



The Centre for Economic Justice



NOT CASHLESS, BUT LESS CASH

**ECONOMIC JUSTICE AND THE FUTURE
OF UK PAYMENTS**

**Rachel Statham,
Lesley Rankin
and Douglas Sloan**

January 2020

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SUMMARY

The future will have less cash. By 2028, forecasts suggest that fewer than one in 10 UK consumer payments will be made using cash. The digital revolution in finance will transform our economy and shift the balance of economic power. The prospect of a fully cashless society remains beyond the horizon, but the actions of government, regulators and financial service providers in the immediate future will determine the course of this transition and crucially who stands to benefit from it. Change is needed to design a future economy that is both more digital, and more just.

The proliferation of digital payments presents opportunities to boost productivity, spur innovation, and create greater competition between financial service providers. As more and more of our financial lives are captured as data, financial institutions have an opportunity to better identify and respond to the needs of those who are under-served by current provision and vulnerable to exclusion from financial services. The decline of cash also stands to drive more firms and workers into the formal economy, with opportunities to improve employment protections for workers and recoup tax revenues. But without action, current trends could see the gains of digital transition flow towards Big Tech, major financial institutions, and consumers who already enjoy the benefits of digital financial services.

To prepare for a just transition to a more digital economy, this report sets out three key areas for action:

1. **excellent financial services for all**
2. **bringing workers and businesses into the formal economy**
3. **democratising data and shaping an inclusive digital finance market.**

1. EXCELLENT FINANCIAL SERVICES FOR ALL

For many, the benefits of cash payments – in terms of control, trust and privacy – have not yet been replicated by digital alternatives. As the recent Access to Cash review made clear, urgent action is needed to protect access to cash for the 8 million UK adults who rely on it. One in five UK adults still lack essential digital skills, with digital exclusion most concentrated among groups who are already economically marginalised. This digital access gap locks people out from sharing in the benefits of a digital future. How far new realms of innovation, such as open banking,¹ offer tools for a more equitable future will depend on how services meet the needs of people on low- and middle-incomes, and how far they are taken up beyond those who are already digitally savvy. Ensuring everyone can make payments in the future will mean both protecting access to cash and supporting people to access digital services that work for them.

Recognising that financial service providers stand to make the biggest economic gains from the transition to digital, the **banking levy** should be extended to the full range of major payment and financial service providers and **reformed into a**

1 In 2018, the introduction of open banking legislation made it possible for consumers to give permission for their bank to share limited amounts of personal financial data with other banks or financial service providers in a move designed to open up competition and innovation beyond major incumbent institutions.

digital transition levy. The levy should fund delivery against our proposed digital transition framework, detailed below.

Together with the Financial Conduct Authority, devolved administrations and the UK government, banks and other key financial service providers should develop a **digital transition framework** that sets out clear local, regional and national-level targets and outcomes in three key areas.

1. **Boosting connectivity** as access to a reliable internet connection and digital devices, such as a smart phone or computer, become gateways to the digital economy.
2. **Strengthening digital capability** through programmes that promote trust in and take up of digital services among people who are currently under-served by digital.
3. **Fostering inclusive innovation** through a **£10 million Fintech for Financial Inclusion Challenge Fund**, established by Innovate UK and the Payment Systems Regulator, to fund financial technology (fintech) ventures that seek to tackle barriers to digital financial inclusion.

It would also introduce a ‘not until’ principle for closures of bank branches and ATMs, meaning cash infrastructure cannot be eroded until key targets and outcomes around digital financial inclusion are met. Taken together, the framework and new levy would ensure the potential gains from the digital transition are invested into communities in advance of the transition, to prepare for a future with less cash.

Protect access to cash and local banking services

The UK government should legislate for a **universal service obligation** on cash access, and incentives for providers, including introducing **business rate rebates for free-to-use ATM operators** and the roll-out of **free cashback services**. Under the Fairer Scotland duty and the proposed socio-economic duty for Wales, public service provision should consider detriment to service users who rely on cash in designing payment services. Similar duties should be considered in England and Northern Ireland.

Access to core digital financial services is now a prerequisite to full participation in the UK economy. A sustainable local banking infrastructure will be key to a just transition. Local economies across the UK are experiencing the transition to digital differently, and there will be no one-size-fits-all solution. We therefore propose a mixed approach that can be developed to meet local need.

The new commercial agreement between the Post Office and high street banks is welcome progress that can be expected to improve access to cash across the UK. Delivering long-term, sustainable access to cash and core banking services for communities across the UK, however, is likely to require stronger action. We recommend the creation of a government-owned **Post Bank**, building on existing Post Office banking services, which should operate with a public service mandate to provide affordable basic banking services to all citizens. In doing so, the Post Bank could provide a bridge from the cash to the digital world.² Private retail banks should play their part in sustaining the UK’s face-to-face banking infrastructure by expanding **shared banking hubs** for both personal and business banking, paid for by the UK’s largest banks through a pooled fund. Personal banking hubs should be obliged to house independent, not-for-profit financial advice services.

² This is one rationale for a Post Bank, and other arguments extend beyond the scope of this report. For a full discussion see Macfarlane and Berry 2019.

2. BRINGING WORKERS AND BUSINESSES INTO THE FORMAL ECONOMY

As the shift towards digital payments accelerates, there are growing incentives for businesses to move into the formal economy, or to formalise previously undeclared streams of income. Digitalisation makes it harder for firms to hide economic activity from tax authorities, offering opportunities to reduce criminality and recoup tax revenue lost to the shadow economy. By supporting businesses and workers into the formal economy, the most precarious workers can enjoy stronger employment protections through minimum wage enforcement, paid leave, and sick pay, while cutting down on labour exploitation.

Support workers into the formal economy

To support workers and firms into the formal economy, the Department for Work and Pensions (DWP) together with devolved administrations in Scotland, Wales and Northern Ireland should develop national **income security strategies** reviewing tax liabilities and social security provision for self-employed workers with low (below the real living wage) or volatile incomes. This should support the development of specialist customer support services, including online and face-to-face provision, for workers and businesses whose whole or partial income comes from informal work.

To support the most marginalised workers, government should provide **secure reporting systems** where informal workers in precarious and/or exploitative working conditions can report their employer without fear of immigration consequences.

Champion digital self-employment

Building on recommendations from the Taylor review, government should **develop a digital platform for self-employed workers**, through which workers can manage payments, streamline tax accounting, and apply to access social security provisions. This platform should be developed with the joint strategic aims of maximising tax revenues by capturing previously undeclared income, and strengthening employment protections for self-employed workers to bring them into the economy.

3. DEMOCRATISING DATA AND PROMOTING COMPETITION IN PAYMENT MARKETS

Data is transforming the world of finance, supporting more personalised services, flagging problem spending earlier, and reducing criminality. But, as platform giants move into payments and personal banking markets and the card payments market continues to be dominated by two major schemes, there is a clear risk that economic power in a digital economy will be increasingly concentrated within a small number of dominant firms. As new realms of finance are digitalised, action is needed to protect against the monopolistic tendency of data-driven business models in which huge economic value is extracted from ownership of data. Protecting against excessive market concentration can strengthen competition, diversify innovation and ensure competitive prices for consumers.

Democratise data

To boost innovation and open up the economic and social value generated from digital payments data beyond dominant financial service providers, we should create a **data commons**, with aggregated, anonymised financial data managed and accessed through **public data trusts**.

Promote competition in payment markets

Major platforms like Facebook and Amazon should be required to open up their data when they enter personal finance markets. New powers should enable the Competition and Markets Authority to impose conditions on market entry for major platforms, including a requirement to comply with open banking principles and open-source technology. These should include an option to block market entry, including for major technology platforms, where it could lead to consumer detriment, slowing in innovation rates, or excessive market power.

Together with the Competition and Markets Authority (CMA), the Payment Systems Regulator should hold a watching brief on competition in payments markets, developing an adaptable regulatory framework that can protect against excessive market concentration. This should include measures to ensure new entrants into payment markets are bound by the same standards of financial regulation as established payment providers, relating for instance to payment protection.

The Payment Systems Regulator should conduct a market review into digital payments, with a dual focus on the that role regulatory tools can play in promoting competition in the card payment market, and how open banking technologies can promote direct, secure and accessible payments to UK consumers and businesses.³

Protect against automated bias

Digitalisation risks entrenching existing inequalities where automated financial decision-making replicates human biases on an unprecedented scale. We should take action to **protect against data-driven discrimination** in financial services where discriminatory outcomes are identified. This should include regulatory powers for the Centre for Data Ethics and Innovation to inspect audit trails in order to assess how anti-discrimination measures have been built in from design stage.

There is a path through to a digital economy that delivers not just greater prosperity, but also greater economic justice: where more people can access better payments and banking services, where the power of payments data is harnessed for public good, and where tax revenues are increased and employment protections strengthened for the most precarious workers. How we reimagine the world of personal finance, and for whose benefit, will shape the digital economy of the future. Action is needed now to ensure that future is hardwired for economic justice.

³ For more on open banking, see information box in chapter 2.

1. **ARE WE HEADING TOWARDS A CASHLESS SOCIETY?**

The way we experience money is changing. In an increasingly digital economy, buying and selling goods and services is ever more dependent on digital infrastructure. This shift is profoundly changing how we participate in our economy and how we behave, both as merchants and consumers. It is also creating new concentrations of economic power among those who control the infrastructure of digital finance.

Although most UK consumers use a combination of cash and cashless payment methods, use of cash is falling while the share of UK payments made by card and other digital payment methods continues to rise. Access to digital payments and financial services has become a prerequisite to full participation in the UK economy, and the digitalisation of personal finance has created new worlds of insights by generating deep pools of data on how consumers manage their money.

New products and services are spilling into the personal finance market. As digital payments become the norm, contactless payment cards, mobile wallets and payments enabled by biometric identification are opening up the payments market to new kinds of service providers, including tech giants such as Apple, Facebook and Amazon. Digital-only challenger banks such as Monzo, Starling and Revolut are aiming to leverage new insights available from digital finance data to better meet consumer needs. And the early promise of open banking technology presents further opportunities to reimagine financial services by enabling new, innovative entrants to the market, greater choice for consumers, and more personalised services.

In 2018, the volume of UK payments made using cards overtook cash transactions for the first time. As cash use falls, the UK's cash infrastructure is shrinking in a self-perpetuating cycle. As ATM and bank branch infrastructure shrinks, more and more consumers are pushed towards alternative providers, such as the Post Office, or towards digital payments. With fewer consumers withdrawing cash, the costs of maintaining cash infrastructure are shared across a shrinking pool of transactions.

The implications of a shift away from cash stretch far beyond our wallets – or, as is increasingly common, our lack of them. The digitalisation of money is re-shaping our economy: at once forging new inequalities and creating opportunities to reimagine finance to better serve consumers.

The prospect of an increasingly cashless society is cast in starkly different terms by different players in the changing world of payments. While fintech firms sketch an image of a hyper-connected, high-productivity utopia enabled by tech solutions, the financial inclusion sector warns of the risks of a rush to digital and who it fails to cater for. This division is reflected by fickle government policy: while in 2015, the UK's coalition government reportedly considered a 2020 target for eliminating cash payments, motivated by prospective productivity growth and a crack-down on some financial crime, the plans were scrapped alongside a move to scrap one and two pence coins (Hodgson 2017).

The proliferation of digital payments poses challenging questions for consumers, businesses, governments and both high street and central banks.

Campaigns by **consumers** and consumer bodies are demanding continued cash access, campaigning for the ‘freedom to pay’, while the financial services industry is focussing greater attention towards what obligations service providers have towards ‘vulnerable customers’ – encompassing any consumer who is especially susceptible to detriment where banks fail to exercise an appropriate duty of care (Which? 2019a; FCA 2019a).

Small businesses across the UK are facing new challenges in striking a balance between rising card transaction fees and cash-handling charges, with the Federation of Small Businesses and the British Retail Consortium lobbying for regulatory intervention on card fees and action to protect access to cash.

UK **government and regulators** are turning their attentions, too, to the future of payments and regulation in an evolving market.

In response to the 2019 Access to Cash review, government and regulators established a Joint Authorities Cash Strategy Group (JACS), chaired by the Treasury, which brings together the Bank of England, HM Treasury, the Payment Systems Regulator and Financial Conduct Authority. JACS aims to coordinate responses to the review, and is committed to ensuring a resilient, sustainable and cost-effective cash infrastructure that meets the needs of users (HM Treasury 2019). The group will support the Bank of England’s work developing “a new system for wholesale cash distribution that will support the UK in an environment of declining cash volumes” (Bank of England 2019a).

In 2019, UK Parliament’s Treasury select committee hosted a call for evidence and made recommendations on access to financial services. These recommendations included considering a duty of care placed on financial service providers, and better enforcement of the Equality Act in relation to financial inclusion (House of Commons Treasury select committee 2019). The Financial Conduct Authority has responded in turn with consultations on the future of regulation and a prospective duty of care for service providers, as it plans a review of future market dynamics (UK Government 2019; FCA 2019a and 2019b).

Major retail banks are striving to respond to new competition in the form of digital-only challenger banks while reckoning with the operating costs associated with sustaining a bank branch network as customer support services are increasingly digitalised. Until recently, major retail bank innovation had been low, but banks are now increasingly investing in digital innovations as data has emerged as a key factor shaping retail banking markets (FCA 2018a). However, major incumbent banks still retain a competitive advantage over other business models, largely due to the lower cost of funding from more ‘on-demand’ deposits in current account and instant access savings accounts, higher levels of transaction revenues, and charges and high yields on overdrafts. These benefits are not outweighed by higher operating costs (ibid).

As consumers and service providers have adapted their behaviours to the new norm of digital money, the prospect of mainstream digital or crypto currencies has been firmly established on the horizons of **central banks**. Digital currency has featured on the Bank of England research agenda since 2015, with a live research agenda exploring the prospective impact of a Central Bank-issued digital currency and plans to facilitate digital currency provision outlined by Governor Mark Carney (Bank of England no date; Inman 2019). Meanwhile the multi-billion-dollar OneCoin scam, through which investors bought into a

global Ponzi scheme marketed as a new crypto-currency, has exposed the new vulnerabilities created through a rapidly evolving payments landscape that creates worsening information asymmetries. When social media giant Facebook announced plans to introduce a digital currency to its platform earlier in 2019, it solicited strongly worded warnings from central banks, with the departure of a full suite of major partners following shortly thereafter (Parington 2019).

THE FALL OF CASH?

In 2008, cash was the payment method of choice for 60 per cent of UK payments. In 2018, this had fallen to 28 per cent, and the trend away from cashless is only accelerating: the latest forecasts from UK Finance predict that by 2028 just 9 per cent of UK payments will be made in cash (UK Finance 2019b).

Increasing attention is being paid to the UK's changing payments landscape and its impact on citizens and communities across the UK. The 2019 Access to Cash review, led by Natalie Ceeney CBE and initiated and sponsored by LINK, shed light on the estimated 17 per cent of the UK adult population – or over 8 million adults – who would “struggle to cope” without cash. Ceeney issued a clear warning that “Britain is not ready to go cashless, because digital payments don't yet work for everyone” (Ceeney 2019). The report also highlights several contributing factors that have and will continue to drive a reduction in cash use and an increase in alternative payment methods, with key challenges posed by rising costs and inconvenience associated with retailers processing cash, and consequently retailers ceasing to accept cash payment. Cash dependency maps onto other dimensions of economic marginalisation, as those who have been historically under-served by personal banking face mounting barriers to accessing their money without incurring additional costs. People on lower incomes are most likely to be affected, while older people and people with limited mobility are at the sharp end of the UK's declining cash infrastructure.

Conversations surrounding the decline of cash tend to focus on demand-side factors driving a shift in payment methods. Chief among these are the convenience associated with faster and more flexible payments, and shifting consumer preferences and behaviours. But there are mounting supply-side challenges, too.

There are considerable fixed costs associated with maintaining the infrastructure that supports the creation, transportation and processing of cash. In rich countries, minting, sorting, storing and distributing it is estimated to cost about 0.5 per cent of GDP (Economist 2019). As demand for cash falls, the concentration of these costs is putting the UK's cash infrastructure in its current form under strain. Industry body UK Finance, financial sector regulator the Financial Conduct Authority (FCA), the Treasury select committee and the Bank of England have all made recent interventions underscoring the need to get the UK's cash infrastructure on a sustainable footing.

HOW CASHLESS IS THE UK?: DATA DASHBOARD

Cash	% of UK consumers who prefer to pay in cash	28%	% of UK payments made by cash (2019)	28%	% of UK consumers who have used cash in the last week	83%	% change in volume of spontaneous cash payments (2008–18)	-47%	% change in volume of spontaneous credit/charge card payments (2008–18)	72%
	% of UK consumers who prefer to pay by card	69%	% of UK payments made by card	47%	UK card transactions (millions)	18330	% change in volume of spontaneous debit card payments (2008–18)	179%	% change in total number of outlets accepting card payments (2017–18)	10%
Contactless or mobile payments	% of UK consumers with card preference who prefer to pay by contactless	40%	% UK adults registered for mobile payments	16%	% of those registered using mobile payments	79%	total number of UK outlets accepting card payments (2018)	1,522,443	Value of bank notes in circulation in UK (2018)	£69,841
	% UK adults using online banking	72%	% of UK retail sales made online	18%	% UK adults using mobile banking	48%				
Online										

Sources: UK Finance (2019a, 2019b, 2019d), Ceeney 2019, Bank of England 2019b, ONS 2019, BritainThinks 2019

Faced with a shrinking volume of cash withdrawals and relatively fixed costs, banks and ATM operators have recently been seeking to cut costs by closing bank branches and cash machines. Between January 2015 and August 2019, 3,312 bank and building society branches closed in the UK, equivalent to 55 closures a month. According to Which?, 100 further branch closures were scheduled for the remaining months of 2019 (Which? 2019b). A multitude of factors including the rising costs of real estate, business rates, the rise of online comparison tools for key financial products such as mortgages, the accelerating automation of key decision-making processes such as loan approvals due to richer data availability, and online customer support services have an important role to play in the shift to online services. But the shift away from cash is playing an important role in the erosion of the UK bank branch network, as depositing and withdrawing cash from a physical bank branch becomes less integral to the UK's financial ecosystem.

The closure of local bank branches presents barriers to customers who depend on or prefer face-to-face services, and has wider impact on local businesses and economies. Closures in bank branches have coincided with a decline in lending to small and medium-sized enterprises (SMEs), though it is less clear if lower levels of lending are being driven by the erosion of face-to-face banking infrastructure or other factors, such as changes in demand from SMEs themselves (Greenham and Travers-Smith 2019; Travers-Smith 2016). As UK high-streets face chronic decline, digital-only challenger banks and fintechs are benefiting from low operating costs, particularly relating to staff, premises and business rates. Traditional high-street banks are engaging in a race to avoid being the 'last branch in town', and it is the Post Office (PO) network that is increasingly relied upon for access to basic banking services. In 2017, the Post Office established a commercial agreement with major high street banks that enabled customers to carry out a range of basic banking transactions at over 11,500 PO branches. This is part of a significant effort to ensure there are alternative sources of cash access – alongside trials of free in-store cashback services (discussed in more detail in the next section) and efforts to promote local cash 'recycling', recognising the centrality of local businesses to sustaining healthy cash ecosystems.

At the time of writing, the PO is not understood to make a profit on the banking services it provides – though this is expected to change under the new framework agreed between the Post Office and major banks, which will come into force in 2020 (see Randell 2019). Increasing dependence on Post Office provision has been strongly criticised in some quarters, including the Treasury select committee, who called in April 2019 for the Post Office to stop providing stand-in banking services, arguing that "[t]axpayers should not be subsidising the big six banks' lack of branches" (Treasury select committee 2019). In the time since, the Post Office have renegotiated their commercial agreement with 28 UK banks, which enables customers to withdraw cash, deposit cash and cheques, and check their account balance through the PO branch network – including an "improved fee structure" that seeks to better reflect the value of the services Post Office branches provide as the number of high street bank branches continues to reduce (Jones 2019). When Barclays bank announced plans in 2019 for a partial withdrawal from the scheme – which would see Barclays customers no longer able to withdraw cash at the Post Office from the start of 2020 – they faced strong and wide-spread criticism. The decision has since been reversed, but the UK's cash infrastructure is increasingly reliant on this commercial agreement between banks and the Post Office to support continued access basic services for communities across the UK.

THE UK ATM NETWORK: IN CHRONIC DECLINE?

While there are still more UK ATMs in operation now than at any point before 2006, there has been a sharp reduction in ATMs since 2017.

- There were 63,360 ATMs in the UK at the end of 2018, down from 69,603 at the end of 2017 (UK Finance 2019b).
- From 2017 to 2018, the proportion of free-to-use machine increased from 79 per cent to 83 per cent, reflecting a sharper decline in ATMs with fees than free-to-use (UK Finance 2019a).
- But throughout 2019, the number of free-to-use machines has been falling sharply.
- Although the total number of ATMs has declined over the past decade, the UK has seen a net increase in the number of free-to-use ATMs (LINK 2019).

Are free-to-use ATMs in decline?

- In 2018, 57 per cent of UK cash machines were provided by independent ATM deployers (IADs) rather than banks and building societies (UK Finance 2019a).
- In April 2019, one such provider, NoteMachine, announced it was considering switching 4,000 free-to-use ATMs in their network to fee-charging machines (NoteMachine 2019).
- Data from LINK shows that, in March 2019 alone, 1,250 free cash machines switched from free-to-use to fee-charging (Robbins 2019).
- This recent switch reverses a long-running trend away from fee-charging ATMs, numbers of which declined year-on-year from 2007–18 (LINK no date).

WHAT IS LINK?

LINK is a key player in the UK's financial infrastructure, with power to set the rules for ATM operators who want their cash machines to be part of the UK's largest ATM network, or card issuers who want their cardholders to be able to use the network.

The network is operated by LINK Scheme Ltd, a not-for-profit supervised by the Bank of England, to "provide universal access to cash for consumers across the UK" and promote innovation and competition within the ATM network.

Since 2006, LINK has operated a financial inclusion programme aimed at promoting access to cash where provision is lacking. This includes subsidising the provision of free to use ATMs in deprived areas and where there is no free-to-use machine within a 1km radius, with a stated investment of £10 million in deprived and rural locations in 2019 (for more details, see Link 2019a).

In October 2019, LINK announced a 'request an ATM' service, backed by a £1 million fund, for communities with inadequate cash access. While this could fund 40–50 new ATMs, this is far fewer than the reduction in the total number of ATMs in the UK of over 6,000 between 2017 and 2018 (Peachy 2019; UK Finance 2019b).

LINK reduces its interchange fee

- In January 2018, LINK set out plans to gradually reduce its ‘interchange fee’ – the fee ATM operators in the LINK network receive each time an ATM is used.
- Interchange fee reductions excluded ‘protected’ machines where there was not another free-to-use ATM or Post Office branch within 1km to ensure continued service.
- The announcement of an interchange fee reduction followed pressure from banks, but some for-profit ATM operators argued it would drive them to consider introducing fees at their machines.
- LINK has since announced a pause on planned future reductions in the interchange fee following campaigning from consumer agency Which?, the Federation of Small Businesses, and for-profit ATM operators.
- In April 2019, LINK announced the introduction of a ‘super premium’ interchange fee rate aimed at ensuring the future viability of cash machines in rural or deprived communities.
- The premium will boost payments to ATM operators to £2.75 per cash withdrawal in up to 3,500 locations, in a move that aims to boost the financial incentive for businesses to operate cash machines where cash access is under the greatest strain.

The recent decline of free-to-use ATMs has alarming consequences for access to cash. Research from the University of Bristol’s Personal Finance Research Centre recently found that the shift from free to fee-charging ATMs in Bristol was disproportionately concentrated in more deprived areas, where greater proportions of local people rely on cash (Tischer et al 2019). The research also found that cash provision in the city was almost opposite to where cash use was concentrated. Areas with greater portions of residents who were older or from lower social grades were poorly served by current cash infrastructure, which was concentrated where there was least need for it: namely in wealthy urban centres (Tischer et al 2019). More research is needed to determine whether these concerning trends are evident in other areas of the UK.

With ATM provision under strain and bank branch closures reducing cash access, the Post Office network is also playing a growing role in providing access to cash. In 2018, 2,356 million cash withdrawals were made at ATMs, while 43 million were made at Post Office and bank branch counters. Between 2017 and 2018, there was a 6.5 per cent drop in the volume of ATM withdrawals, while withdrawals at Post Offices and bank branches rose by 6.6 per cent (table 9.1 in UK Finance 2019b). In June of this year, LINK collaborated with the Post Office to update its ATM-locator app to include Post Offices where users can withdraw cash, reflecting the growing role the Post Office network is playing in facilitating cash access.

Financial services providers have been developing alternatives to branch cash facilities. Services include mobile branches and cash collections services for businesses. Banks are also developing new facilities such as intelligent safes, where a safe is installed at the business premises. Cash is deposited in the intelligent safe and a daily credit is applied to the bank account of the amount of cash in the safe, before cash is then collected by a cash courier.

At industry level, UK Finance has introduced a ‘Community Access to Cash Initiative’. The initiative brings together financial service providers with local communities across the UK through MPs, members of devolved parliaments and assemblies, mayors, and councillors to identify and address barriers and gaps in to making payments. Where the installation of an ATM is not a practical or desirable solution, the initiative will support local efforts to improve access to cash or alternative payment methods through grant support for community-led

ideas building towards long-term solutions. These may include initiatives spanning digital education awareness programmes, assisting community cashback initiatives or helping local communities to connect with partners who can help increase awareness of, and access to available secure cash provision.

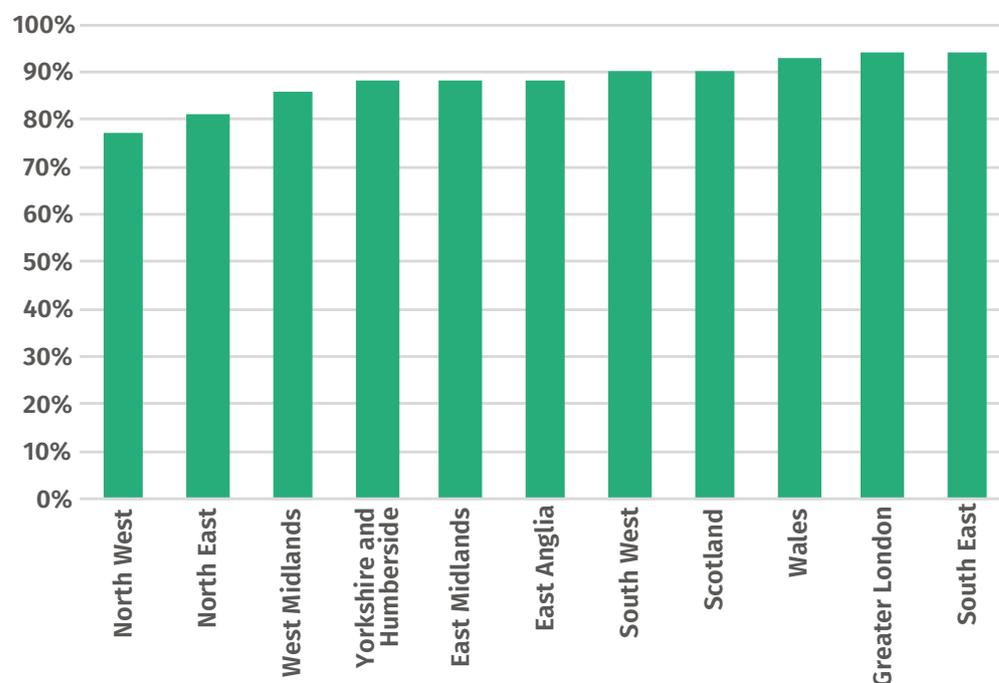
UK Finance is also working to explore initiatives to promote community cash recycling, where cash-back services provided by retailers can help support the efficient recycling of cash in local communities. This includes discussions with regulators with regard to supporting ongoing cash-back pilots. The industry also has a focus on facilitating digital innovation that can help widen access to digital payments, and on developing awareness of where cash access is available (UK Finance 2019e).

THE PACE OF TRANSITION ACROSS THE UK

Rates of card use – the most commonly-used method of digital payment – vary across UK nations and regions. As figure 1.1 shows, card use was highest in Northern Ireland, Greater London and the south east of England. Over 90 per cent of adults in Scotland, Wales, Northern Ireland, Greater London and the South West of England also report making a card payment at least once a month, compared to just 77 per cent of adults in the North West of England. This suggests a digital payment gap of as much as 20 percentage points between the most and least digital nations and regions of the UK.

FIGURE 1.1: THE NORTH OF ENGLAND HAS THE LOWEST PROPORTION OF ADULTS USING CARD PAYMENTS IN THE UK

Proportion of adults using card payments once a month or more, UK regions and nations



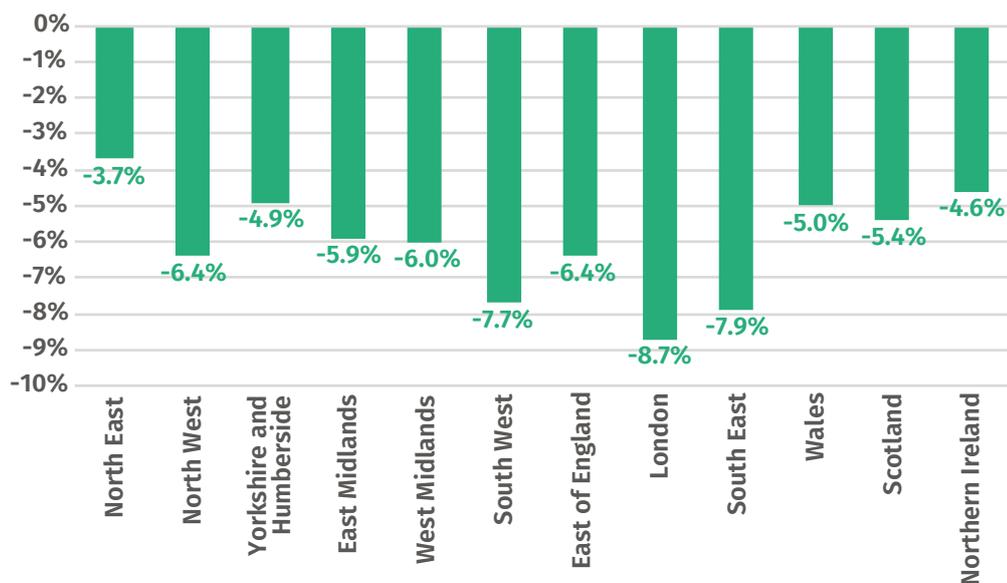
Source: UK Finance 2019b

Note: Northern Ireland excluded due to limited sample size

Cash withdrawals, too, are declining at different rates across nations and regions of the UK. As figure 1.2 illustrates, the rate of decline varies by 5 percentage points between London, where cash withdrawals declined most severely from 2018 to 2019, and the North East, which experienced the smallest reduction.

FIGURE 1.2: CASH WITHDRAWALS ARE FALLING MORE SHARPLY IN LONDON AND THE SOUTH OF ENGLAND

Reduction in number of cash withdrawals, January–April 2019 vs January–April 2018



Source: LINK 2019b

Likewise, bank branch closures between January 2015 and August 2019 have not been evenly spread across the UK’s nations and regions. The gap between the North East, which records the second-fewest with at a toll of 95 lost branches, and the North West, which has seen 424 closures over the same period, is stark (see figure 1.3). Despite recording the greatest reduction in cash withdrawals, London has seen fewer closures than Scotland, the South East, the South West, and the North West of England. While ATM operators have argued that declining access to cash is “a self-fulfilling prophecy” (Robbins 2019) – whereby loss of cash machines and bank branches forces declining numbers of cash withdrawals – we are not able to determine the existence or nature of a causal relationship between declining cash infrastructure and declining withdrawals through this data.

The UK has been frequently identified as a digital payments leader on the global stage. According to the 2017 World Cash Report, cash transactions made up 42 per cent of UK payments in 2017 – with only South Korea (14 per cent), Sweden (20 per cent), Australia (37 per cent) and the USA (32 per cent) reporting lower rates of cash usage (Cash Essential 2018, p25). The Forex Bonuses ‘cashless index’, which analyses a range of consumer payment trends, ranks the UK as the third most cashless society among the world’s global economies, behind Canada and Sweden (Forex Bonuses 2018).

FIGURE 1.3: BANK BRANCH CLOSURES HAVE BEEN CONCENTRATED IN SCOTLAND, THE NORTH WEST, AND THE SOUTH OF ENGLAND

Bank branch closures by UK nations and regions, January 2015–August 2019



Source: Which? 2019b

TABLE 1.1: A CASHLESS FUTURE FOR THE UK?

Payment methods as a portion of total payments, 2018 and 2028 forecast

	2018	2028 (forecast)
Cash payments	28%	9%
All card payments	47%	61%
Contactless card payments	19%	37%

Source: UK Finance 2019c

UK Finance, the finance industry body, forecasts that cash payments will have reduced further by 2028, when an estimated one in 10 payments will be made in cash, while card payments will continue to rise to an estimated 61 per cent of all UK payments (see table 1.1). Although this suggests the gradual decline of cash payments will continue well into the 2020s, we do not expect a completely cashless future on the medium-term horizon in light of continued demand.

As cash use continues to fall and digital payment markets break new ground, it is critical that policymakers take action now in order to shape the future of UK payments. There is a path through to a digital economy that delivers not just greater prosperity, but greater economic justice: where more people can access better payments and banking services, where the power of payments data is harnessed for public good, and where tax revenues are increased and employment protections strengthened for the most precarious workers. But seizing this opportunity to capture and share the benefits of digital finance for collective benefit will depend on action from government, regulators and financial service providers.

2. EXCELLENT FINANCIAL SERVICES FOR ALL

REALISING ECONOMIC JUSTICE IN A NEW WORLD OF PAYMENTS

“You can’t do anything without a bank account nowadays, can you?”

Consumer, Inverness, Scottish Highlands

Economic inclusion – the ability of people and businesses to access useful and affordable financial products that meet their needs⁴ – is a crucial building block of a just economy. The ability to make and receive payments is a crucial step towards full economic participation. But financial inclusion is rapidly becoming indistinguishable from digital inclusion, as access to financial services relies increasingly on digital infrastructure. But the financial infrastructure of the future must be designed to make excellent financial services accessible to everyone. Urgent action is needed to design a future economy that is both more digital and more just.

An increasingly digital economy brings faster payments, more personalised services and greater convenience for digital users. Profound changes in the world of payments are not just reshaping digital transactions, but the infrastructure that underpins cash payments, too. The gap between online and offline finance is widening, with those not able or willing to participate in the digital economy exposed to new forms of financial exclusion. There is a real risk that without a coherent strategy shaping the future of UK payments, we could see inequality ingrained into the future of finance.

Innovation in financial services is increasingly driven by collecting and analysing pools of customer data, and using insights from this to better understand people’s everyday banking needs. This wave of digitalisation has spurred the development of new services offering people more powerful tools to manage their money, and initiatives like open banking that are reshaping personal banking and payments markets. But, if people are excluded from accessing digital services or unable to make full use of them, this process risks creating a cycle of exclusion, in which the needs of non-digital users go unmet, while mainstream digital adopters benefit from continued service innovation.

We conducted focus groups in England, Scotland and Wales to explore different experiences of the changing world of payments, and to help inform policy solutions that can deliver greater economic justice. It’s clear that shifts in the payments landscape and consumer behaviour are occurring at different paces, and taking different shape, across the UK. While London has been identified as a ‘digital leader’ of the global payment market (VISA

⁴ The World Bank describes financial inclusion as meaning that “individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way” (World Bank 2019). See more: <https://www.worldbank.org/en/topic/financialinclusion/overview>

2017), a look beyond the UK capital reveals a varied payments landscape. We found considerable spatial variation in attitudes and preferences regarding different payment methods through our field work, which underlined the distinct trajectories along which payments are reshaping different areas of the UK.

WHY CASH?

We found the strongest positive drivers of cash preference were trust, budgeting, and a sense of control.

Trust and payments

Trust is central to a viable payment infrastructure in any economy. As the UK payments market is transformed by new payment technologies, building systems and services that people trust will be a foundation stone of an inclusive financial future. Now, levels of trust vary substantially between those who can access and confidently navigate digital services and those who face barriers: whether related to age, disability or financial insecurity. Among people we spoke with, trust was lowest among people aged 40 and older. While trust was consistently low among people with low digital skills, we found that some people who could use digital services or cashless payment methods choose not to due to a lack of trust. Low trust was most pronounced, however, among people living on low incomes or tight budgets, which was often linked to negative experiences of financial services, such as unseen fees or unplanned overdraft charges, or delays in processing transactions that then wreaked havoc on a fortnightly or monthly budget and spark debt cycles. Among digital adopters, the opposite was true: we found declining trust in cash payments. Digital users valued the strengthened consumer protections and digital record that underpinned digital transactions and felt that cash was riskier in that cash spending was less accountable to a personal or household budget.

Budgeting

Cash plays an important role as a budgeting tool. The 2018 Access to Cash review establishes poverty as the strongest indicator of cash dependency in the UK, with those who depend on cash are increasingly disadvantaged by the limited choice cash spending offers, with fewer options to shop around and increased barriers to accessing credit (Ceeney 2019).

People appear to find it harder to manage their spending using digital payment methods, and that this was particularly pronounced among people with precarious finances or low incomes. This is related to the 'frictionless' nature of contactless payments, and to concerns that there would be a delay in digital payments being deducted from an account balance, potentially enabling overspending that could result in fees and/or getting into debt. We also found that cash was used as a tool for those on tight weekly budgets due to the relative speed at which cash returns are processed by retailers. There was also significant confusion surrounding contactless payments, with a lack of understanding or familiarity breeding mistrust and heightening security concerns.

People on low incomes were particularly attracted to cash as a budgeting tool. A cash budget was seen as more tangible and finite than a digital bank balance, with the direct nature of cash transactions and the physicality enabling people to make more immediate and useful assessments of their finances, while protecting against overspending. Cash was also used to manage particular budgets for people on a wider range of incomes, most commonly as a means to limit particular kinds of spending.

Trust in payment intermediaries, particularly in the context of online shopping, was particularly low. The one clear exception here, however, was PayPal, which was identified as a trusted payment operator for people who would make no other online transactions. This appeared to be linked to the increased protections offered by the policy of immediately refunding users' account in the case of fraudulent activity or overcharging, which people saw as 'de-risking' online payments.

Control

Participants described cash giving them a more tangible and immediate sense of control over their money, and particularly the limits of their budget. This sense of control over physical money was sometimes linked to negative experiences with banks – particularly where 'invisible' or unexpected fees had led people to feel a lack of control over their digital bank balance.

"I don't trust the way that the banks, all of a sudden, charge you for something."

Consumer, Inverness

A sense of 'control' over cash was more broadly linked to experiences of financial insecurity, where cash in their pocket offered people a greater sense of security than the equivalent sum in a digital account, where there was fear it could be clawed away through errors, unexpected bills, or charges that might knock a weekly or monthly budget off balance. As one participant explained, the type of payments they use "depends on what's in the bank and what's in your pocket". When finances are more squeezed towards the end of the month, for example, people described being more nervous about making contactless payments that would sometimes only appear as 'pending' or processed transactions on an online bank statement could take 'days' to come through. This caused considerable anxiety among people living on tight budgets and with financial insecurity, who felt cash payments enabled them to see "how much [they] have left" more reliably. From December 2019, new rules introduced by the Financial Conduct Authority will put stricter rules on how banks and other account providers display account holders' available balance in a welcome effort to make it easier for customers to keep track of their money.

We found that people felt very little sense of control over the changing world of payments, and particularly the decline of cash. Among those whose preferred payment method was cash, many felt a palpable sense of injustice regarding the change: that it was "not right" that people were being "forced away" from cash payments. The vast majority of people felt that consumers were powerless to resist the transition towards digital payments: "you start to give in a bit". We found strong levels of scepticism about the motives underpinning the shift away from cash, even among people who were wholesale adopters of digital payments, who still felt they had little control over the direction of travel: "it's all sewn up isn't it really", "nothing you can do". Digitalisation does not just respond to changing financial behaviours – digital products also shape behaviours, producing both deliberate and unintended consequences. As digital adopters become more and more accustomed to managing their finances digitally, it is becoming increasingly urgent that the gap between digital and non-digital services is bridged.

OPEN BANKING

In 2018, the introduction of open banking legislation made it possible for consumers to give permission for their bank to share limited amounts of personal financial data with other banks or financial service providers. By creating a common standard for securely sharing users' financial data, where a user grants permission, open banking enables third parties such as app developers to read a user's data and provide personalised services based on it. For example, open banking could enable an app to monitor spending activity across a user's bank account(s) and make automatic decisions about how much that user can afford to save in a month. This reform was instigated by the UK Competition and Markets Authority, with the aim of promoting greater competition in the UK personal banking market in the aftermath of the financial crisis of 2007/08.

By opening up access to personal financial data beyond large incumbent financial institutions, open banking gives newer and smaller businesses greater opportunities to innovate, in order to deliver greater choice, lower prices and better services for consumers. Open banking services are regulated by the FCA.

A new digital infrastructure for financial services risks creating new axes of inequality or deepening existing dimensions of economic marginalisation. Research from Lloyds Banking Group has found that older people (aged 40+) from BAME backgrounds have, on average, lower digital capability than older white people (Lloyds 2019). This sheds light on another key dimension through which existing economic marginalisation could be compounded through an accelerating shift towards digital banking (see, for example, Romei 2019). In terms of payment preferences, however, research published by the Payment Systems Regulator finds that white consumers are significantly more likely to prefer cash as a payment method, while BAME consumers are significantly more likely to prefer contactless payments (BritainThinks 2019).

Meanwhile, religious people are more likely to use cash and less likely to use card payments than non-religious people (appendix in PSR 2019), and there are further barriers to digital banking associated with particular religious communities, too. People seeking out banking options that are compliant with Islamic law, for example, already face heightened barriers to accessing a range of financial services, and significantly less choice. Recent reporting of large-scale crypto-currency scams has highlighted fake advertisement of 'Sharia-compliant' certification in fraudulent schemes, as new forms of fraud have targeted communities that are under-served by or excluded from mainstream finance (see Bartlett 2019). The growth of a financial technology market that does not seek to develop solutions for communities who are already under-served by the current banking system risks further compounding financial and economic marginalisation, powering a deepening divide between digital adopters and customers with additional needs or preferences.

BARRIERS TO DIGITAL

We found that cash use was driven, too, by barriers to digital payments. These barriers included a lack of digital skills or reliable internet access, limited or fluctuating capacity to manage digital payments due to disability or mental illness, and low trust or confidence in making digital payments. Some of these barriers were more fixed than others, and the extent to which innovation in digital payments was successfully responding to barriers varied.

Cash preference is concentrated among over 40s, and often articulated as a conscious objection to digital payments. We found heightened barriers to accessing online payments for older people, some of whom described having never used a computer, while others had never made an online payment. Low confidence in financial capability was related to perceptions about high instances of fraud, so people with lower digital skills and confidence were likely to perceive the risks of making payments online, or – to a lesser extent – by contactless or mobile, to be greater.

BANK ACCOUNT ACCESS: A GATEWAY TO FINANCIAL INCLUSION

Approximately 1.23 million people in the UK remain ‘unbanked’, meaning they do not have access to a basic bank account (HM Treasury and DWP 2019). The UK’s unbanked population is largely constituted of communities who come up against regulatory barriers to accessing a bank account, such as a lack of required identification or proof of address. But there are also circumstances that can render someone without a bank account: for instance, when someone is leaving prison, or lacks a permanent address.

There has been a concerted rise in rival banking products seeking to respond to this unmet need over the past decade, as fintech companies have championed innovation aimed at the segment of the population whose needs are most clearly and explicitly unmet by the UK’s mainstream retail banking sector: those without access to a bank account.

One such fintech company is Pockit, which launched in 2014 with a stated aim of providing the same services a high-street bank might, but to customers those mainstream banks have “left behind”. The service started with a pre-paid card and has since expanded its suite of services to enable users to use an app to manage a “full digital current account”, including, most recently, direct debit and international transfer functionality. Regulated by the Financial Conduct Authority as an issuer of electronic money, Pockit functions as a pre-paid account with no paperwork or credit checks required, meaning that it circumvents some of the hurdles associated with opening a basic bank account or current account. They describe their customer base as made up of communities who have been financially excluded or “under-served” by the existing suite of services offered by high-street banks. This includes marketing aimed at recent migrants opening their first UK bank account, people with histories of bad credit or those who have had a bad experience with mainstream banking – such as those in rural areas who have experienced the sharp end of bank branch closures. They operate as a paid-for service, charging a monthly fee for account usage, as well as fees to pay in or withdraw cash, make direct debit payments, or transfer funds to non-Pockit accounts – all at around 99p, which likely pose a considerable barrier to low-income account users. They’ve also recently expanded their suite of products to include personal loans, following a pattern of rival financial service providers who seek to break even by expanding their range of services to include the likes of loan and overdraft facilities. Mainstream banks are also now making more concerted efforts to meet the needs of people who are unbanked. Recent innovation includes an initiative from HSBC to introduce a ‘no fixed address’ bank account scheme to provide bank account access for homeless customers (Jeffries and Pattenden 2019).

Capability: Digital skills and confidence

One in five UK adults still lack basic digital skills, meaning they’re unable to use digital banking services, or take advantage of the product innovation and growing choice in personal finance (Lloyds 2019). Accelerating digitalisation poses the risk of widening the gap between digital and non-digital users, particularly as product

innovation is increasingly driven by analysis and insight drawn from pools of digital customer data.

Contrary to public perception, consumers of all ages still face barriers to accessing digital finance (see, for example, Lloyds 2019). We found that although some consumers in their 40s and 50s felt they *could* use cashless payment options or digital banking, they preferred not to; meanwhile, some older consumers in their 60s and 70 were fully digital.

As demographic change sees the UK population grow older, it's clear the particular challenges older people experience in accessing a range of payments and financial services are not going away. The development of new services aimed at boosting digital capability among adults will be key to bringing people into digital finance. Barclays' Digital Eagles programme, which includes 'tea and teach' sessions in branches and YouTube video guides to online safety, is a strong example of how a combination of face-to-face and online learning tools can target key barriers to using digital services, such as trust and confidence (Barclays 2019). A wider range of initiatives are funded by the Good Things Foundation, a charity that aims to combat social inequality by supporting people to gain the skills and access they need to get the most out of the internet. Since 2010, the foundation has supported over 2 million people to get online.

Government digital skills initiatives are also evolving, including the Department for Digital, Culture, Media and Sport's Digital Skills Partnership, and a Digital Skills Partnership established by the Scottish Funding Council together with Skills Development Scotland. These bring together public, private and third sector organisations to help increase the digital capability of individuals and organisations in England and Scotland, with an emphasis on boosting participation and inclusion in the digital economy. One notable initiative is Edinburgh City Deal's data initiative to tackle the digital skills gap, which will see Edinburgh and Heriot-Watt Universities collaborate to train 100,000 people in data skills and help 1,000 organisations through data (see University of Edinburgh 2018).

"It's not having the confidence or the experience to do things online [...] if you're self-taught like me, it's frustrating."

Consumer, Tongwynlais

"I wouldn't know how to turn a computer on."

Consumer, Tongwynlais

We found that cybersecurity concerns – particularly relating to fraud – were the leading motivation among people who did not want to manage their money online. These concerns were underpinned by a broader sense of mistrust of personal financial management being opened up to the online world. Concerns about the impact of system outages were widely held, with the potential for payment systems to 'go down' associated with economic meltdown and inability to access essential goods and services.

Finally, we found strong concerns about the depersonalisation of services, as personal interactions were lost in favour of the convenience of 24/7 access to financial services. This was felt most acutely among people with access needs or concerns about their finances, who described new challenges resulting from a loss of face-to-face services. It's clear that designing core services to meet the needs of vulnerable customers from the outset will be a crucial factor in realising excellent financial services for all.

Connectivity: Access to digital infrastructure

Access to digital payments for both consumers and businesses requires access to the infrastructure that underpins them: namely, mobile or internet connectivity. This is a particular challenge for rural communities, who face additional barriers to accessing digital services where reliable broadband or mobile connectivity is lacking. Connectivity also demands that customers incur additional costs to access their money or banking services, by purchasing and paying for a mobile phone contract and data, and/or broadband and computer access at home. These costs can pose a significant barrier to accessing digital financial services: one-fifth of clients surveyed by Citizens Advice Scotland in 2017 who used the internet only did so on their phone, with four in 10 people within this group identifying mobile phone data costs as an issue preventing them from getting online (CAS 2019). Some housing associations have shed light on the estimated 40 per cent of social housing tenants in some areas of the UK who do not have a broadband internet connection by piloting innovative affordable community broadband solutions. Here, there may be a means of harnessing the collective purchasing power of social housing providers, in order to generate affordable and sustainable solutions for tenants (see, for example, Regeneration Wales 2016).

Disability

There are also persistent access barriers to using digital payments. These are particularly clear in some instances of physical disability, or where someone has limited or impaired cognitive capability. These access barriers drive continued cash use in a range of ways; some relate to services that ill or disabled people might disproportionately rely on, such as taxi travel, where cash payments are the norm. Others relate to fintech innovations, where new products fail to consider some access needs. The proliferation of new mobile or card payment devices in place of established chip-and-pin machines, for example, poses a new access barrier to people who are blind or visually impaired, as the physical aids built into keypads are jettisoned for the multi-purpose usage offered by app-based payments.

We heard from people who support others to manage their money, including carers, family members and support workers. They voiced concerns about how caring for people with a range of needs – from old age, to mental illness, to learning difficulties – involved reliance on cash. In these instances, a carer might take out a fixed sum of cash each week that can then be managed by the account holder, awarding a degree of independence to someone who might struggle to manage their money using digital payments, or need additional support to manage their money using digital banking. We also heard accounts of vulnerable people giving their carers full access to digital banking or payment cards or entrusting a super-market cashier with their card and pin number, underlining a lack of adequate product innovation, or knowledge of products where they do exist.

DIGITAL CONTROL: SHARED FINANCES AND ECONOMIC ABUSE

We found the digitalisation of personal banking had resulted in consumers sharing greater oversight and control of their personal finances with others. As digital payments create a real-time digital paper trail, it can both promote financial wellbeing and present new risks.

We heard from consumers who felt a greater sense of accountability to both themselves and those they shared finances with as a result of the data-trail digital payments created. For families sharing finances across borders, international payment cards enabled funds to be shared more cheaply and straightforwardly. The flipside of increasing transparency, however, meant a potential loss of

autonomy or control for some parties where an account was shared, and spending could be more closely scrutinised.

The widespread use of digital payments also creates new risks for individuals, including new forms of economic abuse. Economic or financial abuse is a form of coercive control that sees a perpetrator control a victim's finances and access to money.⁵ Financial abuse is estimated to occur in up to 99 per cent of domestic abuse cases and, as card payments overtake cash, account holders now have near complete oversight of where money goes and how it is spent. (AllState Foundation 2019). In the context of domestic abuse, this can create new opportunities for perpetrators to control victims, and heightened barriers to leaving abusive relationships.

Access to cash is often critical as a means of building up covert savings that cannot be controlled or spent by the perpetrator. These act primarily as a survival fund, enabling victims to purchase food and essentials when other funds and means of payments are denied to them. It is also often the means by which people experiencing economic abuse can afford the costs of leaving an abusive relationship, sometimes by asking employers to pay a portion of their wages in cash, or through informal loans from family and friends. Meanwhile, digital innovation is offering new tools to women experiencing abuse in the form of apps like Bright Sky, developed by domestic abuse service Hestia, which enables women to record abuse and access support and emergency services (Hestia 2019).

Victim-survivors of financial abuse often don't have independent access to digital payments or financial services, which can have lasting effects on confidence and capability when it comes to digital money management. Victim-survivors often face further barriers to regaining control of their personal finances where perpetrators have destroyed the documentation required to open new accounts or acquired unserved debts in their name.

Economic abuse underlines the need for cash in a crisis. It can affect anyone, and, while it remains a persistent feature of domestic abuse, it will continue to evolve with new technologies. It reinforces the need to ensure that cash is a universally available safety net for people who may find themselves in such circumstances, and for whom accessing money through digital avenues may be out of reach and unsafe.

INNOVATION FOR THE MAINSTREAM?

Most digital users referred to convenience and time saving as advantages of digital payments, and inclusive digital transition will be contingent on extending these advantages to all customers. New technology offers both new risks and new opportunities to design and build services that better meet the needs of people who might be particularly vulnerable to disadvantage in accessing and using financial services. New vulnerabilities associated with frictionless payments, for example, were most pronounced in the context of gambling and other addiction challenges, debt, and/or mental illness. Mainstream product innovation has recently focussed on addressing how some experiences of mental illness and addiction interact with personal finances, particularly through manic episodes or where people are struggling with compulsive behaviours. This has been most evident in the introduction of temporary blocks or 'freezes' on card

⁵ Women's Aid define financial abuse as a perpetrator using or misusing money which limits and controls their partner's current and future actions and their freedom of choice. It can include using credit cards without permission, putting contractual obligations in their partner's name, and gambling with family assets. See the full definition of economic abuse provided by Women's Aid here: <https://www.womensaid.org.uk/information-support/what-is-domestic-abuse/financial-abuse/>

payments, or the restriction of card use for particular types of spending – such as the gambling project operated by Monzo, a challenger banking app, which can block card use in betting shops. Similar controls are now common across a range of banks. Monzo has plans to expand this service to include self-imposed ‘merchant block’ – through which users can block payments to a particular junk food retailer, or any other specific merchant. Services such as blocks or spending ceilings that we heard had previously been accessed by visiting a bank branch with a support worker could now be automated, opening up opportunities for people who may be financially vulnerable to exercise greater control and independence over their finances.

When asked which digital tools helped people to manage their money, we heard from a range of people whose retail bank accounts offered text alerts or notifications to remind them of their balance or upcoming payments, which were spontaneously offered as examples of useful and effective tools for money management. Consumers also wanted more help saving, with some participants citing ‘round-up’ functions that allow users to save their change and easy ‘jam-jarring’ of savings as useful tools. Highstreet banks have unveiled a suite of services aimed at making personal finance easier, including embracing open banking technology through new banking apps, including the HSCB Beta app and the NatWest trial of Mimo – a personal finance app with budgeting tools, spending insights and reminders. Open banking has opened up vast opportunities to see high street banks better respond to customers’ needs, including through providing integrated financial management tools.

Initiatives aimed at shaping open banking innovation to tackle barriers to financial inclusion have shown early signs of success. The £1.5 million Open Up Challenge 2020 by Nesta in partnership with the Open Banking Implementation Entity (OBIE), the official body overseeing the rollout of open banking, is supporting the development of products that are “transparent, accessible and fair”, and that they leave consumers “more in control” (Thompson 2019). These span personal financial management tools to support effective budgeting, savings tools, and debt and credit services.

In collaboration with UK Government Inclusive Economy Partnership, Nationwide’s open banking for Good initiative is fostering open banking initiatives that seek to better serve the UK’s ‘financially squeezed’ with a £3 million challenge fund aimed at solving financial capability problems (Nationwide 2019). Start-ups will be supported by experts from Nationwide, Money Advice Trust, Citizens Advice, and the Money and Mental Health Policy Institute amongst others, with services spanning income and expenditure, income smoothing, and money management and help (ibid).

Digitalisation is spurring innovation in the credit union sector, too. New services from credit unions are offering automated ‘revolving loan’ schemes, through which members who have previously taken out a loan with a particular credit union can have their applications processed within 24 hours and outside of regular hours. Credit unions are leading innovation in the payment card market too, where Commodo cards are offering a ‘loan card’ service that operates as a debit card linked to a credit union loan, in an effort to beat credit card debt cycles (West 2019).

KENYA: A CASE STUDY ON MOBILE PAYMENTS

Kenya's transition towards cashless has been gaining momentum over the last decade (Rotman 2009; Flood 2018). As a developing economy, it has comparatively lower levels of digital infrastructure and consumer interaction with established financial institutions than the UK. The momentum behind Kenya's adoption of digital payments is primarily due to the development and rapid adoption of mobile banking technologies, with one platform, M-PESA, dominating the mobile money transfer (MMT) market. Notably, M-PESA is not the product of an established bank but is instead a platform developed by Kenya's largest telecommunications provider: Safaricom. Launched in 2007, M-PESA had almost 28 million registered accounts in 2018, making up a substantial portion of the 36 million mobile money accounts registered across Kenya (which have continued to rise substantially over the last year). The platform allows users to send money between mobile wallets after establishing a balance by handing over a physical cash deposit to one of Safaricom's 40,000 agents based across the country. Once the money is credited to the user's account, money can be sent to any other M-PESA user, who in turn can withdraw cash from the aforementioned agents or use the money for digital payments, including cashless point of sale (POS) transactions.

Mobile money technologies have spurred financial inclusion in Kenya. Account ownership, either at a financial institution or with a mobile-money service provider, has risen significantly – with a notable rise in ownership among women, among whom a 39-percentage point increase was recorded (World Bank 2019). As one study demonstrated, mobile money services have enabled women-headed households to increase their savings by more than one-fifth, created opportunities for 185,000 women to develop business or retail activities, and helped reduce extreme poverty among women-headed households by 22 per cent (Demirgüç-Kunt et al 2018). Mobile technologies have also improved the flow of income around the country, with domestic remittances cited as the most popular use of M-PESA (ibid).

Fundamentally, mobile money systems such as M-PESA still rely heavily on cash and the infrastructure that supports continued cash access. In 2017, over 80 per cent of total employment in Kenya was estimated to be in the informal economy where most workers do not receive their salaries by digital payment, but in pay-packets or cash-in-hand payments (KNBoS 2018; Flood 2018). In 2018, as many as eight out of 10 transactions were still in cash (Flood 2018). Without significant improvements in access to digital infrastructure among merchants and employers, cash can be expected to retain a central role in Kenya's payments market. Over the last decade, the Kenyan government has proactively promoted cashless payments. This agenda has included the 2017 rollout of integrated identity cards (Huduma), which enabled residents to access and pay for public services, and an attempt to convert all public bus services to exclusively cashless payments. Both measures, however, have been met with significant resistance. For many Kenyan citizens, Huduma cards represented an attempt at government surveillance, with non-participation effectively cutting residents off from public service provision – which disproportionately affected worse off and rural communities. The government's attempt to curb illicit fare supplements and bribery within the country's bus services has also been unsuccessful, with some bus operators continuing to charge in cash after allegedly misplacing the Android phones required to process cash-free transactions or citing problems with the payment system. When the Kenyan government increased excise duties on transactions by mobile phone in 2018, these were passed onto consumers in higher mobile transaction tariffs – a move that former governor of Kenya's central bank Professor Njuguna Ndung'u has argued will force low-income earners to revert to cash (Ndung'u 2019).

Kenya offers a valuable lesson in the role mobile banking technology can play in providing equitable and inclusive access to digital payments, particularly among low-income households (Johnson 2016). Products offered by mobile-banking platforms such as M-PESA are growing, with savings accounts and loans now available. Digital challengers in the UK have shown a similar ability to extend financial services to previously under-served communities (such as Pockit, for example). The case of M-PESA demonstrates how financial inclusion can be driven by accessible technologies that can leapfrog large financial institutions to bring previously marginalised groups into the formalised financial system.

RECOMMENDATIONS

Excellent payments for all

1. Recognising that financial service providers stand to make the biggest gains from the transition to digital in terms of increased productivity, **the banking levy should be reformed into a digital transition levy**, with funds devolved to the nations and regions to tackle key local challenges, as detailed in the digital transition framework below. In recognition that it is not only banks that are benefiting or shaping the transition to digital finance, all payment providers should be compelled to pay the levy, reflecting the economic value they derive from providing digital financial services. The Payment Systems Regulator together with the Financial Conduct Authority should be responsible for designing this extension.
2. Together with the Financial Conduct Authority, devolved administrations and the UK government, banks and other key financial service providers should develop **a digital transition framework**, with clear local, regional and national-level targets and outcomes to deliver a fair transition to a world with less cash. This framework should set out minimum national standards for cash infrastructure and digital service provision across the UK, with responsibility for ensuring minimum standards devolved to national governments, who in turn should oversee the development of localised strategies. It would also introduce a 'not until' principle to regulate the closure of bank branches and ATMs, under which cash infrastructure would only be eroded where key targets and outcomes around digital financial inclusion are met.
 - Improving **connectivity** will be critical to a just transition, as access to a reliable internet connection and digital devices, such as a smart phone or computer, become gateways to the digital economy. In addition to – not in place of – infrastructure funding to accelerate broadband coverage, the framework and levy should seek to deliver interim solutions for rural areas where either mobile or broadband coverage is poorest, and tackle cost barriers to accessing digital services for excluded groups. This should include a focus on affordable access; for example, by supporting social housing providers to develop affordable community internet provision.
 - An inclusive digital future will depend on improving **digital capability** through programmes that promote trust in, and take up of, digital services among people who are currently under-served by digital. Financial service providers and third sector organisations should be invited to bid for funding from our proposed levy, at the national, regional and local level, to deliver services that will build digital skills and confidence among those who are locked out of digital services meeting key targets and outcomes outlined in the proposed framework.
 - The UK government should place a **universal service obligation on cash access**, ensuring that there is sufficient coverage to meet consumer demand across the UK. The national framework should set out service obligations at the national, regional and local level depending on rates of cash access, connectivity and digital financial capability.

Where cash infrastructure falls short, UK consumers should have the right to request decent access to cash in line with universal service obligations (USOs) on broadband provision and the Post Office branch network. Local cash access, as provided by free-to-use ATMs or other cash withdrawal services, such as Post Office branches and cash-back services, should be guaranteed anywhere, as long as a local area falls short on consumer need.

The USO should provide statutory minimum standards for a local area, designed to act as a safeguard to ensure payments infrastructure meets consumer need. Until milestones for inclusive adoption of digital payments are met, banks will be obliged to maintain a minimum cash infrastructure. Responsibility for ensuring these minimum standards are upheld should lie with the FCA.

- The framework should support the roll-out of free in-store cashback by identifying barriers to widen opportunities to access cash, building on live pilots carried out by Lloyds Banking Group with Visa.

The framework would act to ensure the potential gains from digitalisation are invested into communities to prepare them for the digital transition and to support them through it. Reductions in the cash infrastructure would only be permitted beneath this minimum standard if outcomes and targets were met, for example around digital connectivity, digital capability and digital usage in a given area.

3. Under the Fairer Scotland duty and Wales' proposed socio-economic duty, public service provision should consider detriment to service users who rely on cash in designing payment services. The UK government and NI executive should consider similar duties for England and Northern Ireland.
4. Operators of free-to-use ATMs should be exempt from additional business rates liabilities. The UK government, devolved administrations, their respective valuation agencies, and local authorities should cease to consider all free-to-use ATMs as property improvements and consider providing rebates to SMEs operating a free-to-use ATM.

Shaping an inclusive digital payments market

5. UK government should incentivise inclusive fintech innovation that seeks to tackle barriers to financial inclusion. Innovate UK should each create a Fintech for Financial Inclusion Challenge Fund, offering funding to ventures that serve a social purpose. This should be overseen by the payment systems regulator (PSR).

A portion of the challenge fund should be reserved for supporting the development of digital products and services for mutuals, cooperatives and credit unions, designed to meet the needs to consumers who are under-served by the mainstream banking sector.

An additional challenge fund should support the development of accessible mobile payment apps, recognising international evidence that suggests mobile payments are an effective means of promoting digital financial inclusion. This fund would aim to promote greater competition in the UK mobile payments market. Acknowledging the uncompetitive dynamics of the card payments market, this should focus on direct account-to-account payments.

Building a sustainable banking infrastructure

Rather than one silver bullet solution, the sustainability of the sector will depend on plural models of cash and personal finance access. We therefore propose a mixed approach that can support varying local need.

6. The new commercial agreement between the Post Office and high street banks is welcome progress that can be expected to improve access to cash across the UK. Delivering long-term, sustainable access to cash and core banking services for communities across the UK, however, is likely to require stronger action. The UK Treasury should oversee the creation of a publicly-owned Post Bank which should operate with a public service mandate to provide basic banking services to all citizens. The bank will operate branches through the Post Office network and build on existing Post Office banking services. In line with recommendations set out by Macfarlane and Berry (2019), the bank should be given a public service mandate to provide financial services in every community across the UK, and offer services that extend beyond access to cash and deposits. This public service mandate should include a requirement to provide access to basic retail banking services to all UK citizens, regardless of income, wealth, or social status, hence providing universal access to basic financial services for UK citizens.
 - The Post Bank should be hosted by the post office network in order to ensure communities across the UK have access to core banking services at affordable prices – reaching beyond the offer of the Post Office framework. In doing so, the Post Bank could provide a bridge from the cash to the digital world, recognising access to core banking services as a vital prerequisite to full participation in our economy. The banks will also contribute to the financial sustainability of the Post Office network, including through an access payment paid to the Post Office for use of its assets. By extending the range of locally available services, including through a wider range of lending services, supported by a regionalised structure and a ‘relationship banking’ business model, the Post Bank could also serve a wider range of economic policy goals. Further details of how this proposal could work in practice, and the other purposes it could serve, have been set out by Macfarlane and Berry (2019).
7. UK Finance and the Bank of England should oversee the creation of shared consumer and business banking hubs, resourced by a shared fund to which major retail banks contribute. Shared hubs will provide cash processing services for businesses, with staff available to handle everyday banking needs and to signpost customers to specialist support. A space should be reserved in shared banking hubs for providers of independent not-for-profit financial advice, such as Citizens Advice Bureau.

Shaping the personal finance market towards social ends

The proliferation of new financial technology products and services and growing investment in personal finance innovation by established financial service providers opens up huge opportunities to reshape the sector to better serve people’s needs. However, seizing this opportunity to shape the personal finance market towards social ends will require action from both government and regulators. The digitalisation of personal finance offers opportunities to better identify unmet customer needs by expanding service providers’ capability to generate and analyse consumer data. However, embedding inclusive design principles in financial service innovation will be critical in getting to the root of *all* customers’ needs. Inclusive design processes will be key to shaping an inclusive transition towards digitalisation, instead of reacting to new forms of disadvantage or compounded exclusion.

8. UK government should incentivise inclusive fintech innovation that seeks to tackle barriers to financial inclusion. Innovate UK should each create a fintech **for Financial Inclusion Challenge Fund**, offering funding to ventures that serve a social purpose. Funding should be awarded to ventures that can demonstrate the product or service they are developing responds to a barrier to digital financial inclusion, with concepts developed in collaboration with prospective service users using inclusive design principles.
 - The fund should have two reserved strands of funding. The first should support the development of digital products and services for mutual, cooperatives and credit unions, designed to meet the needs to consumers who are under-served by the mainstream banking sector.
 - The second should support the development of accessible mobile payment apps, recognising international evidence that suggests mobile payments are an effective means of promoting digital financial inclusion.

3.

BRINGING THE INFORMAL ECONOMY IN

BENEFITS AND CHALLENGES

The digitalisation of financial services also has implications for the UK's informal (or 'hidden') economy. As the shift towards digital transactions enables closer oversight of financial transactions, informal economic activity is becoming increasingly difficult to shield from oversight from the state. Where discounted rates for cash-in-hand payments were once widespread, with the implicit acknowledgement that income would not be declared to tax authorities, some businesses in sectors where informal activity has historically been concentrated are increasingly turning towards formalisation through digital payments. This is driven by new barriers associated with business models reliant on cash payments, and a growing reliance on digital finance.

The transition towards an increasingly digital economy has implications for informal economic activity, lending networks, and HM Treasury revenues. Work in the informal economy is varied. While workers in the most precarious or exploitative situations may have no option but to accept cash-in-hand payment, other forms of casual labour may suit some workers and work patterns – from day labourers to babysitters. But much informal activity takes place alongside or in addition to formal work – where workers or businesses may have one or more streams of undeclared income from informal work – including 'gig' work on the side of formal employment – or irregular cash-in-hand earnings.

Changes in the composition of the UK labour market show a growing portion of UK workers in self-employment or temporary 'gig' work, either instead of or alongside more formal employment. This shift, and the technology that supports the gig economy, is reshaping how we work. One-third of UK adults are expected to be self-employed by 2025, up from 20 per cent today (Steenis 2019). As self-employment grows, increasing numbers of workers will manage multiple streams of income. This places new demands on tax authorities and financial services, which could play an important role in supporting people to navigate the tax system effectively.

The development of the 'gig economy' and other forms of casual work has happened faster in the UK than in other developed economies (CEJ 2018). Tackling precarious work should be a key priority for UK government, and government strategy should recognise that the rise in gig-style employment will have implications for the hidden economy, too. There may be competing forces shaping the future of the UK's hidden economy, as cash-in-hand earnings fall as a result of the broader shift away from cash, but informal work rises.

The UK shadow economy is estimated to be relatively small by international standards, measured at between 6.1 and 9.4 per cent of the whole economy (Medina and Schneider 2018). UK tax revenue lost to the 'hidden' economy constituted 8.5 per cent of the total estimated UK tax gap in 2017/18,

amounting to £3 billion or 0.5 per cent of total potential tax liabilities (IPPR analysis of HMRC 2019, table 1.5). Although the portion of total theoretical tax liabilities lost to the informal economy has stayed fairly static over the last decade, there are some clear trends in the estimated revenue lost to particular kinds of informal activity. As figure 2.1 indicates, estimated revenue lost to ‘ghosts’ – people whose entire income is unknown to HMRC – is increasing, while estimates relating to ‘moonlighters’ – those who are known to HMRC in relation to part of their income, but are known to have other income sources – has risen more gently, and appears to have fallen in 2017/18 compared to the previous year.

THE UK’S HIDDEN ECONOMY

- Research commissioned by HMRC suggests that 70 per cent of hidden economy activity is viewed as temporary.
- Hidden economy activity is likely to be part-time, carried out alone, and taking cash as a form of payment.
- Activity is concentrated in service activities such as hairdressing, dog-walking, laptop repairs and ironing services.
- Other common industries for hidden economy activity are human health and social work, accommodation and food service, and wholesale and retail trade.
- Those most likely to buy from the hidden economy include men, people earning over £50,000 a year, and those who are directors of their own businesses.
- The most common goods and services purchased are general household maintenance (35 per cent), direct sales of products (18 per cent) and construction/labour (17 per cent).

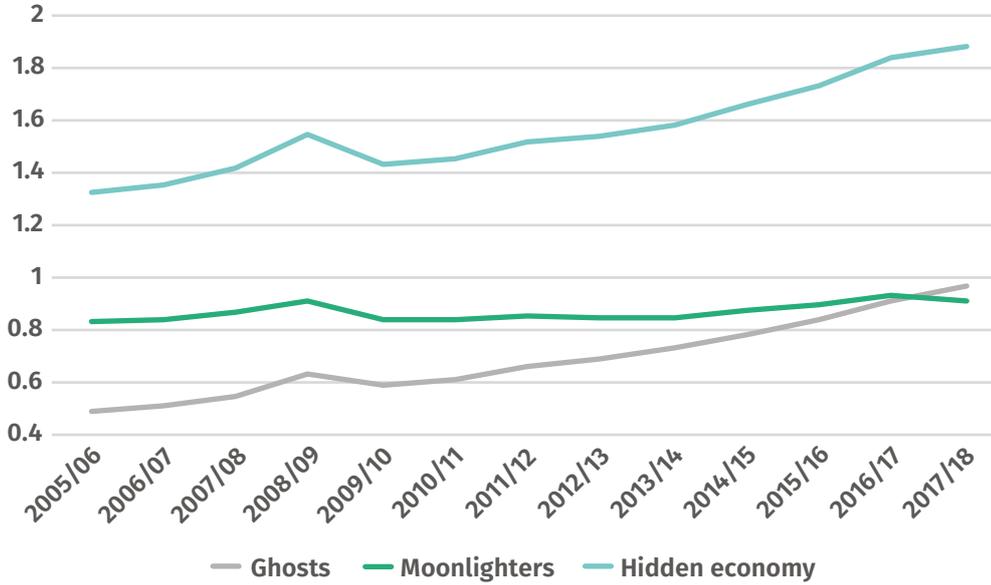
Source: HMRC 2017

There are important opportunities to recoup lost tax revenues through the transition to digital financial services. The clearest opportunities relate to financial crime or financial flows associated with criminal activity, as digitalisation provides financial service providers and authorities with deeper and broader oversight over the movement of funds. Large-scale data analysis can enable service providers to better track and flag suspect activity, unlocking new opportunities to tackle crime. But in the case of moonlighters – those who declare some income streams, but not others, to HMRC – action will be needed to ensure people have the knowledge, tools and support to promote better tax compliance while non-standard models of work continue to rise.

As the systematic digitalisation of finance continues apace, there are also new opportunities to formalise firms and sectors of the informal economy. Through our fieldwork, we found evidence that the balance of benefits and drawbacks of formalising a business had, for some, tipped in favour of digital payments, which were seen to be increasingly convenient as compared to the mounting inconvenience associated with handling cash revenues. One self-employed painter-decorator described the growing incentives to formalise their business as digital payments offered greater protections and reliability, and growing convenience as the portion of their spending done online or using cards increased. They described the benefits in terms of speed and convenience, as automatically-generated invoices and portable card payment devices enabled them to collect on-the-spot payments instead of waiting to process invoices, cash cheques and deposit cash payments.

FIGURE 3.1: THE UK'S HIDDEN ECONOMY COST HMRC AN ESTIMATED £1.88 BILLION IN LOST REVENUE IN 2017/18

UK income tax, NI and CGT revenue lost to the 'hidden economy' (£bn), 2005/06–2017/18



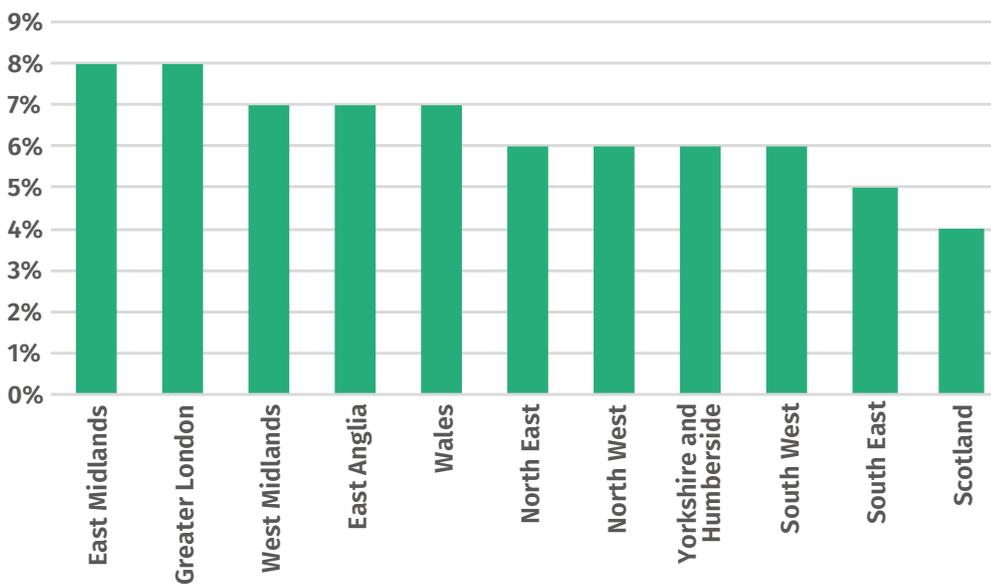
Source: HM Revenue and Customs 2019

Notes: Figures indicate estimated revenue from income tax, national insurance contributions (NICs) and capital gains tax (CGT) lost to the 'hidden economy' each year.

Figures are rounded to the nearest £0.1 billion.

FIGURE 3.2: 8 PER CENT OF WORKING ADULTS ARE STILL PAID IN CASH IN THE EAST MIDLANDS AND GREATER LONDON

Proportion (%) of working adults receiving wages, salaries and self-employed income in cash



Source: UK Finance 2019b

Note: Northern Ireland excluded due to limited sample size

The portion of UK workers who received their wages, salaries or self-employed income in cash is falling, but significant numbers of a people still rely on cash earnings. As figure 3.2 illustrates, this picture varies across the UK: cash earnings are most prevalent in London and the East Midlands, and least prevalent in Scotland. This picture reveals a group of consumers who are likely to have a greater preference for cash, indicating that even in the economy of the UK capital where digital payment adoption appears to be most prevalent, considerable structural changes would be required before cashless payments become ubiquitous.

We also found that there was a growing stigma attached to cash, particularly in business settings. People who worked in retail or sales and self-employed people described feeling nervous about accepting cash payments, citing concerns about fraudulent bank notes and the lack of traceability or protections if something went wrong. Self-employed workers described a preference for bank transfers or card transactions, associating the ‘paper trail’ of digital payments with greater security. Some self-employed people described experiencing rising inconvenience and fees when depositing cash at bank branches as a further motivation for transitioning to digital payments.

“I really don’t want my clients to pay me in cash, some of them still always ask me if I prefer bank transfer or cash. Bank transfer. Because if there is any doubt, there is a record. Because I have had cases of people saying they will leave me cash and I have arrived there and they didn’t leave me cash so now it’s a bit like I have to ask them if they forgot to leave the cash. Some of them say yes but some of them say “Are you sure?”. So bank transfer. I do like to have a date and stamp there.”

Dog-walker, Peterborough

“A lot of customers used to [ask a discounted rate for cash payment] but nowadays I’d say to them it’s not worth it, there’s no difference. Because I can’t carry it to the bank without being questioned. It’ll show up in your account and they’ll call you in and say “Oh, you’ve been putting in a lot of cash lately”. And it’s a business account. But even if you put it in your current account, they can check.”

Painter-decorator, Peterborough

There is a strong case for formalising employment. Formalisation offers the opportunity to raise employment standards and extend or strengthen rights and protections – such as sick pay and holiday pay – to people in informal work who may have no choice over their terms of employment. Furthermore, it encourages employer contributions with knock-on impacts to employees, including through statutory sick pay, maternity pay, and national insurance contributions, and to government revenues through income tax, corporation tax and VAT.

We heard second-hand accounts of people turning to the informal economy as an income buffer in periods of financial hardship, which is supported by evidence that suggests the majority of people engaged in hidden economy work describe it as a temporary measure. These experiences underlined the role that cash-in-hand earnings can play in income crises, and circumstances in which informal work is necessary for economic survival. This was particularly pronounced in context of separation, where there was a lone mother grappling with changing financial circumstances while becoming the sole carer for young children. In such contexts, social security payments may not respond to changes in circumstances immediately, particularly where external factors such as an absent partner’s failure to uphold financial obligations are at play – in cases of unpaid or avoided child

maintenance payments, for example. This also applied to informal arrangements, where an absent partner had unexpectedly stopped making regular payments and a lone parent with dependent children turned to informal work to buffer the unanticipated loss in income, which may not be made up through increased social security entitlement. The time-delays between securing formal work and receiving additional income, or between applying for social security and receiving a payment, present challenges to families struggling to stay afloat in changing circumstances. In a world without cash, there may be larger barriers to businesses offering very small amounts of work. If the transparency of digital payments eradicates informal employment, the bureaucratic burden of formal employment may outweigh the perceived benefits. Structural changes that might reduce the availability of 'one-off' or sporadic informal work carry potentially serious consequences, particularly if it pushes people experiencing income crises who previously might have relied on the informal or 'hidden' economy towards the black economy.

“A friend of mine, she’s a single mum, she doesn’t get any benefit from the father, her tax credits have been cut... so she does a bit of cash-in-hand hairdressing now and again just to help with the children. So that would end up stopping, wouldn’t it?”

Consumer, Tongwynlais, South Wales

There are significant implications, too, for informal businesses and sub-sectors of the economy that operate on cash-in-hand payments, as well as for those users that rely on them. One example is taxi drivers, whose preference for cash payments has been well-established on the grounds of costly card charges incurred by the merchant, and the loss of cash tips where payments are made digitally. This particularly affects some disabled people who regularly use taxis to travel.

Informal lending between networks of family or friends often provides a more immediate buffer against income crises than either social security or formal employment, and such transactions will be a necessary component of any sustainable digital payments landscape. The expansion of peer-to-peer (P2P) payment technologies – including PayPay, Venmo, Monzo and Square – has presented new payment options for informal businesses or consumers sending money between friends and family.

SWEDEN: A CASHLESS CASE STUDY

Sweden is often cited as the country closest to becoming a fully cashless society (Delnevo 2018; BBC 2018b; Ceeney 2019). Retail cash payments in Sweden have fallen by 80 per cent since 2008, and recent Bank of England analysis suggests the UK may only be four to six years behind on the path towards digitalisation (Steenis 2019). In the last decade, Sweden’s physical money supply has dropped dramatically, and cash transactions now account for barely 1 per cent of total transaction across the country (BBC 2017). Technological innovation has made it feasible and convenient for merchants within Sweden to stop accepting cash as payments and, unlike multiple initiatives from US state legislators (see, for example, City of Philadelphia 2019 and SF Gov 2019), this has not been resisted through legislation compelling merchants to accept cash. Homegrown fintech companies such as iZettle and Swish have facilitated this transition, with seven out of 10 consumers stating that they could survive without cash (Arvidsson et al 2018, cited in Ingves 2018).

Sweden also provides a useful case study in the search for ways to ‘bring the informal economy in’. The Swedish economy is typified by high tax rates on

personal income, profits and gains; payroll taxes; and value-added taxes, which have been linked to a higher proportion of citizens engaging with Sweden's informal or shadow economy (OECD 2018; OECD 2017). Although the informal sector is notoriously difficult to measure, estimates suggest that Sweden's shadow economy grew significantly between 1990 and 2004, from 3.8 to 6.5 per cent of GDP, in line with the instigation of Sweden's contemporary tax regime (Guibourg and Segendorf 2007; Björklund Larsen 2017). As of 2008/09, however, Sweden has reported record low rates of informal employment while maintaining one of the highest tax wedges for low-income workers in the EU (Packard et al 2012). This shift can be ascribed to two interlinking factors: Sweden's specific tax culture, and government incentives to bring informal workers into the formal economy.

While income tax rates are comparatively high in Sweden, the tax agency is perceived to play a role in promoting social cohesion, and levels of trust in the tax system are high (Björklund Larsen 2017; Swedish Tax Agency 2015; Sweden.Se 2019). Avoidance of tax liabilities, whether in the occasional purchases of goods and services or systematic large-scale tax avoidance, is heavily stigmatised (Engblom 2009; Björklund Larsen 2010).

As the Swedish economy moves further away from cash, the government has taken steps to integrate rather than punish workers and customers dealing in the informal economy. According to 2006 report by The Swedish Tax Agency, informal work was most frequent in "sectors covering fishing, agriculture, forestry, restaurants, hairdressers, taxis, car servicing, and cleaning of business premises and other personal services" (EC 2017). Government action has focussed on tax deductions in two key areas, through reforms known as the ROT and the RUT. The ROT covers tax liabilities for repairs, refurbishing, and extensions. It has been in place since 1993, but was adjusted in the mid-2000s to reduce tax liabilities on labour costs on domestic work for homeowners by 50 per cent (ibid; Ceccato and Benson 2016). The discount on RUT, which covers cleaning, maintenance and laundry, was introduced in 2007, providing a similar tax reduction of 50 per cent of labour cost up to 50,000 SEK per year per household (Larsen 2018; EC 2017).

Although the latter of these initiatives has been criticised as constituting a tax break for middle class families outsourcing domestic work (see Björklund Larsen 2010), the impact of both the ROT and the RUT on the behaviour of workers and consumers in the informal economy has been significant. For informal workers, transitioning into the formal economy has brought greater security in terms of wages and employment rights, with access to social security eased through the assessment of eligibility on the grounds of previously-declared income (Engblom 2009). For consumers purchasing smaller good or services from the informal economy, the reduced savings no longer outweigh the associated social stigma associated with illegitimate activity. In a study examining the effect of ROT and RUT reforms on tax evasion, Ceccato and Benson (2016) note a significant drop in the number of respondents who would either work as or hire an illegal worker between 2007 and 2013 (both of which fell by 20 percentage points or more). Within the same period, the percentage of respondents who *did not* know someone who evaded tax had risen from 62 per cent to 85 per cent (ibid). In addition, a 2017 European Commission paper found ROT and RUT reforms have reduced the purchase of undeclared work in cleaning services by an estimated 11–12 per cent (EC 2017).

A supplementary tax break encouraging specifically the repairs sector was introduced in 2016, with VAT rates on repairs to bicycles, clothes and shoes cut from 25 per cent to 12 per cent. This measure was hoped to cut emissions associated with a throw-away economy, and also to stimulate a new home-repairs service industry and provide new jobs for migrants without formal education

(Orange 2017). In the same year, ROT and RUT discounts were reduced, with the expectation that the cultural shift they had instigated would endure, and the shift away from cash would reduce the practical possibility of a resurgence in informal work (Ceccato and Benson 2016). The reforms have encouraged the integration of low-paid and migrant workers into the formal Swedish economy and social security system.

Sweden offers lessons for the UK on the deliberate action that is needed to facilitate a smooth transition into the formal economy for workers and businesses. By approaching this challenge from the perspective of both people in informal work, and those who purchase from the informal economy, there are opportunities to recoup lost tax revenues while strengthening employment rights and protections for workers; by bringing them into the formal labour market while protecting their incomes. Planning sustainable systems to bring people into the formal economy and building a sustainable cash infrastructure that can endure for those who rely on it will be key to incorporating these lessons into a more digital future for the UK.

BRINGING THE INFORMAL ECONOMY IN: AREAS FOR ACTION

As the UK labour market looks increasingly precarious, government needs to consider how to support and incentivise movement into the formal economy. As new tax registration conditions on public licence contracts come into force, these should be supported through action to support workers and businesses to make a secure transition into the formal economy.

RECOMMENDATIONS

1. Digitalisation presents opportunities to recoup tax revenue previously lost to the 'hidden economy' through informal work. To support workers and firms into the formal economy, the Department for Work and Pensions (DWP) together with devolved administrations in Scotland, Wales and Northern Ireland should develop **national income security strategies**, reviewing tax liabilities and social security provision for self-employed workers with low (below the real living wage) or volatile incomes. This should support the development of specialist customer support services – including online and face-to-face provision – for workers and businesses whose whole or partial income comes from informal work. This strategy should be informed by IPPR's recommendations on a simplified income tax system (see Nanda and Parkes 2019).
2. To support the most marginalised workers – who are often confined to the hidden economy, and reliant on cash – to make a safe transition into the formal economy, we need to ensure exploitative working conditions can be safely reported. The DWP should provide **secure reporting systems**, through which people working in informal, precarious and/or exploitative working conditions can report their employer without the fear of immigration consequences.
3. Building on recommendations from the Taylor review, government should develop **a digital platform for self-employed workers**, through which workers can manage payments, streamline tax accounting, and apply to access social security provisions. This platform should be developed with the joint strategic aims of maximising tax revenues by capturing previously undeclared income and strengthening employment protections for self-employed workers to bring them into the economy. The latter could be supported through establishing the platform as a gateway to social security provisions, including through pension auto-enrolment.

4. WHO BENEFITS?

ECONOMIC POWER AND THE PRICE OF DIGITAL PAYMENTS

“I don’t think we got any [control]... It’s all about financial gain to the big companies. They don’t care about the little people.”

Consumer, Tongwynlais, South Wales

How we make payments affects not just who is able to access and participate in our economy, but also who holds and yields economic power. Various private providers now manage cash access and distribution, and control the digital financial infrastructure that determines how people can manage their money and make digital payments. At its extreme, the prospect of a cashless society raises fears of consumers being unable to access their own funds or participate in the economy independently of the financial system.

A world of digital payments risks creating new inequalities of power and reward. Without action, the opportunities unlocked by digital payments risk being harnessed to extract even greater value from consumer data and further concentrate market power, without sharing the insights and wealth they generate. As platform giants such as Facebook, Google and Amazon enter payments and personal finance markets, they are poised to further entrench their data-driven monopoly and stifle competition. Without action, we could see power increasingly concentrated within a small group of multinational corporations, putting at risk the opportunities for innovation and competition that could better serve diverse consumers.

As the data revolution reaches further and faster into the realm of personal finance, proactive intervention will be required to ensure people are protected, and markets shaped to narrow inequalities rather than widen them.

THE PRIZE OF DIGITAL PAYMENTS

The ‘data revolution’ in finance presents potentially transformative opportunities for businesses, consumers, the government and wider economy.

For business

For businesses, benefits include labour time savings, reduced theft, streamlined inventory and expense tracking, and options to utilise data to improve customer loyalty schemes. The digitalisation of payments offers opportunities to save time and resource through quicker and more automated transactions, enabling easier reconciliations for businesses and time-saving associated with transactions and cash handling costs. Visa estimate the productivity gains associated with a full transition to cashless payments in London alone to be worth 2.5 per cent of its GDP (or \$24,973.8 million), creating over 71,000 new jobs, wage growth of 0.62 per cent and productivity growth of 0.7 per cent between 2017 and 2032 (Visa 2016). Digitalisation also offers businesses opportunities to streamline their data and unlock value through artificial intelligence and other automating technologies, improving productivity and product quality (PwC no date).

For consumers

Visa cites consumer benefits including time savings, decreased crime, improved budgeting and more personalised customer service – though action will be needed to ensure these potential benefits are accessible to all consumer groups, as explored in chapter 2.

For government

For government, increased tax revenues from the recaptured informal economy, savings from more efficient processes, lower cash management costs and better data on citizen needs and citizen behaviour that could help solve social problems are cited (ibid). The digitalisation of payments also creates opportunities to better tackle fraud, money laundering, and other financial crimes. As the growth of digital finance supports the development of increasingly sophisticated fraud detection software, there are new ways of analysing financial flows and flagging patterns that might indicate criminal behaviour. This has wider benefits in strengthening consumer protections and tackling cross-border crime.

The wider economy

International evidence suggests that the long-term shift to card payments has stimulated economic growth by increasing efficiency and boosting consumption (Zandi et al 2013). The shift towards cashless payments is part of a broader trend of digitalisation. The opportunity to collect and analyse data is a key driver behind this trend, as data insights drive product innovation and shape future markets.

Big data offers opportunities to yield insights and spur innovation that could make personal finance in the UK more inclusive and more responsive to the needs of diverse consumers. Harnessing this potential – and ensuring access to a wide set of innovators – could lead to better financial products for consumers and businesses and create value in the economy.

DATA POOLS AS VALUABLE ECONOMIC ASSETS⁶

“The other thing I don’t like is ... if you use a card all the time, there’s a note of the time, where you are and what you’re buying ... who is storing that information, and why?”

Consumer, Inverness, Scottish Highlands

Data are information about the world that can be collected and analysed to extract meaning and generate value. Although collecting, analysing and acting upon data is not a new source of economic activity, recent technical advances have seen the expansion and acceleration of the use of data insights across the economy. Data from a single observation has very little value, but value is derived from data being aggregated – in other words, the collection of pools of data. Data pools can consist of one or multiple datasets, from which data can be organised and analysed. The value of data relates to its volume because analysis of deep pools of data can enable organisations to draw more valuable insights; by mapping networks or identifying patterns of behaviour among particular groups, for example. Deeper data pools enable deeper insights to be generated. The UK’s data economy is forecast to be worth as much as £95 billion in 2025 (Steenis 2019).

This is also the case with payment data: while one individual’s transaction history might be of limited value, an aggregated pool of data that shows the spending patterns and behaviour of tens of thousands of consumers

⁶ For a more detailed analysis and recommendations on managing data in the new economy, see a forthcoming IPPR paper *A digital commons* (Meadway 2020) and *The digital commonwealth: From private enclosure to collective benefit* (Lawrence and Laybourn-Langton 2018).

can be analysed to identify existing trends and predict future behaviour. These insights, in turn, can spur new avenues of innovation or inspire the development of new products as developers can better understand consumer needs. Data pools can also be combined to generate greater value, for example by matching transaction data with online profiles. As data are enriched by the benefits of increasing interoperability⁷ and artificial intelligence technologies' increasingly powerful abilities to process and analyse data, deeper insights in ever more areas of society become possible.

Data are increasingly central to our economic model. The rise of digital payments, from which vast pools of valuable personal financial data are generated, is a significant dimension of this broader trend. Human actions are increasingly captured and translated into behavioural data that can be analysed and modelled to predict future behaviours. This offers the promise of service improvement, product innovation, and the development of other forms of artificial intelligence and automation, all of which can also generate private profit. This economic model has been described as 'surveillance capitalism' (Zuboff 2018). Here, economic power is yielded through the ownership and control of large pools of data. In the same way that goods and services were profitable under industrial capitalism, and financial speculation under financial capitalism, profits are increasingly derived from the extraction and monetisation of aggregated data, collected by digital platforms such as Amazon and Alphabet (Google's parent company), the analysis of these pools of data, and through selling insights to third parties (Zuboff 2018). As data plays an increasingly prominent role in our economic model, ownership of data becomes a key determinant of economic power.

An alternative model would see the opportunities presented by the aggregation of data opened up to a wider set of public and private actors in order to encourage innovation and competition. The UK is already leading the way on open banking, which presents an opportunity to open up personal finance data in the UK. Historically, customers were tied to one bank for the vast majority of their financial service needs. Open banking allows consumers to have more choice over how they manage their money, including by using tools that can provide an overview across multiple accounts, sharing financial information more easily when applying for a loan, and making more direct payments.

While open banking is a significant step towards increasing competition and innovation in personal finance, deep pools of personal financial data – and the wealth they generate – are still concentrated within large incumbent financial institutions, and increasingly in platform companies that hold large market power in other areas of business. Within this structure, personal financial data is a commodity that is exclusively captured and stored privately, to be monetised for private gain. This is because the digital finance infrastructure that generates this data is mostly owned by private companies, with the individuals or groups who produce the data by buying, selling or sending money enjoying few rights over the data they create.

Under a private system of data ownership, the potential of personal finance data is constrained through limited access, fragmentation and non-interoperability. This sees the benefits of data exclusively privatised, and the development of products and services is driven by private interests rather than to address collective problems. By opening up data access beyond the individual-level insights shared by open banking, we can

⁷ Interoperability describes the ability of a computer system or software to make use of the same information, or data.

decentralise the economic power generated from data, provide lasting protections against the excessive dominance of platform companies, and encourage innovation with a social purpose.

A DATA COMMONS

A dataset holds intrinsic value, but its value is maximised when its relationship to other data can be analysed and interpreted (Meadway 2020). This also makes data-driven businesses naturally tendent towards a monopoly model, as economic power is increased with scale. For example, payment transaction logs may be useful as stand-alone datasets, but if they are combined with data about what advertising material those same consumers have been exposed to in the past week, its economic value is multiplied. The same applies for non-commercial contexts: academic research exploring the effects of spending patterns on financial health, for example, could be facilitated by access to a data commons, which could in turn support the development of government policy to promote better financial wellbeing, or the development of consumer products that provide personalised debt advice.

The tendency of data-driven businesses towards monopoly means that resisting monopoly power requires collective solutions instead of individual rights. For this reason, we propose the creation of a 'data commons' (Meadway 2020; CEJ 2018). Prior to its enclosure and the introduction of a legally enforced private property system, land was a common resource through which an enormous variety of products were created, all of which could confer wealth and opportunity on broad sections of society or, when enclosed, on private interests. Similarly, data could be pooled as a common resource for shared gain, or captured for private benefit (Lawrence and Laybourn-Langton 2018).

A data commons would seek to pool and share the benefits of data insights, open up rights to data beyond the company that controls the technology that creates the data – be it a smartphone, a card reader, or a direct debit payment. While the technological infrastructure needed to mine and harvest data is privately owned, the data themselves can be accessed by the public through the commons, with rules over access and use democratically determined to protect privacy, prevent monopolisation and engender trust.

As yet, the development of the digital economy has been almost entirely market-led, with little to no strategic policy response from governments around the world. But sharing access to anonymised financial data can promote competition and diversify innovation by enabling smaller companies and the public to benefit from data analysis and leverage insights to spur new innovation in products and services. The possible benefits of a democratic digital economy are significant.

The shift to a data commons would signify a transition from privately owned and accessed data used for private profit, to a mixed digital economy where data access is shared and insights are used for the public good. In shaping the UK economy's transition towards digital payments, applying these principles to personal financial data will be crucial in creating equitable and sustainable markets for personal finance in a more digital future.

Disproportionate incumbent advantage in personal banking has limited consumer choice, led to higher prices and compromised service quality. In the same way, protection against monopoly power over payments data has a key role to play in ensuring that consumers and businesses are able to access a better range of products and services, and that a wider range of consumers and businesses are able to share in the benefits of digital innovation in the payments and personal banking sectors.

DATA TRUSTS

- Realising the potential collective benefits of data will require trustworthy data stewardship. A data trust provides legal structure for the stewardship of data, so that those who collect and hold data permit an independent institution to make decisions about how that data is used and shared, and for what purpose (ODI 2019). In this way, the data trust becomes the steward of the data, and its board of trustees has the power to determine how it is used to unlock the value of the data stored within a trust. This form of ‘data infrastructure’ could be used by cities or local authorities, businesses or charities, or tech developers.

ENSURING THE SHIFT AWAY FROM CASH WORKS FOR SMALL BUSINESSES

We heard from consumers that their choice of payment method depended on where they were making a purchase – with smaller payments more likely to be made in cash, and larger payments by card. The average value of a cash payment made in 2018 was £13.56, with over half of cash payments (57 per cent) made for transactions of £5 or less and 78 per cent of £10 or less. This suggests that cash is increasingly used for purchases, and less for high-value payments (UK Finance 2019a). Cash handling charges have increased for some small businesses as banks have introduced charges for processing cash takings, and small businesses report feeling squeezed by the UK’s shrinking cash infrastructure. Meanwhile, changes to the fees associated with card transactions have shifted, presenting barriers to small businesses accepting card payments. The UK Federation of Small Businesses described their members’ position in 2018 as “between a rock and a hard place” (FSB 2018).

“I mean the banks don’t want to take cash. I mean if you go into a bank now with over £500 cash and say you want to deposit that, they start to ask you, “Where did you get it from?”. You have to start signing papers for just putting money into the bank!”

Self-employed, Peterborough

When a payment is made using a card or linked payment device (such as an app or an e-wallet), there are intermediary steps that occur in order for the cardholding consumer’s money to reach the merchant. These steps, and the fees associated with them, are not always visible to the consumer making the payment. In the UK, Visa and Mastercard dominate the debit card market and operate 94 per cent of credit or charge cards (IPPR analysis of UK Finance 2019d, table 7.1). Card payment providers operate payment networks known as card schemes. This means that banks or other card issuers can join the scheme upon meeting particular requirements, and then access a scheme’s payment infrastructure.

While scheme fees technically represent the compensation the card acquirer – that is, the merchant’s bank – pay to the card scheme for facilitating a transaction, they are effectively passed on to merchants. Two major card schemes accounted for over 98 per cent of all UK debit and credit card payments in 2017, both by volume and value (PSR 2019).

The absence of competition among payment networks presents several challenges. First, the current market structure has the potential to result in higher fees for card scheme services, which can stifle small businesses and prevent them from realising the benefits of card payments, or be passed onto consumers in the form of rising prices. Since 2015, one particular kind of card payment fee has been

capped by EU legislation⁸ intended to make card payments cheaper for consumers (PSR no date). In response, card scheme providers have increased card scheme fees, which are not affected by the legislation, effectively swerving the regulatory cap intended to limit costs passed onto merchants and consumers.⁹ Prior to EU regulation that came into force in 2018 to prevent merchants from passing costs on through consumer surcharges, these fees were often absorbed by consumers (Europa 2019). Card scheme fees are multiple and evolving, and card scheme operators are not obliged to disclose how they are structured. The UK retail industry has reported rapid rises to card scheme fees since fee caps on other types of card fees were introduced in 2015 (BRC 2019).

In January 2018, EU open banking legislation known as the revised payment services directive introduced a ban on businesses charging customers for making credit or debit card payments. The FSB has described the quandary facing small businesses as “a double-edge sword”, as barriers to accepting and absorbing the costs of card payments increase while cash payments decline (FSB 2018). Meanwhile, an appeal is due to be heard by the UK Supreme Court on an attempted class action legal challenge relating to alleged damages done to UK consumers by the passing on of Mastercard’s ‘excessive’ card transaction charges into retail prices. The case is brought by former financial ombudsman Walter Merrick under the Consumer Rights Act (2015), for all UK adults who made purchases between 1992 and 2008 to recover losses from alleged competition law infringements (Hyde 2019).

Second, because of the billions of transactions that dominant card schemes enable in the UK annually, these schemes can generate deep and valuable pools of transaction data generated by UK consumers to which they have exclusive access. Payment networks’ ambitions to maximise the value of their datasets by connecting them with other data sources is already clear: Google’s 2018 deal with Mastercard saw the purchase of card payment data to enable the tech giant to track users’ offline spending in stores and hence deepen their consumer insights by accessing and analysing data not available to competitors (BBC 2018a).

Third, in order to grow their market share of payments, some card scheme providers aim to displace cash by depleting the cash infrastructure. Examples include a scheme to pay businesses to switch to digital-only payments, with an explicit objective to “put cash out of business” (Morely 2017). Given the importance of maintaining an appropriate level of cash provision, these firms should think again, and regulatory action may be required to prevent the elimination of cash from the payments landscape. Moreover, as firms accelerate their attempts to capture market share, regulators will need to ensure that competition is promoted, and consumers are protected.

Following extensive lobbying, in 2018 the Payment Systems Regulator (PSR) announced a review into the UK market for card acquirer services, which is ongoing. The British Retail Consortium (BRC) and others have argued that the scope of the review should be expanded to incorporate card scheme operators, and to explore how the relationship between card industry and alternative payment methods affects the competitiveness of the UK payments industry (PSR 2019). BRC claims that card scheme fees increased by over 50 per cent in 2018, and that the range of scheme fees themselves has expanded significantly (BRC 2019). The cost of card payments appears to be placing further strain on the sustainability of high streets and local economies across the UK.

8 In 2015, interchange fee regulation (IFR) was introduced to cap interchange fees, which are paid from the merchant’s bank to the cardholder’s bank.

9 The IFR does not regulate the fees that merchants pay to their banks. The scheme fee portion of these fees is increasing significantly, and there are barriers for merchants switch bank (PSR 2019).

As focus is concentrated on access to cash, it is important to bear in mind that protecting cash access means little if businesses turn away from accepting cash as a means of payment. This is particularly challenging for small businesses squeezed between the costs of cash handling – in terms of time, accounting and rising charges for depositing cash – and fees on card payments. The FSB is lobbying for the maintenance of free access to cash across the UK, reporting members' concerns that a shrinking network of bank branches and free-to-use ATMs is putting additional pressure on small businesses to accept card payments and absorb the costs of transaction fees.

PROMOTING GREATER COMPETITION IN THE CARD PAYMENTS MARKET

The regulatory landscape surrounding payments and personal finances in the UK is complex, and it will need to become more agile and responsive in order to provide adequate safeguards for consumers and merchants in the future world of payments.

There have already been some welcome developments in this direction.

- The UK government created the PSR in 2015, as a first-of-its-kind regulator with statutory objectives to promote competition, innovation, and the interests of end-users (be they consumers, businesses, or payments firms). The PSR is concerned with regulating access to the 'rails', or infrastructure, that enable payments systems to operate in the UK. As the UK prepares to leave the EU, the PSR could play an increasingly important role in shaping the UK payments markets and regulatory landscape in the future.
- Open banking presents new possibilities to make and receive payments directly from an account with their bank or building society, eliminating the need for payment networks to act as intermediaries. Innovation in these direct account-to-account (A2A) payments¹⁰ could promote greater innovation and competition in the payments market, as well as lower fees and provide greater choice for merchants and consumers.
- In 2018, government legislation that enables non-bank payment firms to access Bank of England payment systems directly came into play for the first time, meaning that non-bank payment systems, such as peer-to-peer payment scheme TransferWise, could join the bank's faster payments scheme. This allows non-bank payment service providers to apply for access to the Bank of England's real time gross settlement scheme – a key part of the payments infrastructure used by major banks. This is welcome progress, in that it increases payment security, promotes competition, and should stimulate greater diversity in the UK payments market. The Bank of England should commit to a continual review of where bank infrastructure could be shared with challenger firms to promote competition and choice in the payments market.

DIGITAL PLATFORMS ARE POWERFUL NEW ENTRANTS IN PERSONAL FINANCE MARKETS

Platform tech giants are increasingly moving into the realm of payments and personal finance. Apple Pay released a credit card in 2019, Google Pay and Amazon Pay are seeking to expand their established payment platforms, and social media giant Facebook is launching Calibra, an e-wallet, while developing its digital currency programme. Platforms expand through a circular dynamic of 'expansion and enclosure'. Expansion involves the gaining of more users and data from ever

¹⁰ Account-to-account payments are direct payments made from one account to another at either the same or another financial institution, such as the payment of cash transfer benefits from the state to a recipient. They are similar to peer-to-peer payments, which are made from one person's account to another via an intermediary, such as PayPal.

deeper and wider parts of the economy. Enclosure then maximises data advantage, as platforms protect their data from use by other companies. Companies may then seek to control the infrastructure underpinning digitalisation, for example through cloud computing. They can also invest in technological developments that further enhance their ability to extract value from large and multiple datasets, including through geo-locational technologies, networked consumer devices, and machine-learning systems.

Expansion occurs partly through the extraction of increasing levels of detail from existing activities, and partly through entry into new markets. Crucially, companies with large pools of existing data have a competitive advantage when entering new markets. They can cross-subsidise services, using their existing customer data to create a degree of personalisation that is out of reach for non-platform firms (Lawrence and Laybourn-Langton 2018). This has implications for the payments and personal finance market. Combining data on spending behaviour with the rich data platform companies already hold on demographics, interpersonal networks, and exposure to advertising looks set to give tech giants evermore valuable insights into consumer behaviour.

Platforms provide several benefits to consumers as a result of this model. Provision of services is often free at the point of use, albeit in exchange for control over the user's data. Greater personalisation of services and the recommendation of more relevant products, services or content can make for an improved user experience.

However, platforms' tendency towards monopoly power produces considerable risks. Platforms dampen innovation through monopolistic behaviour by buying smaller tech start-ups in order to incorporate their technology into their platforms, or simply by reducing incentives for competition (Reynolds 2017; Toth 2018). This increases their monopoly power and limits the innovation of the economy more broadly (Stoller 2017). Above a certain point, market concentration may be associated with falling investment, leading to slowing innovation and concentration of monopoly power (Diez et al 2018). This spells bad news for consumers and the wider economy, as consumers face less choice, and firms with greater market power can charge higher prices and earn monopoly rents above competitive rates of return.

There are clear ambitions among platform giants to press further into the financial services industry. Facebook is reportedly in conversations with major US retail banks regarding the development of bank payments services, which may indicate ambitions to become a platform where people buy and sell goods and services (see, for example, Glazer et al 2018). The prospect of platforms dominating payment and other financial service markets presents systemic challenges for competition, innovation and consumer choice in the UK economy.

Tech platforms are expanding into personal finance markets with increasing pace. New products such as Calibra (Facebook's anticipated digital wallet), Apple Card (a physical payment card for where Apple Pay is not accepted), Instagram Checkout (which enables users to make purchases without leaving the app), and Amazon Credit Builder (a secured credit card) have all either recently launched or are anticipated in the near future. The development of digital wallet platforms such as Apple Pay and Google Pay have already firmly established tech platform giants within the UK payments landscape, where platforms enjoy significant advantages as a result of their deep existing pools of consumer data. Combined with payment data, these data can be used to generate new and deeper insights into consumer behaviour.

Platforms are seeking to gain market share of payments in order to expand their data pools. For example, Apple introduced a near-field communication chip in iPhones that means Apple Pay is automatically selected when an iPhone user goes to make a purchase, discouraging users from using rival payment systems. Recent interventions from regulators including European competition commissioner Margrethe Vestager have highlighted concerns about anti-trust behaviour, and warned that vertical integration in payment markets could present a competitive advantage that could be harmful to consumers where it leads to dampening competition, declining choice and rising prices (see, for example, Yun Chee 2019). As platforms expand further into new markets and offer a wider range of financial services, this could compound the market concentration that open banking initiatives are seeking to tackle among incumbent financial services providers.

New entrants such as these platforms are also not subject to the same level of regulation as incumbents, which provides them with a further competitive advantage. Moreover, it means that they do not offer the same level of consumer protection as existing payments systems. Mobile wallets may, for example, make it easier to make fraudulent transactions by loading stolen or copied credit cards onto an e-wallet. Paying online or in store with an e-wallet often does not involve additional verification processes to ensure the person using the card is the card holder, such as Verified by Visa or chip and pin technology. The UK finance industry began implementing EU regulation by setting conditions for 'strong customer authentication' in 2019, which compel payment providers to implement a multi-factor authorisation process for riskier and higher value purchases. As payment markets continue to evolve, regulators will need to adapt to ensure standards are high and consistent and compliance is strong across new and established payment systems.

PROTECTING AGAINST DATA-DRIVEN DISCRIMINATION IN FINANCIAL SERVICES

As new pools of personal financial data are used to automate decision-making, they pose the risks of automating bias and human error on an unprecedented scale. As algorithms, machine-learning technologies and other forms of artificial intelligence analyse and seek to predict human behavior with ever-greater speed and on an ever-growing scale, the process by which consumers apply for financial products – such as loans or credit – are changing.

The announcement of an investigation from US regulators into reports that the new Apple credit card has offered as much as 20 times more credit to male applicants than their female spouses, who share identical personal finances, has reinvigorated debate about discrimination in automated decision-making (BBC 2019). Meanwhile, in the UK, concerns about data-driven discrimination are sharpening, with interventions warning of the systematic exclusion of 'unprofitable' customers from accessing financial services, and the FCA reporting instances of racial profiling by insurers (Makortoff 2019; FCA 2018b). Without proactive intervention, we risk embedding historic biases in these markets by coding them into a more automated future – both through human biases in the development of these technologies, and through training them to replicate the patterns of human biases apparent in the historic data that feeds them.

DIGITAL MONEY: CENTRAL BANK DIGITAL CURRENCY

As payments and personal finance continue to be digitalised, access to digital money and payments is increasingly controlled by private companies. The prospect of a cashless society challenges the role of central banks: what role (if any) should central banks have as issuers of means of payment in a digital payments market? Is physical money the only form of retail payment that central banks should supply? Is there a role for central banks in monitoring concentration of the payments market infrastructure? (Ingves 2018). For consumers, the opportunity to hold state-backed digital money – that operates by the same standards as physical cash, but in digital form – in an account backed by a central bank, might present the option of holding money that is ‘de-risked’ in the same way that physical cash is less risky than money held digitally in an account with a commercial bank. In an economy that increasingly requires consumers to hold digital money in a bank account in order to participate fully in economic life, central bank digital currency (CBDC), held in an account with the Bank of England, may offer a solution that gives consumers greater choice and control, and prevents private banks from becoming ‘too big to fail’ on account of their digital holdings and the integrity of consumer accounts to the infrastructure supporting everyday payments.

While electronic money currently used to make digital payments between bank accounts *represents* physical money, CBDC would act as a complete substitute for physical cash – a role that CBDC advocates argue is necessary and urgent. But, despite 70 per cent of central banks exploring digital currency, there is widespread hesitation to press on. There are two key areas of concern (Barontini and Holden 2019). First, to enable consumers to deposit money with central banks, central banks would need to enter into commercial banking contracts. What this consumer offer looks like – and whether or not it includes loans – will likely have significant implications for the role of central banks, and potentially wide-reaching implications for the established retail banking sector. The second key reason for hesitancy relates to monetary policy. CBDC is often discussed as a means of opening-up a wider array of monetary policy tools, but there is considerable uncertainty surrounding how a transition to CBDC might happen.

While an assessment of the viability or desirability of CBDC is outside of the scope of this report, we can expect these questions to feature increasingly prominently on the agendas of central banks for the foreseeable future.

RECOMMENDATIONS

To address the challenges described above, we set out three policy priorities.

Democratising data

1. Personal banking and financial service data, including digital payment data, should be held and managed in a public data trust. A public data trust is a legal structure that provides independent stewardship of data.¹¹ Financial service providers – including the tech giants that have recently entered the market – should be required to submit their anonymised, aggregated data

11 See, for example: <https://theodi.org/article/odi-data-trusts-report/>.

securely to 'Digital Britain', a public service through which access to data trusts can be shared across government, the public, and innovators.

2. A new Office for the Digital Commons should work to combine existing regulatory platforms in order to level the playing field on data access, and should work closely with regulators to ensure competition where entry to personal finance markets could lead to excessive competitive advantage.

Promoting competition in payments markets

3. To ensure market participants have access to digital marketplaces on equal terms, we need measures to place conditions on integration across verticals – where, for example, a large merchant controls both the marketplace and the payment system through which purchases are made. Major platforms should be required to open up their data upon entry to personal finance markets. New powers should enable the Competition and Markets Authority (CMA) to impose conditions on market entry for major platforms, including requirement to comply with open banking principles and open-source technology. These should include an option to block market entry, including for major technology platforms, where it could lead to consumer detriment, slowing in innovation rates, or excessive market power.
4. Together with the CMA, the Payment Systems Regulator should hold a watching brief on competition in payment markets, developing an adaptable regulatory framework that can protect against excessive market concentration. This should include measures to ensure that new entrants into payment markets are bound by the same standards of financial regulation as established payment providers, relating for instance to payment protection.
5. The Payment Systems Regulator should conduct a market review into digital payments, with a dual focus on the role that regulatory tools can play in promoting competition in the card payment market, and how open banking technologies can promote direct, secure and accessible payments to UK consumers and businesses. The review should explore how to promote greater innovation and competition among payment providers and deliver lower fees and greater choice for consumers and merchants.

Protecting against data-driven discrimination in financial service provision

6. The FCA should work with the Office for the Digital Commons to develop a regulatory strategy to protect against data-driven discrimination in financial service provision. This should include discriminatory practice in access to insurance, credit or other financial services as a result of automated decision-making. The strategy should consider how audit powers could compel firms to produce explanations where biased outcomes are identified, and to put preventative and/or corrective systems in place where the firm or regulator finds discriminatory practice resulting from algorithmic decision-making, machine-learning, or other forms of artificial intelligence. As a preventative measure, firms should be mandated to report to regulators on what efforts they have made to test and protect against bias either in their models or in the data driving algorithms or other automating technologies.

5. **NOT CASHLESS, BUT LESS CASH**

THE FUTURE OF UK PAYMENTS

The rise of digital payments has implications for who can access our economy, how we participate in it, and for how economic power is accumulated and exercised. While the continued acceleration of digital may feel inescapable, there are powerful levers available to shape our economy's transition. The ambitions of policymakers should be set not just on mitigating the potential harms of a declining cash infrastructure or digital exclusion. Instead, we should be raising our sights to look at how to shape the new digital financial infrastructure towards greater economic justice. This includes action on digital inclusion and on ensuring the future sustainability of the UK's cash infrastructure, but it also demands policy that can help to shape innovation towards social ends and regulate provision of digital financial services.

There are clear risks inherent in simultaneously accelerating the transition towards digital payments and eroding the UK's cash infrastructure. Without action, the future world of payments may further concentrate economic power and harden divisions between those who are better-served and those who are under-served by digital finance. We could see those who have already embraced digital payments – the better-off, better educated, and the young – enjoy more personalised products, and the wealth and insights created by cashless money management is concentrated among a small number of monopolist companies. Meanwhile, we could see access barriers preventing some disabled people, older people and people on lower incomes from embracing digital payments harden, as mainstream innovation jettisons their needs. Exclusion from digital finance – whether experienced circumstantially by recent migrants, people with impaired cognitive capacity or victim-survivors of financial abuse – could come at an even greater cost.

But the prospect of a sustainable and inclusive payments market where both cash and digital payments are accessible to all is within reach. If financial service providers, central banks, and regulators come together with government, consumer bodies, business, and civil society groups, then collaborative action and ambition can secure a sustainable future with less cash, and greater economic justice.

Shaping the transition to an increasingly digital economy to deliver economic justice will require continued access to cash, alongside improved access to digital financial services that work for everyone. For communities across the UK, barriers to accessing and using cash are growing. As our population ages and trust in digital payments remains low among broad groups of consumers, it is clear that digital solutions will need to adapt to better meet a wide range of consumer needs, and that cash will continue to play a critical role as a universally accessible means of payment.

INTO THE FUTURE: SUSTAINABLE PAYMENTS FOR A GREEN ECONOMY

Both cash and cashless payment systems carry environmental costs. The production and transport of physical cash requires raw materials and fossil fuel use, although the transition from paper to polymer notes reduces this cost by increasing their longevity (BoE 2013), and circulating cash locally can reduce the carbon costs of transporting cash. The Bank of England found that the greatest environmental burden associated with UK £5, £10 and £20 notes was the energy consumed by ATMs (BoE 2013). Replacing fossil fuels with renewable energy sources could significantly reduce the environmental impact of cash.

To design an environmentally sustainable future for payments, key components of payment infrastructure should be reformed along ‘circular economy’ principles. This means ensuring that products and resources are kept in the economy as long as possible (such as prolonging the use of mobile phones and payment cards), recycling at the end of the life cycle, designing out waste and pollution and reducing the need for further extraction (Ellen MacArthur Foundation no date). Further, technology should be opened up, with more open source technology and less patented ‘glue-shut’ technology (Raworth 2017 and 2019).¹²

Both cash and cashless payment systems should be made as energy efficient as possible, with energy sources decarbonised as swiftly as possible. As extraction of payment data increases, exploring more energy-efficient means of processing of big data will be key (Nature 2019). Big data and artificial intelligence should be used to ends that will deliver a net reduction in human environmental impact. In the context of payments, this means focussing on data collection and analysis for the public benefit, and – if it proves to be too energy-intensive – setting limits on areas of data collection that prove to only yield insights for private profit.

As digital payment technologies advance, development should prioritise digital solutions that better meet the needs of consumers who are currently under-served by cashless options. This will require efforts to replicate the advantages of cash payments, as the dependability, privacy and security of payments remain key concerns for consumers. Meeting these challenges may come from more responsive and intuitive digital tools for money management, decentralising technologies that offer means of spending and sharing money without government or corporate oversight, or incremental improvements to digital literacy levels which can build public trust in digital finance. But meeting each of these challenges alone will require payment systems to overcome sizeable challenges, and solutions that can replicate the multiple and simultaneous qualities people value in cash are lacking. From this picture, we can conclude that cash will endure as long as its unique value is not wholly replicated by digital alternatives.

The prospect of a fully cashless society remains beyond the horizon, but the actions of government, regulators and financial service providers in the immediate future will determine the course of this transition, and, crucially, who stands to benefit from it. Change is needed to design a future economy that is both more digital, and more just.

¹² Speaking in March 2019 at an event at the Overseas Development Institute, Kate Raworth described ‘glue-shut’ technology – such as an iPhone – as that which is privately owned, where the device is difficult to repair and its components difficult to reuse. This contrasts with devices using opensource technology – such as a Fairphone. This contrast underpins circular economy principles (see Raworth 2019).

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