



## **Cash and digital payments in the new economy**

Cash Services welcomes the opportunity to respond to this call for evidence. This response represents the collective view of the members of Cash Services.

Across the developing world cashless payment solutions are growing at a significant pace. It is essential that our economy is fit for the future, keeps pace with this change and the ways that people manage their finances. However, it's important not to overstate the position that we live in a cashless world. The discussion about cash and digital payments in the new economy and how the transition from cash to digital payments impacts on different sectors, different regions and different demographics must be informed by evidence.

The call for evidence rightly points out that despite the move away from cash, it continues to play an important part in the lives of many people and businesses in the UK. Over the past 10 years the payments landscape has undergone significant changes and will continue to evolve as more people adopt digital payments. Like the government, Cash Services is committed to ensuring that the public's cash needs continue to be met and that cash remains accessible and secure for those who need it. The challenge for all involved is to ensure an efficient and sustainable cash cycle that can support these aims and maintain levels of investment and profitability in a changing market.

The overriding challenge for both the retail and wholesale cash industries is that with lower demand for cash and higher levels of recirculation comes over-capacity. With a high fixed cost base, this leads to rising unit costs of cash and lowers its competitiveness when compared with other methods of payment. If this is not managed properly it could damage the sustainability of the cash cycle and the availability of cash (banknotes and coins) to consumers. Members of Cash Services would like to work with the government to find the right solutions to overcome these challenges to support an efficient cash cycle and ensure the availability of cash for consumers.

#### **QUESTION 1: How do you expect digital payment methods, and the adoption of these by merchants and consumers, to change over the next 10 years? What are the drivers of this?**

The payments landscape is changing due to the increased use of cards and digital payments by consumers and their acceptance by merchants. This has led to a change in the landscape over the past decade and will continue to change over the next. In this new landscape, cash will play an important role but as its share of consumer transactions falls and the number of digital payment options grow, this role will change.

In 2016 consumers and businesses made 15.4 billion cash payments. This was 25% more than the second most frequently-used method, debit cards (11.6 billion payments). Cash represented 44% of all payments made by consumers and 50% of point of sale payments.<sup>1</sup> Businesses use cash far less extensively than consumers, with cash making up less than 4% of the volume of payments made by businesses. The total value of consumer cash payments was £240 billion in 2016, a decline of 5% compared to the previous year. Cash represented 15% of the total value of consumer spending in 2016, and 3% of all spending in the UK (including payments by businesses). 2016 was the second year when consumers used cash for fewer than 50% of payments but it remained the most frequently used payment method in the UK in 2016.<sup>2</sup>

There has been a slow trend of decline in the volume of cash payments since the early 1990s and a more substantial decline since 2002, despite slight increases in 2008 and 2010-12.<sup>3</sup> In 2006 cash accounted for 62% of all payments. Over the next decade the number of cash payments is forecast to fall by 43% to account for 21% of all payments (8.7 billion) and 24% of consumer payments. Meanwhile the total value of cash payments is forecast to fall by 23% to £185 billion in 2026.<sup>4</sup>

The forecast from UK Finance suggests that in 10 years' time cash will have been overtaken by debit cards as the most frequently used payment method (this includes contactless payments) but will remain the second most frequently used payment method. This means that despite the rise in digital payments the majority of people will still use cash in 10 years' time, however the extent to which they do so will vary (for more information see the response to Question 6).

There are a multitude of drivers for this expected change; the main three being the migration from cash to debit cards (Chip & Pin payments), the increasing use of contactless payments and the

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<sup>1</sup> Payments that are not determined in advance (e.g. rent, phone bill, mortgage payment) but made as and when necessary (e.g. daily or weekly travel, food shopping, retail or entertainment spending). These accounted for 86% of all consumer payments in 2016.

<sup>2</sup> UK Finance, *UK Cash & Cash Machines 2017*

<sup>3</sup> Payments Council, *UK Payment Statistics 2007*; UK Finance, *UK Cash & Cash Machines 2017*

<sup>4</sup> UK Finance, *UK Cash & Cash Machines 2017*

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growth of online shopping. A survey in January 2017 reflected this change and found that 63% of people perceived that they were using cash less than five years previously (41% much less, 22% a little less) particularly for payments in supermarkets and petrol stations, as well as for public transport travel tickets. (The remaining 37% were using cash at about the same level or more.<sup>5</sup>)

The increased use of contactless cards has made a big impact on the payments landscape over the past few years and is likely to continue over the next decade. £23 billion was spent using contactless between January and June 2017, close to the total for 2016, when £25 billion was spent using contactless cards. This represents more than double the spending in the previous eight years combined (£11 billion) and has led to a 45% growth in the number of merchant owned terminals accepting contactless.<sup>6</sup> The major catalyst for such a rapid uptake was the introduction of contactless payments for Transport for London services in 2014, which in turn has led to consumers using contactless more often for payments in other sectors (e.g. restaurants, bars and supermarkets) for transactions under the £30 limit.<sup>7</sup> The continuation of the growth in contactless (as well as mobile payments) will largely be driven by the roll out of smart ticketing systems across the UK,<sup>8</sup> as well as other sectors offering and in some instances encouraging their customers to use contactless rather than cash for low value transactions. (A more detailed explanation of this and the impact on cash payments can be found in the response to Question 10).

It should be noted that the take-up of contactless payments is not a direct replacement of cash payments. In a nationally representative survey run in January 2017 it was revealed that 48% of consumers using contactless were doing so as a replacement for both cash and debit card payments and 40% were using it a direct replacement for debit card payments; only 12% were doing so solely as a replacement for cash.<sup>9</sup> This behaviour is reflected in the forecast provided by UK Finance: the volume of contactless payments is set to increase by 6.4bn payments by 2026 while debit card payments remain relatively unchanged.<sup>10</sup>

Research from Cash Services conducted in May 2017 found that for those that were using contactless, the following were key drivers to a change in behaviour:

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<sup>5</sup> Cash Services Research, 2017

<sup>6</sup> UK Finance, 'Contactless 10 year report', 2017 <https://www.ukfinance.org.uk/wp-content/uploads/2017/09/UK-FINANCE-Contactless-10-year-report-September-2017.pdf>

<sup>7</sup> David Fagleman, *Is cashless transit leading the payments revolution?* 16/10/17 <https://www.linkedin.com/pulse/cashless-transit-leading-payments-revolution-david-fagleman/>

<sup>8</sup> Gov UK, *Roll-out of smart ticketing will improve bus, rail and tram journeys for millions* 12/01/2016 <https://www.gov.uk/government/news/roll-out-of-smart-ticketing-will-improve-bus-rail-and-tram-journeys-for-millions>

<sup>9</sup> Cash Services Research, 2017

<sup>10</sup> UK Finance, *UK Payment Markets 2017*

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- **Speed and ease**  
Contactless is viewed as a much quicker and more convenient way to pay, particularly when compared to Chip & Pin.
- **Removes embarrassment factor**  
Users felt that the speed and ease of contactless removed the embarrassment of using a card for a low value transaction. This also meant avoiding receiving lots of small change.
- **Increasingly socially acceptable**  
The more places that started to accept contactless, the more comfortable people became in using it.
- **Everyday expenses**  
Using it becomes normalised as people use it daily for everyday expenses, e.g. public transport.

It is highly likely that these drivers are also applicable to consumers adopting other digital payment methods, such as mobile, biometric and wearable payment solutions.

The adoption of digital payments by consumers could be limited by a number of factors:

- **Digital inclusion**  
The Consumer Digital Index 2017 found that 9% of the UK adult population is offline (c.5 million people). Although this has reduced from 11% in 2016, the report shows that the remaining 9% are less engaged and less easily persuaded than ever before. There are also 9.2 million adults with low digital capacity, meaning they are far less likely to access online information and services which leaves them less able to benefit from online and digital discounts.<sup>11</sup> This could hinder the progress of digital payments as there is a significant section of society that has yet to embrace digital technology and are unlikely to do so of their own accord.
- **Economic growth**  
The performance of the economy is a driver for people's payment preferences. This was demonstrated in 2008 and in the years 2010-2012 where an increase in the volume of cash transactions was recorded, bucking the trend since 2001 and the years to follow.<sup>12</sup> This reflects a retraction in economic growth in 2008-2009 and the subsequent years before

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<sup>11</sup> Lloyds Bank, *Consumer Digital Index, 2017* <https://www.lloydsbank.com/assets/media/pdfs/lloyds-bank-consumer-digital-index-2017.pdf>

<sup>12</sup> Payments Council, *UK Payment Statistics 2007*; UK Finance, *UK Cash & Cash Machines 2017*

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returning close to pre-2008 growth (in terms of Gross Domestic Product).<sup>13</sup> Therefore, in uncertain economic times, consumers moved back to cash and as the economy improved they returned to digital. This is probably due to the tangibility of cash and its use as a budgeting tool (see the response to Question 5 for more information). Should economic growth stall due to effects of Brexit and/or world events, there may be an increase in cash use and therefore a slowdown in the adoption of digital payments.<sup>14</sup>

- **Employment**

The UK is experiencing the highest employment rate (75.3%) and the lowest unemployment rate (4.3%) since comparable records began. However, patterns of employment are changing and this can have an effect on the adoption of digital payments. For example, the self-employed now represent a larger share, up from around 12% of the labour force in 2001 to around 15.1% in 2016; around 26% of employment is part-time work and 4% of employment (1.3 million people) is in the “gig economy” (which is expected to grow).<sup>15 16</sup> Traditional full time employment, with salaries paid regularly and directly into a bank account remains a core feature, but for those with different working patterns getting paid can be irregular and cash can be a more convenient way both to pay staff and to be paid. In 2016, the value of cash paid as wages increased by 10% on the previous year, a change attributed to high levels of self-employment.<sup>17</sup>

- **Welfare reform**

The roll out of Universal Credit has the potential to impact the use of digital payments. For example, as a monthly lump sum payment some recipients may choose to withdraw their Universal Credit in cash in order to manage their budgets. The impact of this on the volume of cash payments is difficult to predict but UK Finance are monitoring its rollout and how this will affect recipients’ payment behaviour.<sup>18</sup>

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<sup>13</sup> Office for National Statistics, *Gross Domestic Product: Year on Year growth: CVM SA %*, 22/02/2018

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp/pn2>

<sup>14</sup> Suggested by UK Finance in *UK Cash & Cash Machines 2017*

<sup>15</sup> Office for National Statistics, *Statistical bulletin: UK labour market: March 2018* 21/03/2018

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/march2018>

<sup>16</sup> The Taylor Review of Modern Working Practices, *Good Work*, July 2017

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/627671/good-work-taylor-review-modern-working-practices-rg.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/627671/good-work-taylor-review-modern-working-practices-rg.pdf)

<sup>17</sup> UK Finance, *UK Cash & Cash Machines 2017*

<sup>18</sup> UK Finance, *UK Cash & Cash Machines 2017*

- **Payment behaviour**

Research shows that consumer payment behaviour is entrenched and heavy/regular cash users find it difficult to change their habits. When using cards, they find it difficult to budget (experiencing both over- and under-spending) and have security concerns about what would happen if their card was stolen. These consumers will continue to use cash unless wider shifts occur that encourage them to move to digital (e.g. no longer paid in cash, cash is no longer accepted in shops or a change in their circumstances allowing more disposable income).<sup>19</sup> There is also academic research to show that location, type and price of purchase can influence the spontaneous payment method decision and that different demographic groups seek different attributes in their payment methods (e.g. lower income groups like cash as a payment method that provides the ability to tangibly budget). One social factor proven to have an influence is shopping personality. The research suggests that it's reasonable to believe that other personality traits will have an influence on decision-making (motivation to comply, technology adoption etc.).<sup>20</sup>

As the call for evidence points out in 2.16, the adoption of digital payments by merchants could be limited by factors relating to the costs of processing payments. When a merchant accepts payments from a consumer they incur a cost. The level of cost varies according to the type of payment and the size of the merchant's business.

According to the British Retail Consortium, cash is the most cost effective payment acceptance channel for retailers as the cost of processing a card transaction remains high, particularly for credit cards. In 2016 cash cost on average 1.46p per transaction, debit cards 5.55p and credit and charge cards 16p. The average for all payment types was 5.77p.<sup>21</sup> For smaller retailers, the average cost of cash per transaction is perceived to be the cheapest method of payment at 3.5p, in comparison to debit card payments at 10.7p.<sup>22</sup> More detail on the cost of processing payments is in the response to Question 4.

As outlined at the beginning of this response, the payments landscape is undergoing significant changes. The Payments Service Directive II, Open Banking and the recently created New Payment Systems Operator exist to increase competition and lower barriers to entry for new payment

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<sup>19</sup> Cash Services Research, 2017

<sup>20</sup> Overview [http://asia.iccos.com/files/Anne\\_Lewis\\_Thesis\\_with\\_explanatory\\_notes.pdf](http://asia.iccos.com/files/Anne_Lewis_Thesis_with_explanatory_notes.pdf) Full paper available here: [https://www.research.manchester.ac.uk/portal/en/theses/and-how-will-you-be-paying-todaythe-social-construction-of-demand-for-payment-methods\(a523bdaa-dc3f-4aba-8edf-29ed7a2f38fb\).html](https://www.research.manchester.ac.uk/portal/en/theses/and-how-will-you-be-paying-todaythe-social-construction-of-demand-for-payment-methods(a523bdaa-dc3f-4aba-8edf-29ed7a2f38fb).html)

<sup>21</sup> British Retail Consortium, *Payments Survey 2016* [https://brc.org.uk/media/179489/payment-survey-2016\\_final.pdf](https://brc.org.uk/media/179489/payment-survey-2016_final.pdf)

<sup>22</sup> Cash Services Research, 2017 (Smaller retailers defined as shops with less than 9 employees and a turnover between £50k-£1m)

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providers, thus benefiting consumers and merchants. These changes will, however, inevitably create new barriers and not only impact the use of cash, but also the use of cards and current digital options as the payment innovations of today are replaced by those of tomorrow. The government should continue to take an active interest in the development of the payments landscape to ensure that consumers are not left behind.

#### **QUESTION 4: Why does the cost of processing payments differ between cash and digital payments? How is it changing? And do you expect the change to continue?**

As stated in the response to Question 1, when a merchant accepts a payment from a consumer they incur a direct cost. The level of that cost varies according to the type of payment and the size of the merchant's business. For a digital payment there is a cost per individual transaction dependent on the value of the payment and the method used. With a cash payment there are no directly comparable transaction costs as the merchant only incurs a cost when they bank surplus funds or draw cash float. There are staff costs in processing all types of payments and research has shown these are evenly spread across all payment methods.<sup>23</sup> It is critical to the success of any method of payment that it remains competitive in terms of price as this determines availability; a merchant will not offer a way to pay that is not economical for them (e.g. the reluctance of smaller merchants to accept credit card and American Express payments due to high transaction costs). Cash is no exception to this rule: if it cannot be distributed in a cost effective way then its attractiveness as a method of payment and therefore its availability for those who need it, will be under threat.

In order to process a digital payment, e.g. one made by card, the merchant (depending on their business) must pay a range of card merchant service charges (this includes acquirer processing, card scheme and interchange fees). There must also be an upfront investment in payment terminals and other handling costs, such as maintenance of PIN pads and card specific hardware, server costs, as well as additional Call Authorisation costs, terminal rental, storage and recording of signature receipts.

The cost of processing a card payment (debit, credit and charge) has fallen following the introduction of the EU Interchange Fee Regulation (IFR), which caps some of the fees for handling such transactions (as the call for evidence points out in 2.10). However, according to the British Retail Consortium (BRC) the cost to retailers to process card transactions remains high, standing at approximately £800m in 2016, accounting for 73% of retailers' costs for accepting payment but only

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<sup>23</sup> British Retail Consortium, *Payments Survey 2016* [https://brc.org.uk/media/179489/payment-survey-2016\\_final.pdf](https://brc.org.uk/media/179489/payment-survey-2016_final.pdf)

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54% of transactions. The BRC note in their 2016 Payments Survey that since the IFR came into effect there has been a significant increase in other card cost categories such as scheme fees.<sup>24</sup>

To process a cash payment, there is a cost to the merchant and the cash industry. As with banking services the public expect a cash payment to be free of charge, therefore the cost of processing cash payments falls on the merchant and the cash industry. In contrast to a digital payment where each transaction attracts an individual cost, cash payments only attract cost at the start and end of the working day.

In order to process a cash payment the merchant will have to pay costs incurred using a Cash-In-Transit service provider to collect cash and to deliver notes and coins for change. If they don't use a Cash-In-Transit service provider they will incur a cost in taking it to their bank or building society. In either case the merchant's fee is spread across several organisations (financial institutions, cash-in-transit operators, cash processors) that are, most of the time, collaborating to ensure that cash can circulate efficiently and effectively across the UK. However, there are serious challenges for the wholesale industry that need to be addressed in order to ensure that the costs to process a cash payment remain competitive in a payments landscape in which consumer payment preferences are changing and businesses are increasingly adopting digital payments (see response to Question 1). With lower demand for cash and higher levels of recirculation comes overcapacity within the wholesale industry. With a high fixed cost base, this leads to rising unit costs of cash and lowers its competitiveness with other methods of payment. As the adoption of digital payments is set to continue, the challenges faced by the industry will grow.

Members of Cash Services (and the wider cash and retail industry) successfully collaborated with HM Treasury, The Royal Mint and the Bank of England (as well as each other) to introduce the new £1 coin and polymer banknotes.<sup>25</sup> The scale of these projects should not be underestimated and the cash industry, as well as the retail industry, incurred significant costs to ensure the new currency was available for consumers in time for the launch dates. Unforeseen challenges were overcome through collaboration between all parties and the projects are viewed as a success across the world.

In this same spirit of collaboration, members of Cash Services would like to work with the government to find the right solution (or solutions) to reduce the rising unit costs of cash and avoid the common path of industrial decline. (That is, in a declining market the initial reaction is to renegotiate prices with suppliers; this additional money is used to increase market share and if that

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<sup>24</sup> British Retail Consortium, *Payments Survey 2016* [https://brc.org.uk/media/179489/payment-survey-2016\\_final.pdf](https://brc.org.uk/media/179489/payment-survey-2016_final.pdf)

<sup>25</sup> It should be noted that for the cash industry the currency modernisation project is ongoing with the introduction of the polymer £20 banknote in 2020 and the subsequent co-circulation period.

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fails downsizing occurs. Once that is no longer considered viable, participants seek to exit the market at the earliest opportunity.) Following this common approach there's a real danger that access to cash and consumer choice will be challenged if the wholesale industry cannot contain costs and efficiently process and distribute banknotes and coins. Members of Cash Services want to work with the government to avoid this situation.

To understand the challenges faced by the wholesale cash industry to keep costs down it's important to note that there is a fundamental difference between the processing and distribution of banknotes and coin. With the same organisations involved in both, there is inevitably some cross subsidisation for overall costs and it's becoming increasingly apparent that this is not sustainable.

### *Processing coin*

Access to today's wholesale market for coin is indirectly supported by six financial institutions through services provided by four processors (G4S Cash Solutions, National Westminster Bank, Post Office, Vaultex). These processors manage all wholesale coin in the UK (worth £9bn a year). They supply their customers (financial institutions, retailers) with coin and work with Cash Services to ensure demand and supply is balanced across their networks. Weekly trading of coin accounts for the redistribution of £5bn per annum. Additional shortfalls are met by annual orders from The Royal Mint, however no mechanism exists to return structurally surplus coin (that is, coin returned to cash centres from customers for which there is no demand to re-enter circulation). Structurally surplus coin sits in cash centres, absorbs cost and restricts the ability of the whole supply chain to run efficiently. This is increasingly becoming a challenge for wholesalers as customers demand less coin, reflecting a change in consumer payment preferences and higher levels of recirculation. (A detailed analysis of this is provided in the response to Question 10). If this challenge cannot be addressed, then additional cost may be passed on to the customers of cash processors (financial institutions, retailers) and potentially jeopardise some merchants' appetite to continue to accept cash payments. This will consequently reduce the availability and accessibility of cash for those who need it. The greater challenge in the short term relates specifically to low denomination coin and is outlined in the response to Question 10.

In this new environment for cash there is a need for a revised structure for the model that supports the distribution and processing of coin across the UK. At the moment, the efficiency of the coin supply is supported by weekly trading of coin, facilitated by Cash Services, to ensure demand and supply is balanced across the wholesale market and that the model operates in the most cost-effective manner possible. However, this model is incapable of managing the challenge presented by structurally surplus coin and requires support from HM Treasury. For example, if an agreement was

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in place whereby HM Treasury would buy back structurally surplus coin, this would provide much needed long-term relief to cash processors and ensure the coin circulation model was relevant to the new payments landscape and able to react to future changes in consumer spending preferences (i.e. the growth of digital payments).

As outlined earlier, if left unresolved, this challenge could have serious consequences not only for the efficient circulation of coin but also for banknotes, as the same organisations are involved in the processing and distribution of both. It is therefore inevitable that there is some cross subsidisation of overall costs and this not sustainable if left unaddressed. Members of Cash Services encourage HM Treasury to work with the industry to find a sustainable solution. In the response to Q16 a case study of one example of an alternative coin circulation model implemented by Hungary has been included.

### *Processing banknotes*

Bank of England banknotes notes are distributed, processed and stored via the Note Circulation Scheme. This provides a framework for the wholesale commercial cash industry which helps encourage efficiencies in their banknote operations.<sup>26</sup> As with coin, the wholesale processors (G4S Cash Solutions, National Westminster Bank, Post Office, Vaultex) supply their customers and they work with Cash Services to ensure demand and supply is balanced across their networks. Additional shortfalls are met by orders from the Bank of England. In contrast with coin, surplus banknotes can be returned and are bought back by the Bank of England, thus ensuring that the cost to process banknotes remains equitable between processor and issuer. The process of issuing banknotes for Scotland and Northern Ireland is separate and is not something Cash Services is part of.

### **QUESTION 5: Who uses cash as their main form of payment and why?**

According to the UK Payment Markets Review, there were 2.7 million consumers (5% of the adult population) who relied almost entirely on cash in 2016. These consumers may pay their bills using Direct Debit or standing order and have access to a bank account and debit card, but are predominant users of cash and do not regularly use non-cash methods for their day-to-day payments. At the other end of the scale, there were 2.9 million consumers who rarely used cash in 2016, representing 6% of the UK's adult population. These consumers make cash payments once per month or less frequently. An additional 3.3 million consumers make a cash payment once a fortnight

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<sup>26</sup> The lifecycle of a banknotes - Bank of England <https://www.bankofengland.co.uk/banknotes/lifecycle-of-a-banknote>

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or less frequently. Combined, 12% of the adult population make a cash payment once a fortnight or less frequently.<sup>27</sup>

The contrast in the reliance of cash as a method of payment is reflective of the changing payments landscape (see Question 1). However, it should be noted that outside those relying on and rarely using cash sit the majority of the UK population who are using both cash and digital payment methods to a varying degree. Indeed, cash is still relied on by some consumers to pay bills and save: in 2016, 17% of housing rent, 11% of utility bills and 26% of savings clubs were paid for using cash.<sup>28</sup>

There are a multitude of reasons why people pay for things the way they do. A 2017 study commissioned by Cash Services to understand attitudes to cash provided the following insights:

- **People offer similar rationales for their payment method preferences**

Regular cash users said the key benefit was its tangibility, helping them to budget and control their spending. They found cash easy and convenient and expressed concerns over the security of new digital payment methods such as contactless. Regular card users said that cards offered greater control and provided a convenient way to monitor and keep track of payments. They felt cards were easier and didn't feel safe carrying lots of cash. The similarity in rationale suggests that it's less about the method and more about the perception of the suitability to meet an individual's personal requirements that leads to someone choosing to pay how they do.

- **There are different types of cash user<sup>29</sup>**

- **Cash Reliant** - Typically gets paid in cash and is not very tech savvy. They use cash whenever possible for their regular purchases including the supermarket shop. They are light banking users and lack confidence in using other methods of managing their money.
- **Cash Budgeter** - Typically someone with limited disposable income (e.g. family with young children) or has current or past financial difficulties. They withdraw set amounts of cash weekly to cover their day-to-day expenses. Cash prevents them from losing track of their spending and they can clearly see how much they've got

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<sup>27</sup> UK Finance, *UK Payment Markets 2017*

<sup>28</sup> UK Finance, *UK Payment Markets 2017*

<sup>29</sup> Given that we know c.6m adults identify with being either Cash Reliant or a Cash Avoider, we can assume that the remaining c.45m would identify as being either a Cash Budgeter or a Cash Carrier. Noting the attributes of a Cash Budgeter it is likely that there are more Cash Budgeters than any other typology in the UK.

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left at the end of the week. They use cards for larger expenses (e.g. £50+) and online purchases.

- **Cash Carrier** - Typically use their card for the majority of purchases and use online banking for budgeting. They do use cash fairly regularly for smaller items and/or out of necessity. For lower priced items cash is seen as a convenient and less embarrassing way to pay but cards are quickly becoming the default at bigger shops and for larger spends (£10+).
- **Cash Avoider** - Typically younger and tech savvy, or older and security conscious, they only tend to use cash if they have to, but still see its value for social transactions. Cash is seen as less secure and harder to track and if they have cash in their pocket they spend it. Younger people are more open to new payment methods that make their lives easier e.g. Monzo.

- **There is a resistance to card and contactless**

For Cash Budgeters and Cash Carriers there is a resistance to increased card and contactless use. This mainly falls in three categories:

- *Ease of spending* - a real concern for those who've had debt problems in the past as they find this method less tangible and difficult to keep track of.
- *Harder to budget* - even those confident managing finances online recognised there is a time lag, which means it can be difficult to 'know where you are'.
- *Security* - they don't feel in control of the transaction and have concerns about what would happen if their card was stolen (low awareness of any security measures in place).

### **QUESTION 6: How does cash usage and need vary by demographics, geography, and socio-economic status?**

As noted in the response to Question 5 the majority of the UK population use cash as a method of payment, however the extent to which they do varies.

A consumer omnibus study commissioned by Cash Services found that 63% of the UK population perceived themselves to be using cash less often as a method of payment than they did 5 years ago. A breakdown by age showed that this was the case for over half of all age groups but was more

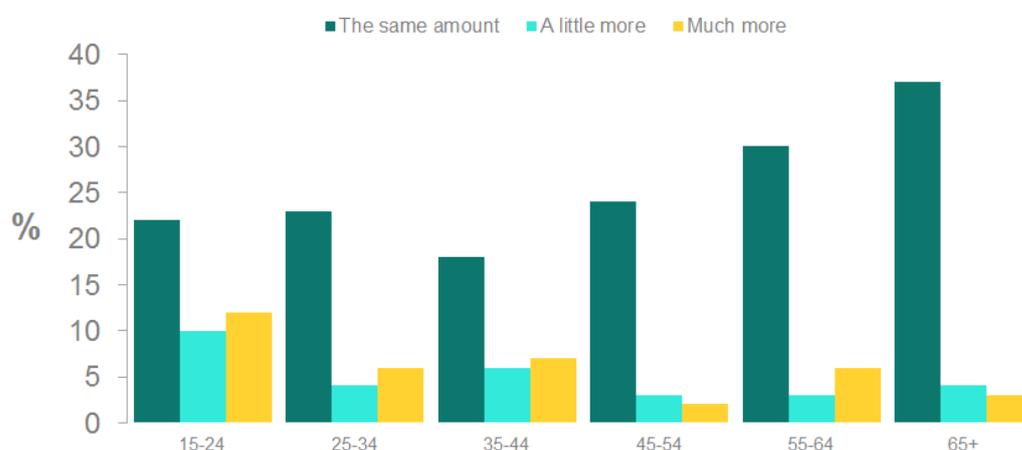
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prevalent among 25-64s. In terms of social grade, higher social grades tended to use less cash than lower social grades.<sup>30</sup>

In contrast, over a quarter of the public said their cash use had not really changed over the past five years and over 10% thought it had probably increased. These were predominantly people in the older age groups (55+). There was also a perceived consistent cash use from the 26-34 age group with just under a quarter saying they use the same amount as they did five years ago, and 10% using it more. This demonstrates that young people (a mix of millennials and generation Z) use cash to a varying degree like any other age group. The 35-44 and 45-54 age groups make more payments than any other, as they are likely to have more disposable income and commitments (e.g. children, rent and mortgage). They are therefore likely to use a mix of different payment methods and cash continues to be used, with 34% of 45-54 year olds using the same amount of cash as before and 13% of 35-44 using more. It is the lower age group (15-24 year olds) that are most likely to be using cash more than they did five years ago, probably because they were not making many payments five years previously (this explains the high (24%) response to spending more cash) and the likelihood that at a young age they follow the payment habits of their parents.<sup>31</sup>

### *Perceived cash use over the past five years by age group*



With regards to social grade, there was a clear relationship between perceived continued or increased cash use over the past 5 years with lower social grades.

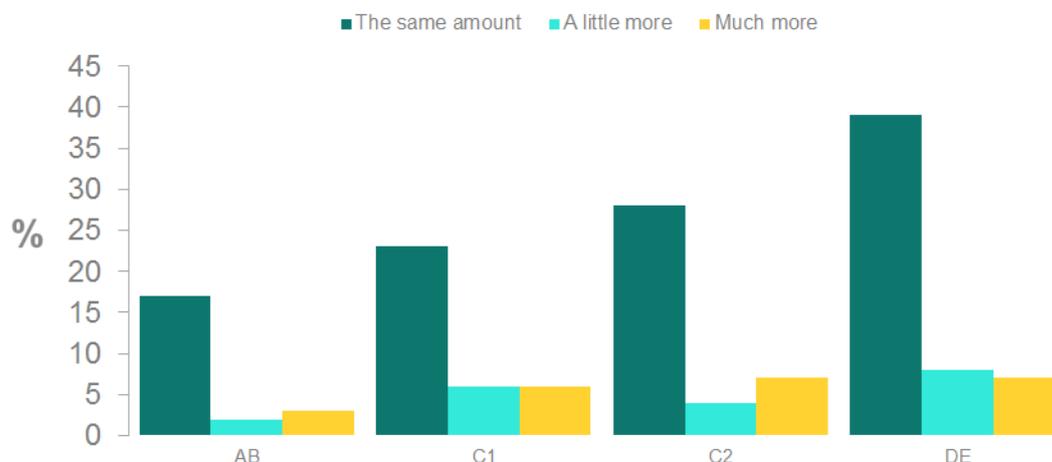
<sup>30</sup> Cash Services Research, 2017

<sup>31</sup> This suggested that those under the age of 15 are high cash users, although they will be making very few payments.

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#### Perceived cash use over the past five years by social grade



As the call for evidence points out in 3.2, people in younger age groups are more likely to be rare cash users than people in older age groups, with more than one in ten of those aged 25-34 making only one cash payment each month or no cash payments at all. The 2.7m that rely on cash are evenly-spread across different age groups. However, people with lower household incomes were far more likely to rely mainly on cash when compared with their more affluent counterparts. Over half of all consumers who relied predominantly on cash during 2016 had total household incomes of less than £15,000 per year.<sup>32</sup>

There is no obvious link between cash use and different parts of the UK. Even in Greater London, where the transport system is cashless, there is a high perception of more cash use than five years ago, probably due to the different socio-economic groups in one area, which is the same for most cities. If there a geographical difference it's between urban and rural living with the latter being more cash heavy.

**QUESTION 7: How does the level of cash that you handled or used this year compare to what you handled or used five years ago? What are the drivers for that change (for example, change in customer preferences, currency modernisation programmes such as new polymer banknotes and £1 coin)?**

In order to fully understand the changing use of cash it's important to clarify the difference between cash in circulation and cash used for transactional purposes.

<sup>32</sup> UK Finance, *UK Payment Markets 2017*

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In many respects cash is a unique method of payment: it's the oldest, it's universally accepted and physical. In contrast to digital payments each cash transaction is not electronically recorded, hence the need to run payment diaries and in-depth research to understand how people spend cash and how its use might change over time.<sup>33</sup> Furthermore, cash holds attributes beyond transactional: it's viewed as a store of value, a way to protect anonymity and retain as a contingency without additional risk on consumers to borrow.

When the use of cash is discussed in the media and in debates around the future of cash, the figure commonly used to position cash as a method of payment is the total number of banknotes in circulation. This refers to the total number of Bank of England banknotes in circulation. As of February 2017, there are 3.7bn or £73bn of Bank of England banknotes in circulation, a figure that has increased threefold over the past 20 years. However this only tells part of the picture for cash in the UK as it does not include coin in circulation or Scottish and Northern Irish Banknotes, which would make the total value of cash in circulation in the UK approximately £84bn.<sup>34</sup>

It should be noted that these cash in circulation figures also include all old series banknotes and coins that have not returned to banks, as well as cash held outside the UK, or has been lost and/or destroyed. Therefore, this approach doesn't provide an adequate overview of cash use to support transactional spending, which, as outlined in the response to Question 1, has been in decline for several years. For example, following the introduction of the new Bank of England polymer £5 banknote the industry recovered £1.1bn paper notes and introduced £1.1bn polymer.<sup>35</sup> This is in contrast to the £1.6bn quoted on the Bank's circulation figures at launch and its growth to £1.9bn includes the residual paper fives that have not returned. As a result, it could be more accurate to say that there are only £1.1bn fives in circulation to support transactional spending (however, some £5 notes are likely to be used by consumers to save and budget). A similar observation can be made of the transition to the new £1 coin where only 1.5bn of the 2.2bn that were issued over 30 years were recovered, to be replaced by 1.2bn new coins.<sup>36</sup> Furthermore, in a 2015 report the Bank of England stated that no more than half of Bank of England notes in circulation are likely to be held for use within the domestic economy for transactions and for 'hoarding'. The remainder is likely to be held

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<sup>33</sup> The UK is the world leader in this. The UK payments industry has been monitoring the consumer use of cash through a payments diary for over 30 years (it's currently managed by UK Finance). The European Central Bank ran its first Euro Area-wide payments diary in 2016 (individual Euro Area banks also run payment studies e.g. De Nederlandsche Bank and Deutsche Bundesbank). The US Federal Reserve also runs a similar study.

<sup>34</sup> Tom Fish and Roy Whymark, *How has cash usage evolved in recent decades? What might drive demand in the future?* Bank of England Quarterly Bulletin 2015 Q3 <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2015/how-has-cash-usage-evolved-in-recent-decades-what-might-drive-demand-in-the-future.pdf?la=en&hash=4AA04C755C1B8BBDC70CE55CAD488E348FEDDAC5>

<sup>35</sup> As of Friday 13<sup>th</sup> April 2018

<sup>36</sup> As of 23<sup>rd</sup> July 2018

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overseas or for use in the shadow economy.<sup>37</sup> The 'cash in circulation' statistics must therefore not be considered in isolation when attempting to understand the use of cash in the UK. They provide an indicator of the growth in the demand for Bank of England banknotes (bearing in mind the popularity of GBP abroad), low interest rates and the growth in self-service tills and ATMs (each of which needs to be filled with cash). Cash as a method of payment, as determined through research (e.g. the payment diary managed by UK Finance), provides a better understanding of the level of cash used for domestic transactions.

### *Value of Bank of England banknotes in circulation (£ million at end-Feb 2017)<sup>38</sup>*

	£5	£10	£20	£50	Other notes*	Total
<b>2013</b>	1,526	7,234	35,163	10,323	3,776	58,022
<b>2014</b>	1,540	7,182	36,483	11,025	3,967	60,198
<b>2015</b>	1,601	7,371	38,912	11,788	4,118	63,789
<b>2016</b>	1,645	7,767	41,017	13,157	4,212	67,819
<b>2017</b>	1,912	8,006	43,357	15,601	4,322	73,198

*\*higher value notes used as a cover for the note issues of banks in Scotland and Northern Ireland*

To understand the underlying change in cash use the industry prefers to focus on the velocity of cash, i.e. the circulation of banknotes between ATMs, retailers and consumers. This provides a more accurate picture of the activity of cash and its role in the economy. With the growth in digital payment options, consumers are not just using less cash but cash is recirculating for longer; that is, cash returns to cash centres to be processed less frequently because of the rise in self-service machines (where the retailer finds it more economical to keep cash circulating) and consumers depositing less cash into their accounts. As noted above, there is also the rise in ATMs which need to be filled with cash and can also be replenished by a merchant). This means that it's vital to look beyond the decline in processing numbers and towards velocity, just as it's important to look beyond the cash in circulation statistics for the most accurate picture of cash use.

In 2017 £340bn of cash was processed by wholesalers across UK. This is a drop of 6%, compared to 2016, when £362bn was processed.<sup>39</sup> In terms of coin, the underlying levels of coin processed in

<sup>37</sup> Tom Fish and Roy Whymark, *How has cash usage evolved in recent decades? What might drive demand in the future?* Bank of England Quarterly Bulletin 2015 Q3 <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2015/how-has-cash-usage-evolved-in-recent-decades-what-might-drive-demand-in-the-future.pdf?la=en&hash=4AA04C755C1B8BBDC70CE55CAD488E348FEDDAC5>

<sup>38</sup> Banknote statistics - Bank of England <https://www.bankofengland.co.uk/statistics/banknote>

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the UK has fallen steadily over the past five years dropping by £1.5bn to £8.5bn (85%) and is set to fall by at least that amount over the next five years to around £7.3bn.

Demand for banknotes is more complex than coin: the majority of cash purchased (over 85%) is used for ATMs, the rest is provided to the branch networks of financial service providers and as change for retailers. Over the past three years the underlying levels of banknotes processed in the UK has fallen steadily from £350bn to £330bn, dropping by £20bn (6%).

**QUESTION 8: How do you think the level of cash you will handle or use in five years will compare to what you handled or used this year? What are the drivers for that change? And how will different sectors be impacted by this change?**

It is very likely that the levels of cash processed by wholesalers will continue to fall over the next five years. Demand for notes and coins have very different drivers but ultimately they are used by consumers to support their daily spending.

The introduction of a number of cashless solutions for the transport industry (buses, parking and tolls) have contributed to the underlying reduction in the levels of cash processed and more cash recycling in the retail sector (hence the introduction of The Code of Conduct for the Authentication of Machine-Dispensed Banknotes<sup>40</sup> and the Banknote Checking Scheme<sup>41</sup> by the Bank of England as part of their anti-counterfeiting strategy). The introduction of automated retail tills has created short term increases in demand for cash as float management.

We anticipate that over the next 10 years wholesale demand for banknotes will fall from current levels of £180bn to at least £135bn and in a worst case £110bn. (Please note that these values are different from the total processed, which includes inflows and outflows.)

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<sup>39</sup> Cash Services, 2018.

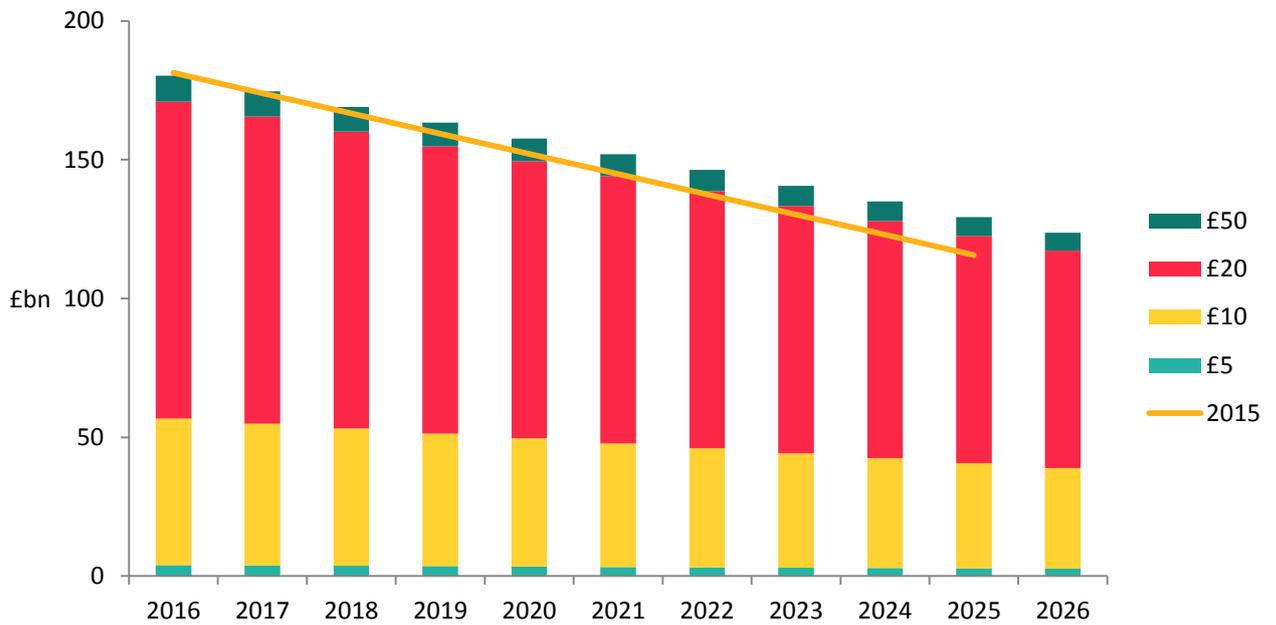
<sup>40</sup> <https://cashservices.org.uk/local-cash-recycling>

<sup>41</sup> <https://www.bankofengland.co.uk/banknotes/counterfeit-banknotes/banknote-checking-scheme>

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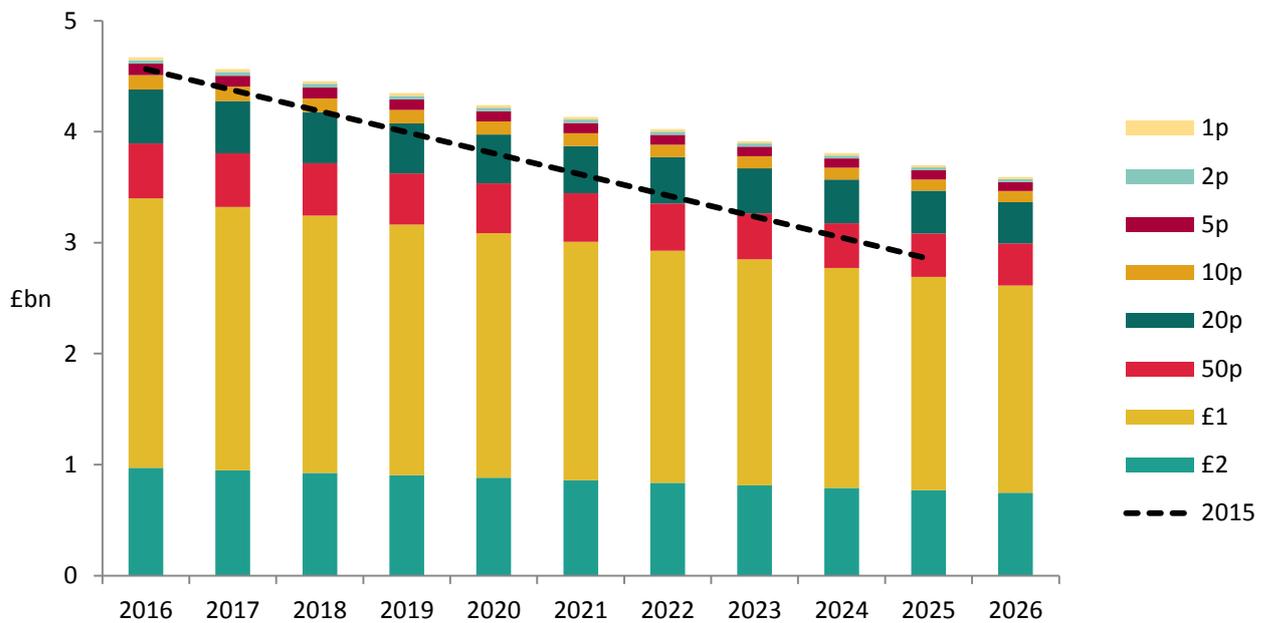
*Cash and digital payments in the new economy*

*Wholesale banknote demand forecast by denomination 2016-2016<sup>42</sup>*



We anticipate that over the next 10 years wholesale demand for coin will fall from current levels of £4.7bn to at least £3.9bn and in a worst case £3.2bn.<sup>43</sup>

*Wholesale coin demand forecast by denomination 2016-2026<sup>44</sup>*



<sup>42</sup> Cash Services, 2018

<sup>44</sup> Cash Services, 2018. Please note that these values are different from the total processed, which includes inflows and outflows.

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This anticipated decline in wholesale demand for both banknotes and coin demonstrates the overriding challenge of rising unit costs of cash. The increased adoption of digital payment options has and will continue to lead to higher levels of recycling in retail and reducing levels of cash processed by wholesalers. Less demand for new banknotes and coin results in structural surpluses of different denominations reflecting a change in consumer and merchant spending behaviour (see response to Questions 1 and 10). Structurally surplus stock sits in cash centres, absorbs cost and restricts the ability of the whole supply chain to run efficiently and effectively. In order to adapt to this change, wholesalers need to increase efficiencies in operations to ensure they can continue to service customers without passing on an increase in costs to their customers. For banknotes, surplus stock can be returned and bought back by the Bank of England under the Note Circulation Scheme to ensure that the cost to process banknotes remains equitable between processor and issuer. As outlined in the response to Question 4, no such mechanism exists for coin and this has the potential to result in an increased cost base for the supply of banknotes and coin as the same organisations are involved in the processing and distribution of both.

If this challenge cannot be addressed, then additional cost may be passed on to the customers of cash processors (financial institutions, retailers) and potentially jeopardise some merchants' appetite to continue to accept cash payments, thus reducing the availability and accessibility of cash for those who need it. In response to this, financial institutions may reconsider offering in-branch over the counter coin services for their customers. As outlined in the response to Question 4, in this new environment for cash a revised structure is needed to allow the model to support the distribution and processing of coin across the UK. At the moment, the efficiency of the coin supply is supported by weekly trading of coin, facilitated by Cash Services, to ensure demand and supply is balanced across the wholesale market and that it runs in the most cost-effective manner possible. However, this model is incapable of managing the challenge presented by structurally surplus coin and requires support from HM Treasury. For example, if an agreement was in place whereby HM Treasury would buy back structurally surplus coin, this would provide much needed long-term relief to cash processors and ensure the coin circulation model was relevant for the new payments landscape and able to react to future changes in consumer spending preferences (i.e. the growth of digital payments). The greater challenge in the short term relates specifically to low denomination coin and is outlined in the response to Question 10.

### **QUESTION 9: What impact has the change in demand had on industries that process cash?**

Changing demand for cash has put additional pressure on the industry to develop better quality forecasting to understand the impact of decline more clearly. There has been an ongoing

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programme of restructuring and consolidation, however, as decline rates are high the transition is difficult and as such there will always be an element of stranded operating costs that the industry tries to absorb. This is not sustainable: at some point the infrastructure will need to be reset to reflect the future demand for cash. It is this point of transition that the industry is currently experiencing as it ensures it can run as efficiently and effectively as possible in light of changing consumer payment behaviour.

It is also at this point that the contingency role for cash in the event of a digital payment failure becomes unsustainable.<sup>45</sup> In this event (perhaps caused by a cyber-attack) there would be an increased demand for cash as consumers seek comfort and security in physical money. The potential loss of capacity in the industry to meet this demand due to market decline makes it difficult for cash to fulfil this function as the 'physical' and 'fall back' method of payment. It is therefore important that in managing decline the government is aware of these issues.

#### **QUESTION 10: Does the current denominational mix (eight coins and four banknotes) meet your current and future needs? If not, how should it change?**

This call for evidence rightly points out in 3.12 that the decline in transactional cash usage in recent years has impacted high and low-value transactions differently. This is evident from the different pace at which the volume and value of cash transactions has fallen over the past few years and is forecast to continue to fall.

As the graphs below show, over the past three years the forecasts from UK Finance have increased the pace of decline for the volume of cash transactions but slowed the pace for value. This divergence is a signal that the change in consumer payment behaviour as outlined in the response to Question 1 will not result in uniform decline in cash transactions. Rather, low value transactions will become non-cash (digital) transactions at a faster pace than higher transactions.

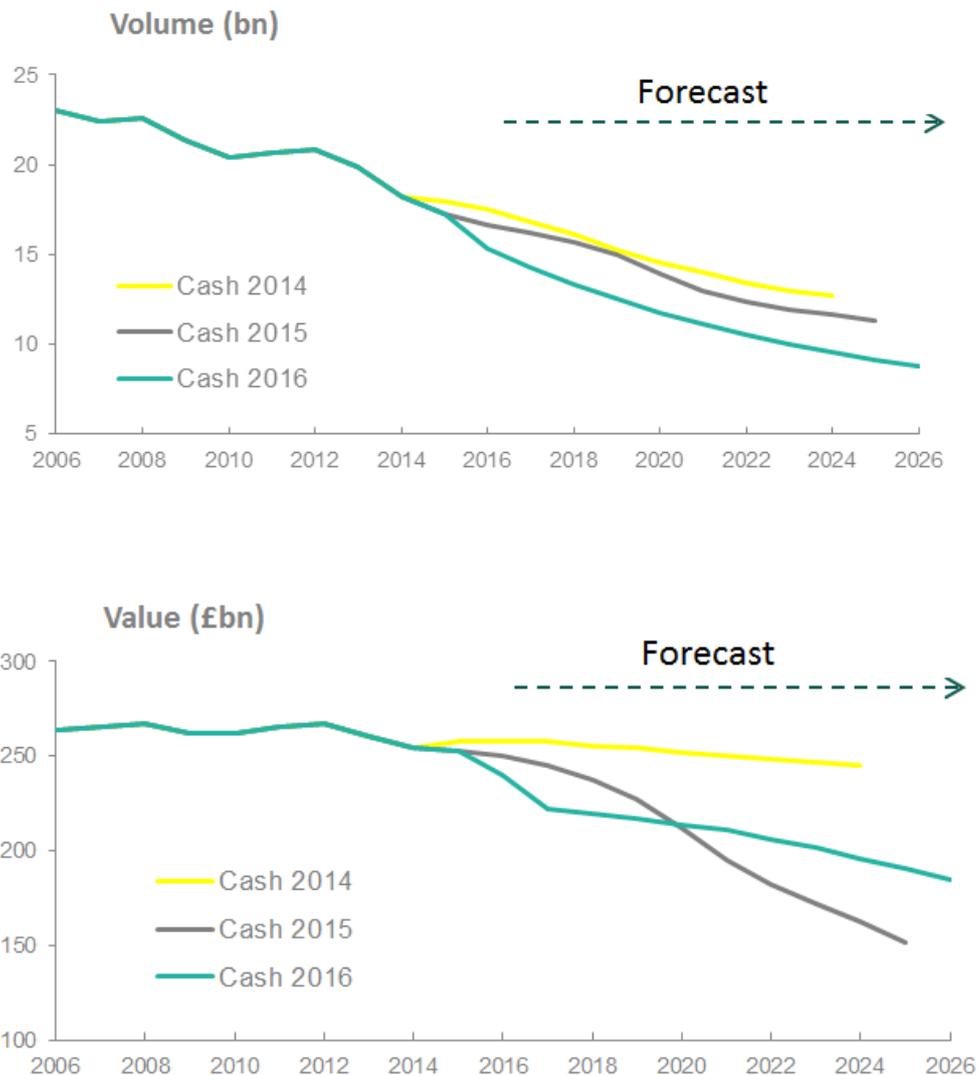
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<sup>45</sup> Cash Services acts as the focal point for in-crisis contingency planning for cash availability, bringing together the cash and retail industry, UK Finance, Bank of England, HM Treasury and Financial Conduct Authority.

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Cash transactions volume and value 2006-2026 (actual and forecast)<sup>46</sup>



This has been evident over the past few years. As the table below shows between 2014-2016 cash transactions declined by 3.1bn, with transactions under £10 accounting for over half of these losses. If we expand this to include all cash transactions under £25 in in value, we see a loss of 2.6bn of the 3.1bn cash transactions over the past three years.

<sup>46</sup> UK Finance, *UK Cash & Cash Machines 2017*

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#### Cash transactions by value band (bn) 2014-2016<sup>47</sup>

	<£1	£1-£5	£5-£10	£10-£25	£25-£50	£50+
<b>2014</b>	4.6	5.7	3.6	2.7	1.0	0.7
<b>2015</b>	4.5	5.9	2.8	2.5	0.9	0.5
<b>2016</b>	4.0	5.2	2.8	2.0	0.7	0.5

This change over the past three years is probably a direct result of the growth in contactless payments since 2014 and the continued adoption of Chip & Pin card payments. The former is certain to continue making an impact on cash payments (particularly those under £5 in value) as their adoption grows. The major catalyst for the take-up of contactless was the introduction of contactless payments in Transport for London services in 2014, which in turn has led to consumers using contactless more often for payments in other sectors (e.g. restaurants, bars and supermarkets) for transactions under the £30 limit.<sup>48</sup> The continuation of the growth in contactless (as well as mobile payments) will largely be driven by the roll out of smart ticketing systems across the UK for bus and rail transport,<sup>49</sup> as well as other sectors offering and in some instances encouraging their customers to use contactless rather than cash for low value transactions (e.g. in vending machines, parking, pubs and clubs, and taxis).<sup>50</sup>

This change is reflected in the forecast for cash use over the next 10 years with the volume of cash transactions set to fall at a faster rate than the value (6.6bn transactions worth £55bn in value) in comparison to the forecast for value in previous years (see above). Combined with industry sector data, we predict that the use of cash by value bands could look like this by 2026:

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<sup>47</sup> Payments UK, *UK Cash & Cash Machines 2016*; UK Finance, *UK Cash & Cash Machines 2017*.

<sup>48</sup> David Fagleman, *Is cashless transit leading the payments revolution?* 16/10/17

<https://www.linkedin.com/pulse/cashless-transit-leading-payments-revolution-david-fagleman/>

<sup>49</sup> Gov UK, *Roll-out of smart ticketing will improve bus, rail and tram journeys for millions* 12/01/2016

<https://www.gov.uk/government/news/roll-out-of-smart-ticketing-will-improve-bus-rail-and-tram-journeys-for-millions>

<sup>50</sup> The growth in contactless will also have an impact on the growth of Chip & Pin payments as consumers replace these, up to the value of £30, with contactless.

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#### Cash transactions by value band (bn) 2012 vs 2016 vs 2026<sup>51</sup>

	2012	2016	2026
<£1	4.7	4.0	1.3
£1-£5	6.8	5.2	1.6
£5-10	3.7	2.8	2.9
£10-£25	3.6	2.0	2.0
£25-£50	0.9	0.7	0.7
£50+	0.5	0.5	0.5

The impact on higher value bands could be much less drastic as cash continues to be used for purchases in convenience stores and supermarkets where the average transaction is higher in value. For transport, pubs and clubs and vending, where transactions are commonly low in value, a fall in cash use over the next 10 years is very likely.

This is reflective of the changing payments landscape. As the use of cash falls and digital payment methods become more popular (particularly for low value payments) the consumer and retailer will change their use of differing denominations of banknotes and coins. The analysis outlined above suggests that this could have a significant impact on the demand for low value coin from consumers and merchants.

In terms of the transactional use of low denomination coin, research suggests that consumers see banknotes as a quick and convenient way to pay but receiving lots of change in return is an annoyance for some. Coins are typically used for low value transactions however even heavy cash users feel that 1p, 2p and 5p coins have fairly minimal utility and tend to be saved or 'got rid of' through impersonal transactions.<sup>52</sup> When asked in January 2017, 20% of people agreed that they 'often tell people at checkouts to 'keep the change' if it's only a few pence', and 30% agreed that it's 'annoying when you have a lot of 1p and 2p coins'. However, 40% agreed that they 'often put spare 1p and 2p coins in charity boxes' and 'save 1p and 2p coins'.<sup>53</sup> This complements the analysis in 3.13 of the call for evidence.

The call for evidence is correct when it states in 3.15 that the 'cost of industry processing and distributing low denomination coins is the same as for high denomination coins, making the cost high relative to face value and utility. Given the fixed costs of the cash distribution infrastructure

<sup>51</sup> Payments UK, *UK Cash & Cash Machines 2012*; UK Finance, *UK Cash & Cash Machines 2017*; Cash Services analysis

<sup>52</sup> Cash Services Research, 2017

<sup>53</sup> Cash Services Research, 2017

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these costs are likely to rise as cash usage declines. This is at the heart of the challenge facing the wholesale cash industry as it seeks to make the processing of coin (and notes) as cost effective and sustainable as possible in light of changing payment behaviour. It is also right to note that in response to this, 1p and 2p coins are not actively circulated throughout the economy and processors are holding increasingly large stocks of coin that have returned to them but for which there is declining future demand. As outlined in the response to Question 4, no mechanism exists for them to return this structural surplus to The Royal Mint as they would return banknotes, thus adding significant cost.

An efficient and sustainable cash cycle is essential in order to meet the government's commitment that the public's cash needs can be met and that cash remains accessible and secure for those who need it. If the mix of denomination of coin remains the same as it is today then it does not meet the needs of the modern economy. The processing of 1p and 2p coins absorbs up to 40% of the total cost of the industry to process coin: it is high cost, inefficient and jeopardises the sustainability of the whole cash cycle. For example, from the minute coin is collected from The Royal Mint its value is diminished through transport, bulk handling, repackaging, distribution and delivery to consumers. It is very likely that by the time this coin is received by retailers its entire value has been significantly diminished. (This is certainly the case for 1p and 2p coins, however it should be noted that as people use cash less it is likely to be applicable to other low denomination coin as well.) Furthermore, all actors in the wholesale distribution of cash work hard (largely through the collaboration facilitated by Cash Services) to improve the industry's environmental footprint by improving the efficiency of deliveries. The transportation of 1p and 2p coins up and down the country creates significant challenges to achieve this.

As outlined in Question 16, a number of countries have removed or demonetised their low denomination coin in an effort to improve the efficiency of the cash cycle.

#### **QUESTION 14: How were counterfeit £1 coins able to enter circulation and circulate freely?**

The old £1 was a target for counterfeiters due to its value and longevity. To understand how counterfeits were able to enter circulation it's important to understand that coins circulate differently to banknotes.

For example, the bimetallic £2 coin entered circulation in 1998 and since then over £1bn coins have been issued with over 35 variations (which must contribute to the challenge of identifying counterfeits). This represents around 22% of the value and 1.5% of the volume of all coins circulating

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in the UK today. Cash centres process c.£900m of £2 coins per year giving the coins an average velocity of nearly 60 days.

Effectively that means each coin is checked less than once per year. However, it's more likely that a significant number of these coins never return to the cash centre and circulate freely between consumers and retailers (a coin can change hands around 15 times per day moving from customer to customer via tills). It is therefore far more likely that £2 coins are only checked on average every 2 years making detection and analysis very difficult.

The same pattern of behaviour is applicable to the £1 coin. Organised crime groups exploit this and make high value coin an easy and attractive target for counterfeiters. Once produced, they are traded significantly below face value (estimated at 25%) and enter the supply chain via retail outlets. The introduction of automated machines (such as those used by the gaming, parking and vending industries), are able to measure conductivity, thickness and diameter of the coin, which is much harder to detect by human eye.

### **QUESTION 15: When and how are / should coins be checked in the cash cycle, both now and in the future?**

As outlined in this response, the changing payments landscape is leading to more cash (particularly coin) recirculating and entering cash centres less often. There are also fewer bank branches providing limited opportunity for staff to check coin (however, this is countered by increasing automation in bank branches). Banks do, however, have appropriate measures in place and their customers go through robust checks to prevent illegal activity taking place.

Retailers also face challenges. With consumers making over 40m transactions per day it is very difficult for retailers to quickly and easily identify counterfeit coins (unlike notes) passing through their outlets. However, considering there are over 1m outlets in the UK where consumers can use cash to purchase goods and services, and the retail route is the most likely one through which counterfeit coin enters circulation (as outlined in the response to Question 14), a solution to validate coin at the point of sale would provide the most appropriate and effective place to check coin authenticity.

The Bank of England recognises this is the case for banknotes and as part of their anti-counterfeiting strategy promotes an education programme that works with retailers to understand how to identify genuine banknotes. The Banknote Checking Scheme recognises that counterfeit banknotes are only

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produced because criminals believe they will find somewhere to spend them.<sup>54</sup> To combat this, the Bank works with several strategic partners (including trade associations and the National Crime Agency), and major retailers have pledged their support to the six guiding principles of the scheme.<sup>55</sup> The Bank of England also provides a framework for retailers operating an ATM or self-service machine so that they can test and prove that their equipment and processes meet minimum authentication standards. The Code of Conduct for the Authentication of Machine-Dispensed Banknotes was launched in 2013 and is supported by the Bank of England, British Retail Consortium, Cash Services, LINK, and the Association of Commercial Banknote Issuers.<sup>56</sup>

A central anti-counterfeiting strategy that promoted a programme aimed at educating retailers to understand how to identify genuine coin seems the most appropriate solution. This would also provide a joined-up anti-counterfeiting strategy for cash.

### **QUESTION 16: Are there other international examples of countries managing decline in demand for cash that the government should look to? Should the UK follow a similar pathway as other countries in modernising the currency?**

The rise the digital payments is impacting countries around the world as businesses, consumers and civil society adapt to a new digital economy. The changes in the payments landscape as outlined throughout this response are being experienced in other countries, although to a varying degree. For example, the UK is a world leader in payments and is one of the first places for contactless to really take off. In other countries, mobile payment adoption is much more advanced and some are still cash heavy. There is therefore a lot the government can learn from other countries, as many either have, or are about to deal with similar challenges in managing the decline in demand for cash and ensure a sustainable cash cycle exists that can provide access to cash for those who demand it.

Over the past few years, Cash Services has closely monitored developments in other countries and has built relationships with international payment institutions, educational bodies and central banks to share, learn and understand the challenges faced in managing the decline in demand for cash. No two countries are identical and there can be deep cultural reasons for paying the way they do, hence one country's approach might not be fully suitable for another's. One major difference between the UK and other countries is the split in banknote and coin management between two institutions (Bank of England and HM Treasury). This means that there is no joined-up strategy for cash in the UK

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<sup>54</sup> <https://www.bankofengland.co.uk/-/media/boe/files/banknotes/banknote-checking-scheme-supporters.pdf?la=en&hash=F749E3EDA8A3C92EAAB988667F9D38C7BAECB396>

<sup>55</sup> Full list here <https://www.bankofengland.co.uk/-/media/boe/files/banknotes/banknote-checking-scheme-supporters.pdf?la=en&hash=F749E3EDA8A3C92EAAB988667F9D38C7BAECB396>

<sup>56</sup> <http://cashservices.org.uk/local-cash-recycling>

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and makes it harder to address the major challenges facing the cash industry. However, engaging with countries with similar levels of cash use (such as The Netherlands), as well as countries with low cash use (such as Norway, Denmark and Sweden), will set the government in good stead to manage today's challenges and prepare for those in the future. A few examples are included in this response and Cash Services would be happy to meet with the government to discuss in more detail.

In response to the changing payments landscape (as outlined in the response to Question 1) Governments, Central Banks and Mints around the world have invested in modernising their currencies. This involves introducing banknotes and coins with new designs and compositions to increase security and durability, thereby combating counterfeiters and reducing the need to replace banknotes and coins as frequently as in the past. The investment ensures that in the face of changing payment preferences, the cost of producing, maintaining and circulating cash will be reduced and confidence in the currency retained, thus keeping it available for those who wish to use it or depend on it as their predominant form of payment.

As the call for evidence points out in 3.10, the government, Bank of England and Royal Mint have recently embarked on a programme of currency modernisation and have been working with the cash industry to introduce polymer banknotes and the new £1 coin to achieve such ends. Although separate projects, both required engagement with retailers, charities and trade associations, as well as extensive public communications, to ensure the successful introduction of new and removal of old. A significant amount of time and money has been invested by all parties and with the Bank of England and Scottish Note Issuers introducing a polymer £20 in 2020 and Northern Irish Note Issuers with similar plans, there is work still to be done.

For many countries currency modernisation has meant removing, as well as replacing, certain, mostly small denominations of coin. The rationale for removing is the same as replacing: In the face of changing payment preferences, the cost of producing, maintaining and circulating cash should be reduced and confidence in the currency retained, keeping it available for those that wish to use it or depend on it as their predominant form of payment.

Some countries have stopped producing and removed small denomination coins from circulation; others have just stopped production and introduced rounding. In the context of removing low value coin, the UK is in the minority of advanced English speaking economies.

In many cases, once a country has removed or stopped producing low denomination coin, rounding has been successfully implemented to address the change in currency. This involves the rounding of

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cash transactions to the nearest coin denomination at the till to remove the need for old coin for change.

The experience from countries who have introduced such measures suggests that rounding of the final transaction total, rather than individual prices, curtails any potential inflationary effects. The price of individual goods or services remains unchanged as only the total bill is rounded and a national communication and education campaign raises public awareness. In some countries the low denomination coins remain legal tender and continue to be minted in small quantities, though in practice they are no longer used in daily life. Non-cash transactions are not affected by this process.

If this were to be implemented in the UK, the following would be applicable:

- A transaction of £10.21 or £10.22 would be rounded to £10.20
- A transaction of £10.23 or £10.24 would be rounded to £10.25
- A transaction of £10.26 or £10.27 would be rounded to £10.25
- A transaction of £10.28 or £10.29 would be rounded to £10.30

A good international comparison for the UK is the Republic of Ireland, with a similar consumer culture, spending habits, retail and banking industry.

#### **Case Study - Rounding of cash transactions in The Republic of Ireland**

In 2011, the Minister for Finance requested that the Central Bank of Ireland examine ways to improve the nation's payment infrastructure. The Central Bank established a Steering Committee which prepared and submitted the National Payments Plan (NPP), which the Government approved in April 2013. The aim of the NPP was to both promote greater use of efficient electronic payments such as debit cards and direct debits, to tackle payments aspects of financial exclusion, and to improve the efficiency of Ireland's cash cycle.

One of the recommendations of the NPP was to conduct a rounding trial in a mid-sized Irish town to test consumer and retailer reaction. The Wexford Rounding Trial was run from 16th September to 17th November 2013 with the aim of reducing the need for 1 and 2 cent coins, and showed strong support for rounding both from consumers and retailers. During the Trial retailers rounded change for cash transactions to the nearest 5 cents at the cash register, removing the need for 1 and 2-cent coins in change. When "don't knows" are excluded, 85% of consumers and 100% of retailers surveyed after the Trial believed rounding should be applied nationally. Following the success of the

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Wexford Trial, in June 2015 the Government approved the national rollout of a voluntary rounding convention of amounts paid in cash.

The trial demonstrated that rounding worked and put to rest the majority of concerns e.g. will people understand the change, impact on the vulnerable and elderly. The trial worked as its intent was to 'investigate the response to change'; it did not 'propose the change'. Some had to see it working to believe it was possible and the trial would have highlighted any major issues. There was a great deal of local support for the trial: the Wexford Chamber of Commerce saw it as an opportunity to promote Wexford, be part of Irish history and support the country by making savings. Wexford received national media attention.

The public message for the trial was replicated for the national rollout. A decision was made not to overcomplicate the message, as it was essentially a simple change, and people understood. The economic argument, that production cost was higher than transactional value, cut through and was central to the public campaign. In the media it was presented as a positive and cost saving move.

A strategic decision was made not to link the trial with charities as it was feared it could bias the results (i.e. if it was seen as promoting a good cause rather than reducing coins in circulation). However, research during and after showed that a greater value of coin was donated to charity from hoarded bronze than as unwanted change at shop counters or collection tins. For the national rollout, a campaign to donate hoarded coin was promoted with a national charity group. It was also believed that charities would see a greater value of donations as the lowest denomination coin would be 5c after national rollout.

It is generally viewed by retailers and consumers that rounding works in Ireland. However, the decision to make it a voluntary initiative and not officially demonetise the 1 and 2 cent coins left some retailers with extra costs. The wholesale cash industry was also left with extra costs due to the lengthy time it took to return coin to the Central Bank.

For more information please see:

*Rounding Guidance for retailers* - <https://www.centralbank.ie/docs/default-source/consumer-hub-library/rounding/gns-7-4---rounding---retailer-guidebook.pdf?sfvrsn=4>

*Wexford Rounding Trial* - <https://centralbank.ie/docs/default-source/consumer-hub-library/rounding/gns-7-4-wexford-rounding-trial.pdf?sfvrsn=2>

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The issue of structurally surplus coin is not unique to the UK and the government should explore different models for coin distribution to address this challenge. In the UK we already have an advanced model that allows for weekly trading of surplus coin but this cannot be adapted to meet the challenge of structurally surplus coin alone. The central authorities in other countries have successfully worked with the cash industry to overcome such challenges. One example of this is the model introduced by the Magyar Nemzeti Bank (Central Bank of Hungary).

#### **Case Study - Magyar Nemzeti Bank (Central Bank of Hungary)**

The Magyar Nemzeti Bank (MNB) is responsible for the maintenance of confidence in cash payments, the mix of denominations, the keeping of cash reserves, the supply of the economy with banknotes and coins of adequate quality and the regulation of cash circulation in the market.

In contrast to the UK, but in line with the majority of countries, the MNB is responsible for both banknotes and coin. Forint banknotes and coins are produced to order by the MNB; the banknotes are printed by the Hungarian Banknote Printing Company and the coins the Hungarian Mint (both enterprises are wholly owned by the MNB).

The MNB participates in the domestic cash supply chain as a wholesale service provider. New banknotes and coins enter circulation through the MNB to financial institutions and Hungarian Post transported through cash in transit services. The MNB recently repositioned itself to play a more direct role to ensure the level of coin in circulation is sustainable. The central bank plays a consolidating role and sets pre-determined min/max thresholds for each denomination of coin across coin processors via its website. This means that the processors regularly trade surplus coin when necessary (in a similar way to the model in the UK). However, in contrast with the UK new coin can only be ordered if the combined position of coin across all at cash centres is below the aggregated lower limit, but if the combined position is above the aggregated upper limit, a transfer of surplus coin is made from the processors to the MNB.

The MNB fulfils seasonal requirements (e.g. public holidays) and makes major changes when appropriate. For example, the elimination of the 1 and 2 forint denominations and the replacement of the 200 forint banknote with a coin. In both cases, the Central Bank made its decision taking into account the economy as a whole, and these decisions resulted in significant savings.<sup>57</sup>

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<sup>57</sup> <https://www.mnb.hu/en/banknotes-and-coins/production-of-banknotes-and-coins>

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### ABOUT CASH SERVICES

Founded in 1982, Cash Services has supported the UK cash industry for 35 years acting as a focal point for the cash cycle and offering strategic direction for the collaborative elements of wholesale cash management. Working closely with the Bank of England, Her Majesty's Treasury and The Royal Mint, Financial Institutions, Cash in Transit, Cash Processors and the ATM Network, Cash Services ensures that authentic banknotes and coins circulate efficiently and effectively to meet public demand. Through collaboration and co-operation Cash Services provide strategic direction and management of the collaborative elements of the cash cycle in the UK and risks to the cash cycle are identified and mitigated.

Cash Services' objectives are to:

- Maintain the integrity of the cash cycle by ensuring an orderly market for the distribution of cash.
- Ensure an efficient industry model exists for the management of wholesale cash supply and demand, against the background of a changing market
- Facilitate collaboration to ensure sufficient cash is available to meet customer expectation and ensure cash remains an integral part of the UK payments landscape.
- Gather, interpret and share information on the use of cash by consumers and industry data.

The membership of Cash Services consists of:

- Barclays
- Clydesdale and Yorkshire Bank
- G4S Cash Solutions
- Lloyds Banking Group
- HSBC
- National Westminster Bank
- Nationwide
- Post Office
- Santander
- Vaultex

The Association of Commercial Banknote Issuers and LINK are associate members. The Bank of England, HM Treasury and the Royal Mint attend meetings as sponsors.<sup>58</sup>

*More information about Cash Services can be found at [cashservices.org.uk](https://cashservices.org.uk).*

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<sup>58</sup> They have not been involved in this response.

**Cash Services UK**

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To discuss any aspect of this response in more detail please contact:

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