

## Technical Publications

# The Cashless Society

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# ISSUE RECORD

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Initial issue

# SUMMARY

This report looks into the prospect of the UK becoming a “cashless society”. Over a number of years, but with increasing frequency, many articles have been published on this subject, and a selection of these are reviewed to determine the various viewpoints, pros and cons. No doubt there are many more commercially confidential reports considered by financial institutions, but these are not available for review by the author.

There are no clear indications or plans from the UK financial institutions or Government concerning the use of cash in perpetuity. However there is a clearly visible trajectory towards progressive abandonment of cash, and it is perhaps the failure of our institutions to discuss it that fuels concern that our lives will be dramatically changed by stealth rather than consent.

The prospect of a cashless society is an issue not only in the UK, but is a subject of public discussion and debate in media across the world from the USA to Australia. But there is no available working model from a comparable society that can be examined and learned from. China is believed to be operating something of the sort, but it is strongly suspected of being part of the state monitoring and control at personal level, which can lead to total financial isolation for selected individuals. The opportunity for financial intermediaries or the state to completely isolate someone in this way, by accident or design, is one of the principal concerns voiced by UK people.

It is assumed by some that cash is now obsolete. Such people may observe with little interest that banks are closing their branches, and some ATMs (Automatic Teller Machines aka cash machines) charge substantial percentage transaction fees, which constitute an unadvertised tax biased towards those that can least afford to pay it. But there are many people, across a wide spectrum of financial stability, for whom cash in its present form is essential for their everyday needs.

While reports generally examine this subject from the viewpoint of the commercial operators, this report views the subject principally from the viewpoint of the participants. That is to say the people who presently use “hard” cash (coins and banknotes) for transactions which are important to their trade, lifestyle and means.

It therefore appears that there are two sides to this particular “coin”. One is institutional, primarily considering macro-economic issues where only commercial partners and intermediaries are involved. The other considers people who need to use non-commercial services such as local clubs, societies and second-hand sellers, as well as monetary gifts. While these may be assumed to be irreconcilable this report concludes by considering the possibility of a system and infrastructure that meets all these needs.

For the sake of clarity in this report the term “cash” will refer to coins and banknotes, and “digital cash” will refer to any transfer of monetary value using electronic means alone. Such things as payment-in-kind, promissory notes (IOUs), travellers’ cheques etc. are not considered here and are not affected. This report is also confined entirely to the use of Sterling.

For observations other than personal experience, supporting evidence is referenced in the text to a list of published sources, appended to this report. It can be seen that nearly all are dated within the last 9 months, which indicates that there is currently considerable interest and concern.

# BACKGROUND

The prospect of the UK becoming a “cashless society” is a recurring theme in the press and it has been discussed a number of times from different viewpoints over many years, as has the prospect of a “universal” pre-paid cash card to replace it. But as yet there is no apparent consensus on what form a cashless society might take, over what period it may be determined, or any sort of roadmap on how the country will make what appears to be a substantial (and perhaps socially traumatic) transition from a trading platform that dates back thousands of years.

It seems to be assumed that the trend to pay for everything by debit or credit card will eventually make cash entirely redundant. Indeed, for many people in well-paid employment, cash may not have been used for years. But without cash every transaction, however small, requires processing by an intermediary and necessarily incurs cost at some point. This has an inflationary effect which principally affects the lowest strata in the financial hierarchy, but is in reality entirely obviated by cash. There are other forms of card payment, such as pre-paid cards, but these will be seen to be inadequate as an acceptable substitute for cash.

It has become apparent with the nation’s current energy and water supply issues that it cannot be taken for granted that all our problems can be resolved *ad hoc* when socially damaging circumstances arise. Long-term decisions transcend our electoral timetable so we find ourselves drifting into a critical situation that cannot be quickly resolved. So, while we appear to be drifting towards a cashless society under the influence of commercial interests and institutional disinterest, the social consequences are not being accounted for. Notably for the considerable number of people who are patronisingly described as “disadvantaged” or “vulnerable” by the wealthy and controlling elite.

The author has seen various news stories reporting that cash is being refused by retailers, even though it is required to be universally accepted as legal tender. Apparently, either the law is inadequate or it is inadequately enforced. Either way it can be suspected that the UK authorities have no interest in maintaining the use of cash, and have an undeclared intention to see it’s use systematically decline. This is in direct contradiction to the Government and independent reports that show that a great many people rely on cash to some extent for their daily needs, and suggests a hidden agenda that is contrary to the espoused intention to ensure level opportunities for people of all means and locations.

This process, seen by some as “sleepwalking”, may then leave us with an urgent need for a new process and infrastructure to maintain essential economic structures for many people and their communities. Such a thing cannot be designed, properly discussed and implemented quickly, and hurried attempts to patch things up will inevitably lead to confusion, inflationary costs and disaster for many.

Already, people in out-of-town communities are disadvantaged by the lack of banking facilities and “free” cash supplies. According to the UK Government web page (GovUK2022\_1 May 2022) cash is the second most popular means of exchange, on which 5.4 million UK adults rely to some extent, and as of the date of this information the Government is considering introducing legislation. But at present the future is decidedly uncertain. The report notably refers to those who use cash as being “left behind” which, apart from any inappropriate anatomical implications, is profoundly disrespectful and shows that even those that are supposed to serve equally all people are part of the financial elite that have no real concern for those unlike themselves.

Interestingly the report makes no mention of protecting users against punitive withdrawal charges; for example when the ATM is operated by a third party other than the user’s own bank. Therefore we can expect the transaction intermediaries (e.g. banks and credit card operators) to push back as hard as they can in order to gain the greatest amount of transaction processing fees or cash surcharges. As is so often the case with inadequately-considered legislation, the trend towards increasing geographical discrimination may still not be effectively managed, and unaffordable inflationary pressure will continue to be brought upon those described as “left behind”, which includes those who can least afford it.

# PUBLICATIONS

This section discusses some of the publicly available reports related to the use of cash and the prospect of a “cashless society”, broken down into several broad topics.

## National Crime

One of the issues supporting the restriction of cash transactions concerns money laundering. The Government report (GovUK2022\_2) specifies a notifiable threshold of 10,000 euros for any transaction or apparently related group of transactions. This may be considered necessary in the interests of discouraging organised crime but is unlikely to affect ordinary (e.g. so-called “vulnerable”, “disadvantaged” or “left behind”) people.

Unfortunately it is believed some traders refuse large sums of cash on this pretext in order to excuse them for making a surcharge for card payments. However, where local banking services have been taken away the traders can be forgiven for not wanting to carry such large sums for “posting” into a public ATM, or to keep them for days pending later deposit.

Related to this is the “Proceeds of Crime Act”, which is discussed in a report from Imperial College (ICACUK\_1). This lists many reasons why any transaction may be notifiably dishonest, and theoretically opens the door to restrictive interpretation of almost anything, with no low limit. Therefore, in principle, the Government reserves the right to oversee every transaction, however small. At present this can only be accomplished through bank transfers and other digitally recorded transactions (or reported theft, but it seems unlikely that this would be investigated anyway). But whenever withdrawing cash other than from an ATM the banks are required to determine the purpose. So any cash transaction or group of transactions amounting to more than about £100 is considered suspicious and subject to statistical analysis and possibly closer scrutiny.

## Timetable

No financial institutions or Government offices have declared any clear intentions to support or resist the perpetual use of cash in UK, so no reliable timetable or even suggested action plan or route map is available. However many financial pundits are convinced their intentions are clearly apparent, and are estimating when cash will fall into disuse or become effectively unusable.

Opinions vary concerning the likely advent of a cashless UK, and various publications have come up with different opinions. The following have been culled from articles referenced in Facebook posts published by popular press.

According to the Daily Mirror (Daily Mirror\_1) article by Paul Speed on 1<sup>st</sup> Sept 2022 the UK may be heading for a cashless society, citing a Financial Times article predicting that cash usage will fall to 6% or total transactions by 2031. Comments on the Facebook post showed universal alarm by readers for the prospect that the financial institutions and retailers will abandon cash as unprofitable.

The Daily Express (Daily Express\_1) headline on 29<sup>th</sup> August 2022 reads “Millions Facing Hardship in 5 Years”. This refers to the anticipated unavailability of cash due to bank closures and unavailability of charge-free ATMs.

The Daily Express (Daily Express\_2) on 19<sup>th</sup> February 2020 cited “a consumer report” claiming the UK will be cash-free by 2030.

According to UK Finance (UK Finance\_1) “Payment Systems” they support cash and recognise that for the time being it is important to many, but there is a strong implication that they expect cash to become progressively marginalised.

Unbiased.co.uk (Unbiased\_1), in an article by Nick Green “Cashless UK May Come Too Soon, Experts Warn”, suggests we are at risk of “sleepwalking” into a cashless society, perhaps as soon as 2026, but we are not prepared for it. They cite Link who believe cash payments will fall to as little as 10% of the total spend within 15 years. With the cost of maintaining ATMs as high as £5bn, which is unsustainable, this is resulting in the closure of ATMs at the rate of 300 per month, depriving communities of cash and leading to institutional coercion towards the abandonment of cash altogether.

According to the ICAEW (ICAEW\_1) “How Close are we to a Cashless Society” 15 countries, including seven in Europe, are planning to go cashless in the next decade. A quarter of UK adults have a digital-only bank account (which presumably means their banks have no physical branches and no ATMs), and 93% will use on-line banking at some time this year. However this does not necessarily mean that cash will simply become marginalised: some consideration is being given to so-called “inclusion”, which takes into account availability of communications and other personal requirements. But there is no

mention of any person, organisation or committee tasked with preparing for the required significant developments in regulation, technology, capacity (e.g. to deal with considerable increase in micro-payments) and immediacy offered by cash.

According to an Australian Facebook group “Cash Welcome” in October 2021, an experiment conducted in Australia to restrict cash following the dip in cash usage during the Coronavirus pandemic resulted in failure. This is attributed to a strongly held public belief that cash is the most reliable, private, safe and surcharge-free means of exchange. Critical communications outages demonstrated the need for better preparation.

## Dependency

The Guardian (Guardian\_1) “UK Cashless Society a Step Closer as More Than 23m People Abandon Coins” in a report by Rupert Jones on 18<sup>th</sup> August 2022, reviewed a report by the banking body UK Finance. This showed that more than 23 million used virtually no cash in 2021, and cash is expected to account for only 6% of all transactions by 2031. This is reckoned to fuel concern that the acceleration to a cashless society could leave many people behind. Also, since 2018 the number of people using cash only once a month or less rose from 5.4 million to 23.1 million in 2021, and yet 1.1 million consumers used cash mainly day-to-day in 2021.

However, possibly as a result of the cost of living crisis, many households are reverting to using cash to help manage expenses. So, while the number of cash transactions fell by 1.7% in 2021 (possibly owing to the perceived hygiene hazard during the Coronavirus pandemic), it remained the second most commonly used method of payment, accounting for 15% of all transactions (second to debit cards that accounted for 48%).

The overall conclusion from UK Finance was that cash will diminish in usage and become less important to the economy, but will remain the preferred payment method for many, at least for the next ten years.

The report by Link (Unbiased\_1) “Cashless UK May Come Too Soon, Experts Warn” tells us that over eight million people depend on cash every day, and for several reasons (including broadband/mobile availability, lack of bank account and low incomes) many people are not able to use digital payment systems.

The Financial Times report (FT\_1) “COVID-19 the Viral Spread of Cashless Society?” reports that an attempt by some stores in the US to refuse cash has been controversial, and resulted in such stores being banned by law in several cities across the country. However in UK, while we have a supposed universal requirement to accept cash, shops are refusing to accept it and are not being pursued by the law. Is the law not clear in UK, or is there a hidden agenda behind not enforcing it?

A report by PWC (PWC\_1) “A Cashless World is in Plain Sight” recognises that largely owing to the Coronavirus pandemic there was a large swing towards using cashless payments, including on-line purchases increasing from 33% to 45%. Unfortunately the article does not say whether this is by number of transactions or by value. The report estimates that 90% of consumers are likely to continue using e-commerce channels, which includes cashless payments in shops. It recognises that retailers have reasons to prefer a move to cashless (which are discussed later in this report) and despite one third of personal spending is still done using cash there has been a substantial shift.

The report suggests that financial institutions can better support the drift towards digital payments by offering new services, and suggests a more integrated approach with loyalty schemes and even payroll. But how the latter could be achieved without dangerous disclosure of personal information is entirely unclear. But it concludes that there will remain a sector of the population that, for various reasons, are likely to require to continue using cash for the foreseeable future.

The report recognises that the financial intermediaries will gain with market penetration, including easier “impulse” buying. But the greatly increased problem with communications and processing bandwidth and potential consequences of local or infrastructure failure are not considered.

## Reliability

According to the Irish Times (Irish Times\_1) the Arriva stadium in the USA had a communications outage in August, and at the cost of \$500k they had to dispense free refreshments to 43000 people. No doubt there would have been very serious consequences if the company had resisted, but the situation may have been a lot less serious for everybody if cash were an option.

In July AIB (Allied Irish Banks) stopped taking cash at 70 of its branches, but following a public outcry were forced to reinstate cash processing. In this case the company decided to deal with the issue without Government intervention, but it has to be wondered what would have happened if the Government were supportive of the cashless initiative?

Neither of these imply that a cashless future is implausible, but it would be traumatic if not disastrous for us to drift too far in that direction without any sensible plan, alternative and accessible provisions, and timetable.

The ICAEW (ICAEW\_1) “How Close are we to a Cashless Society” report expresses concern about the effects of a large increase in transactions, coupled with the current infrastructure being potentially inadequate.

## Privacy

The Financial Times report (FT\_1) “COVID-19 the Viral Spread of Cashless Society?” points out that cash transactions are private and confidential, while digital transactions are not, and that data from digital transactions is passed onto information suppliers, government, and payment services from which they make “lots of profits” from personal data. It would seem (as if we didn’t already know) that the Data Protection Act has so many holes even a moth would struggle to find a home.

This report also considers the importance of digital transaction analysis in determining Government knowledge of spending habits, which is unavailable where cash is used. Where this might contribute towards identifying criminal activity, it is a motivation towards Government institutions having total knowledge of all financial activity. It might then be a concern that, as recently in Canada with the lorry strike, the Government may use powers to shut down anybody’s account if they are suspected of something. The report points to the need for Government and organisations to be “extra transparent” with the use of data, as if they were already transparent at all.

## Cost

According to a report by Link (Unbiased\_1) “Cashless UK May Come Too Soon, Experts Warn” the cost of maintaining ATMs is as high as £5bn, which they say is unsustainable. This is resulting in the closure of ATMs at the rate of 300 per month, depriving communities of cash and leading to institutional coercion towards the abandonment of cash altogether. This cost is absorbed by the banks into their overall cost base for recovery from their customers, except where (e.g. for Link services) it is surcharged at the machine..

From this it would seem that the cost of using cash dispensed by machines operated by regular banks is presently absorbed on a non-transaction basis across all bank account holders. But in a cashless society the cost would be more transaction based through digital processing, and would perhaps affect the prices paid by those who presently use cash and can least afford any surcharge. For example, all clubs and societies would have to register for bank accounts and card processing services and equipment, which could substantially increase their fixed costs, administrative burden and membership/attendance fees.

There is also an implication that those who do not use cash are paying, through bank charges, for those that do. While it is not clear how much this amounts to *per capita*, awareness of this may encourage support among some members of the public to support abandonment of cash altogether.

The report also suggests that retailers are increasingly reluctant to process cash for several reasons, including processing time, administration and insurance costs, and this is supported by evidence of retailers refusing to accept cash.

The ICAEW (ICAEW\_1) “How Close are we to a Cashless Society?” report suggests that as the costs of maintaining availability of cash migrates towards the costs of handling a considerable increase in digital transactions, the means of recovering these costs will require a significantly changed business model for the banks. There is no indication that the banks are as yet giving this, or their communication or processing capacity, any thought.

The Daily Express (Daily Express\_3) headline states that 37000 free ATMs could start charging soon. All ATMs run by a third party (other than banks and supermarkets), which amount to 70% overall, are expected to respond to rising costs by charging each cash withdrawal, although many do so already. Link, which operates many of these machines, reports that cash is used 40% less since the pandemic, although they did not compare this with pre-pandemic levels and do not take into account the temporary hygiene incentive. They report that in 2018 there were 52,358 free ATMs in UK, and this has reduced to 40,830 in 2022, many of which were outside bank branches that have closed.

The Financial Times report (FT\_1) “COVID-19 the Viral Spread of Cashless Society?” seems keen on a smartphone POS (Point of Sale) application used by small traders. This uses NFC (Near Field Communication) that transfers money from the payer’s own smartphone. Clearly, this requires both parties to have smartphones configured with NFC installed and enabled, and to have access to their bank accounts. The problem of how such transactions are to be paid for arises, which suggests that something is skimmed off or added to every transaction, and there would have to be some sort of legislation to limit this.

The article suggests that payment can be accepted anywhere and at any time, but does it not depend on a signal for communication?

## Banking hubs

The Guardian (The Guardian\_1) “More ‘banking hubs’ to open across UK to tackle branch and ATM closures” reports the increase in the use of Post Offices to offer banking services shared by some large banks. This initiative is being co-ordinated by Link in conjunction with major banks. But Link already run many ATMs which charge for cash withdrawals. In other words it is a commercial organisation that no doubt expects to be paid for it’s services.

Such “hubs”, run by Post Office staff, are to offer cash services. But there is no indication of how they are to be paid for: if banks are closing branches because cash is uneconomic to process, passing the burden to someone else must surely be paid for somehow. With the “hubs” run by Link, users may have to pay a surcharge, which returns the problem to *de facto* taxation on those least able to afford it. There is no mention in the article of whether there will be any sort of service charge at the counters, or any regulation to control it.

But, while announcements of such “hubs” are being made, the article reminds us that bank branches have been closed at a rate estimated at 430 in the last year alone. Also it is said that such “hubs” will be provided “where needed most”, which (unless these are introduced in their thousands) will make little difference to the people living in small towns and villages. So far, only large towns are listed as early recipients.

UK Finance (UK Finance\_2) reports that, according to the Cash Action Group (CAG), a company is being established and run by experienced bankers, and cash services will be delivered by Link on a commercial basis. This is to be available to all communities deprived of banking services subject to having their needs assessed by Link. There is a lot of optimism surrounding this initiative, as would be expected from those organising it, but little substance regarding availability to smaller communities and cost. It would therefore seem that there is to be a triple hierarchy of commercial operations running these hubs: the Post Office, which would expect to be paid for the use of their premises and staff; Link, which provides the financial services; and the Banking Hub company that will also expect to operate at a profit.

It might be suspected that, with these hubs operating, banks will be inclined to close even more branches, and other ATM operators (such as supermarkets) will feel they no longer need to carry the overhead, and close their machines as well.

Overall, this looks like a rather expensive overhead for people who will need to use cash, and perhaps even a retrograde step for users.

## Other

A report by The Balance (The Balance\_1) “The Pros and Cons of a Cashless Society” summarises the key issues they see with the choice between the current and a cashless system. The advantages of a cashless system include: reduced opportunity crime, less money-laundering, less costly processing and easier currency exchange. The disadvantages are listed: personal security, infrastructure failure or data hack, technology learning (it is not clear whether this refers to the payers, the payees or the intermediaries), and difficulty with cash management. These points cross several of the above topics and echo similar comments from others.



# USER CLASSIFICATION

While the financial authorities are seen to classify people into those who are broadly “vulnerable”, “disadvantaged”, “left behind” or not, this fails to explain why so many people use cash on a regular or even occasional basis. So if we are to understand where and why people want or need to use cash we need to consider broader categories with fewer simplistic assumptions about the overriding influence of personal wealth or age.

A more realistic approach is to use three categories, each of which has different apparent needs. There is of course a grey area across the middle of each category, and some apparent correlation between them, but the distinctions are broadly described as follows.

## The “Haves” and “Have-nots”

Where people have well-paid, regular incomes they are inclined to be self-contained in the sense that they can afford to buy anything and everything they want or need. They have no need to make or grow anything; their entertainment is based on commercial providers such as restaurants and theatres; they have little time for hobbies that benefit from local club support; and they perhaps donate to charities only through direct debits and covenants.

These people, of which there are many as the so-called middle classes have come to dominate our society, have little or no need for cash. They can manage perfectly well with debit/credit cards and on-line banking. And with mobile banking applications they may even have diminishing need for credit and debit cards.

Where people do not have regular, well-paid jobs there is greater pressure on making things or growing things. They need support from friends and local experts to help them do this at the lowest possible cost, and are very willing to pay someone who asks for cash. It is not their concern how this may be accounted for, and they may be accused of supporting a “black economy”. While such arrangements may be despised by the banks (who see a profit opportunity slipping through their fingers) and the Treasury, this creates low-level employment and retains wealth within the local economy that would otherwise be syphoned off in accountants’ fees and administrative overheads. Or the work would not get done and the people would be the poorer for it.

In this group are people who need to borrow small amounts to tide them over. “Tea caddy budgeting” is part of the solution, but where they might otherwise be drawn into the “payday loan” slippery slope they can get by with borrowing here and there from family or friends. These people are not only numerous but they constitute the backbone of our economy and the creation of wealth across our nation. They, and the services on which they depend to varying degrees each day, could not manage without cash.

Interestingly, has anybody tried to find out how many of the people who proclaim that they haven’t used cash for a long time still sometimes carry some cash with them “just in case”, or use cash for non-commercial transactions?

## The “Dos” and “Do-nots”

To a large extent these people inversely overlap with the “haves and have-nots”, in that there are people who are socially engaged in, and perhaps dependent on, their communities, and those who are not.

Those who are engaged with their communities get involved with clubs or societies. They help others and get help informally when they need it. As well as being economically important, the benefits to their physical and mental health can be considerable.

Such people seek entertainment among friends and those with similar social interests, and are supported by innumerable clubs and societies. These provide essential contributions to the physical and mental health of their members, ranging from gardening, cooking, keep-fit, car maintenance, dancing, sport and many more. These groups operate from church halls, pub rooms and other places that charge small fees collected in small, individual cash payments. Refreshments and raffles may be collected separately in small amounts. The organisers cannot depend on cashless payments because many of the members do not want to use credit/debit cards for such small amounts even if they have them. The banking charges for processing numerous micro-payments would substantially increase the costs which, with the administrative burden, would destroy many of these socially essential groups.

## The “Tech” and “Tech-nots”

Again, to a certain extent these people correlate with the above groups. Whether someone is comfortable with technology for financial purposes is assumed to be related to their age or intelligence, but this is not entirely true. Age and era are not the same thing. There are people of advanced years who have had opportunities to keep pace with popular technology, perhaps through employment or younger family members, and those whose education and employment pre-dates computers and have not been given the opportunity to keep pace.

In particular, there are those who are so familiar with technology that they are more aware than others of what can go wrong, and its consequences. They have the confidence to reject frequent blandishments to depend on internet or mobile banking because they understand how a communications outage could leave them literally penniless for an embarrassing length of time in a very difficult situation. They reject so-called “smart meters” because it allows their energy supply to be shut off without notice in the event of an error, or their standing order to be modified in error by two decimal places.

This is not technophobia – it is a realistic risk assessment, taking into account risk, consequence and the necessity of exposure to it. They assess each technological opportunity on its own merits and decide accordingly whether to engage with it.

Our personal identities are now valuable commodities. There are organisations that collect data from our transactions in order to “profile” people without their knowledge or consent, and who sell it on to people with unadvertised and often illegal purposes at home and overseas. We know from the number of scam calls that our telephone numbers have been collected and sold on. Most probably collected from organisations that requested the numbers as a condition for an account or on-line purchase. The same applies to our email addresses, which are similarly abused.

It is unreasonable to expect even a technical expert to guarantee that any internet transaction is completely secure and confidential.

It is therefore reasonable to ask the question whether having every little transaction processed by a commercial organisation, when there is such obvious evidence that many cannot be trusted to refrain from using personal information for “profiling”, profit or more sinister purposes, is necessary. So long as we have cash we have the option of undertaking transactions that do not require us to provide personal details that can be abused, and even cause us dire consequences by ID theft.

For the *techno-cognoscenti* the issue is not technophobia or age-related, it is simple, practical self-defence.

There are those who, through bankruptcy, poverty, self-mistrust to manage expenditure and other personal reasons, need the physical presence of cash. And those that share transactions with them have to follow suit, unless they decide that the “cash demographic” is not sufficiently profitable. Reports indicate that there is an increasing and worrying number of retailers in this category. For these users the issue is not technophobia or age-related, it is simple, practical necessity.

# PUBLIC PERCEPTION

The statistics offered by the above publications are not entirely consistent, but they were prepared at different times, and different sources would see different demographics. But, taken together and summarising the principal issues, it would seem that the prospect of being deprived of the use of cash divides the nation into three parts, and it inspires strong opinions among many who feel they may be affected.

## The card players

This part comprises people who habitually use card or on-line payments already and see no routine need for cash in their lives. Such people seem generally not to have strong personal views about denying cash for others to use. This constitutes a large part of the financially most active population, and it is perhaps their apathy that encourages the financial institutions to feel the abandonment of cash to have unimportant consequences.

## The retailers

This part includes those who run retail organisations, and who are inclined to want as little cash as possible to deal with. This group includes banks because they form a critical part of the retail process. They profit by having an opportunity to levy a charge based on the number and value of digital transactions, and want to avoid the cost of maintaining ATMs and counter services. Retailers (an increasing number of which are already refusing cash) may be in favour of limiting cash for several reasons:

- It is time-consuming to process and dispense change.
- Errors and pilferage by staff is too easy.
- Holding cash on the premises invites robbery or burglary, with personal risk, and may be costly to insure.
- With the denial of banking services in many places the transport of cash to/from a bank can be worrying.
- Banknotes can be forged well enough to deceive.

## The rest of us

The remaining part is much the largest and widely varied. It is characterised by a number of concerns affecting different people in different ways. Notably this part includes people who, far from being technophobic, are so well informed and involved that they understand (and have seen) the consequences of systemic weaknesses in the underlying technologies as well as corporate data security:

- The most obvious is the ease of keeping track of desperately lean funds, where people need to physically segregate cash into budgeted compartments (“tea caddy budgeting”). Such people will always be with us, regardless of technology.
- Many do not have bank accounts, credit cards, smart phones and reliable internet access, all of which will be required in a cashless society based upon current payment systems.
- Theft, e.g. where a contactless card can haemorrhage large amounts if used repeatedly before being missed.
- An accounting/processing error can result in the temporary or permanent suspension of a user, denying them immediate and total access to even the most urgent and essential transactions.
- Bank on-line outages, which have happened a number of times, could completely deny even the most urgent and essential transactions for many people at the same time and for extended periods.
- Poor mobile coverage is an existing problem for many, and this will always be with us as the requirements for increased bandwidth leads the availability of infrastructure, and by a long time outside cities.
- Internet outages, both personal and regional, are not infrequent, and can completely deny even the most urgent and essential transactions for individuals or many people together.
- The need for every transaction to be electronically processed by a commercial organisation presents a *de facto* tax on every movement of every penny including non-commercial transactions such as club attendances, cash gifts and second-hand purchases.
- Personal security, where state-sanctioned machinery can track (or can be configured to track) everything we do, and where we do it, without our consent or knowledge.
- Hacks and viruses are commonplace and are known to cause service outages, sometimes for extended periods, and disclosure of personal data can have dire consequences.
- Institutional knowledge of our financial activities can easily lead to official intervention that completely blocks all spending for an individual or organisation by error, or on suspicion without trial.
- There is no official information from Government or financial institutions. We are left, like Burns’ comparison with a mouse, to “guess and fear” as the apparent drift continues.



# THE CARD GAME

The question has to be asked: is it possible for some sort of POS (Point of Sale) pre-paid card to be used across the nation as an acceptable substitute for cash?

If this were possible it would overcome the principal problems faced by: retailers with cash; the banks with the costs of servicing ATMs; and users with issues of technology and privacy. Such a card would require the following attributes, and although there are a number of pre-paid cards available they all lack many of them:

- Entirely free of charge and available on demand from most retailers and banks.
- Unregistered, so the transactions are entirely private and there are no connections to the user's ID if lost or hacked.
- Limited stored value in case of loss or forgery.
- Accepted everywhere.
- Can be topped up by a reader at e.g. retailers like a "cashback", paid using debit card.
- They do not need ATMs and do not depend on mobile applications or internet connections.
- Card current value can be read with a mobile application (if available) or at a retailer.
- Transactions are stored on the card for validation but for privacy cannot be read back.
- Card readers can transfer funds to another card or to a POS terminal without an internet connection.
- Retailers can transfer credit to their bank at intervals rather than at each sale, reducing transaction volume and infrastructure dependency.
- Transactions being entirely local are not processed or surcharged by intermediaries at the point of transfer.
- They could be protected with a simple passcode (PIN) set on first use to discourage theft.

The above, subject to suitable card readers, should satisfy retailers, although being anonymous it would be difficult to connect with a discount/loyalty programme except through a separate loyalty card. But being anonymous it respects personal privacy, and being entirely free to use it should allow people to transfer funds as gifts, and to maintain several cards for "tea caddy budgeting". Those who do not have smartphones could check their cards at a convenient retailer.

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