the UK, and other competitors including Hyosung, GRGI and Triton. There are around 30 customers who own the ATM installed base in the UK. These include banks and financial institutions, which deploy ATMs in branches as well as at off-branch sites; and independent ATM deployers (IADs) which typically deploy ATMs at various sites, including in shops and supermarkets.
6. Following a voluntary public offer to Wincor shareholders, Diebold acquired majority ownership and control of Wincor, including its UK subsidiaries on 15

¹ POS refers to the point—or location—where a sales transaction takes place, such as a checkout line or retail counter. A POS system is the term used for the combination of computer hardware and software that manages the sales transaction.

² Retail Banking Research, (2016) *ATM Hardware, Software and Services 2016*. Volume 1. Introduction section, p iv. This report is referred to as 'RBR report, 2016' in the remainder of this paper.

³ Payments UK, (2016) *UK Cash and Cash Machines*, p11. This report is referred to as 'Payments UK, 2016' in the remainder of this paper.

August 2016 (the 'Merger'). The combined organisation began operating as Diebold Nixdorf on 16 August 2016. In the UK, the Diebold and Wincor brands and operations remain distinct pending the completion of the CMA's review of the Merger.⁴

7. We are satisfied that the Merger has resulted in a relevant merger situation.
8. In order to identify the relevant market within which to examine the competitive effects of the merger, we first defined the product market before examining issues relating to geographic market definition:
 - (a) The assessment of the relevant product starts with the products of the Parties: both Diebold and Wincor overlap in the supply of ATM hardware, FSS software and FSS services in the UK. Our review of evidence from the Phase 1 investigation⁵ shows that there are unlikely to be competition concerns in the supply of FSS software and services. We have therefore focused our investigation on the supply of ATM hardware.
 - (b) We sought evidence from customers about the substitutability of different types of ATM hardware: teller-assist ATMs, kiosks and customer-operated⁶ ATMs. We found that teller-assist ATMs and kiosks are not substitutes for customer-operated ATMs either on the demand or the supply side. Customers would not choose a teller-assist ATM (which is designed to be used by a bank teller to assist with in-branch transactions) or a kiosk (which does not dispense cash or accept deposits) over a customer-operated ATM, as they serve different functions. Similarly, we found that it would not be easy to adjust production and shift capacity to manufacture either teller-assist ATMs or kiosks without incurring significant costs or delay.
 - (c) We also sought evidence on the appropriateness of customer segmentation and whether any effect of the merger on competition to supply banks and IADs required a different analysis. We looked at the ATMs sold by the Parties and NCR to banks and IADs, evidence from internal documents and whether customers had different requirements. We also considered the extent of any links between customers' purchases of hardware and purchases of software or services. The evidence shows that suppliers distinguish between banks and IADs and that customers

⁴ The CMA put interim measures (consisting of an [Initial Enforcement Order](#), a ring-fence and derogations) in place on the same date, shortly after the transfer of the shares. These interim measures require Diebold to hold separate the UK operations of Wincor.

⁵ [Phase 1 decision document](#).

⁶ We use the term customers to refer to the purchasers of ATMs. This is distinct from the term customer-operated ATMs which refers to ATMs used by the public.

consider suppliers to have different competitive strengths when serving banks or IADs. The evidence also indicated that the strength of preference for bundled products varies amongst customers, and that in any event, customers could choose to unbundle products in the event of a price rise. However, the evidence also shows that differing customer requirements, including any interplay with the purchase of software and services, are not fully explained by whether the customer is a bank or an IAD. We therefore provisionally conclude that there is a tendency for requirements to differ but there are also material overlaps. As a result, we have not defined separate customer markets, or a relevant market for bundled services, but have taken account of these variations in our competitive assessment. We have therefore provisionally concluded that the relevant product market is the supply of customer-operated ATMs.

(d) In order to define the geographic market, we considered a number of factors: the geographic location of the manufacturing facility of suppliers, availability of local support services and the need for reputation in the UK. Customers generally told us that they did not attach any weight to the location of the manufacturing facility but identified the other factors as important to greater or lesser degrees. We have therefore provisionally concluded that the relevant geographic market includes all suppliers that actively participate in competitive processes to sell customer-operated ATMs, regardless of the extent of their local operations. However, we have sought to take into account variations in customers' requirements and preferences for local operations and the ability of suppliers to compete for customers with those requirements and preferences in our competitive assessment and the assessment of entry and expansion. We therefore provisionally conclude that the relevant market in which to assess the competitive effects of the Merger is the market for the provision of customer-operated ATMs in the UK, recognising that, within this category, there are variations in the competitive constraints faced by the Parties which are taken into account within the assessment of the competitive effects of the Merger.

9. Before turning to our analysis of the competitive effects of the Merger, we considered what would have happened to the Parties in the absence of the Merger (the counterfactual).
10. In order to make this assessment, we obtained evidence from the Parties about the rationale for the merger and how it was conceived and structured. There is no evidence to suggest that absent the merger one of the Parties would have exited the market, either globally or in the UK, or that Wincor would have looked for another purchaser. Based on this evidence, we provisionally conclude that the most likely counterfactual is that the Parties

would have continued to operate on a stand-alone basis, globally and consequently in the UK.

11. We next turned to the assessment of the effects of the merger on competition in the UK. We first examined the nature of competition before the merger, and in particular the bidding processes which characterise the purchase of ATMs and the strength of the constraint imposed on each other by the Parties and by other suppliers.
12. We examined how tenders in the market for customer-operated ATMs work and how this might affect our assessment. In particular we examined whether contracts are tendered through auction processes such as ‘first-price’ auctions and ‘second-price’ auctions and as a consequence whether all competitors impose a constraint on suppliers, or whether only the marginal bid (that is, the closest competitor to the winner) is of exclusive importance in constraining the winner.
13. We examined bidding data from recent tenders including information available to suppliers during tenders and the levels of margins that losing suppliers would have expected to realise had they won a tender. We found that tenders in this market tend to proceed on the basis of sealed bids, with more than one round of bidding and with some limited information flow to suppliers about the state of competition at later stages. We also saw evidence that prospective margins on losing bids were similar to prospective margins on winning bids. On the basis of the evidence we have seen we believe that, although these tenders do not fit neatly within the pure ‘first price’ or ‘second price’ frameworks set out in the economic literature, suppliers take into account the risk of losing to multiple bidders when bidding and therefore we consider all suppliers that compete in a tender could exert a competitive constraint.
14. Against this background we looked at additional evidence on the credibility and competitive strength of each supplier’s offering. We note that the largest supplier of customer-operated ATMs in the UK is NCR, followed by Wincor and Diebold which has made significant inroads over the last four years following its decision to “re-emerge” in the UK market.
15. While NCR’s market share suggests that NCR is by far the strongest competitor for customers of ATM hardware generally, Diebold and Wincor have material shares of supply, particularly in relation to banks. Our review of internal documents indicates that Diebold and Wincor appear to take into account the risk of losing to each other, and to NCR, when setting prices and that they only identified themselves and NCR as the main competitive threats with very limited mentions of other suppliers. In addition, our review of bidding

data shows that each of NCR, Diebold and Wincor is a strong and credible competitor, representing viable alternatives for customers of ATM hardware.

16. We also assessed customers' views on the competitiveness of other suppliers and their views on the Merger. The evidence we received suggests that other competitors to the Parties, with the exception of NCR, exert a weak constraint. Customers' views on the Merger varied. Some customers were concerned that support for products would no longer be available and that there may be a loss of competition. However, these concerns were qualified if support were to be guaranteed and by the prospect of future entry, as well as reduced transaction costs from having one single supplier and other complementarities between the Parties, such as improved services and software offer.
17. Finally, we considered whether it was likely that entry or expansion by other suppliers and/or buyer power might be timely and sufficient to prevent a substantial lessening of competition (SLC) and whether there were efficiencies that would result in enhanced rivalry.
18. We considered whether reputation, provision of local maintenance services, certification requirements and ability to comply with specific design requirements represented barriers to entry. We provisionally concluded that whilst barriers to entry and/or expansion can be overcome, certain customers, banks in particular, tend to be more demanding in terms of reputation, availability in the UK of reliable and competitive SLM services, local presence in terms of complementary support services and certification. This means that the choice of an entry or expansion strategy by a supplier which does not address those requirements may place a supplier in a weak position when bidding for contracts with those customers.
19. We considered that some expansion by both Hyosung and GRGI may occur at some point in the future, particularly in the IAD segment.
20. However, on the basis of the evidence we have received, we are of the view that neither GRGI nor Hyosung would expand within the time horizon of around two years, nor do we expect that they would be as strong a competitor as Diebold over the next two years, even if their expansion were timely.
21. We therefore provisionally conclude that any expansion would be unlikely to occur within a time frame or on a sufficient scale to prevent the loss of competitive constraint from the merger.
22. Finally we considered buyer power and came to the view that taken in the round, although there may be options available to customers including switching suppliers, purchasing refurbished ATMs, delaying replacement or encouraging new entry, these all come with a cost. We have however seen no

evidence that customers would be willing to financially sponsor an entrant or to assure guaranteed levels of business. We have not seen any evidence that the ability of customers to use size to increase their buyer power would become greater post-Merger compared to the counterfactual. Furthermore, we believe that even in the event that some customers had countervailing buyer power arising from size, this would not protect medium and smaller customers of which there are many in the market.

23. In relation to efficiencies, we have not seen any relevant and specific evidence of how the merger would create an even more competitive entity.
24. In view of the above, and taking into consideration all the evidence we have received during the course of the investigation, on balance, we provisionally conclude that the completed acquisition of Wincor by Diebold may be expected to result in an SLC in the market for the supply of customer-operated ATMs in the UK.

Provisional findings

1. The reference

- 1.1 On 30 August 2016, the Competition and Markets Authority (CMA), in exercise of its duty under section 22(1) of the Enterprise Act 2002 (the Act), referred the completed acquisition by Diebold, Incorporated (Diebold) of Wincor Nixdorf AG (Wincor) (the Merger), for further investigation and report by a group of CMA panel members (the Group).
- 1.2 In exercise of its duty under section 35(1) of the Act, the CMA must decide:
 - (a) whether a relevant merger situation has been created; and
 - (b) if so, whether the creation of that situation has resulted, or may be expected to result, in a substantial lessening of competition (SLC) within any market or markets in the UK for goods or services.
- 1.3 Our terms of reference are in Appendix A. We are required to publish our final report by 13 February 2017.
- 1.4 This document, together with its appendices, constitutes our provisional findings, published and notified to Diebold and Wincor in line with the CMA's rules of procedure.⁷ Further information relevant to this inquiry, including a non-confidential version of the initial submission received from Diebold and Wincor, as well as summaries of evidence received in oral hearings, can be found on our [web pages](#).
- 1.5 Throughout this document we refer to Diebold and Wincor collectively as 'the Parties' and to the combined entity as 'the Merged Entity' where appropriate.

2. The Parties and the industry in which they operate

Diebold

- 2.1 Diebold is a US public company and is headquartered in North Canton, Ohio, USA. It is a provider of financial self-service (FSS) products and services. These include (i) services; (ii) software; and (iii) hardware (essentially terminals which are also referred to as automated teller machines or 'ATMs'). As of June 20 2016, Diebold employed approximately 15,000 employees with businesses in more than 90 countries worldwide.

⁷ *Rules of procedure for merger, market and special reference groups*, (CMA17) Rule 11.

- 2.2 Diebold's manufacturing sites are located in Belgium, Brazil, China, Hungary, India and the USA.
- 2.3 The total turnover of Diebold in 2015 was approximately £1.6 billion worldwide.⁸ About [X] of its total revenue came from software and services, and the remaining [X] from hardware.
- 2.4 North America was Diebold's largest market, which accounted for [X] of its 2015 revenues, followed by Latin America and Asia Pacific regions with shares of revenue of [X] and [X] respectively. Europe, Middle East and Africa (EMEA) region represented [X] of Diebold's global revenues.⁹

Diebold's UK operations

- 2.5 Diebold's history in the UK comprises three phases:
- (a) Between 1991 and 1998: Diebold was in a joint venture with IBM called InterBold. InterBold sold Diebold hardware to four customers (HSBC, Co-operative Bank, Dunfermline Building Society and Coventry Building Society) and by the end of the joint venture in 1998 achieved an installed base of approximately [X] ([X] of the then-installed base).
 - (b) 1999 to 2012: the joint venture terminated and Diebold attempted to sell into the UK directly. This was not successful and the installed base of Diebold hardware eroded to below [X] ([X] of the UK installed base at the time). Diebold had [X] in the UK from 1999 until 2012.
 - (c) From 2012 onwards: In 2012 Diebold had a small sales force, and a maintenance contract for about [X] cash deposit machines for HSBC. It then decided to recruit new management/sales staff and upgraded its hardware products. It also made gradual investments in the UK team, in line with new revenues, and also invested in infrastructure by:
 - (i) creating a new UK and Ireland headquarters in Hammersmith and then in Uxbridge with a lab for ATM activity;
 - (ii) creating a UK 'Near Shore' Helpdesk in Leeds when winning the [X] business; and
 - (iii) creating a UK wide Service / logistics organisation.

⁸ [Phase 1 decision document](#), paragraph 14.

⁹ Diebold 2015 Annual Report.

- 2.6 Diebold's UK business is a small part of its global operations and contributes [X] of its worldwide turnover.
- 2.7 Table 1 presents summary financials¹⁰ of Diebold International Ltd. (DIL), Diebold's main trading entity in the UK.¹¹ It shows that its gross margin has grown from £0.5 million in 2013 (6% of turnover) to £2.4 million (15.8% of turnover) in 2015, corresponding to an increase in turnover from £8.4 million to £15.1 million during this period.
- 2.8 The company reported operating losses on a statutory basis in 2013 and 2014, which also included 'exceptional loss on investment in Diebold Italia SPA', its subsidiary undertaking.¹² In 2015, DIL posted a relatively small operating loss of £0.2 million on a statutory basis. However, [X].

Table 1: Diebold UK – summary financials

	2015 £m	2014 £m	2013 £m	Change 2015 vs 2014*	Change 2014 vs 2013
Turnover	15.1	18.8	8.4	-20%	124%
Gross Margin	2.4	1.5	0.5	60%	200%
Gross Margin %	15.8%	8.0%	6.0%	780 bps	200 bps
Operating Profit / (loss)	(0.2)	(3.3)	(4.3)	94%	23%
Operating Profit / (loss) excl. exceptional expenses	(0.2)	(1.1)	(0.9)	82%	-22%

Source: DIL Annual Report and Financial accounts, 2015, CMA calculations.

* 'bps' means basis points; 100 bps equal 1%.

Wincor

- 2.9 Wincor is a German public company headquartered in Paderborn, Germany with a turnover in 2015 of circa £1.8 billion worldwide.¹³ It provides FSS products and services, comprising: (i) hardware (including ATMs); (ii) software; and (iii) IT services. In addition, Wincor also offers products and services to retail customers.
- 2.10 Wincor is present in some 100 countries, and has production sites in Germany and China. It employs over 9,600 employees worldwide,¹⁴ of which approximately 75% are located in Europe.¹⁵

¹⁰ Based on [statutory filings](#).

¹¹ 100% of DIL's sales in 2015 were in the UK; a small percentage was in rest of the EU in 2013 and 2014. DIL's financial accounts.

¹² [X].

¹³ Wincor Nixdorf AG is the holding company of the Wincor Nixdorf Group consisting of Wincor Nixdorf AG itself as well as its subsidiaries.

¹⁴ On 30 June, 2016.

¹⁵ [Diebold press release](#).

2.11 68% of Wincor’s global revenues originate in Europe with Germany contributing 23%. Asia Pacific and Africa and Americas contributed 20% and 12% respectively to the company’s total revenues. 58% of Wincor’s 2015 revenues came from selling software and services and 42% from hardware.¹⁶

Wincor’s UK operations

2.12 Wincor employs around [X] employees in the UK. Its business in the UK represents a relatively small part of its global operations at [X] of worldwide turnover.

2.13 Table 2 shows summary financials of Wincor’s main trading entity in the UK, based on its published statutory financial accounts for the last three years. It shows that Wincor has consistently been profitable in these years. The strategic report presented in its 2015 financial accounts states that the company ‘had a solid year given the continued difficult trading conditions.’

Table 2: Summary financials – Wincor UK*

	2015 £m	2014 £m	2013 £m	Change 2015 vs 2014	Change 2014 vs 2013
Turnover	143.9	170.0	151.8	-15%	12%
Gross margin	15.8	16.5	15.9	-4%	4%
Gross margin %	11.0%	9.7%	10.5%	130 bps	-80 bps
Operating profit / (loss)	4.3	5.0	4.5	-14%	11%

Source: Annual report, financial accounts. Wincor Nixdorf Ltd. 31 December 2015. CMA calculations.

* Wincor Nixdorf, Annual report and financial accounts, 31 December 2015.

Industry products and services

2.14 The Parties both supply ATM hardware, FSS software including ATM software;¹⁷ maintenance services for ATMs and business services. These products and services are described in paragraphs 2.15 to 2.33 below.

ATM hardware

2.15 ATMs are machines which dispense cash and which may also offer facilities such as cash/cheque deposit, transaction enquiry, printed statement, account-to-account transfer, bill payment or PIN change.¹⁸ Some ATMs also provide options for topping up mobile phones and electronic wallets and making

¹⁶ Wincor Annual Report 2014/15.

¹⁷ We have not looked into the FSS software market in detail given the large number of competitors.

¹⁸ RBR (2016) *ATM Hardware, Software and Services* 2016. Volume 1. Introduction section, p iv.

charitable donations, as well as options to withdraw foreign currency at airports and train stations.¹⁹

- 2.16 All ATMs provide the same core service (cash dispensing and balance enquiry). Further, global and national networks generally ensure that ATMs can fulfil a consumer's cash needs.²⁰ To this extent, ATMs are becoming increasingly commoditised.
- 2.17 In 2015, the UK had the second largest (12% of the total) number of ATMs in Europe.^{21,22} The UK ATM installed base stood at [£] in 2015 which represented an average annual growth of 2.8% from 2013 (for details, see Table 2 in Appendix E).
- 2.18 Virtually all ATMs in the UK are connected to the LINK network ('LINK')²³, the national cash machine network enabling banks to offer their customers access to cash across the whole of the UK.
- 2.19 ATMs can be found either 'on-site'²⁴ or 'off-site'. 'On-site' ATMs can be accessed at the premises of a bank, and include:
- (a) units located in a hall, but not accessible outside normal opening hours;
 - (b) units located in the lobby, which are accessible outside normal opening hours; and
 - (c) 'through-the-wall' (TTW) units that are located on the exterior wall of the branch, and are accessed from the street.
- 2.20 'Off-site' ATMs are located at premises other than bank branches, for example shopping centres, retail outlets, petrol stations and supermarkets.²⁵ By the end of 2015, just over three-quarters of the ATMs in the UK were off-site. They are typically deployed by independent ATM deployers (IADs). Collectively, banks deploy a relatively small proportion of their ATMs away

¹⁹ Payments UK, (2016) *UK Cash and Cash Machines*, p11.

²⁰ [ATM future trends 2015](#) p70.

²¹ This data covers 20 European countries ie Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, UK and Ukraine.

²² RBR (2016), *ATM Hardware, Software and Services 2016*. Volume 1, UK section, p1.

²³ www.link.co.uk/.

²⁴ RBR (2016) *ATM Hardware, Software and Services 2016*. Volume 1. Introduction section, p iv.

²⁵ Some of the off-site ATMs can also be 'TTW'.

from their branches²⁶ – please refer to paragraphs 2.56 to 2.63 for a discussion of ATM deployers.

- 2.21 The on-site TTW and ‘in a hall’ ATMs account for 17% and 10% of the total ATMs respectively. Lobby installations are relatively uncommon in the UK, since banks consider that they offer neither the security of the bank hall nor the ease of access of the TTW ATM.²⁷
- 2.22 There are two main types of ATMs: customer-operated ATMs and teller-assist ATMs either just dispensing cash to customers or also with the capacity to recycle, ie they have the ability to dispense banknotes deposited by customers.
- 2.23 There are also a further two types of ATMs although they are limited in their use in the UK at present. These include ‘assisted self-service’ ATMs, which are operated by the customer but usually with the help of a teller or other bank staff (a relatively new concept within the UK) and ‘kiosks’, which are limited functionality ATMs, and are rarely used in the UK. A fuller description of the different ATMs can be found in Appendix B.

ATM software

- 2.24 In order to operate, an ATM requires basic software including:
- (a) the basic operating system (OS) (ie Microsoft Windows);²⁸ and
 - (b) middleware comprising so-called ‘open platform software’ (CEN/XFS).²⁹
- 2.25 These two software layers are not typically sold separately from the ATM hardware, but rather are provided as a package together with the ATM hardware.
- 2.26 In addition to the basic OS and open platform software, there are other types of ATM software that can be provided by a range of suppliers including:

²⁶ According to RBR, 76% of all off-site ATMs in the UK were deployed by the IADs (the balance 24% being deployed by banks). Source: RBR, (2016) *ATM Hardware, Software and Services 2016*. Volume 1, UK section, p13.

²⁷ RBR, (2016) *ATM Hardware, Software and Services 2016*. Volume 1, UK section, p13.

²⁸ The Parties told us that at present, the vast majority of all the ATMs and account statement printers installed worldwide run on Microsoft Windows operating system.

²⁹ The Parties told us that the open platform middleware was responsible for launching the hardware drivers that provide the functionalities for the various ATM components. CEN/XFS (extensions for Financial Service) provides a standard open interface for self-service terminal applications to operate on a Microsoft Windows platform and is an international standard promoted by the European Committee for Standardisation (known by the acronym CEN, hence CEN/XFS). Further, the Parties told us that its open platform architecture enables it to run software applications from any vendor on ATM hardware from any hardware manufacturer.

- (a) application software, which is responsible for the core (transaction) functionalities of the ATM, the consumer interface and the integration of those with other systems, such as the deployer's network and the wider ATM network (such as LINK in the UK);
- (b) remote monitoring/status and management software, which is supplied to customers as a stand-alone offering as well as in connection with the provision of so-called managed services³⁰;
- (c) security software; and
- (d) marketing software, which allows customers to place their own or third party advertisement on the displays of the ATMs.

2.27 The Parties told us that due to the increasing prominence of 'multivendor software', customers were able to deploy their software of choice with ATMs from different manufacturers.³¹

2.28 According to a RBR report, ATM deployers' multivendor software projects comprised nearly 1.2 million machines by the end of 2015, which represented 40% of the world's 'bank-grade' ATMs.³² The penetration rate of multivendor software applications in the UK was 45% in 2015, lower than the rest of Western Europe where this was 67%. By 2020 the deployment of multivendor software in the UK is expected to be around 60%, compared to 80% in Western Europe and 52% worldwide.³³

Maintenance and business services

2.29 ATM maintenance falls into two categories:

- (a) First line maintenance (FLM), which comprises simple maintenance tasks, for example replenishing consumables and fixing bank card jams; and
- (b) Second line maintenance (SLM), which refers to the more sophisticated repair and maintenance of hardware (eg preventative maintenance and parts replacement) and software repair.

³⁰ Please see paragraph 2.33.

³¹ [Initial submission to the CMA by Diebold and Wincor](#), paragraph 13.

³² [RBR press release May 2016](#).

³³ [RBR finds UK lags continental Europe on multivendor ATM software](#).

- 2.30 Maintenance of ATMs can be carried out by the deployers directly (ie banks or IADs) or outsourced to third parties³⁴.
- 2.31 It is typical for banks to carry out FLM of their on-site ATMs in-house, while most banks outsource the FLM of their off-site machines. Some IADs have established their own teams for FLM while others outsource it to third parties. In total, FLM was outsourced for 36% of the ATM installed base.³⁵ This outsourcing function is usually carried out by Cash-in-Transit (CIT) and specialist ATM servicing companies, site owners hosting ATMs and ATM manufacturers.
- 2.32 SLM is typically outsourced by most banks whilst IADs tend to have their own teams of engineers to carry out SLM of their machines. In total, SLM was outsourced for 59% of the ATM installed base.³⁶
- 2.33 In addition there are other business services related to the ATM industry such as managed services and professional/advisory services. These include deployment services, helpdesk and support services, engineering services and cash services.

Industry trends

- 2.34 According to the Parties, a combination of factors has resulted in the 'commoditisation' of ATM hardware. These include the prominence of multi-vendor software, the decreased importance of hardware to the improvement of ATM functionality and the outsourcing of manufacturing to third parties. Thus, instead of new functionality being gained from improvements to hardware, new software is being developed to improve the services offered to customers.³⁷ The Parties stated that the industry trends had caused traditional ATM manufacturers (such as Diebold and Wincor) to re-define their businesses and focus on software and services as the routes to differentiating their customer offerings.³⁸

³⁴ Minimising downtime is a requirement for ATM deployers given reputational issues if an ATM is out of use for a significant period and/or loss of income.

³⁵ RBR, (2016) *ATM Hardware, Software and Services* 2016. Volume 1, UK section. p31.

³⁶ RBR, (2016) *ATM Hardware, Software and Services* 2016. Volume 1, p34. 98.6% for on-site ATMs and 43% for off-site ATMs.

³⁷ [Initial submission to the CMA by Diebold and Wincor](#), paragraph 7.

³⁸ [Initial submission to the CMA by Diebold and Wincor](#), paragraph 7.

Other ATM suppliers

2.35 There are a number of ATM suppliers in the UK. These include NCR, Hyosung, GRGI and Triton (which has not made any sales in recent years but has an installed base of legacy ATMs).

NCR

2.36 NCR Corporation (NCR) is a global technology company, headquartered in Duluth, Georgia, United States with over 30,000 employees and over 100,000 customers globally, covering 180 countries. Its offering includes software and hardware solutions for ATMs and bank branches, retail and hospitality point of sale (POS) applications and devices, and self-service kiosks and software applications. At the global level, NCR's 2015 revenue was \$6.4 billion, with Europe, Middle East and Africa contributing \$2.0 billion.³⁹

2.37 NCR's offering in the UK includes a portfolio of self-service and assisted-service product solutions (including hardware and software), as well as a portfolio of services that support both NCR and third-party solutions.

2.38 The 2015 turnover of NCR Ltd, its UK sales and service organisation was £256.9 million, which was slightly lower than its 2014 turnover of £258 million.⁴⁰

2.39 According to RBR, 'NCR is the biggest⁴¹ ATM supplier in the UK', although its share of the installed base of ATMs fell by two percentage points from 61.4% to 59.4% between 2011 and 2015.⁴²

Hyosung

2.40 Nautilus Hyosung⁴³ ('Hyosung') is a Korean multinational, which according to its website, provides 'financial services products and ATM technologies' to its customers in Europe, North and South America, the Middle East, Asia and Africa.^{44,45} It is part of Hyosung Group, which has businesses in a variety of industrial and technology areas, and reported total sales of 11.0 billion US Dollars in 2015.⁴⁶ Hyosung's headquarters (and R&D Centre) are located in

³⁹ NCR's 2015 Annual Report.

⁴⁰ Financial Statements of NCR limited for the year ended 31 December 2015. [NCR filing history](#).

⁴¹ We discuss NCR's share of supply at paragraphs 6.49.

⁴² RBR, (2016) *ATM Hardware, Software and Services* 2016. Volume 1, UK section, p19.

⁴³ www.nautilus.hyosung.com/en/m52.php.

⁴⁴ Its offerings include [ATM hardware and software as well as other services](#), including maintenance.

⁴⁵ Based on [2013 figures](#), its manufacturing capacity was 92,400 ATMs per year.

⁴⁶ <http://www.hyosung.com/en/pr/brochure/brochure.do>. p71.

Seoul, and it has its manufacturing facilities at Gumi, South Korea.⁴⁷ The company also has offices in the USA, China, India, Indonesia and Russia.⁴⁸

- 2.41 Over [REDACTED] Hyosung ATMs have been installed in the UK by Cardtronics, an IAD, which is the largest ATM deployer in the UK. Hyosung does not currently provide maintenance or other business services in the UK.

GRG Banking Equipment Co, Ltd (GRGB)

- 2.42 GRGB⁴⁹ describes itself as the leading currency recognition and cash processing equipment manufacturer in China and one of the five major ATM suppliers in the world.
- 2.43 According to RBR, Turkey is the only market in Europe where it had a significant number of ATMs in the installed base. GRGB entered the Turkish market in 2011, with Ziraat Bank⁵⁰ using GRGB's ATMs to replace some of its Wincor machines. At the end of 2015, GRGB had [REDACTED] ATMs installed in Turkey, which represented a compounded annual growth of [REDACTED] during 2011 and 2015, and a [REDACTED] share of the installed base.

GRGI

- 2.44 GRG International (GRGI),⁵¹ a private company, is the distributor of GRGB in many 'English-speaking' markets, including the UK. It has sole distribution rights in North America, USA, Canada, UK, Australia and New Zealand. GRGI told us that its UK distribution arrangement was part of its global agreement with GRGB. [REDACTED].
- 2.45 The Parties told us that according to GRGB's 2015 Annual Report, GRG Banking Equipment (HK) Co. Limited, a subsidiary of GRGB, held approximately 7.17% of GRGI's share capital as of 31 December 2015.
- 2.46 [REDACTED].
- 2.47 GRGI has had a sales representative in the UK for the last four years and [REDACTED].

⁴⁷ www.nautilus.hyosung.com/en/m56.php.

⁴⁸ www.nautilus.hyosung.com/en/m57.php.

⁴⁹ www.grgbanking.com/en.

⁵⁰ Ziraat Bank is a state run Turkish bank, the country's biggest lender, and has presence in 18 countries. www.ziraat.com.tr/en/InvestorRelations/Documents/Presentations/InvestorPresentation.pdf. www.reuters.com/article/turkey-ziraat-results-idUSI7N1A301J.

⁵¹ www.grgatm.com/.

Triton

- 2.48 Triton is an ATM manufacturer based in the USA which has a number of legacy ATMs installed in the UK. Triton is large in the US IAD market and is also active in central Europe and Africa. However, according to the RBR report, Triton's installed base has declined in size since 2011 and it does not have a material local presence in the UK.

Other

- 2.49 In addition to the Parties, NCR, Hyosung, GRGI and Triton there is a further supplier of ATMs to the UK market. Global Glory Solutions (Glory), a Japanese company, is the primary source of teller-assist ATMs for most of the major UK banks but it does not supply customer-operated ATMs in the UK.

Other relevant suppliers

- 2.50 The UK ATM industry also includes many software and maintenance providers including IBM, Fujitsu, Cennox, Auriga and KAL. We provide a brief description of each of these providers below.
- 2.51 IBM's services in the UK include 'manufacturer independent' support of ATM and cash self-service equipment to provide a 'one-stop shop' managed service approach.⁵²
- 2.52 Fujitsu's main business in the UK is as a provider of third party maintenance services. Fujitsu maintains its own servers but also maintains the equipment of other providers (including Wincor).⁵³ Fujitsu has a significant installed base of customer-operated ATMs in Spain but no presence in ATM hardware provision in the UK.
- 2.53 Cennox is a UK-based service provider, its provision includes installing and refitting ATMs and equipment for bank branches, remote estates, and independent vendors. It also carries out maintenance services for original equipment manufacturers (OEMs) and some IADs.⁵⁴
- 2.54 Auriga is an ATM software provider, with offices in Italy (where it is headquartered), Germany, France and the UK.⁵⁵

⁵² [IBM ATM aftercare service.](#)

⁵³ [Summary of call between the CMA and Fujitsu.](#)

⁵⁴ [Summary of a hearing between the CMA with Cennox.](#)

⁵⁵ www.aurigaspa.com/eng/company/about-us/.

2.55 KAL is an ATM software provider, specialising in solutions for bank ATMs, self-service kiosks, and bank branch networks. Its headquarters are in Edinburgh, UK, and they also have offices in many other parts of the world.⁵⁶

Customers

2.56 There are around 30 customers (also called deployers) who own the ATM installed base in the UK.⁵⁷ There are two categories of ATM customers or deployers:

(a) Banks/financial institutions, which typically deploy ATMs in and around branches as well as in off-site locations.

(b) IADs, which deploy ATMs elsewhere, for example at shopping centres, retail outlets and petrol stations etc.⁵⁸

2.57 It has been reported that the top five ATM deployers in the UK are Cardtronics, NoteMachine, Royal Bank of Scotland Group (RBSG), DC Payments and LBG (Lloyds Banking Group) which together accounted for 63% of the installed base.⁵⁹

2.58 The concentration of the customer base is also illustrated by the Parties' sales figures: [X] of Wincor's UK sales in 2015 were accounted for by [X] customers, while [X] of Diebold's UK sales were to [X] customers.

2.59 Over time, there has been a significant increase in the number of ATMs that are owned and operated by IADs. As Figure 1 shows, the percentage of the ATM installed base owned by IADs in the UK increased from 43% in 2010 to 55% in 2015.

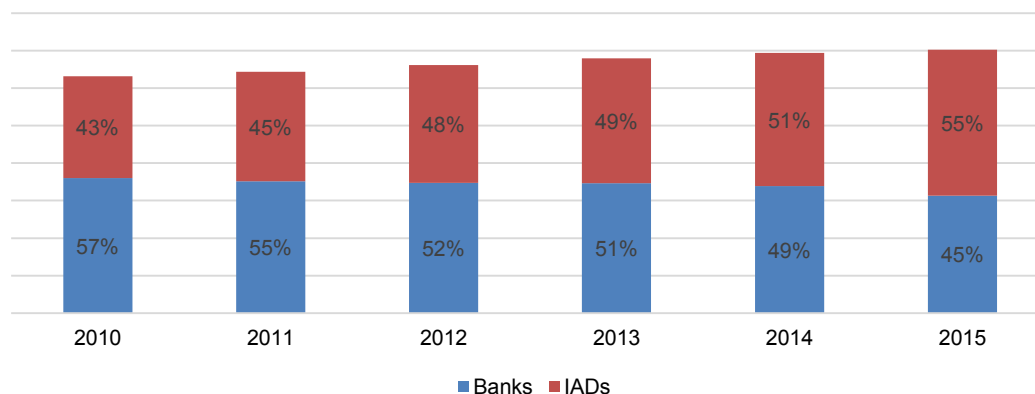
⁵⁶ www.kal.com/en/kal-atm-software-company.

⁵⁷ Payments UK, (2016) *UK Cash and Cash Machines*, p54.

⁵⁸ Although there is a blurring at the margins eg [X] outsources its ATM provision to [NoteMachine](#), an IAD.

⁵⁹ Payments UK, (2016) *UK Cash and Cash Machines*, p54.

Figure 1: Percentage of UK ATMs by type of deployer



Source: Payments UK (2016), *UK Cash & Cash Machines*, 2016, p55.

2.60 The growth of IADs is a result of a number of factors, including the following:

- (a) IADs have taken over large proportions of the off-site estates of banks which no longer see a viable business case in the maintenance of remote fleets.⁶⁰
- (b) The decline in the number of ATMs deployed by banks, driven by branch closures.⁶¹

2.61 At the end of 2015, five UK banks accounted for over 70% of the number of ATMs deployed by banks.⁶² In terms of IADs the top five IADs accounted for 98% of ATMs deployed by IADs in recent years rising from 79% in 2009, largely driven by consolidation amongst the largest players.⁶³

2.62 According to Payments UK, the top five bank deployers in the UK were RBSG, LBG, Barclays, Bank of Ireland (BOI) and Santander, while the top five IADs were Cardtronics, NoteMachine, DC Payments, PayPoint and YourCash ATM Systems.⁶⁴

⁶⁰ RBR (2016), *ATM Hardware, Software and Services*, UK section, p7.

⁶¹ Payments UK, (2016) *UK Cash and Cash Machines*, p26.

⁶² Payments UK, (2016) *UK Cash and Cash Machines*, p54.

⁶³ RBR, (2016) *ATM Hardware, Software and Services 2016*. Volume 1, UK section, p7.

⁶⁴ Payments UK, (2016) *UK Cash and Cash Machines*, p54.

2.63 Cardtronics, an IAD, is the largest ATM deployer in the UK with a portfolio of more than 16,000 ATMs⁶⁵ (approximately 23% of the total).⁶⁶ The next largest ATM deployer is also an IAD ie NoteMachine.^{67,68}

3. The merger and relevant merger situation

The merger

3.1 The merger between the Parties comprises a number of elements including a Business Combination Agreement, a public offer and a Domination and Profit and Loss Transfer Agreement (DPLTA).⁶⁹ These are described in detail in Appendix C.

3.2 The combined organisation began operating as Diebold Nixdorf on 16 August 2016. In the UK, the Diebold and Wincor brands and operations remain distinct pending the completion of the CMA's review of the Transaction.⁷⁰

Rationale for the merger

3.3 According to the Business Combination Agreement, the Parties' intention was 'to form a combined enterprise, which shall strive to be a leading company in the integrated self-service, banking and retail Industry, and to expand its consolidated services and software business while developing hardware, which will be an important enabler for the Combined Group.'⁷¹

3.4 The Parties also intended the Combined Group to 'use its global reach to achieve economies of scale, and adjust its cost-structure, while re-investing in new offerings in software and services to accelerate growth.'⁷²

3.5 The Parties told us that they expect the merger to help them:⁷³

⁶⁵ See Figure 2 in Section 7.

⁶⁶ On 3 October 2016, Cardtronics [announced an agreement](#) to acquire DC Payments.

⁶⁷ Payments UK, (2016) *UK Cash and Cash Machines*, p54.

⁶⁸ There are some examples of IADs taking over the operation and management of on-site ATMs operated by banks (eg [X]) although such outsourcing opportunities for IADs have been limited to date.

⁶⁹ The Parties told that entering into a DPLTA is possible under German stock corporation law if the buyer holds at least 75% of the share capital. DLPTA is commonly used means by a buyer to integrate the target's business in order to realise synergies following a takeover. In particular, it enables the buyer to control the target's strategy and business decisions and to access its cash flow. See [Shareholder activism in Germany](#).

⁷⁰ The CMA put interim measures (consisting of an [Initial Enforcement Order](#), a ring-fence and derogations) in place on the same date, shortly after the transfer of the shares. These interim measures require Diebold to hold separate the UK operations of Wincor Nixdorf.

⁷¹ [Business Combination Agreement](#) 23 November 2015, paragraph 1.4.

⁷² *Ibid*, paragraph 1.5b.

⁷³ Mergers notice, paragraph 32.

- (a) better to respond to market trends by improving the combined company's software and services business;
 - (b) to achieve synergies by combining their complementary geographic and product portfolios; and
 - (c) to create efficiencies and economies of scale that will pave the way for better and more innovative offerings for the benefit of the customer.
- 3.6 The Parties told us that the merger is a reaction to the branch transformation process of banks and the increasing trend toward digital/cashless payments which has resulted in a disruption of the traditional ATM hardware industry.⁷⁴
- 3.7 At the global level, the Parties' geographic footprints are complementary with Diebold being larger in North America and Wincor in Europe. Europe, Middle East and Africa (EMEA) region accounts for only [X] of Diebold's revenues, while for Wincor it is the largest region contributing [X] of its revenues. Americas region contributed only [X] to Wincor's revenues, while it accounted for [X] of Diebold's total revenues.
- 3.8 The Parties stated that they are targeting [X] from the merger, which were expected to fuel earnings and cash flow growth of the combined business.⁷⁵ These synergies are likely to be achieved by the end of [X], and mainly relate to lower [X],⁷⁶ [X]⁷⁷ and [X].⁷⁸
- 3.9 The Parties told us that synergies had not been separately calculated for the UK businesses. They stated that the UK was likely to contribute approximately [X].
- 3.10 However, according to the Parties, in the longer term, [X].

Jurisdiction

- 3.11 Section 23 of the Act provides that a relevant merger situation is created if:
- (a) two or more enterprises have ceased to be distinct within the statutory period for a reference;⁷⁹ and

⁷⁴ Ibid, paragraph 27.

⁷⁵ One-time integration costs were estimated to be [X].

⁷⁶ [X].

⁷⁷ [X]. Ibid.

⁷⁸ By leveraging and scaling Parties' shared services.

⁷⁹ As set out in [section 24](#) of the Act.

(b) either the ‘share of supply test’ or the ‘turnover test’ (as specified in that section of the Act) is satisfied.⁸⁰

Enterprises ceasing to be distinct

3.12 The Act defines an “enterprise” as ‘the activities or part of the activities of a business’. A “business” is defined as ‘including a professional practice and includes any other undertaking which is carried on for gain or reward or which is an undertaking in the course of which goods or services are supplied otherwise than free of charge’.⁸¹

3.13 Both Diebold and Wincor are public companies providing FSS products and services to ATM deployers. Our view is that both Diebold and Wincor, as they were structured immediately before the merger, clearly were “enterprises” as defined under the Act.

3.14 Diebold obtained de jure control over Wincor, as it has acquired more than 50% of the voting rights in Wincor on 15 August 2016. Accordingly we are satisfied that enterprises carried on by Diebold and Wincor have been brought under common ownership and control and have therefore ceased to be distinct under section 26(1) of the Act.

Turnover test

3.15 The second limb of the jurisdictional test seeks to establish that the Merger has sufficient connection with the UK on the basis of the turnover test or share of supply test.

3.16 The turnover test is satisfied where the value of the turnover in the UK of the enterprise acquired exceeds £70 million.

3.17 The Parties’ submitted that the turnover of Wincor in 2015 was [REDACTED] in the UK.⁸²

3.18 We therefore consider that the second limb of the jurisdictional test is satisfied. It is therefore not necessary to consider whether the share of supply test has also been met.

⁸⁰ Section 23 of the Act provides that the value of the turnover in the UK of the enterprise being taken over must exceed £70 million or, in relation to the supply of goods or services, at least one quarter of all such goods or services which are supplied or acquired in the UK or a substantial part of the UK are supplied by or to one and the same person.

⁸¹ Sections 129(1) and (3) of the Act.

⁸² Paragraph 15 of the Phase 1 RMS and SLC decision, published on 27 September 2016.

Conclusions on jurisdiction

3.19 For the reasons given above, we are satisfied that a relevant merger situation has been created by the acquisition of Wincor by Diebold and that we therefore have jurisdiction to consider whether the creation of that situation has resulted or may be expected to result in an SLC within any market or markets in the UK for goods or services.

4. Market definition

4.1 The purpose of market definition is to provide a framework for the analysis of the competitive effects of a merger. The relevant market contains the most significant competitive alternatives available to the customers of the merger firms and includes the most relevant constraints on the behaviour of the merger firms.⁸³ However, the boundaries of the market do not determine the outcome of the CMA's analysis of the competitive effects of the merger in any mechanistic way. In assessing whether a merger may give rise to an SLC, the CMA may take into account constraints outside the relevant market, segmentation within the relevant market, or other ways in which some constraints are more important than others.⁸⁴

4.2 We first assess the relevant product markets, which in this case we consider to be the supply of ATM hardware. We reviewed the evidence that was cited in the Phase 1 decision (see paragraphs 62 to 78 and 168 to 176)⁸⁵ and we do not believe that competition concerns arise in the supply of other products in which the Parties overlap, ie the provision of FSS software and maintenance and other business services (although we have considered the effects of bundling in paragraphs 4.48 to 4.57). This is because:

- (a) There are a number of competitors in the FSS software sector, such as NCR, KAL and Auriga. The Merger results in a negligible increment of [0-5]% (on the installed base in 2014 and 2015) to the Parties' combined share of supply of FSS software.
- (b) There is no horizontal overlap in the supply of maintenance and other business services and the Merger would not enhance the merged entity's incentive to foreclose third party maintenance service providers.

4.3 We examine demand-side and supply-side substitutability for the ATM hardware supplied by the merging parties including whether the market can

⁸³ [Merger Assessment Guidelines](#), paragraph 5.2.1.

⁸⁴ [Merger Assessment Guidelines](#), paragraph 5.2.2.

⁸⁵ [Phase one decision document](#).

be segmented on the basis of different requirements of customers (paragraphs 4.10 to 4.58). We then consider geographic market definition (paragraphs 4.59 to 4.62).

Product market

- 4.4 The relevant product market is identified primarily by considering the degree of demand-side and, to a lesser degree, supply-side substitution. It is usual to define markets using the hypothetical monopolist test. This test delineates a market as a set of substitute products over which a hypothetical monopolist would find it profitable to impose a small but significant non-transitory increase in prices (SSNIP). The test is described in detail in paragraphs 5.2.10 to 5.2.20 of the CMA Merger Assessment Guidelines.
- 4.5 We applied the hypothetical monopolist test framework by starting with a narrow set of relatively homogeneous products, and considered whether there was likely to be demand-side and/or supply-side substitution if prices were to rise for these products. A strict quantitative application of a SSNIP test is difficult in this case, where prices are individually negotiated and are also influenced by non-price aspects. We therefore focused on a qualitative assessment of demand- and supply-side substitutability of the products supplied by the Parties.
- 4.6 The assessment of the relevant product market starts with the product offering of the Parties, in this case the supply of customer-operated ATM hardware.
- 4.7 We examined the evidence on the scope for substitution by customers between other types of ATM hardware and customer-operated ATM hardware. Where such substitution is insufficient for certain types of product to be considered in the same market on the basis of demand-side considerations, we considered the extent to which these segments can be aggregated on the basis of supply side considerations. We then further considered whether to distinguish between customer groups on the basis of differences in their preferences and requirements, and the potential for suppliers to target higher prices or otherwise worsen offerings on the basis of those preferences or requirements (paragraphs 4.28 to 4.58).
- 4.8 We carried out this assessment in relation to the following possible substitutes for customer-operated ATMs:
- (a) Teller-assist ATMs, which are devices designed to dispense or 'recycle' cash for tellers in order to assist them in carrying out in-branch transactions. These can be subdivided into 'teller cash dispensers' (TCDs) and 'teller cash recyclers' (TCRs);

(b) Kiosks, which are used by customers to carry out certain transactions that do not involve the depositing or dispensing of cash;

4.9 We then considered whether the supply of customer-operated ATMs, could be segmented in a number of ways, including:

- (i) By functionality or design feature, including ATMs that are designed to be 'monofunctional' (ie focused on dispensing cash) or multifunctional (ie dispensing cash but also performing other functions such as printing large statements, accepting deposits, recycling cash (ie accepting deposits which are subsequently dispensed), or design for assisted self-service.⁸⁶
- (ii) By suitability for certain applications (eg TTW installations, which must be waterproof and where physical dimensions may affect installation costs, as compared to freestanding in-lobby machines).⁸⁷
- (iii) By type of customers, ie whether banks and IADs have different requirements such that the effects of the merger on them may differ.

Substitutability of customer-operated ATMs with Teller-assist ATMs (TCDs and TCRs)

Demand side substitution

4.10 The Parties submitted that teller-assist ATMs and customer-operated ATMs are mechanically similar.

4.11 Glory told us that there is no real substitution between a traditional ATM and a teller-assist unit. Customers would not simply choose between teller-assist units and customer-operated ATMs, or replace one with the other. Rather, it explained, the choice is driven by a bank's 'branch strategy'. This means banks decide in advance what type of service they want to offer customers in that particular branch and then they procure the ATM hardware that meets that strategy.

⁸⁶ Assisted self-service devices are devices designed to be used by customers in branches either to carry out transactions independently or with the assistance of a teller who joins them at the terminal.

⁸⁷ The case team has not considered in detail the potential for retail workstations to form part of the same product market as ATM hardware, as there is no demand-side substitution based on intended purpose and there is no evidence of supply-side substitution (neither observed shifting of capacity between them quickly and easily, nor a similarity of competitive conditions or the competitor set across them). Neither has the case team considered ATM upgrades or refurbishment of old ATMs as a substitute for new ATM purchases, as only one customer mentioned the possibility of refurbishing old ATMs instead of purchasing new ones and many ATM replacements were driven by the withdrawal of support by Microsoft for Windows 7, which cannot be remedied in this way.

- 4.12 The evidence we obtained from customers indicated that they do not view teller-assist ATMs as suitable substitutes for customer-operated ATMs. For example:
- (a) Barclays explained that if the price of all customer-operated ATMs were to increase by 5 to 10%, Barclays would not, as a result, reduce its purchases of customer-operated ATMs by using TCDs or TCRs as a substitute. It explained that this was because the customer-operated ATMs allow for the removal of employee involvement in the customer transaction which represents a much greater cost saving than any 5 to 10% variation in the ATM hardware purchase cost. Barclays also said that TCRs must be deployed in-branch whereas TTW customer-operated ATMs allow for much longer servicing windows.
 - (b) HSBC said that it currently has no TCRs or TCDs in the UK.
 - (c) [REDACTED] said that where it had decided on an overall solution for its branches, it would not compromise for an alternative solution if the prices of all available customer-operated ATMs were 5 to 10% higher.
 - (d) Santander said that these were different propositions and that there was no cross-over.
 - (e) LBG said it would never replace a customer-operated ATM with a TCR.
- 4.13 As IADs do not employ bank tellers, we do not believe that teller-assist ATMs could act as a substitute for customer-operated ATMs on the demand side for any IAD.
- 4.14 We therefore consider that there is no demand-side substitution between teller-assist and customer-operated ATMs.

Supply side substitution

- 4.15 The Parties submitted that aggregation on the supply side would be justified on the basis that the basic components are the same between both types of device; these components are frequently manufactured by third parties and are readily available; and the customers (and customer contacts) are the same.⁸⁸ The Parties submitted that developing a customer-operated ATM simply involves taking a TCR or TCD and adding a screen and PIN-pad. The Parties refer to examples of teller-assist ATMs that have been converted to

⁸⁸ First Draft Merger Notice, paragraph 127.

customer-operated ATMs and sold by ARCA and Glory in other countries as well as expansion by Oki,⁸⁹ Hitachi,⁹⁰ and Hyosung from teller-assist ATMs into customer-operated ATMs.

- 4.16 We assessed the extent to which it is easy to shift production capacity from one type of machine to the other and the extent to which competitive conditions are similar in both markets.⁹¹
- 4.17 Several hardware manufacturers told us that it was inaccurate to characterise TCRs/TCDs as being easily adjustable and similar to customer-operated ATMs:
- (a) Glory told us that it was highly inaccurate to say that developing a customer-operated ATM simply involves adding a screen and PIN-pad to a TCR/TCD. It said that [customer-operated] ATMs have many standard requirements for security, application and connectivity, all of which are fundamentally complex. It said that device control for a multifunction ATM involves controlling 8 to 12 unique devices in a single cabinet, and managing through normal and adverse conditions such as power failure, network connection loss, and security attacks.
 - (b) NCR said it does not consider it accurate that a customer-operated ATM could be developed from a TCD/TCR by adding a screen and a PIN-pad. It said that TCRs have no intuitive cash deposit or dispense interfaces; are designed for indoor temperature and humidity ranges only; have no PC core with the processing capability to run customer-operated ATM devices or the CEN-XFS platform; are designed to be accessed by a seated employee; usually do not contain cash cassettes which allow for tamper indicating; have lower capacity; and generally do not interface with the ATM network. It said that it did not believe that a TCR/TCD could be converted into an ATM to a sufficient standard to compete and win a significant contract in the UK.
 - (c) Hyosung said that the capacity of the production, development, marketing and sale of teller-assist ATMs may be seen as ‘more focused’ compared to customer-operated ATMs; and that it was difficult to describe capacity as being ‘shifted’ from one product to another. It said that the supply of products in the market can be affected by each other for a certain period

⁸⁹ Oki is a Japanese technology company that manufactures cash recycling ATMs.

⁹⁰ Hitachi is a Japanese technology company that offers services for the deployment and managements of ATM estates.

⁹¹ To the extent suppliers can shift capacity easily between two markets, all suppliers would be expected to shift capacity to the higher margin segment until margins (more or less) equalise in both sectors and the competitor set would be (more or less) the same.

of time, but that this does not necessarily mean that the existence of one product encroaches on the other, rather that they are expected to co-exist in the market and interact with each other complementarily. It said that shifts from one product to another would be 'driven by the needs of the clients and not the price or profits of the products'.

(d) GRGI submitted that it was far from the truth that it was simple to develop a customer-operated ATM from a TCR/TCD because of the difference between tellers and normal users (in terms of training); design (for fitting under a counter), suitability for outdoor applications (ie weather and vandalism resistant), different functionality (eg receipt printing), security and reliability requirements. GRGI also said that although at their core both machines incorporated a recycler or dispenser and note validation unit, the individual core modules in a customer-operated ATM would be designed from scratch and that simply adding a screen and PIN-pad to a teller-assist would not be a viable option.

4.18 Glory told us that the costs involved in developing a customer-operated ATM based on a TCD or TCR would be [REDACTED] and would [REDACTED], based on its experience of developing an [REDACTED].

4.19 We therefore considered it unlikely that suppliers could use the same productive assets to shift capacity quickly and easily from the supply of teller-assist ATMs to the supply of customer-operated ATMs.

4.20 Competitive conditions also differ considerably between teller-assist and customer-operated ATMs. Glory, according to the Parties, has in excess of a 90% share of teller-assist ATMs by UK installed base, and based on RBR data Glory and NCR have shares of more than [REDACTED] in terms of shipments in the UK. In customer-operated ATMs in the UK, Glory has a zero% share by any measure, whereas NCR, Diebold and Wincor all have sizeable shares by shipments.

4.21 Given the evidence set out in paragraphs 4.15 to 4.20, we considered that the conditions under which markets may be aggregated on the basis of supply-side substitution are not met in the case of TCRs/TCDs and customer-operated ATMs. We have therefore provisionally concluded that teller-assist ATMs are not in the same market as customer-operated ATMs.⁹²

⁹² We believe that a hypothetical monopolist in the supply of customer-operated ATMs would be able to impose a small but significant non-transitory increase in price without inducing sufficient substitution to teller-assist ATMs by customers or suppliers to render that price increase unprofitable.

Substitutability of customer-operated ATMs with kiosks

- 4.22 The Parties submitted that kiosks have similar components, functionalities, and features as customer-operated ATMs, and are connected to the same deployer network.
- 4.23 On the demand side, we note that the intended purpose for kiosks is substantially different from customer-operated ATMs in that kiosks do not dispense cash or accept deposits, which is the primary function of customer-operated ATMs. We have not found evidence of any tenders for customer-operated ATMs wherein suppliers submitted bids that featured kiosks.
- 4.24 On the supply side, we considered the extent to which suppliers would be able quickly and easily to shift capacity and use the productive assets used to produce kiosks in order to produce customer-operated ATMs. We noted that the kiosks differ substantially from customer-operated ATMs, in that they do not carry out cash transactions and therefore do not have the associated components.
- 4.25 Competitive conditions also appear to differ considerably: neither of the Parties has sold significant numbers of kiosks in the UK, whereas they have substantial shares of supply in supplying customer-operated ATMs.
- 4.26 In light of the above, we did not believe that circumstances in which supply-side considerations would allow for several narrower markets to be aggregated would apply to customer-operated ATM hardware and kiosks.
- 4.27 We therefore provisionally conclude that kiosks do not form part of the market for customer-operated ATMs.

Segmentation of the supply of customer-operated ATMs

- 4.28 Customer-operated ATMs can vary in terms of a wide range of features. Aside from monofunctional ATMs that are principally cash dispensers, ATMs may also carry out a range of transactions including taking cash deposits, taking cheque deposits, passbook printing, and others. Some customer-operated ATMs are designed for assisted self-service, ie so that customers can carry out transactions either on their own or with the assistance of a bank teller. ATMs vary in terms of their suitability for different environments (for example whether they are temperature, vandalism and weather-resistant for outdoor installations), in terms of their suitability for certain installations (eg TTW or freestanding), and in terms of their weight and dimensions.
- 4.29 While, as discussed in paragraph 2.16, ATMs are to a certain extent commoditised in terms of their individual features and functionalities, we have

found that customers have different requirements and preferences for their ATM hardware and these can vary across customer groups, across customers and even across tenders for an individual customer.

- 4.30 Our evidence shows that there are several dimensions along which customers differentiate between suppliers of ATM hardware products, including: ATMs' robustness and reliability; ATM functionality; suppliers' reputation and/or track records; global presence or footprint; the quality and availability of local servicing provided by the supplier or by a third party, as well as the local availability of other operations such as sales, support, or account management; physical dimensions and aesthetics.
- 4.31 For example, Barclays identified the accessibility of the machines as a critically important factor when choosing a supplier, whereas others do not highlight this as important or they consider it sufficient that certain regulatory requirements are satisfied.
- 4.32 Information provided by GRGI and some customers showed that for certain tenders (for example, when a customer is replacing through-the-wall ATMs installed through a relatively small aperture) it was preferable to the customer that suppliers be able to offer an ATM that readily fits within the existing aperture, whereas in other cases the dimensions of the ATM were of little or no relevance. Depending on a bank's branch strategy, they may have strong preferences for particular features or functionalities, such as deposits, recycling, or assisted self-service.
- 4.33 On the basis of this evidence, the CMA believes that, notwithstanding the Parties' submission in relation to the commoditisation process of ATMs, customers do differentiate between suppliers on the basis of non-price factors. Moreover, in product markets where suppliers negotiate individually with customers, suppliers may be able to target higher prices at customers that have different preferences or have access to different sets of suppliers.⁹³
- 4.34 Some market participants also distinguish between IADs and banks when discussing the market for customer-operated ATM hardware or believe that banks and IADs have different needs or preferences in some respects.
- 4.35 The Parties submitted that banks and IADs have similar underlying considerations driving their purchasing decisions, namely the level of visibility or 'footfall' and usage levels.⁹⁴ The Parties submit that footfall drives ATM choice because at 'flagship' locations, customers have a greater preference to

⁹³ Merger assessment guidelines, paragraphs 5.2.28 to 5.2.30.

⁹⁴ [The Parties' submission on banks and IADs](#), paragraph 2.1.

'show off' with innovative devices. The Parties also submitted that footfall and usage levels drive ATM choice because they have an impact on whether a bank or an IAD requires a more or less robust dispenser or safe. The Parties argued that these requirements sit on a continuum, in the middle of which IADs and banks overlap in terms of their requirements.

- 4.36 Several third parties indicated that banks attach greater value to having access to different types of functionality compared to IADs due to the range of the services banks offer through their ATMs.⁹⁵ Several parties also explained that banks attach much greater value to innovation, customer experience, service proposition and brand impact, and therefore will not purchase 'cheap' ATMs, whereas IADs are more concerned about cost competitiveness and speed of supply.⁹⁶ HSBC said IADs have different business models as the focus for banks is to deliver services to their customers whereas IADs are likely to focus on revenue generation through ATMs.
- 4.37 The Parties also submitted that banks and IADs have a similar mix of models in their estates (and do not systematically require different specifications) and that it would be misleading to characterise IADs as operating only low-end customer-operated ATMs. The Parties provided to the CMA RBR data on the installed base of ATMs by manufacturer and model of ATM, further broken down into the number owned by banks and by IADs.
- 4.38 The Parties further submitted that banks have sold some of their off-branch estate to IADs and that this means that IADs sometimes own models that are also used in banks' estates. The Parties said that in some cases, banks outsource the operation of their in-branch ATMs to IADs and that this gives rise to convergence of the requirements of IADs and banks.⁹⁷
- 4.39 The Parties also submitted that banks and IADs are similarly open to a range of providers of ATM hardware and of maintenance services.
- 4.40 We analysed the data provided by the Parties and found that while three quarters of Diebold, Wincor and NCR models⁹⁸ have tended to be installed only or mostly (ie more than 90% of the time) by banks or by IADs, a quarter of models, representing about half of the installed base, appear in both banks'

⁹⁵ This includes comments by customers and competitors, including Barclays, Nationwide, Cardtronics, GRGI and NCR.

⁹⁶ As per comments from Barclays, [X], Raphaels Bank, Cardtronics and Hyosung.

⁹⁷ The Parties provided the example of MetroBank, whose in-branch ATMs in its flagship locations are operated by Cardtronics.

⁹⁸ Hyosung and Triton models, which have been installed exclusively by IADs, have not been included in the analysis.

and IADs' ATM estates in material proportions (of more than 10% of those models' total number installed in the UK).

- 4.41 All banks responding to our questions indicated that they had no intentions to sell further off-branch estates and, therefore, we believe that the level of convergence between IADs' and banks' requirements achieved thus far is likely to be reflective of the level of convergence in the future.
- 4.42 We believe that outsourcing of ATM purchasing by banks to IADs would mean IADs would purchase more ATMs that closely reflect the requirements of banks. However, no bank indicated that they had plans to begin to outsource in-branch ATM management by IADs in the next five years.⁹⁹
- 4.43 We also examined evidence on whether IAD and bank customers have different requirements in addition to ATM functionality.¹⁰⁰ Customers, whether they be banks or IADs, commonly identified as important the availability of local support services, including maintenance, engineering and/or helpdesk functions, regardless of whether these services were provided by one supplier or in partnership. We do not have evidence of any bank self-supplying SLM services.
- 4.44 There are exceptions to the importance of local support services, principally maintenance and/or engineering functions. Large IADs such as Cardtronics and NoteMachine for example have their own maintenance operations and therefore attach less value to this factor when choosing their ATM hardware provider.
- 4.45 We also observed some evidence from internal documents that suppliers distinguish between banks and IADs. As we discuss in the competitive assessment, there is also some evidence that customers consider some suppliers to have been more successful or have greater competitive strength in serving either IADs or banks (see paragraphs 6.72 to 6.79). However, we have also noted that the requirements of customers are not fully explained by whether they are a bank or an IAD: some models of ATM have been purchased by both banks and by IADs in material proportions; while some IADs do self-supply maintenance, other IADs are similar to banks in requiring external supply of maintenance services (and consider this when choosing a hardware supplier).
- 4.46 It may be possible to consider any feature of characteristic of customer-operated ATM hardware as a plausible narrowest candidate market to which

⁹⁹ For example, according to statistics published by LINK, NoteMachine operates 467 in-branch ATMs, or 2.5% of the in-branch ATM network for which LINK has data.

¹⁰⁰ [The Parties' submission on banks and IADs](#), paragraphs 8.1 and 8.2.

the hypothetical monopolist test may be applied. However, given the large number of potential features and customer characteristics, it would be impractical to adopt this approach.

- 4.47 Finally, the Parties submitted that there is a relationship between hardware, software and services. In particular, the Parties submitted that software and services have become the primary focus and competitive differentiator for customers, which has fundamentally changed the competitive environment for ATM hardware, which now operates on an open platform basis. This means customers are able to make independent decisions with respect to the procurement of hardware and software. The Parties explain that customers will typically use one application software provider, but increasingly have multiple suppliers of customer-operated ATM hardware represented within their ATM estate.¹⁰¹ They submitted that these relationships imply that competition has never been stronger with respect to any of the parts of the Parties' offerings.
- 4.48 We considered the extent of any links between customers' purchases of hardware and either software or services.
- 4.49 Some customers indicated that they do not use multi-vendor software: Nationwide for example moved from a multi-vendor software solution to having the same supplier for both hardware and software as it made it easier to keep software up-to-date and maintain the quality of the integration between software and hardware which is a key constituent of an effective ATM network. Cardtronics said it was interested in multi-vendor software but that installing it is a big and expensive project.
- 4.50 Some customers indicated they currently purchase hardware and software separately, especially the larger banks (Barclays, HSBC and RBS as well as Co-operative Bank).
- 4.51 Barclays indicated that the choice of suppliers for hardware and for servicing tends to be a joint decision as the total cost of ownership needs to be considered. However, Barclays said this does not imply both hardware and services must be purchased from the same supplier (although that is often the case). Barclays explained that a manufacturer can generally service its own products more efficiently, but that 'cross-servicing' is very possible and is facilitated by reciprocal agreements between manufacturers as well as a global market for copied/recycled parts. On newly-introduced machines,

¹⁰¹ Examples include Barclays, which uses [redacted] along with NCR, Wincor and Diebold hardware; RBS, which uses [redacted] along with Wincor and NCR hardware; and Santander, which uses [redacted] with NCR, Wincor and Diebold hardware.

cross-servicing is more difficult but some suppliers (including IBM) are confident they can service new device. Barclays noted that there is an advantage to having a single supplier that can service all of the ATMs in its estate and that this would be a benefit of the Merger.

- 4.52 Fujitsu , which as described in paragraph 2.52 has a significant installed base of customer-operated ATMs in Spain, told the CMA that Wincor and NCR normally wrap hardware, software and services into a bundle that is difficult for customers to decouple, [✂].
- 4.53 NCR said it tends to sell ATM hardware, software and services together, albeit not in a bundle but rather as separate contractual services (in all combinations, depending on the customer environment). Some customers also identified as critical that suppliers can demonstrate that sufficient maintenance services are available for the devices they sell. However, other customers have business models wherein they maintain their own machines and therefore this factor is not important to their choice of hardware supplier.
- 4.54 The strength of preferences for bundled services appears to vary between customers, and in any event is not so strong that a hypothetical monopolist in the bundle of hardware and software or hardware and services could increase prices without customers choosing to unbundle.
- 4.55 In light of the evidence set out in paragraphs 4.28 to 4.54 above, we believe that while banks and IADs' requirements differ to some extent, there are also material overlaps in those requirements. Applying the hypothetical monopolist test in a mechanistic way would give rise to an intractable number of relevant markets. Moreover market definition is not an end in itself, nor determining of the outcome of the CMA's analysis, but rather an analytical tool.
- 4.56 Therefore we have not segmented the market, for the purposes of our analysis, more narrowly than the supply of customer-operated ATMs. Rather, we have assessed the extent to which different suppliers are competitive in satisfying requirements deemed important by customers in our competitive assessment and we have also taken into account variations in preferences across customers. By doing so, we also take into account any variation across banks and across IADs as groups, and therefore have not defined separate customer markets for banks and IADs.
- 4.57 We also provisionally conclude that there is no relevant market for bundled services. However, there is some evidence that we should take into account the interplay between the purchase of hardware, on the one hand, and software or services on the other in the competitive assessment.

Provisional conclusions on product market definition

4.58 Based on the evidence and the analysis set out in paragraphs 4.10 to 4.57, we have provisionally decided to assess the effects of the merger in the provision of customer-operated ATMs.

Geographic market

4.59 The Parties submitted that the geographic scope for all ATM hardware products is national for various reasons, including: variation in competitors across countries,¹⁰² preferences (for functionality),¹⁰³ technical standards¹⁰⁴ and profit margins; the need to satisfy country-level requirements including certification processes and to provide local software engineering, servicing and maintenance operations; and the fact that procurement frequently occurs on a national level.

4.60 Customers generally told us that they did not attach any weight to the geographic location of the manufacturing facility of their supplier, with the exception of Cardtronics which noted that lead times may be affected when suppliers can face difficulties at customs. However, customers also commonly identified as important the availability of local support services, including maintenance, engineering and/or helpdesk functions, when choosing their supplier; the need for reputation in the UK; and, to a lesser extent and for some customers, the need to satisfy certain customer specific design requirements such as compatibility with aperture sizes or the accessibility requirements of customers.

4.61 The above evidence indicates that, for some customers, suppliers of customer-operated ATMs that compete in other geographic areas but do not have certain local operations in the UK are not a credible alternative. However, the precise aspect of local operations that customers find important varies by customer and, in some cases, suppliers without any presence have been able to compete.

4.62 We have therefore provisionally concluded that the relevant geographic market includes all suppliers that actively participate in competitive processes to sell customer-operated ATMs in the UK, regardless of the extent of their local operations. However, we have sought to take into account variations in

¹⁰² The Parties note that not all manufacturers of ATM hardware are active in every EEA country, highlighting that [redacted].

¹⁰³ The Parties provide the example of kiosks being relatively unpopular in the UK compared to other Member States.

¹⁰⁴ The Parties note that the main standards that vary pertain to ATM safes, electronic card readers, encrypted PIN pads, banknote acceptors and inking solutions (for banknote marking in case of theft).

customers' requirements and preferences for local operations and the ability of suppliers to compete for customers with those requirements and preferences in our competitive assessment and in the assessment of entry and expansion.

Provisional conclusion on market definition

4.63 In light of our findings above, we provisionally conclude that the relevant market in which to assess the competition effects of the merger is the market for customer-operated ATMs in the UK, recognising that there are variations in customers' requirements (including across individual customers and groups of customers), which may have an impact on the ability of those already present in the market to expand or on new entrants. We discuss those variations in the competitive assessment.

5. Counterfactual

5.1 Before we turn to the effects of the merger we need to assess what we would expect would have been the competitive situation in the absence of the merger. This is called the 'counterfactual'.¹⁰⁵ The counterfactual informs the question of whether a transaction may be expected to result in an SLC within any UK market(s) for goods or services by forming the basis of a comparison of the prospects for competition with the merger in place against the situation absent the merger. In other words, the counterfactual acts as a benchmark against which to assess the competitive effects of the merger.

5.2 The choice of counterfactual is affected by the extent to which events or circumstances and their consequences are foreseeable, as the CMA needs to predict the likely counterfactual with some confidence.¹⁰⁶

5.3 The foreseeable period can sometimes be relatively short. The CMA may still consider the effects of the merger (ie carry out the competitive assessment) in the context of an event or circumstance occurring even if that event or circumstance is not sufficiently certain to include in the counterfactual.¹⁰⁷

5.4 The Parties told us that the competitive landscape in ATMs and related software and services is changing rapidly and the pre-merger competitive situation is unlikely fully to reflect the counterfactual, particularly in the medium to long term, given the pace of change in the sector.

¹⁰⁵ [Merger Assessment Guidelines](#), paragraph 4.3.1.

¹⁰⁶ [Merger Assessment Guidelines](#), paragraph 4.3.2.

¹⁰⁷ [Merger Assessment Guidelines](#), 4.3.2.

- 5.5 However, the Parties did 'not propose to present a fully developed counterfactual, given the lack of concerns or any credible counterfactual.' We consider changes in the competitive landscape, to the extent that they are relevant to our assessment of the merger, in section 6.
- 5.6 As explained in paragraph 3.2, the Parties completed the merger on 16 August 2016, following clearance decisions in the jurisdictions in which the merger was notified. We have therefore considered whether the appropriate counterfactual should focus on the UK element or the totality of the merger.
- 5.7 The Parties committed to the deal (subject to 'Closing Conditions') at the time of the respective boards' approval of the Business Combination Agreement dated 23 November 2015.
- 5.8 At this point in time, neither a partial acquisition nor completion on a country-by-country basis, was contemplated by the Parties and the merger of the respective UK businesses was an indivisible part of the global merger.
- 5.9 Further, the merger arose from an approach by Diebold to Wincor (no alternative bids were invited), was only ever conceived as one global merger, and at that point, there were two possible futures:
- (a) one in which the whole (global) Merger happened; and
 - (b) one in which none of it (including in the UK) happened.
- 5.10 The consummation of the Merger was subject to certain Closing Conditions as described in Appendix C. In the event of failing to meet these conditions, the Parties were required to re-negotiate the terms of the deal, and a break-fee was payable if these negotiations failed and either party terminated the Business Combination Agreement.
- 5.11 One of the conditions related to securing the necessary antitrust clearances in specified jurisdictions (the UK was not on that list), and the Bidder was required to offer such commitments as would be necessary to obtain approvals from these authorities, unless these required the Bidder to divest businesses that, in aggregate, would represent more than 8% of the consolidated annual revenues of the combined group.¹⁰⁸
- 5.12 It was envisaged (by the Parties) at the time of the Business Combination Agreement that in some jurisdictions, antitrust clearance may not be obtained,

¹⁰⁸ The turnover threshold did not apply in respect of securing clearances in the United States and Germany, where Diebold was required to offer, agree, or to accept any disposal or other obligations, commitments or conditions.

and consequently, the Bidder would have been required to offer remedies including divesting all or part of the business in accordance with the terms of this agreement.

- 5.13 If the deal had not taken place, either because of regulatory hurdles or other matters one of the following scenarios might have emerged:
- (a) Alternative merger arrangement: Wincor might have been acquired by another purchaser.
 - (b) Continue as standalone businesses: the Parties might have continued to operate independently globally and consequently in the UK (ie akin to prevailing conditions of competition pre-merger).
 - (c) In light of submissions from the Parties on price decreases and profitability we also considered whether one of the Parties may have exited the market.
- 5.14 In relation to 5(c) there is no evidence we have seen to suggest that either of the Parties would, absent the Merger, have exited the market, either globally or in the UK. Their strategy points toward growing and investing in their respective businesses in the UK.
- 5.15 Wincor's 2014/2015 annual report and financial accounts point towards it growing and investing in its business in the UK (see Appendix D for details). Further, Diebold's strategy to 're-emerge' in the UK market after 2012, considered in paragraph 7.8 to 7.10, also signals its commitment to grow its market share in the UK.
- 5.16 In relation to 5.13 (a) and (b), internal documents from Wincor evaluating various strategic options for its future direction show that the two options considered were either business combination with Diebold or a stand-alone option. There is no evidence that in the absence of the merger with Diebold, Wincor would have entered into an 'M&A' deal or a joint venture arrangement with another party.
- 5.17 The internal documents of Diebold, including the minutes of meetings of its Board of Directors, also show that Diebold sought to combine its business with that of Wincor at a global level. There is no evidence to suggest that there were alternative plans to progress with a similar transaction with another party.

Provisional conclusions on the counterfactual

5.18 In light of the above, we provisionally conclude that in the absence of the Merger, the most likely counterfactual is that the Parties would have continued to operate on a stand-alone basis, globally and consequently in the UK.

6. Assessment of the competitive effects of the merger

6.1 In this section we discuss the competitive effects of the Merger, including how competition works, and evidence on the strength of the constraints imposed on each other by the Parties and by other suppliers.

6.2 We first describe the nature of pre-merger competition (paragraphs 6.3 to 6.32), before turning to the assessment of the effects of the Merger. This involves an assessment of market shares and concentration levels (paragraphs 6.37 to 6.53), competitive interactions between the Parties and other suppliers (paragraphs 6.54 to 6.71) and customers' views on the competitiveness of suppliers and effects of the Merger (paragraphs 6.72 to 6.88). We also consider the analysis submitted by the Parties on the impact of Diebold' re-emergence on Wincor's margins, as well as the Parties' estimates of the gross upward pricing pressure index (GUPPI) resulting from the Merger (paragraphs 6.89 to 6.98).

The nature of pre-merger competition

Tender structure

6.3 The Parties submitted that customers procure ATMs largely through competitive bidding processes. They submitted that deployers usually follow a process incorporating (i) a request for information (RFI); (ii) a request for proposals (RFP), including pricing, to which suppliers respond with proposals and presentations; (iii) further presentations based on the RFP or, alternatively, an e-auction; and (iv) selection of one or two suppliers to progress to contract, a process which may incorporate some further bargaining. They submitted that these tender processes tend to include at least two rounds of bidding and culminate in a best-and-final offer round.

6.4 The Parties also submitted that suppliers admitted to a framework contract through a tender process may not be guaranteed any volumes and will continue to compete with other framework suppliers after the tender process has concluded.

6.11 Predictions about the effect of a merger on suppliers' optimal bidding behaviour differ across auctions depending on their structure. The economic

literature relating to auction processes distinguishes in particular between ‘first-price’ auctions and ‘second-price’ auctions. **‘First-price’ auctions** typically refer to auctions or tenders where suppliers submit bids without observing the bids of their competitors, usually in a ‘one-shot’ game,¹⁰⁹ with the auction being awarded to the supplier with the most attractive bid.¹¹⁰ **‘Second-price auctions’**¹¹¹ typically refer to a category of auctions wherein some mechanism in the auction means that the price (or quality) of the winning bid is determined by the level of the second-best bid.¹¹² Two examples of auction rules that give rise to this outcome are ‘open’ or ‘descending’ auctions, and ‘second-price sealed bid’ auctions.¹¹³

- 6.12 An important difference between ‘first price’ and ‘second price’ auctions is that in a pure second-price auction, the marginal bid (ie the closest competitor to the winner) is of exclusive importance in constraining the winner, whereas in pure first-price sealed bid auctions, all competitors may be important in constraining suppliers in any given tender (and this importance depends on their relative strength and the number of other strong competitors).
- 6.13 In order to take into account the way in which tender processes for customer-operated ATM hardware work, and the manner in which competitors constrain each other, we examined whether tenders operated in a way such that suppliers, when submitting a bid, are likely to take into account the risk of losing to any competitor and not just their closest competitor.
- 6.14 We gathered data from Diebold, Wincor and other suppliers relating to all tenders to supply ATM hardware to banks and IADs in which they participated between 2012 and 2015 (**the bidding data**). The bidding data include data on the customers for whom they competed; the types of ATM device requested; details of the information held by suppliers in relation to the identity of participants, winners and runners-up; and details of the information held in

¹⁰⁹ That is, where bidders get one chance to make their best offer.

¹¹⁰ When referring to price in relation to the ‘best bids’, this term might be interpreted as incorporating non-price factors.

¹¹¹ We use the term ‘second-price auction’ to refer to a category of auctions, which have the shared characteristic that the winning price is determined by the price or bid submitted by the second-best bidder. This category includes more specific types of auction, such as ‘second-price sealed bid’ auctions, and ‘open’ or ‘descending’ auctions.

¹¹² The literature also distinguishes between ‘private values’ and ‘common values’ (or ‘common costs’) auctions. In Appendix E, we set out the difference between these two types of auction as well as evidence relating to whether tenders for customer-operated ATM hardware correspond to either type. In light of that evidence, which suggests that suppliers appear to be likely to be able to estimate the cost of fulfilling a contract, we have assessed these tenders as private values auctions.

¹¹³ Open or descending auctions are auctions wherein bidders are informed of the level of the leading bid at each stage and continually receive opportunities to improve their bid or drop out. The winner of an open auction is determined when the second-best bidder drops out. Second-price sealed bid auctions are auctions wherein the customer makes a commitment to bidders that whichever one of them submits the most attractive bid, must pay only the price of the second-best bidder.

relation to the expected level of competitors' bids. The data cover 43 bids made by the Parties and other suppliers in relation to a total of 19 unique tenders.¹¹⁴

- 6.15 We examined evidence on the types of stages involved in tenders, what kinds of information about bids are available to suppliers during tenders, and the level of margins that eliminated suppliers would have expected to realise had they won the tender. This evidence is set out in Appendix E.
- 6.16 Based on the bidding data, we found the following information about the main types of tender for customer-operated ATM hardware in the UK. In particular:
- (a) In the large majority of tenders, suppliers submitted sealed bids in one stage or a small number of stages, and the customer made an award to the most attractive bid.
 - (b) We found only two cases of descending e auctions being held by customers. In these auctions, suppliers participated in a series of bidding rounds, wherein the leading offer was revealed and suppliers received continual opportunities to outbid the leading offer. In particular, Santander used an e-auction process for all of its recent tenders and RBS used an e-auction on one occasion.
 - (c) We found no instances of 'second-price sealed bid auctions', wherein suppliers submit a sealed bid and the winner pays the price submitted by the runner-up (rather than their own price).
- 6.17 The Parties submitted that tenders in this market are significantly different from pure first-price auctions because:
- (a) bidders have multiple opportunities to lower their price (and therefore do not follow the 'one-shot game' format of a pure first-price auction);
 - (b) customers eliminate suppliers during the auction process which means tenders are less like pure first-price auctions and more like second-price auctions; and
 - (c) customers often provide information on the bid.
- 6.18 We set out below a summary of our assessment of the extent to which the framework of 'first price' or 'second price' auctions is useful in the assessment of competitive effects in this market.

¹¹⁴ Glory indicated that it had not participated in a tender for customer-operated ATM hardware in the UK since 2009 and thus did not provide any data to us. Hyosung did not provide any data to us.

Multi-stage and single-stage ('one-shot') auctions

- 6.19 We considered the importance of tenders being a 'one-shot game' or proceeding in multiple stages, and the implications of this for whether suppliers take into account the risk of losing to multiple competitors, or rather are exclusively constrained by one competitor.
- 6.20 The Parties submitted that tenders in this market generally include multiple stages, and therefore are not strictly speaking one-shot games. However, they also submitted that tenders often culminate in a 'best-and-final-offer' (BAFO) round. In a BAFO round, suppliers do not usually know what other suppliers will bid, and suppliers are not guaranteed any further opportunity to improve their final bid after it has been submitted. In this context, a supplier making a final offer is likely to expect to lose the contract if their bid is not better than that of each of its competitors. We therefore believe that in tenders that include BAFO rounds (or stages where no further opportunity to bid may be foreseen), suppliers will take into account the risk of losing to each competitor.
- 6.21 Customers may eliminate suppliers in rounds before the final round, although the bidding data does not show how prevalent this elimination is. The Parties submitted that it was unclear why customers would do this in a first-price auction setting (where suppliers are constrained by all other credible bidders), because eliminating bidders would reduce competitive constraints and incentivise higher prices. However, the act of eliminating suppliers in interim bidding rounds is consistent with an auction wherein suppliers are constrained by the risk of not receiving a further opportunity to improve their bid and the risk of losing to any bidder that submits a more attractive offer.¹¹⁵
- 6.22 We consider it likely that the conclusion of the auction process is considered important to the terms that customers achieve, even if subsequent competition between framework participants continues. The Parties have also underlined the importance of auction mechanisms in customers' ability to achieve good deals. To the extent the auction element of a customer's tender exercise establishes a price ceiling (against which further discounts are extracted, eg by offering to purchase large volumes), any substantial

¹¹⁵ See Bengtsson, C 'Simulating the effect of Oracle's takeover of PeopleSoft' in van Bergeijk, P and Kloosterhuis, E. (eds), *Modelling European Mergers: Theory, Competition Policy and Cases* (2005), pp133 to 149. The main model choice [in Oracle/PeopleSoft] was to use a sealed bid auction model. Though the entire procurement process may involve a number of selection and negotiation stages, one should not immediately draw the conclusion that a sequential English auction model [ie open auction] is the most appropriate way of capturing the competitive process. The key in this context is rather whether bidders can expect always to be given the chance to respond with an improved offer if they are on the verge of being eliminated from the context, or whether they risk being eliminated even before they have reached their pain threshold in terms of how low they would go on prices.

lessening of competition within that tender would have a negative impact on final outcomes.

- 6.23 For some significant number of customers, there is no multiple-player framework and competition does take place strictly within the tender process.

Information flows

- 6.24 In the context of sealed bid auctions, suppliers may have some information available to them about the likely range over which other suppliers may bid. This may be based on, for example, past experience from previous tenders. However, in a sealed bid auction they nevertheless face significant uncertainty about the level of each competitor's bid and therefore compete to try and beat the best bid they expect to face. In open auctions, suppliers are provided with clear and verifiable information about the level of the leading bid and are given continual opportunities to surpass it.
- 6.25 We considered the importance of suppliers receiving information about competitors' bids, as well as the extent to which such information flows occurred. In particular, we considered whether the degree of information available during tender processes meant that suppliers were left with significant uncertainty such that the presence of multiple competitors would increase the riskiness of submitting higher prices. The following summarises our main conclusions, with detailed evidence provided in Appendix E.
- (a) Our analysis of bidding data generally indicated that suppliers did not have clear information on the level of the bids of their competitors, nor on the level of the leading bid.
 - (b) We identified from our review of internal documents very limited evidence of the Parties having information about other suppliers' bids. In the limited number of cases where such evidence was identified, it typically related to information that we believe was not easily verifiable (for example, because the information was provided by a customer, which we expect would have an interest in presenting competitors as strong). We therefore believe that suppliers can be characterised as having to take into account the risk of losing to any one of their competitors, rather than the leading bid, even when they receive information from customers.
- 6.26 This characterisation of the treatment of information provided by customers is consistent with a description by Diebold staff of how such information is treated. Diebold explained that a supplier does not know who the competitors are, but that customers can inform suppliers they have to improve their price by a certain amount or percentage, but that it is for the supplier to choose

whether or not it actually makes that price improvement. Diebold described it as a choice between taking a risk and not improving the price (and still winning) or taking another risk and improving the price and losing some margin.

- 6.27 Even if suppliers have clear information about the level of the leading bid and submit a bid with a lower price, they do not know if they will win because customers attach value to non-price factors. This uncertainty is not consistent with an 'open auction' setting, where suppliers have a clear incentive to undercut each other until they are no longer able to do so without sustaining a loss. This is more consistent with a first-price auction setting, wherein there is a trade-off between increase prices and risk of losing (and where multiple suppliers can contribute to that risk).

Profitability of winning bids versus losing bids

- 6.28 In open or descending auctions, suppliers have the incentive to undercut the leading bid until they can no longer do so profitably (ie until their margin is zero). This implies that all runners-up will have approximately zero margin (whereas the winner will enjoy a positive margin) in a descending auction. This implies that we may expect two things when considering historic bids that have taken place in the context of an open (descending) auction. First, we would expect suppliers to have submitted final bids with zero or very low profit margins in the tenders they lost. We would also expect the margins on tenders they won to be higher than the margins on the tenders they lost.¹¹⁶ Second, we would expect the margin at which suppliers were eliminated at to be low or close to zero.¹¹⁷ In contrast, margins that are (i) positive and (ii) similar across both winning and losing bids are more consistent with a first-price auction, where suppliers may submit bids with positive margins and may subsequently regret that they could have submitted a more attractive (but profitable) bid and won.
- 6.29 Wincor was able to provide prospective margins on both won and lost tenders. We observed that prospective margins for winning bids ranged from [X] to [X], while for losing bids ranged from [X] to [X]. Therefore, prospective margins appear to be inconsistent with the hypothesis of a second-price auction, and more consistent with a first-price auction.

¹¹⁶ We refer here to the implied or prospective margin that suppliers would have earned had they won with their final bid.

¹¹⁷ Similar logic applies to other types of second-price auction, such as second-price sealed bid auctions. We do not discuss the latter type of auction because we could not find evidence of this type of auction taking place, as discussed in Appendix E.

Conclusion on the nature of pre-merger competition

- 6.30 In light of the evidence set out above, we consider that the properties of the market do not adhere to either a pure first-price auction or a pure second-price auction. Nevertheless, we found evidence that, despite certain information flows and multiple stages, suppliers participating in tenders for customer-operated ATM hardware in the UK operate in the context of significant uncertainty about what other suppliers will bid, about whether they will receive further opportunities to improve their bid and about how customers value different non-price factors. Therefore, we do not believe that these auctions approximate open or descending auctions.¹¹⁸ Rather, we believe that suppliers therefore take into account the risk of losing the tender or being eliminated, if at least one competitor submits a more attractive bid.
- 6.31 We also reviewed evidence from internal documents, which we consider in detail when looking at competitive interactions in paragraphs 6.61 to 6.69 below, which also identifies several instances of each of Diebold, Wincor and NCR taking into account the risk of losing to either of the other two when participating in tenders.
- 6.32 We therefore consider that suppliers take into account the risk of losing to each of their competitors, and not strictly their closest competitor (which they would not generally be able to identify in the context of any given tender). This is consistent with evidence on the operations of tenders and information flows (from internal documents and bidding data) as well as direct evidence on the behaviour of bidders (from internal documents and margins on losing bids).

Theory of harm

- 6.33 Theories of harm describe the possible ways in which an SLC could arise as a result of the Merger and provide the framework for our analysis of the competitive effects of the Merger. In this case we focused on one theory of harm: unilateral effects arising from the loss of a supplier of customer-operated ATMs to customers in the UK.
- 6.34 The concern under this theory of harm is that, as a result of the Merger, the Parties would have the ability to increase the price of ATMs (or to submit less attractive bids) or otherwise worsen other elements of their offering, as

¹¹⁸ In the discussion, we have mainly considered how tenders for customer-operated ATMs may approximate an open or descending auction (and therefore a second-price auction) because they feature certain information flows and multiple stages. We have not received submissions nor have we found evidence that these tenders should be assessed using a second-price auction framework for other reasons, for example because they are similar to 'second price sealed-bid auctions'.

compared with Diebold's and Wincor's pre-Merger offerings. In general, for this theory of harm to hold, two conditions need to be met:

- (a) the merging firms are close competitors (ie they are considered to be good alternatives by customers); and
- (b) other suppliers cannot replicate the competitive constraint that the merging firms exert on one another.

6.35 The Parties have told us that they face competition from a number of competitors in the UK including NCR, GRGI and Hyosung. They have told us that NCR has consistently been the largest player in the market and that GRGI and Nautilus Hyosung are already credible competitors with the knowledge, finance and ability to expand in the UK.

6.36 To assess whether the two conditions in paragraph 6.34 are met, we examined evidence on the competitive position of the Parties and other ATM suppliers in terms of current market position, level of competitive interactions and whether Diebold, Wincor and their competitors are perceived as likely to submit strong bids in future tenders and therefore likely to win those tenders if other suppliers worsen their bids, and the competitiveness of their offerings.

Current market position

6.37 We have calculated different measures of market concentration to ascertain the current market positions of the Parties and other suppliers of ATMs in the UK.

Shares of supply

6.38 We calculated shares of supply on three bases:

- (a) by value and volume based on sales data (table 3 and table 4);
- (b) by volume of shipments and by volume of installed ATMs in the UK (paragraph 6.49 and in more detail in Appendix E).

6.39 In the market for customer-operated ATM hardware, individual contracts or customers may have a significant impact on market shares. Even though suppliers compete closely for those contracts, all of the associated market share gain is attributed to the winner. This can cause significant fluctuations in market share, even in the context of only small differences between suppliers' competitive strength. For these reasons, we have taken into consideration market shares by value and volume calculated over 2014 and 2015, as well as for each individual year. We have also taken caution only to draw

conclusions from short-run developments in market shares where those developments are explained by other supporting evidence.

6.40 Table 3 shows the shares of supply of actively competing suppliers by value in 2014 and 2015.

Table 3: Market shares of supply of customer-operated ATMs in the UK, based on sales by value

	Overall			IADs			Banks			%
	2014	2015	2014 & 2015	2014	2015	2014 & 2015	2014	2015	2014 & 2015	
NCR	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Wincor	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Diebold	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
GRGI	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Hyosung	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Parties combined	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	

Source: CMA calculations based on data from the Parties, NCR, GRGI and Hyosung.

Notes: A dash ('-') refers to a zero where no sales were made. 0% refers to a positive share (ie where sales were made) that is nevertheless zero because it is not significant enough to round up to a share of 1% or more.

Sales achieved by Triton are not included but are likely to be negligible based on evidence received from customers and other suppliers and data from the RBR report.

6.41 Table 4 shows the shares of supply of actively competing suppliers by volume.

Table 4: Shares of supply of customer-operated ATMs in the UK, based on sales by volume

	Overall			IADs			Banks			%
	2014	2015	2014 & 2015	2014	2015	2014 & 2015	2014	2015	2014 & 2015	
NCR	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Wincor	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Diebold	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
GRGI	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Hyosung	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Parties combined	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	

Source: CMA calculations based on data from the Parties, NCR, GRGI and Hyosung.

Notes: A dash ('-') refers to a zero where no sales were made. 0% refers to a positive share (ie where sales were made) that is nevertheless zero because it is not significant enough to round up to a share of 1% or more.

Sales achieved by Triton are not included but are likely to be negligible based on evidence received from customers and other suppliers and data from the RBR report.

6.42 The Parties achieved combined market shares by value of [X] in 2014 and [X] in 2015. Their shares by volume were [X] in 2014 and [X] in 2015.

- 6.43 NCR is the [redacted] with value shares of [redacted] and [redacted] in 2014 and 2015 respectively.
- 6.44 Hyosung achieved a market share by volume of [redacted] in 2014 and [redacted].
- 6.45 GRGI achieved a market share of [redacted]. In 2016, [redacted].
- 6.46 As discussed in paragraph 4.56, we have not defined separate customer markets for banks and IADs. However, as we have found that in some respects banks and IADs have different requirements, we examined shares of supply by volume and value of sales for each of these two groups as a preliminary indicator of the relative abilities of suppliers to serve the distinctive needs of banks and IADs.
- 6.47 We found that the Parties' combined share of supply was considerably higher among banks. In particular:
- (a) By value, the Parties' combined shares among banks were [redacted] and [redacted] in 2014 and 2015 respectively. The increment from the Merger was [redacted] in 2014 and [redacted] in 2015.
 - (b) By volume, their share was [redacted] in 2014 and [redacted] in 2015. The increment from the Merger was [redacted] in 2014 and [redacted] in 2015.
- 6.48 The Parties' combined shares were much lower for IADs than for banks: Wincor had shares of [redacted] by value in each year and [redacted] by volume and Diebold has made limited sales to IADs in the UK. NCR holds a higher market share for IADs than for banks, whether measured by value or volume.
- 6.49 The Parties provided the CMA with estimated shares of supply, based on the volume of installed customer-operated ATMs and on numbers of units shipped. This data is based on RBR data and show that the Parties' combined shares in the three years from 2013 to 2015 were between [redacted] in terms of units installed and between [redacted] in terms of units shipped. More detail is provided in Appendix E.

Other measures of concentration

- 6.50 As part of our assessment, we calculated the Herfindahl-Hirschman Index (HHI). The HHI is a measure of market concentration that takes account of the difference in the sizes of market participants, as well as their number. The HHI is calculated by adding together the squared values of the percentage market shares of all firms in the market. The absolute level of the HHI post-

merger and the increase (the 'delta') arising from the merger can provide an indication of the change in market structure resulting from a merger.¹¹⁹

- 6.51 With respect to the simple average HHI across 2014 and 2015 by value:
- (a) The pre-Merger HHI by value in the overall market by value was 4,201.
 - (b) The post-Merger HHI by value would have been 5,058.
 - (c) This implies a delta of 857.
- 6.52 These figures indicate that the market was highly concentrated prior to the Merger, and would become significantly more concentrated as a result. This reflects that the Merger would combine the second-largest and third-largest suppliers of ATMs.
- 6.53 However, in assessing the prospective impact on competition, we take this into account along with other evidence on competitive interactions, the competitiveness of suppliers and customers' views on the Merger as set out below.

Competitive interactions

- 6.54 We have considered evidence on past competitive interactions between the Parties and their competitors and whether such evidence can provide information on future tenders and of the competitive pressures the various suppliers exert on each other. We set out below evidence gathered from the Parties and their competitors on their participation in past tenders, and evidence from a review of the Parties and NCR's internal documents.

Past tenders

- 6.55 We sought evidence on the extent to which suppliers actively participate in tender processes. To the extent that a supplier rarely participates in tenders, this may imply that it perceives itself as having a low probability of winning (and that participation is therefore not worth the cost of responding to requests for information or proposals) and/or that it may exert a weak constraint on other suppliers.
- 6.56 We asked all suppliers to explain whether they participate in all tenders of which they are aware, and to identify any tenders they chose not to participate in. Each of Diebold, Wincor and NCR said they generally participated in all

¹¹⁹ [Merger Assessment Guidelines](#), paragraph 5.3.4.

tenders of which they were aware and identified very few tenders they were aware of but chose not to participate in.

- 6.57 We calculated the Parties' participation rates in tenders, based on the bidding data. As discussed in Appendix E, there were some inconsistencies across suppliers' responses as to the tenders they participated in, and therefore, the participation rates based on these data must be interpreted with caution. We found however that the Parties and NCR participated in more than 60% of the tenders in the period 2012-2015, while GRG participated in around 20% of the tenders.
- 6.58 In some markets that feature tenders, data on past tenders can be used to calculate win ratios, which are effectively shares of supply by number of tenders won (rather than by volume). These may represent a good proxy for win probability. In this case, the bidding data were of poor quality in that we identified considerable inconsistencies across the tender data provided by each supplier, as explained in Appendix E. We believe that the extent of inconsistencies means that the data are insufficiently reliable for us to estimate win ratios and thereby approximate win probabilities. We therefore have not placed any weight on the evidence from win ratios obtained from bidding data.
- 6.59 The bidding data include suppliers' responses to questions about their knowledge or beliefs about the participation of NCR, Hyosung, GRGI, Triton, Glory or other suppliers in each tender¹²⁰. With respect to Triton and Glory, all suppliers indicated that they did not believe them to have participated in any tender for customer-operated ATMs (and as we explained in paragraph 2.49 Glory has never sold a customer-operated ATM in the UK).
- 6.60 The Parties and NCR were the only suppliers identified by other suppliers as likely to be the runner-up. Only Wincor submitted that it knew or believed Hyosung or GRGI to be the runners-up in one tender – this occurred with respect to a single tender to supply Barclays in 2014 for assisted self-service ATMs.

Internal documents

- 6.61 We have also carried out a review of internal documents from the Parties. These documents include all emails or other documents generated by, sent to or sent by sales staff, bid team staff or senior management in the UK, which discuss or provide updates on any issues relating to bids for or negotiations

¹²⁰ We asked suppliers to explain whether they knew or believed whether a supplier participated or did not participate in the tender, as well as the basis for this belief (and whether it could be verified).

with customers of ATM hardware in the UK. In Diebold's internal documents, we found 466 documents that mention Wincor, 554 NCR, 12 Hyosung and eight GRGI. In Wincor's internal documents we found that [REDACTED] documents that mention Diebold, [REDACTED] NCR, [REDACTED] Hyosung and [REDACTED] GRGI.¹²¹ The number of documents relating to the bidding processes in which a competitor is mentioned can act as an indication of the relevance of those competitors in a suppliers' bid assessment.

- 6.62 In a substantial number of these documents, only NCR and the Parties themselves were identified being the main competitive threats. These discussions included conversations about who the competition was and discussed those competitors (any one of NCR, Wincor or Diebold) in relation to the pricing or quality level that should be set.
- 6.63 For example, we identified several internal documents in which the Parties discussed each other in the context of setting their price or quality, in a manner which suggests that the risk of losing to each other is a factor in improving their offer:
- (a) One Wincor document referred to a conversation about the target customer price for a [REDACTED]. In that conversation, Diebold's price appears to be used as a benchmark for Wincor's price.
 - (b) In a document discussing a tender for the procurement of ATMs for deployment at [REDACTED], Wincor discusses how it expects Diebold to be the most price aggressive competitor (compared to NCR and Wincor).
 - (c) A Wincor internal document shows an email discussion about pricing, wherein it appears that a decision-maker asks whether they can charge a higher price, but is told that the lower proposed price was 'the best shot' to prevent Diebold from 'cleaning up'.
 - (d) A Wincor document refers to NCR and Diebold models not having a dual screen, and Wincor therefore added this feature to its ATM offer because it was an area in which Wincor could 'score', which we interpret as an improvement to its offer taking into account NCR and Diebold, but not any other competitor.
 - (e) A Wincor internal document about their opportunity to bid to prevent a formal RFP for the [REDACTED] bid discussed the fact that at that stage Wincor

¹²¹ These figures are obtained by identifying and counting all the documents that include a mention to a competitor. This 'number of mentions' is affected by two main issues. First it does not consider whether the mention relates to competition. Second, the number is affected by duplicated documents. We have not found any reason for these effects to impact one supplier more than another.

was in a non-competitive situation and, discussing pricing for the bid, stated that ‘this exercise is to try and prevent [REDACTED] going out to NCR and Diebold, [so] the offer from us needs to be very sharp....’ The email expressed concern that Wincor was not sufficiently competitive to prevent this.

- (f) In a Wincor internal document, a senior account manager discusses developing a product, which ‘would eliminate the Diebold opportunity to get machines deployed on the branch network which we [Wincor] would have to maintain’.

6.64 We also identified several other documents in which the Parties discuss competitive conditions in general or associated with individual bids, and only NCR and either Diebold or Wincor are discussed or appear to affect the Parties’ decisions. For example:

- (a) In a Wincor document discussing a bid for [REDACTED], Wincor says that ‘competition [was] from Diebold and NCR’. A Diebold internal document dated January 2015 shows a detailed internal analysis of a [REDACTED] opportunity. The only competitors perceived as risks to Diebold’s chances to win the contract are NCR and Wincor.
- (b) In relation to an RFP for [REDACTED], Wincor discusses in an internal document that they had been awarded [REDACTED] but ‘remain in fierce competition with Diebold and NCR’.
- (c) An internal document dated January 2015 shows a detailed internal analysis by Diebold of a [REDACTED] opportunity. The only competitors that appear to be perceived as risks to Diebold’s chances to win the contract are NCR and Wincor, with the former seen as representing a higher risk than the latter.
- (d) Another Diebold internal document discussing an opportunity with [REDACTED] describes NCR and Wincor as competitors perceived as having a chance of winning. A further Diebold internal meeting minute about the [REDACTED] opportunity dated September 2015 suggests that Wincor is seen as the main competitor.
- (e) A Diebold internal document dated January 2015 shows a detailed internal analysis of a [REDACTED] opportunity. The only competitors that appear to be perceived as risks to Diebold’s chances to win the contract are NCR and Wincor.

(f) A Wincor internal document dated August 2015 shows detailed internal analysis of the [REDACTED] opportunity. The only competitors mentioned throughout the document are NCR and Diebold. [REDACTED].

6.65 We identified a small number of references to Hyosung or GRGI (or GRG) in internal documents in relation to potential constraints.

(a) A Diebold document dated October 2013, describes Diebold's Strategic Plan 2014 to 2016 and identified GRG as an aggressive competitor after it has opened EMEA headquarters.

(b) A Diebold internal document dated December 2013 describes its expansion plan for 2014 and identifies Wincor and NCR as the main competitors, while Hyosung and GRG are identified as competitors 'trying hard to enter'.

(c) A Diebold internal document dated June 2014 produced in preparation of the tender to supply [REDACTED] in 2014 mentions Hyosung and GRGI among its five key competitors in the UK.

(d) [REDACTED].

(e) A Wincor internal document dated February 2014 presents the details of the bid to supply [REDACTED] with an assisted self-service device and refers to NCR, Diebold, Hyosung and GRG as the competition.

(f) An internal document of Wincor dated November 2015 shows an email reporting that [REDACTED] told Wincor that they were speaking to four suppliers: Wincor, Diebold, NCR and Hyosung.

6.66 Moreover, we also have reviewed 11 internal documents submitted by NCR.

6.67 In two of these documents NCR takes into account the Parties' offering in setting its price which in turn implies that the risk of losing to either Diebold or Wincor is a factor in improving their offer:

(a) The NCR document dated December 2012 produced in preparation for the tender to supply [REDACTED] stresses the need to price aggressively on, as Diebold, Wincor (and the other competitors) are expected to price low.

(b) Another NCR document that is dated May 2015 produced in preparation of a [REDACTED] also discusses the need to price very aggressively a particular model in order to compete with Wincor and Diebold.

- 6.68 Other internal NCR documents discuss competitive conditions in general or associated with individual bids where only NCR, Diebold and/or Wincor are discussed as competitors.
- (a) In a presentation prepared for the NCR European management meeting held in 2014 only Wincor and Diebold are named as NCR's competitors in the UK and the Republic of Ireland.
 - (b) An NCR internal document dated June 2014 produced in preparation of the tender to supply [REDACTED] in 2014 discusses Diebold's strengths and weaknesses relative to NCR. This document also mentions that Wincor will not bid as it is not certified on the network. No other possible competitor was mentioned.
 - (c) Additional NCR documents produced in preparation of specific bids [REDACTED] discuss Diebold's and Wincor's strengths and weaknesses with respect to customer-specific requirements relative to NCR are presented. For example, in the presentation for the [REDACTED], Diebold is described as the leader among the three [REDACTED] for hardware with Wincor and NCR being assessed to be competitive. In the same document Diebold is identified as uncompetitive in terms [REDACTED]. Regarding the same requirement NCR considers that it is the leader and Wincor is described as competitive.
- 6.69 GRGI and Hyosung are also mentioned in the following documents in a context relating to bidding or competition however they are not discussed as extensively as the Parties.
- (a) NCR's presentation in preparation for the [REDACTED] dated December 2012 briefly mentions Hyosung and GRGI in the competitive assessment.
 - (b) The NCR document dated February 2014 produced in preparation of an opportunity to supply [REDACTED] with a multifunction device lists only Wincor and Diebold as the main competitors for assisted self-service machines but also mentions Hyosung's offering. In the same document GRG Banking and Glory Global Solutions are listed among the RFI invitees but the belief that [REDACTED] will not proceed in RFP with these two suppliers is stated.

Conclusion on competitive interactions

- 6.70 Our analysis of the evidence from past tenders shows that the Parties considered each other and NCR as strong and credible competitors, while they considered other suppliers to pose only a weak competitive constraint.
- 6.71 Our analysis of the evidence from internal documents shows that the Parties took into account the risk of losing to each other when setting their price or

quality and that only NCR and either Diebold or Wincor appeared to affect the Parties' decisions.

Customers views on competitiveness of suppliers

- 6.72 We sought views from customers as to the competitiveness of various suppliers.
- 6.73 In relation to Hyosung, [REDACTED] and Barclays told us that they did not select Hyosung in part because of its lack of company representation in the UK, [REDACTED]. Nevertheless we note that Barclays has visited Hyosung's production facilities in South Korea and that Hyosung's participation in these tenders could be a signal of interest in serving these customers. To the extent suppliers believe Hyosung has a significant chance of winning tenders if those suppliers worsen their bids, Hyosung would act as a constraint. Cardtronics, Hyosung's only customer in the UK, told us that it does not purchase from Hyosung anymore because issues with lead times and total cost of ownership mean that Hyosung no longer represents value for money compared to NCR.
- 6.74 CYBG told us that, as part of its market research, it had considered Hyosung but that it was ruled out at an early stage because of its model types and its limited sales to UK banks. CYBG also told us that it considers it to be a likely entrant in the market. It told us that Hyosung is big in other markets but their presence is limited in the UK, mostly with the IADs. CYBG though described itself as a 'safe player' that would most likely work with established UK suppliers.
- 6.75 [REDACTED], in an internal document, advises against Hyosung, raising concerns about the local availability of parts but also concerns with the technical support which Hyosung provides via telephone only. The document states that it would be difficult to get an engineer to the UK in a reasonable time and that Hyosung's problem solving approach could pose a threat to [REDACTED] reputation.
- 6.76 In relation to GRGI, Barclays told us that it was invited to join the tender because of GRG's global footprint. Barclays considered that GRG had the required hardware and its software platform was flexible enough to facilitate integration with Barclays' systems. However similar transition risks (as it was the case with Hyosung) arose due to the lack of servicing capability and concerns around DDA compliance.¹²² As a result Barclays [REDACTED].

¹²² Barclays had concerns around Hyosung's DDA compliance as well. However Barclays has told us that its requirements often exceed DDA standards.

6.77 [REDACTED], in the same internal document discussed in paragraph 7.77, also advises against using GRG's ATMs referring to GRG's lack of established presence in Europe and the fact that its offering compared to NCR, Wincor and Hyosung was considered very poor. The GRG machines received good feedback in terms of its engineering grade but very poor feedback on appearance and design.

6.78 Other customers also provided views on other suppliers:

- (a) Paypoint provided us with an ATM RFQ scoring index¹²³ it used when it conducted its last tender in September 2015. PayPoint's scores, which reflected some hardware and software aspects of the suppliers' machines, ranked in descending order [REDACTED] as all offering hardware that PayPoint considered to be close in terms of hardware and software quality.
- (b) Nationwide said it was not aware of GRG Banking or OKI. It observed that Triton offered relatively small and simple ATMs for independent ATM deployers but that it did not consider them to be viable for banks.
- (c) Barclays told us that Triton produced low cost ATMs that would only be suitable if the ATM would be required for a low volume of transactions.
- (d) YourCash submitted that it considered NCR and Triton to be its potential hardware providers.
- (e) CYBG told us that Triton is one of the suppliers of lower standard machines in the UK. CYBG told us that in its last tender it did consider Triton (as well as Hysoung) but was also ruled out at an early stage because of model types and limited sales to UK banks. CYBG also told us that Triton models are built for merchant fill, and smaller locations. CYBG was looking for a full-function ATM.
- (f) Cardtronics told us that it would consider Triton as a supplier but it believed that Triton was no longer operating in the UK.

6.79 In the current market, we are of the view that competitors to the Parties, with the exception of NCR, exert a weak constraint.

¹²³ [REDACTED] and [REDACTED] each received lower scores, all at least 10% (and up to 39%) below the top four devices' scores, and lacked any of PayPoint's requirements.

Customers' views on the merger

- 6.80 We have considered whether customers had concerns about the impact the merger might have on competition.
- 6.81 A number of customers expressed a concern that the merger might be detrimental to them if the merged entity decided to no longer support both Wincor and Diebold products and focused only on one of the two. In particular:
- (a) Cardtronics expressed concern that the merged entity could decide to focus only on the Diebold product range and no longer support the Wincor products. And that, if legacy Wincor products were no longer supported, their installed base of ATM units would need to be replaced.
 - (b) NoteMachine believes that the merged entity would in future only support one type of software.
 - (c) Raphaels Bank expressed some concern that it may no longer be able to purchase the Wincor hardware which is currently compatible with its central ATM driving system.
 - (d) [redacted] expressed a general concern around a lack of future support.
 - (e) YourCash expressed concern that the merged entity would stop supporting its legacy Wincor hardware and that YourCash would be required to make a new purchase.
- 6.82 Diebold told us that their policy when they discontinue a product is that they guarantee normal support for seven years. To the extent that this is contractually agreed, some of the concerns may not materialise.
- 6.83 Some customers referred to a potential loss of competition from the Merger. In particular:
- (a) Cardtronics noted that it meant one fewer player to play off against the others and that might mean a worse tender result.
 - (b) Barclays said that there is a possibility that the reduction to two suppliers could lead to problems arising in the future, were it looking to expand rapidly or replace its fleet.
 - (c) [redacted], if there are only two viable options for ATM suppliers, there is a potential concern that competition will be reduced. It also said that Diebold was definitely a factor in getting a good price on the most recent tender

and that having Diebold created a marketplace where Diebold, Wincor and NCR knew that the marketplace was 'active'.

- (d) Tesco Bank told us that in any market if you have more suppliers competing for the customer, you generally get a better outcome and that if the market were down to two, although they would still compete, there would be slightly less choice.
- (e) Clydesdale and Yorkshire Banking Group (CYBG) told us that Diebold's entry drove NCR and Wincor to work harder, look beyond ATM purchase and be more responsive to customers' requirements. Whilst it was not concerned by the prospect of the Merger, it considered that it would limit choice.

6.84 In some cases, these concerns were qualified by the possibility of future entry. For example:

- (a) Cardtronics said it could work with Asian suppliers but there are issues with lead time and support which may make this difficult.
- (b) Barclays told us that although it saw problems in the future, it said that if there were too few suppliers to get a good deal, it could work with another supplier.
- (c) HSBC told us that it anticipates that Asian manufacturers will grow their presence in Europe in the coming years.

6.85 Some customers told us that they expect to benefit from having a single supplier for their entire estate:

- (a) Barclays views the merger positively in the short term [redacted].
- (b) HSBC expects the merger to reduce the complexity in managing two competing companies as 'it is always easier to resolve issues with a single company'.
- (c) Travelex believes it may be able to benefit from the merger because it will be able to purchase [redacted] software and hardware while keeping its legacy Wincor hardware.

6.86 Other customers mentioned the existence of more general complementarities between the Parties. In particular:

- (a) Bank of Ireland believes that there will be synergies between Diebold and Wincor in both hardware and software.

- (b) Cardtronics considered whether the merged entity could 'drive in the long term an improved software support offering.'
- (c) Co-operative Bank said that the Parties complement each other as Diebold is small within the UK and the merger will enable a more complete provision of services and hardware. However, it subsequently told us that it did not foresee any benefits from the merger in the short run as it currently uses only Wincor.
- (d) HSBC expects that the merged entity will consolidate the best of the Parties' technologies for hardware and software.
- (e) Nationwide believes that the merged entity will provide better services and cost benefits to customers.

6.87 [X] said that NCR and the merged entity might be enough for sufficient competition, as the companies are very aware of the opportunities in the marketplace and of each other's presence. It said that Diebold created a competitive marketplace but the extent to which it contributed to the end result was impossible to say.

6.88 Overall customers do not appear to be concerned about the impact of the merger as long as:

- (a) they would be able to benefit from the merger thanks to either a reduction in transaction costs due to having a sole provider of hardware and/or service across their estate or the pass-through of any efficiencies the Parties were able to realise;
- (b) a new supplier was able to enter the market or an existing competitor was able to expand, if market conditions had worsened; or
- (c) they received assurance that neither Diebold nor Wincor products or services were to be discontinued after the merger.

Other issues raised by the Parties

6.89 We have also considered analysis submitted by the Parties on the impact of Diebold' re-emergence as an active market participant in UK from 2012 onwards on Wincor's margins, as well as the Parties' estimates of the gross upward pricing pressure index (GUPPI) resulting from the Merger.

Impact of Diebold's re-emergence on Wincor's margins

- 6.90 The Parties told us that the re-emergence of Diebold in 2012 did not appear to have a significant effect on Wincor's prices (discounts) or margins. They submitted that this suggested that the presence of Diebold as an independent competitor is not necessary to ensure that customers obtain competitive prices. We consider that the appropriate comparison for margins is the level of margins that would have evolved absent Diebold's re-emergence.
- 6.91 For the reasons set out in detail in Appendix E, we believe that there is insufficient information to be able to estimate how margins would have been likely to evolve in the absence of Diebold's re-emergence, and moreover that there are good reasons to believe that they may have risen.
- 6.92 The Parties submitted that the appropriate counterfactual for Wincor's margins is one where Wincor's margins would have continued to decline over time. The Parties argued that the reason for this decline is twofold:
- (a) Diebold's global margins have declined from about [REDACTED] before the financial crisis to about [REDACTED] in 2015.
 - (b) Bank consolidation has led to an increasingly smaller number of transactions and the number of bank branches in the UK has steadily declined by about 23% between 2007 and 2015.
- 6.93 Although bank and branch consolidation may have led to a reduction in the number of transactions, the Parties have not submitted any evidence with respect to why the trend in Diebold's global margins should represent a good proxy for Wincor's local margins in the UK. Diebold's global margins may have been affected by a multitude of factors unrelated to the UK economy. We also note that it may be reasonable to expect that recovering demand conditions (and the recovering financial health of local banks) would be associated with higher local margins in ATM hardware. To the extent that this is the case, [REDACTED] of Diebold on margins may be masked by the upward pressure on margins driven by growth in demand.
- 6.94 We therefore have not attached significant weight to this evidence.

GUPPI

- 6.95 GUPPI (gross upward pricing pressure index) is an index measure constructed using diversion ratios, prices and margins in order to 'score' the post-merger incentives of merging parties to increase prices. The Parties used margin, price and market share data to compute GUPPIs for Diebold and Wincor. The Parties' estimates of the GUPPI are [REDACTED] (for Diebold) and

[X] (for Wincor). The Parties submitted that a GUPPI below 5% is typically considered not to give rise to unilateral effect concerns. We have considered the GUPPI in the context of customer-operated ATMs in detail in Appendix E.

- 6.96 We do not think that the GUPPI analysis can be relied on to provide an accurate estimate of the upward pricing pressure from the merger for the following reasons:
- (a) The market for customer-operated ATMs is highly concentrated which means that firms are more likely to respond to each other's strategies, rather than acting as price takers. GUPPI only uses measures of diversion between the merging firms and does not take into account the structure of the rest of the market or the responses of competitors.
 - (b) The GUPPI computed by the parties does not account for the full value of sales, because the actual value of winning a tender includes the increase in expected margins from resulting cross-selling of software and services.
- 6.97 Even if the GUPPI were an accurate estimate of upward pricing pressure, we would not be able to rely on it to determine whether the proposed merger is likely to result in harm to customers. This is because prices in this market are set in individual tenders and negotiations, which means that upward pricing pressure may be greater for certain customer groups (such as for banks) or certain tenders for which margins are greater than the average.
- 6.98 In light of the above, we do not attach significant weight to this GUPPI.

Provisional conclusions on the effect of the merger

- 6.99 Based on our assessment of the nature of pre-merger competition we consider that suppliers take into account the risk of losing to each of their competitors, and not strictly their closest competitor (which they would not generally be able to identify in the context of any given tender).
- 6.100 Wincor and Diebold are currently second and third suppliers of ATM hardware in the UK, NCR is the largest supplier in the market and there appears to be a small number of other suppliers which are engaged in limited activity but which have, to date, either not been able to gain and/or retain any material share of the market or appear to be retreating.
- 6.101 Our analysis of the evidence shows that each of NCR, Diebold and Wincor is a strong and credible competitor, representing viable alternatives for customers of ATM hardware.

- 6.102 While NCR's shares of supply suggest that NCR is the strongest competitor for customers of ATM hardware generally, each of Diebold and Wincor have material shares of supply and from our review of internal documents they appear to take the risk of losing to each other, and to NCR, into account when setting prices for their bids.
- 6.103 Conversely, evidence shows that other competitors of the Parties and NCR, while competing to supply ATM hardware, may pose weak, or in some cases no, competitive constraint for customers in general or for customers of certain types. Hyosung, GRGI and Triton participate in tenders for customer-operated ATMs either rarely or considerably less frequently than the Parties and NCR.¹²⁴ In light of their small and in some cases declining shares of supply and lack of mention in internal documents where prices are discussed, these suppliers appear to pose only a weak competitive constraint on the Parties and NCR.
- 6.104 We recognise that customers have not expressed strong concerns about the merger and that although they have recognised the loss of competition they believe this could be offset by the prospect of entry and/or synergies that may arise from the merger.
- 6.105 On the basis of the evidence we have reviewed, we provisionally consider that the merger raises competition concerns and is likely to lead to an increase to the price of ATMs or lower quality in the Parties' offer, because of the loss of one of the three suppliers which are currently able to exert a competitive constraint in what is already a highly concentrated market.

7. Countervailing factors

- 7.1 In this section, we consider whether entry by new suppliers, expansion by existing suppliers and/or the exercise of buyer power by the Parties' customers might prevent or counter the effects of the Merger in the market for customer-operated ATMs in the UK. We also consider whether efficiencies identified by the Parties may be expected to enable the Parties to compete more effectively with NCR, with the result that the Merger does not give rise to an SLC.

¹²⁴ We note that Glory participated in one tender for teller-assist ATMs which they did not win.

Entry and expansion

- 7.2 In assessing whether entry or expansion might prevent an SLC, our guidelines set out that we will consider whether such entry or expansion would be timely, likely, and sufficient to prevent such an SLC.¹²⁵
- (a) Timely: whether entry or expansion can be expected to be ‘sufficiently timely and sustained to constrain the merged firm.’ The guidelines note that: ‘The Authorities may consider entry or expansion within less than two years as timely, but this is assessed on a case-by-case basis, depending on the characteristics and dynamics of the market, as well as on the specific capabilities of potential entrants’.¹²⁶
 - (b) Likely: the CMA will consider not only the scale of any barriers to entry and/or expansion that may impact on the likelihood of entry or expansion but also whether firms have the ‘ability and incentive to enter the market or the intent to do so’.¹²⁷
 - (c) Sufficient: whether the scope or scale of entry or expansion would be sufficient to act as a competitive constraint, ie deter or defeat any attempt by the merged firm to exploit any lessening of competition resulting for the merger.¹²⁸
- 7.3 We have considered whether the two-year horizon is appropriate in this case given that tenders run by individual customers in this market may be infrequent. Our examination of the bidding data indicates that there were between four and six tenders each year from 2012 to 2015.¹²⁹ Furthermore, the parties told us that there will be quite a lot of potential activity in the market over the next 18 months to two years (see Appendix G). Therefore, entry or expansion beyond the two-year period would not be able to counteract the competitive effects of the merger. For this reason we did not depart from the two-year period contemplated by in our guidelines in our analysis.¹³⁰
- 7.4 In order to reach a view on the likelihood, timeliness and sufficiency of future entry and expansion, we first considered the history of past entry and expansion. We then considered what barriers to entry and expansion exist in relation to the supply of customer-operated ATM hardware in the UK, the

¹²⁵ [Merger assessment guidelines](#), paragraph 5.8.3.

¹²⁶ [Merger assessment guidelines](#), 5.8.11.

¹²⁷ [Merger assessment guidelines](#), 5.8.8.

¹²⁸ [Merger assessment guidelines](#), 5.8.10.

¹²⁹ These numbers are likely to be a lower bound because we have excluded several tenders from our analysis due to some inconsistencies in the data.

¹³⁰ [Merger assessment guidelines](#), 5.8.12.

detail of which is set out in Appendix F. Finally, we assessed each potential candidate for entry/expansion that we had identified, before reaching provisional conclusions on the likelihood of entry and expansion and whether this would provide a sufficient competitive constraint on the merged parties in a timely manner.

History of entry and expansion

- 7.5 We are aware of only one example of de novo entry in the UK market for customer-operated ATM hardware in recent years. GRGI became active in the UK in 2012. It has [REDACTED].
- 7.6 As explained in paragraph 2.5, Diebold has been operating in the UK for a considerable number of years, but from 1999 until 2012 it had not been actively pursuing new contracts, achieving only few new sales and focusing on managing a small number of legacy machines. Its increased focus on the UK market (or re-emergence) since 2012 can therefore be characterised as expansion in the UK.
- 7.7 We have not identified any examples of complete exit from the market, but we understand that Triton has not sold any new customer-operated ATMs in recent years (see paragraphs 2.48 and 6.59) and some customers have told us that it has stopped operating in the UK.

Diebold's re-emergence

- 7.8 Diebold's expansion since 2012 provides useful information about the extent of barriers to entry and expansion, as well as the starting point for identifying the necessary actions and time requirements to overcome those barriers. Diebold entered the UK market in 1991 in a joint venture with IBM called InterBold. By 1998 it had achieved a share of the installed base of customer-operated ATMs of [REDACTED]. The joint venture terminated in 1999, after which Diebold installed base was progressively eroded to below [REDACTED] ATM machines by 2012 (or, [REDACTED] of the installed ATMs in the UK at the time). At that point, Diebold had a small sales force, [REDACTED] hardware maintenance engineers and an existing maintenance contract for about [REDACTED] cash deposit machines it looked after for HSBC.
- 7.9 Diebold told us that to 're-emerge' in the UK, it pursued a 'start up' strategy, whereby it had first to prove that its products were as good as competitors' products. It also had to demonstrate to potential customers that it was a serious competitor, and offered a 'fresh' alternative in comparison to the

incumbents. [REDACTED]. Diebold has also had small wins with other customers including banks and IADs.¹³¹

- 7.10 The country-specific investment which Diebold undertook included the recruitment of new management, sales staff and hardware maintenance /servicing teams.¹³² Diebold also invested in infrastructure by establishing new UK and Ireland headquarters, a helpdesk and a UK wide service/logistics organisation.

Barriers to entry and expansion

- 7.11 According to our guidelines, barriers to entry and expansion are specific features of the market that give incumbent firms advantages over potential or actual competitors. Where barriers are low, the merged firm is more likely to be constrained by entry and/or expansion; conversely, this is less likely where barriers are high.¹³³
- 7.12 The Parties told us that the potential barriers that have been identified by the CMA (see discussion in paragraphs 7.13 to 7. 31 below and in Appendix F) are not material and would not disincentivise an existing manufacturer from entering or expanding in the UK.

Reputation and scale

- 7.13 We were told by several third parties that reputation and experience may create incumbency advantages and hinder entry into the market for the supply of ATM machines (see paragraphs 2 to 4 in Appendix F for more detail). The responses from the customers indicate that there are three main dimensions along which they assess supplier reputation: geography, scale and customer type.
- 7.14 In relation to geography, only one bank (LBG) told us that a supplier must have a proven track record of delivery in the UK. However, several customers (Barclays, [REDACTED], RBS, Cardtronics, Santander and Tesco Bank), most of which are banks, made reference to the importance of an established footprint or reputation in the UK for a supplier to be considered. Other banks, as well as IADs, were willing to consider a supplier's European and/or global footprint,

¹³¹ [REDACTED].

¹³² The Parties noted that this was less of a requirement for Diebold as it already had [REDACTED] engineers in place in the UK. The Parties submitted that this could also have been arranged through a sub-contracting arrangement with a third-party maintenance provider such as IBM/G4S or Cennox, or even one of the other manufacturers.

¹³³ [Merger assessment guidelines](#), 5.8.4.

when assessing its reliability. Two banks and one smaller supplier indicated the importance of scale.

- 7.15 As far as references from customers are concerned, the majority of the respondents indicated that they would consider references from either banks or IADs when assessing the suitability of a supplier. Two banks (Barclays, HSBC) expressed preferences for references specifically from banks and one IAD (YourCash) for references specifically from IADs.

Local support services

- 7.16 We have received evidence from both customers and suppliers, outlined in Appendix F, that an important driver of supplier choice is the availability in the UK of reliable and competitive SLM services (including the efficient provision of spare parts) for the ATM devices and other complementary support services, including client relationship management, and sales and account management.
- 7.17 This evidence indicates that a supplier can provide SLM services in several different ways, namely by setting up its own maintenance operations in the UK (which was the approach Diebold followed in the context of its re-emergence strategy); purchasing support services from an independent non-OEM maintenance provider; or purchasing support services from another OEM which supplies ATM hardware in the UK. We also note that some deployers carry out the maintenance of their estates in-house.
- 7.18 Several customers told us that they would have no objection to using third party maintenance providers, whether OEM or independent, provided they can prove they have access to spare parts and are suitably trained for the specific ATMs that need to be supported. Some customers indicated that it may be more difficult to ensure third party maintenance for multifunctional devices or newly released ATM models.
- 7.19 One third party provider indicated that substantial sales (in the order of 500 ATMs) were necessary for a partnership or collaboration to be profitable, although a smaller number of ATMs may be profitable to maintain if the deployer of those ATMs were to concentrate on machines in a small geographic area. Another third party maintenance provider said that it would be willing to provide maintenance services for a small estate of ATMs for a new entrant if there was a prospect for the entrant to expand its installed base.
- 7.20 We are aware of several examples where OEMs maintain machines manufactured by other OEMs. This includes NCR maintaining some of

Wincor's machines and Wincor maintaining Diebold's machines for certain customers. We have considered whether an established OEM with maintenance capability may have the ability and incentive to refuse to supply an entrant in order to foreclose. We think that this is unlikely, given that there are a number of different ways in which entrants can secure maintenance. This means that any foreclosure attempt by the incumbent OEMs is likely to be unsuccessful and costly in terms of forgone revenue. We also note that a customer can guard against foreclosure by requiring its maintenance provider to maintain any machine in its estate through a contractual arrangement.

- 7.21 In relation to other complementary services, several respondents (four banks, two IADs, two suppliers and an independent maintainer) have stressed the importance of locally available non-maintenance related support operations, including sales and account management and client relationship management, when assessing the credibility of a hardware supplier. However, one of the two suppliers which stressed the importance of locally available support operations suggested that this could be achieved through a reseller agreement with a third party. One other bank told us that the location of sales operations did not matter.

Certification and testing

- 7.22 As set out in Appendix F, some technical certifications and/or testing are needed in order for a supplier to be able to compete in the UK, including with the LINK network and the Bank of England (with respect to deposit-taking ATMs). Other certifications, testing and piloting may be needed when a supplier competes for, or wins, its first customer in the UK, and for each new customer thereafter.
- 7.23 The Parties submitted that certification is an ongoing requirement as all UK suppliers (incumbents as well as entrants) need to obtain payment system certifications (card schemes and LINK), customer-specific certifications and certification with the Bank of England and other sterling-issuing banks when introducing new models. The Parties also submitted that certification costs are shared between the software supplier, the hardware supplier and the deployer and that any differences in terms of the time and costs required to certify an existing supplier's new ATM and a new supplier's ATM are not significant. Moreover, the Parties have told us that certifications are not required in order for a supplier credibly to bid for a contract.
- 7.24 However, several customers (three banks and two IADs) told us that they take hardware certification (national and/or customer level) into account when deciding between credible suppliers of ATM hardware. One of those customers told us that development costs for integration with its central

systems and scheme certification effort are some of the key factors driving its choice of ATM provider. Another told us that if the hardware is EMV¹³⁴ and Link certified, it is easier to ensure quick deployment.

- 7.25 The Parties submitted that the cost of obtaining all the necessary certifications for customer-operated ATM hardware corresponds to approximately [X] per year. This cost estimate includes the cost of the establishment of a certification team and the cost of obtaining the Bank of England certification. Diebold provided an estimate of [X] per annum for developing and maintaining sterling templates for recyclers and deposit taking machines. The Parties said that all potential entrants have the financial resources and experience to go through this process.
- 7.26 The Parties estimate that certification with the LINK network in the UK would cost approximately [X] per model, except where [X]. This estimate is broadly consistent with those of GRGI, which told us that it costs [X] and can, for some examples be expected to rise to six-digit figures, once all associated costs (providing ATMs to customers to undertake certification, fees, staff, etc) are accounted for.
- 7.27 Several customers provided us with their estimates of the length of time required to complete the testing and integration of ATMs of new and existing suppliers with their systems. These estimates varied from three to 18 months, with one customer saying it would take half the time and money required for an existing supplier in comparison to a new supplier.

Customer specific design requirements

- 7.28 Design requirements cover issues such as the size of the ATM machines and their suitability for specific locations (eg TTW, listed buildings) and specific design requirements to comply with the Equality Act 2010 (EA¹³⁵).
- 7.29 The Parties submitted that EA compliance is not an issue for any established supplier already selling ATMs in other major markets. They also told us that the frequency of installations in locations where a supplier may encounter difficulties (eg listed buildings) is low.
- 7.30 However, we received evidence of some suppliers either deciding not to participate in tenders or being ruled out by customers or ranking last because of the design features of their devices were unsuitable for end-users'

¹³⁴ Card schemes (Euronet, Mastercard, Visa).

¹³⁵ The Equality Act replaced the Disability Discrimination Act.

requirements (See Appendix G paragraphs 18 to 19 as well as paragraphs 29 and 32 to 37).

- 7.31 Customers told us that there are no standard aperture dimensions in the UK, but rather that these depend on the legacy aperture size of the previous installed machine. Some customers, and one potential entrant, told us that installation costs and risks and delays associated with planning permission could be significant, for example, when the re-sizing of an aperture is necessary (ie when the ATM is too large for the existing aperture). However, we were also told that installation costs are lower when minor building works are required and that even when replacing a machine like for like, some costs have to be incurred.

Cost of entry

- 7.32 We have examined evidence relating to the costs an entrant would need to incur in order to become established.¹³⁶
- 7.33 The Parties told us that there are two types of costs that an entrant would need to incur: costs for local sales and maintenance operations and costs for certifications.
- 7.34 The Parties put forward estimates for setting up sales and maintenance teams. In terms of sales team (which would include sales personnel necessary to undertake certification), the Parties indicated this would cost [X] per annum. Maintenance operations, if set up in-house, would [X] and costs would start at [X] per year in Year 1 to reach [X] per year by Year 3, based on Diebold's re-emergence model of [X]. The Parties also said that if a new supplier decided to adopt a partnership model with a third party maintenance provider, the new supplier would not incur such maintenance costs directly.
- 7.35 According to an internal strategy document from Diebold, the annual investment required by Diebold to re-emerge in the UK ranged from just under [X] in 2012, to a forecast of [X] in 2013 and further [X] and [X] in 2014 and 2015 respectively, as the headcount grew, which is broadly in line with the Parties' estimates in the paragraph above.
- 7.36 Diebold's UK management accounts show that [X].
- 7.37 The different costs illustrate that for the first year, a new entrant would need to invest approximately £1 million if it wanted to establish its own maintenance operations. These costs would increase year on year but after [X] years,

¹³⁶ The only example of significant entry in the UK in recent years has been that of Diebold.

based on Diebold's experience, an entrant could be expected to break-even and possibly move into profit.

Provisional conclusion on barriers to entry and/or expansion

- 7.38 In light of the evidence discussed above, we consider that barriers to entry and/or expansion in the market for customer-operated ATMs, can be overcome, especially by a proactive and determined party, as the re-emergence of Diebold shows.
- 7.39 Reputation is certainly an important factor, and perhaps the most significant of the barriers we have examined, especially in relation to bank customers. But it is possible that this barrier could be overcome by a supplier in possession of a global footprint, or better still, some UK or European track-record, which it could use as leverage to enter or expand in the market for customer-operated ATMs in the UK.
- 7.40 We further consider that entry costs, which are discussed in paragraphs 7.32 to 7.37 above, can be managed and that the prospect of breaking even in [X] years' time, which is consistent with Diebold's experience, is unlikely to deter large and motivated suppliers provided they are prepared to incur sunk costs and negative cash flows for a number of years. We are also of the view that there are different models for entry and that costs vary, providing opportunities for different types of competitors.
- 7.41 That said, in addition to reputation, certain customers, banks in particular, tend to be more demanding in relation to availability in the UK of reliable and competitive SLM services as well as local presence in terms of complementary support services. Similarly, some customers take certification (at national and/or customer level) into account when deciding between credible suppliers of ATM hardware. This means that the choice of an entry strategy by a supplier which does not address those requirements may place a supplier in a weak position when bidding for contracts with those customers.

Likelihood, timeliness and sufficiency of entry/expansion

- 7.42 This section examines the potential for entry/expansion in the UK in a time horizon of approximately two years.
- 7.43 We have identified and discussed several possible candidates for entry and expansion in Appendix G. We set out below our views on the likelihood, timeliness and sufficiency of two of those, Hyosung and GRGI, as the only credible candidates. We do not believe the other parties that we have

identified have plans to enter the UK market for customer operated ATMs based on the evidence available to us which is detailed in Appendix G.

- 7.44 The Parties told us that any suggestion that GRG¹³⁷ or Hyosung lack scale or reputation is contrary to the evidence in front of the CMA. They also told us that expansion by GRG and Hyosung is likely to occur within a short time frame and is sufficient to restore the pre-merger level of competition in the market.

Hyosung

- 7.45 Hyosung is the fourth largest ATM supplier worldwide with a strong presence in Asia and the US. Russia and the UK are its main markets in Europe with market shares of [REDACTED] and [REDACTED], respectively. Hyosung has also installed a very small number of ATMs in other European countries where it has its own sales and marketing teams, including Germany ([REDACTED] machines in 2015, or [REDACTED] market share) and Italy ([REDACTED] machines in 2015, or [REDACTED] market share).¹³⁸
- 7.46 Hyosung entered the UK market by winning a contract with Omnicash which was subsequently taken over by Cardtronics in 2011. After the acquisition, Cardtronics continued to purchase from Hyosung for a couple of years and now has an installed base of just under [REDACTED] machines from Hyosung. Hyosung does not have any 'live' customers in the UK.
- 7.47 We have considered the extent to which Hyosung would be able to overcome the main barriers to entry and expansion that we have identified above.
- 7.48 In relation to reputation and scale, the Parties told us that Hyosung is an established global player with a large product portfolio and presence in a number of markets. The Parties also told us that Hyosung has an established maintenance function (via Cennox) and a full suite of products suitable to meet UK demand and hence that its ability to influence pricing is already established.
- 7.49 While we agree with the observation that Hyosung is an established global player, we note that its track record and scale in the UK and Europe, which are important for a number of customers (as set out at paragraph 7.14 above), are somewhat limited. Furthermore, Hyosung's only historic customer in the UK (Cardtronics) told us that it no longer commissions any ATMs from Hyosung because it can obtain a better price from NCR with whom it now has

¹³⁷ The Parties use the names GRG and GRGI interchangeably but as we explain in paragraph 7.62 below, these are two separate, independent companies.

¹³⁸ RBR, (2016) *ATM Hardware, Software and Services* 2016. Volume 1.

a corporate deal. Cardtronics also highlighted other issues which contributed to its decision to no longer purchase from Hyosung, including difficulties in its relationship with Hyosung relating to port and customs delays and shipping costs as well as Hyosung not having a team in the UK (including software and hardware experts locally in the UK).¹³⁹ We also note that while Hyosung participated in tenders for bank contracts in the UK, namely with Barclays and RBS, it has not won any and both banks raised concerns over Hyosung's lack of local presence in the UK.

- 7.50 Hyosung told us that it had made several attempts in the past to find a sales and marketing partner to which it could outsource the maintenance of its machines. It had an in-principle arrangement with Cennox¹⁴⁰, when it competed for the contract with Barclays, but this was never formalised as Hyosung failed to win the tender. On the basis of our conversations with Cennox and Hyosung (see Appendix G), it is apparent that Hyosung does not have an established local maintenance function via Cennox.
- 7.51 As far as certification is concerned, Hyosung already has LINK certification for the machines it supplied to Cardtronics.¹⁴¹ Hyosung told us that it is in the process of investing in LINK certification for some of its other models. Hyosung told us that its simple model, which is primarily targeted at the IAD segment, is already DDA compliant. We note however that this model is unlikely to meet requirements of those IADs which have more sophisticated requirements. It also told us that it is in the process of arranging DDA compliance for some of its more advanced machines and that it has for that purpose engaged with UK consultants.
- 7.52 While its presence in the UK and Europe is on a small scale, and its reputation with its only customer in the UK has suffered (as set out at paragraph 7.49 above), Hyosung is a global player with a large portfolio of products that are suitable for both banks and IADs and which can be adjusted to the UK market. Hyosung told us that it is taking steps to make those adjustments.
- 7.53 Hyosung is also in the process of overcoming some of the barriers to entry/expansion identified above with the exception of reputation and availability of local support services where its progress appears to have stalled, as discussed.

¹³⁹ We note that another IAD ([REDACTED]) has raised similar concerns about Hyosung regarding its lack of logistic capabilities in the UK or Europe.

¹⁴⁰ [REDACTED] maintains some of NCR's and Wincor's equipment.

¹⁴¹ We note however that the ATMs from Hyosung on Cardtronics' estate are very basic dial-up machines that no longer fit Cardtronics' estate strategy.

- 7.54 On the basis of the evidence set out in paragraphs 7.51 to 7.53, as well as the fact that Hyosung has already in the past participated in a few tenders in the UK, we think that some level of expansion by Hyosung in the UK beyond its current presence may be expected at some point in the future, particularly in the IAD segment.
- 7.55 Hyosung told us that it is at an early stage of its long-term plan to enter the UK market and that its products are still to be tailored to satisfy UK demand. That, and the apparent lack of activity by Hyosung in the UK market currently, either in relation to finding potential maintenance partners or addressing concerns raised by customers, does not point towards any expansion by Hyosung taking place within a time horizon of around two years.
- 7.56 As we did not find that entry by Hyosung into the UK market for customer-operated ATMs was likely within a time horizon of around two years, we do not need to consider the sufficiency part of the test as described in paragraph 7.2 (c). We note nevertheless that even if any expansion by Hyosung were timely, it would not be sufficient to restore the pre-merger level of competition in the market.
- 7.57 In relation to the sufficiency, we note that Diebold made considerable investment as part of its re-emergence plan (see paragraphs 7.10 and 7.36-7.37 above). This enabled Diebold to win contracts with major banks in the UK which, together with its European and global footprint, and the strength of its local support services, provides it with a strong basis upon which to compete for future opportunities in the UK. This is supported by our review of internal documents and customers' views in Section 6 which indicate that Diebold is a strong and credible competitor to NCR and Wincor.
- 7.58 On the basis of the evidence on the issues around Hyosung's reputation and its track record in the UK, as well as its lack of local support services and lack of local presence more generally, which has been a problem for a number of customers (see paragraphs 7.49 above), and the apparent lack of any developed plans to address those issues, we do not expect that Hyosung could be nearly as strong a competitor as Diebold over the next two years, even if it expands more rapidly than the evidence we have obtained leads us to expect.
- 7.59 We therefore provisionally conclude that any expansion by Hyosung would be unlikely to occur within a time frame or on a sufficient scale to prevent an SLC.

GRGI

- 7.60 As described in paragraph 2.42, GRGB is the largest supplier of ATMs in China. It operates in over 80 countries and is the fifth largest ATM supplier worldwide. It is also active in several European countries, either directly (eg Turkey, Germany and Italy) or through a distributor, GRGI, in the UK. In 2015, GRGB had market shares of [REDACTED] in Turkey, [REDACTED] in Ukraine, and [REDACTED] in Germany.¹⁴²
- 7.61 NCR told us that GRGB has built its core business in China and that it is focused on the fastest growing Asian markets and not on the mature UK or western markets.
- 7.62 GRGI explained that it is a standalone firm and not a subsidiary of GRGB. GRGI told us that it is GRGB's sole distributor for North America (US and Canada), England, Ireland, Australia and New Zealand as discussed in paragraph 2.44. GRGI told us [REDACTED].
- 7.63 GRGI has had a sales representative present in the UK for the last four years. [REDACTED].
- 7.64 We first considered whether GRGI may be able to overcome the main barriers to entry and expansion that we have identified above. We then turned to the question of whether GRGI is likely to expand in the UK market for customer-operated ATMs within a time horizon of about two years.
- 7.65 We have focused our analysis on GRGI as this is the only entity with a presence in the UK although recognising that it is the distributor for GRGB ATM hardware. Based on the evidence we have received from GRGI and customers, we have no reason to believe that GRGB itself has any plans to enter the UK market directly, [REDACTED].
- 7.66 GRGI told us [REDACTED].
- 7.67 In relation to certification and design requirements, GRGI told us that all of its machines marketed in the UK are DDA/EA compliant [REDACTED]. GRGI also told us [REDACTED].
- 7.68 However, GRGI also told us [REDACTED].
- 7.69 Overall, there are number of areas in relation to which GRGI would need to improve its capabilities in order to be an entirely credible bidder, and we have not seen any plans on the part of GRGI to do so, including by securing or

¹⁴² RBR, (2016) *ATM Hardware, Software and Services*. Volume 1.

arranging the provision of maintenance services and resolving issues around the design of GRGB's machines (where it does not have the capability of doing so directly) and addressing financing issues. However, despite these limitations we note that GRGI [REDACTED], and intends to expand by having a small local presence and participating in tenders. We therefore think that some expansion by GRGI in the UK may occur at some point in the future, especially in the IAD segment, though overall we consider this supplier's prospects to be weaker than those of Hyosung.

- 7.70 Given this, we considered the likelihood of its expansion over the next two years. On the one hand, GRGI already had a level of presence in the UK market via a sales representative and is looking for opportunities to tender. On the other hand, the Parties told us that there are a number of customers who are in the process, or are planning to tender, in the next couple of years. [REDACTED] and [REDACTED]. Based on the requirements these customers told us they have (see Appendix G for more detail), it does not appear that GRGI will be in a position to compete credibly for any of those contracts. For example, [REDACTED] has told us that that it would be 'highly unlikely' to be a supplier's first customer in the UK market and has indicated NCR, Wincor and Diebold as their potential ATM suppliers. [REDACTED] told us that it is in the process of completing the testing and certification of Diebold's ATMs on its host and that when it holds a tender in late 2016 it will probably approach NCR, Wincor and Diebold. [REDACTED] told us that it would be unlikely to consider GRGI (as well as Hyosung) even if it felt that competition post-Merger were reduced. Because of that, we do not expect that a potential expansion by GRGI would occur within a time horizon of around two years.
- 7.71 As we did not find that expansion by GRGI was likely within a time horizon of around two years, we do not need to consider the sufficiency part of the test as described in paragraph 7.2 (c).
- 7.72 We note nevertheless that we do not expect that GRGI would be able to restore the pre-merger level of competition in the market, even if its entry were timely, as explained in paragraphs 7.73 to 7.75 below.
- 7.73 As set out at paragraphs 7.10 and 7.36-7.37 above, Diebold undertook considerable country specific investment as part of its re-emergence strategy. It recruited new management, sales staff and hardware maintenance/servicing teams. It also invested in infrastructure by creating a new UK and Ireland headquarters, helpdesk and UK-wide service/logistics organisation. As a result of those investments, Diebold established itself as a strong competitor to NCR and Wincor as described in Section 6. It succeeded in winning contracts with two major banks (Barclays and HSBC) as well as

other wins which provides it with a strong basis upon which to compete for future opportunities.

- 7.74 As set out at paragraph 7.65 above, [REDACTED]. GRGI told us that this is why its entry [REDACTED]. Related to that, GRGI told us that while it is active in both the Banking and IAD markets, from both software and hardware perspective there is currently more of a focus on the IAD market, and noted that banks are generally more demanding in terms of the support that they require.
- 7.75 GRGI [REDACTED]. In our view, this will not provide it with enough funds to develop the same capabilities in the UK which Diebold has, and which makes Diebold a strong competitor to NCR and Wincor. We have no evidence that GRGI is planning to change its current strategy, either in terms of building its capabilities or specifically targeting bank customers.
- 7.76 We therefore provisionally conclude that any expansion by GRGI would be unlikely to occur within a time frame or on a sufficient scale to prevent an SLC.

Conclusions on entry and expansion

- 7.77 We examined the following possible barriers to entry and expansion: (a) reputation and scale; (b) local support services; (c) certification and testing; and (d) customer specific design requirements. While we concluded that all of those barriers to entry can be overcome, we noted that certain customers, banks in particular, tend to be more demanding in terms of reputation, availability in the UK of reliable and competitive SLM services, local presence in terms of complementary support services and certification. Therefore some models of entry or expansion which do not address those requirements may place a supplier in a weak position when bidding for contracts with those customers.
- 7.78 We identified two potential candidates for expansion: Hyosung and GRGI. We thought that both Hyosung and GRGI appeared in principle to be seeking to expand, although to varying degrees. In the past they have been in discussion with various customers, including some banks, and have been taking some steps to increase their capabilities, including obtaining required certifications. On the basis of that we thought that some expansion by both Hyosung and GRGI may occur at some point in the future, particularly in the IAD segment.
- 7.79 However, there were a number of reasons why we thought that neither GRGI nor Hyosung would expand within the time horizon of around two years including:

- (a) Hyosung told us that it is at an early stage of its long-term plan to enter the UK market and that its products are still to be tailored to satisfy UK demand;
- (b) Lack of pace by Hyosung in overcoming the remaining barriers of entry an expansion, including local maintenance support and certification, and the absence of any local physical presence in the UK;
- (c) For GRGI, its inability to meet the requirements of the customers that will run tenders in the next couple of years, and absence of willingness to take steps to address those requirements.

7.80 We therefore provisionally conclude that neither entry nor expansion is likely to occur within a time frame so as to prevent an SLC.

7.81 As already discussed, we do not need to consider the sufficiency part of the test given we have not found either of Hyosung or GRGI likely to expand within the timeframe of around two years.

7.82 We note nevertheless that neither of Hyosung nor GRGI could be expected to replace the competitive constraint that is currently exercised by Diebold and which will be lost because of the merger, should either expand at a faster pace than the evidence we have received leads us to expect.

Buyer power

7.83 Buyer power can be generated by different factors. An individual customer's negotiating position will be stronger if it can easily switch its demand away from the supplier, or where it can otherwise constrain the behaviour of the supplier.¹⁴³ Typically the ability to switch away from a supplier will be stronger if there are several alternative suppliers to which the customer can credibly switch, or the customer has the ability to sponsor new entry or enter the supplier's market itself by vertical integration.¹⁴⁴

7.84 Buyer power can be generated by the availability of specific strategies such as switching, sponsoring entry, vertical integration (or self-supply), or refusing to purchase suppliers' other products.

7.85 Often, only some—not all—customers of the merged firm possess countervailing buyer power. In such cases, the CMA assesses the extent to which the countervailing buyer power of these customers may be relied upon

¹⁴³ [Merger Assessment Guidelines](#) 5.9.2 and 5.9.4.

¹⁴⁴ [Merger Assessment Guidelines](#), 5.9.3.

to protect all customers.¹⁴⁵ Where individual negotiations are prevalent, the buyer power possessed by any one customer will not typically protect other customers from any adverse effect that might arise from the merger.

7.86 For countervailing buyer power to prevent an SLC, it is not sufficient that it merely existed before the merger. It must also remain effective after the merger.¹⁴⁶ Mergers may reduce a customer's ability to switch or sponsor entry and, if the reduction has a significant adverse effect on the negotiating position of a customer, that customer's buyer power will not be sufficient to be countervailing.¹⁴⁷

7.87 In light of the above, we considered what potential buyer power strategies or other sources of buyer power would be available to customers. We examined whether these would be countervailing taking into account how the Merger may affect customers' ability and incentive to utilise those strategies, and the potential for such strategies to protect all or only some customers.

Possible buyer power strategies

7.88 The Parties submitted that there are four indicators of buyer power in markets with bidding processes, and that all four of these indicate that customers of customer-operated ATMs in the UK have buyer power. In particular, they submitted that buyers are well-informed and can switch easily; that buyers are important outlets for suppliers; that buyers can sponsor entry; and that buyers can intensify competition using procurement auctions.

7.89 In light of the above, we considered whether these types of strategies or sources of buyer power would be countervailing.

Well-informed customers that can switch easily

7.90 The Parties cite guidance¹⁴⁸ which states that a buyer's bargaining strength might be enhanced if 'the buyer is well-informed about alternative sources of supply and could readily, and at little cost to itself, switch substantial purchases from one supplier to another while continuing to meet its needs.'

7.91 We came to the view that customers are generally well-informed about the availability of alternative suppliers. We believe that prior to the Merger, buyers

¹⁴⁵ [Merger Assessment Guidelines](#), paragraph 5.9.1.

¹⁴⁶ [Merger Assessment Guidelines](#), paragraph 5.9.8.

¹⁴⁷ [Merger Assessment Guidelines](#), 5.9.4.

¹⁴⁸ [Assessment of market power](#), OFT415, 2004. This guidance sets out the assessment of buyer power in a static sense, rather than the assessment of buyer power in the context of the merger as discussed in paragraph 7.88.

are generally aware of all of the suppliers that compete to supply customer-operated ATM hardware in the UK, and can further improve the information available in the context of an RFI. To the extent that timely and sufficient entry or expansion is likely to occur, or to the extent that there are other suppliers able to meet the requirements of customers, we can expect customers to be aware of these alternatives and to be able to benefit from those suppliers in their auction processes.

- 7.92 We have already taken into account that customers are well-informed about the availability of alternatives in our competitive assessment. In particular, we treated customers as being able to exercise choice across all available alternatives, and did not restrict these alternatives based on customers' lack of awareness. We also took into account the importance customers attach to reputation or track record, which may reflect some limitations in customers' ability to foresee the quality or reliability of new suppliers' offerings.
- 7.93 The Parties have not submitted any evidence that customers' ability to inform themselves would significantly increase after the Merger, relative to the counterfactual.

Buyers' size and importance as outlets for suppliers

- 7.94 Our guidance states that even where a market is characterised by customers that are larger than the suppliers, it does not necessarily follow that there will be countervailing buyer power. The merger may reduce the customer's ability to switch or sponsor entry and, if the reduction has a significant adverse effect on the negotiating position of a customer, that customer's buyer power will not be sufficient to be countervailing.¹⁴⁹
- 7.95 The Parties submitted that customers are large and important outlets for their suppliers and that suppliers would therefore be willing to cede better terms in order to retain the opportunity to sell to that customer. The Parties submitted that demand is concentrated, for example because the largest five ATM deployers on the LINK network account for 58%¹⁵⁰ of installed ATMs, and the largest 10 accounts for 85% of installed ATMs.
- 7.96 To the extent that suppliers would be willing to cede better terms to certain large buyers, we would expect those buyers to have fully exploited those opportunities already. We have not heard from any customer or seen any other evidence that the ability of customers to use size to increase their buyer

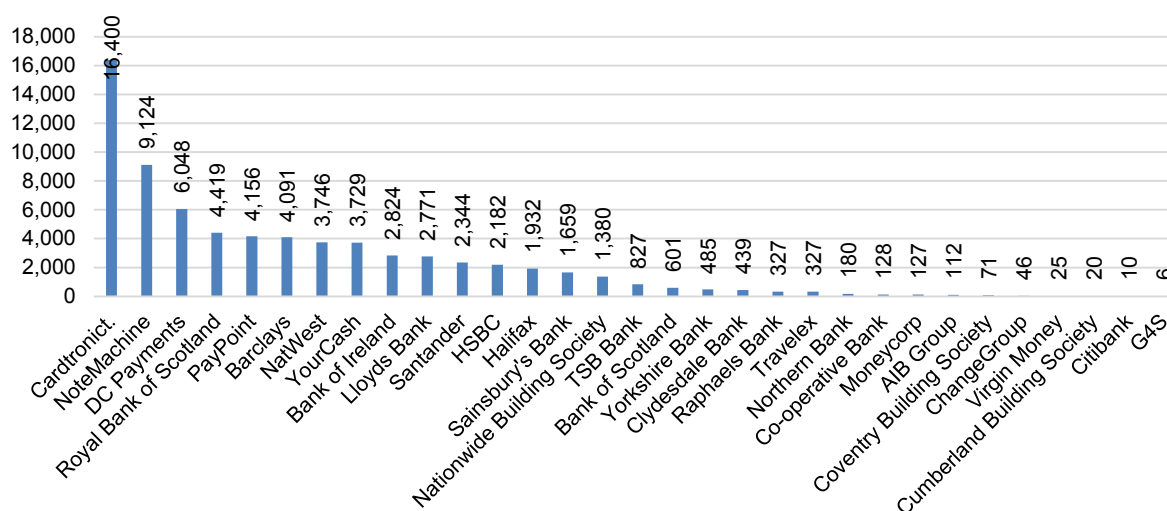
¹⁴⁹ [Merger Assessment Guidelines](#), paragraph 5.9.4.

¹⁵⁰ According to Payments UK this figure is 63% as discussed in paragraph 2.57.

power would become greater post-Merger compared to the counterfactual. The Parties also have not submitted that this would be the case.

7.97 Furthermore, as individual tenders and negotiations are prevalent in the supply of customer-operated ATM hardware, we believe that even in the event that some customers had countervailing buyer power arising from size, which they have not already fully exploited, this would not protect medium and smaller customers of which there are many in the market. This is illustrated in Figure 2 below which shows that there are 31 ATM deployers in the UK which vary significantly according to the size of their estate.

Figure 2: Number of ATMs per deployer at June 2016



Source: Link.

Intensifying competition through procurement processes

7.98 The Parties also submitted that suppliers procure through competitive bidding processes and consequently that suppliers are subject to significant countervailing buyer power.

7.99 The use of bidding processes is readily observed in this market, as discussed in paragraphs 6.3 to 6.32. We believe that customers will continue to use bidding processes after the Merger in order to play suppliers off against each other, as they have done prior to the Merger.

7.100 The Parties have not claimed that customers' ability to use procurement processes would change post-Merger relative to the counterfactual.

Facilitating entry

7.101 The Parties submitted that 'sponsored' entry can be achieved quickly without substantial sunk costs; that the UK market is a market in which there is actual

evidence of sponsored entry; and that several major customers have been unambiguous that they can and would sponsor a new entrant.

7.102 We considered the extent to which Diebold's experience may inform our assessment. HSBC told us that it 'sponsored' Diebold's entry by awarding a contract for replacement of part of its ATM estate to Diebold and splitting the maintenance contract between the incumbent IBM, which was to maintain the existing estate, and Diebold, which was to maintain the replacement ATM estate. HSBC said that it decided to award the contract to Diebold but on condition that Diebold showed it had a clear plan to expand its maintenance resources and that it had the funding required to do so.

7.103 We have also asked 14 customers whether they would be willing to sponsor an entrant.

7.104 Six customers (RBS, Barclays, Travelex, Co-operative Bank, HSBC, Cardtronics) considered it possible in principle that they would sponsor an entrant but the form of that sponsorship, its timing, and the circumstances under which they would be willing or able to 'sponsor' varied. Their responses are summarised below:

- (a) RBS told us that [REDACTED]. It said that it would be willing to invest in some of the underlying infrastructure and commit to a sizeable contract as they have done in the past. RBS said that this replacement cycle would take place in six to eight years from now.
- (b) Barclays told us that it would be able to sponsor new hardware entrants by supporting integration into the bank's systems and certification. Barclays said that the supplier would have to 'pick up' its own costs, and would have to commit to a reduced price and no volume commitment. Barclays also told us that its new refresh would be in [REDACTED] years and that in the meantime it will focus on maintaining its estate.
- (c) Travelex submitted that it would sponsor a new entrant if it thought the software would be better value, but that this would mean re-accrediting the core system which is currently run by Wincor for Europe. Travelex listed only Wincor, NCR and Diebold as potential candidates for sponsorship.
- (d) Co-operative Bank told us that it would be willing to sponsor depending on contractual arrangements with existing suppliers at the time. They told us that the associated costs could rise to £1 million as a full operational change (in terms of integrating new ATM hardware into its core processing systems) would be required.

- (e) HSBC submitted that it would in principle consider sponsoring new entry into the UK market. HSBC said the sponsored entrant would have to be a global player. It clarified that at the moment it has no plans to sponsor a new entrant into the UK market.
- (f) Cardtronics said that it could sponsor entry as it recognised that in the longer term it could be considered an advantage to have the ability to deploy a number of different hardware options to fit the changing ATM landscape. However Cardtronics said that it was not confident that the benefits of sponsorship would outweigh the costs (software costs, on-the-ground support and development capability). In particular, Cardtronics told us that it was inconceivable that it would be replacing the number of machines needed to compensate bringing in a partner and that it was more likely that a bank might be in a position to do so. Moreover Cardtronics submitted that it would not offer a supplier a guaranteed volume of business.

7.105 The remaining eight customers (Tesco, CYBG, LBG, YourCash, Bank of Ireland, [X] Raphaels Bank and Nationwide) said that they were unlikely to sponsor entry under most circumstances on the grounds of the costs and/ or the risks associated with sponsoring a new entrant into the UK:

- (a) LBG submitted that it was unlikely that they would sponsor entry. Moreover, LBG has told us that it would be highly unlikely to be a supplier's first customer in the UK.
- (b) Nationwide told us that they would be reluctant to incur any costs or risks associated with sponsoring a new entrant into the UK market as they do not have the risk appetite or device numbers for this to be worthwhile.
- (c) Bank of Ireland submitted that although it would welcome new entrants into the market and would consider them in future tender processes it would not be willing to provide any guarantees to a new entrant and it would not be able to sponsor entry.
- (d) YourCash told us that they were unlikely to incur any additional costs to sponsor a new entrant and that they consider such a strategy to be extremely high risk with little economic benefit. In any case, YourCash would not be likely to guarantee a new entrant a long term exclusive arrangement.

(e) Virgin Money told us that they have no requirement to sponsor a new entrants as they do not operate an ATM estate.¹⁵¹

7.106 Additionally, evidence received from [REDACTED] and CYBG (see Appendix F, paragraphs 2(g) and 2(h)) suggests that these two customers would be unwilling and/ or unlikely to consider suppliers other than the established ones.

7.107 Diebold's experience with HSBC suggests that some form of assistance is possible, in that case by splitting of the maintenance contract between the incumbent and Diebold. However, this was conditioned on Diebold ensuring funding to develop the maintenance capability. This is consistent with what we heard from some other customers who conditioned support on the entrant meeting certain requirements, for example, adding new functionalities to ATMs or developing a better software.

7.108 Overall, it does not appear that customers are willing to financially sponsor an entrant or to assure guaranteed levels of business, which are the strongest forms of support an entrant can get. Other forms of support are possible in principle, though with conditions attached. None however appears to be available now or in the near future.

Efficiencies

7.109 As explained in our guidance, efficiencies can be taken into account in two ways: efficiencies may enhance rivalry, with the result that the merger does not give rise to an SLC or they may result in relevant customer benefits.¹⁵²

7.110 The Parties told us that the Merger would lead to customer benefits which they articulated in the following way:

(a) [REDACTED].

(b) [REDACTED].

(c) [REDACTED].

7.111 In addition, as stated in paragraph 3.8, the Parties identified synergies amounting to [REDACTED], expected to be effective by the end of year [REDACTED] (ie [REDACTED]).

¹⁵¹ Virgin Money has sold their estate to NoteMachine.

¹⁵² [Merger Assessment Guidelines](#), 5.7.2 and 5.7.3. Relevant customer benefits may take the form of lower prices, higher quality or greater choice of goods or services, and greater innovation in relation to such goods or services. See section 30 of the Act.

7.112 The Act (section 35(3)) states that relevant customer benefits are taken into account in deciding whether and what measures to take, once a possible SLC has been identified. The question at this stage therefore is whether any efficiency benefits put forward by the Parties could be rivalry enhancing.

7.113 The Parties have not produced any evidence showing that the efficiency savings they identified at the global level would improve its ability to compete with NCR in the UK. We note that both Diebold and Wincor are already strong competitors in their own right, and that the parties have not submitted any evidence which explains how the merger would create an even more competitive entity. It is also not clear to us why customers in the UK would benefit from the merged entity being able to compete on a better footing with Chinese and other Asian manufacturers.

7.114 We have therefore not placed weight on the Parties claim on efficiencies in our assessment of the merger.

8. Provisional conclusions

8.1 Our review of competitive effects of the merger suggests that competitors of the Parties and NCR, while competing to supply ATM hardware, may pose a weak, or in some cases no, competitive constraint for customers. The evidence also indicates that the Parties only identified themselves and NCR as the main competitive threats with very limited mentions of Hyosung and GRGI.

8.2 We found that barriers to entry/and or expansion would be insufficient to deter large suppliers at least. However, whilst we think that Hyosung and/or GRGI may expand at some point in the future, assuming they are able/willing to address any remaining barriers they face, on the evidence we have received, we are of the view that any expansion would be unlikely to occur within a time frame or on a sufficient scale to prevent the loss of competitive constraint from the merger.

8.3 In addition, we are of the view that whilst some customers may have countervailing buyer power, this would be insufficient to countervail the effect of the merger and to protect all customers. We are also of the view that customers do not appear to be willing to financially sponsor an entrant or to assure guaranteed levels of business and whilst other forms of support may be possible in principle, these come with conditions attached and none appears to be available now or in the near future.

8.4 For the reasons set out in Sections 6 and 7 and summarised above, we provisionally conclude that the merger may be expected to result in an SLC in the market for the supply of customer-operated ATMs in the UK.