



» Report

The European Payments Landscape in 2030

Implants, embedded ethics and a 'post-payments' world – can technology help create a more equitable future for all?

Executive summary

The year 2030 may sound like science fiction, but it's surprisingly close at hand.

A lot can happen in ten years, especially in payments. The COVID-19 pandemic consolidated years of behavioural change into a few short months, hugely accelerating the shift to digital. According to [Capgemini's World Payments Report 2020](#), 38% of people started using a new payment provider during periods of lockdown. In the UK alone, for instance, there were **1,105 million contactless card transactions** in May 2020, 53% more than in May 2019.

As digital payments become increasingly ubiquitous, the variety of ways we can pay for goods and services electronically are evolving and multiplying. So, how will this progress in the next 10 years? Cryptocurrency, biometrics, implants and machine-driven payments are all debated at length in the media, but how much of this is hyperbole? What will be the next big thing?

To answer these questions and more, Marqeta partnered with Consult Hyperion, an independent consultancy specialising in payments, to conduct a series of workshops with industry leaders. Facilitated by Dave Birch – acclaimed author, advisor and commentator on digital financial services – the three workshops were attended by a cross-section of global industry commentators. This ranged from founders of FinTechs, such as Hamish Blythe, Founder & CEO at Trilo, to visionaries like Brett King, Founder of Moven and author of “The Rise of Technosocialism”.

The workshop insights were then enriched with the findings of a survey conducted for Marqeta by Propeller Insights of 2,037 consumers from across the UK, gauging their feelings about the types of payments they are embracing, which they want to see in the future and what worries they may have.

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Combining these, the report explores:

Part One: How technology will shape our payments future

This section will examine what the next decade has in store for us when it comes to digital payments. It explores the growing influence of ‘tribes’ on payment adoption, the role of AI-driven smart wallets in helping us make better financial choices, and the evolution of ambient commerce.

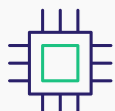
Part Two: Will the next generation be a force for positive change in the cashless future?

This section will delve into the decline in cash and the impact this could have on at-risk groups in society, such as older generations and the unbanked. Yet it also details the potential benefits of a cashless society, from anti-money laundering through to newer, greener, more sustainable payments.

Part Three: Regulation must stop playing catch up

This section will highlight the challenges of trying to regulate a constantly moving target – i.e., payments – and how this causes regulation to always be a step behind the innovations of the space. It will also show that there is a growing clamour for greater digital responsibility and consumer protection to ensure systemic resilience, as payments are now critical infrastructure in societies.

Five key findings from this report:



51%

of consumers surveyed say they would consider using a microchip implanted in their hand to pay, provided it hit certain criteria (Q13)



83%

of consumers surveyed feel the decline of cash will exclude those most at-risk in society (Q35)



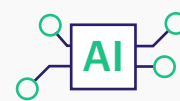
75%

of surveyed respondents aged 65+ have felt pressure to ditch cash due to places only taking card/contactless – significantly higher than the 50% average (Q26)



38%

of consumers surveyed who know young people that don't often use cash are concerned they “don't understand the value of cash” (Q32)



31%

of 18–24-year-olds surveyed would be comfortable with AI making automated decisions on their behalf to choose the most ethical way to pay (Q18)

Part One

How technology will shape our future payments

1 | Will tribe mentality influence payment technology adoption in 2030?

A key debate in the workshops was centred on how ready and willing people are to embrace future payment methods. Many attendees expressed concern that resistance to change could hold back innovation.

Yet some argue that consumers don't know what they want or what they will expect until they are already using it. Charles Cohen, entrepreneur in the open banking and eCurrency space, and Nilixa Devlukia, Founder at Payments Solved, suggested that 2030 is closer than we think. However, while on the surface things may look familiar, not everything is as it seems...

"If you fell asleep today and woke up in 10 years' time you'd probably find the payment methods to be reasonably recognisable. People's behaviour patterns are much slower to change, and much harder to change, than we think. But the bit you don't see, the 'plumbing', will be fundamentally different. It's this that will make the payment experience cheaper, faster, more reliable and more flexible."

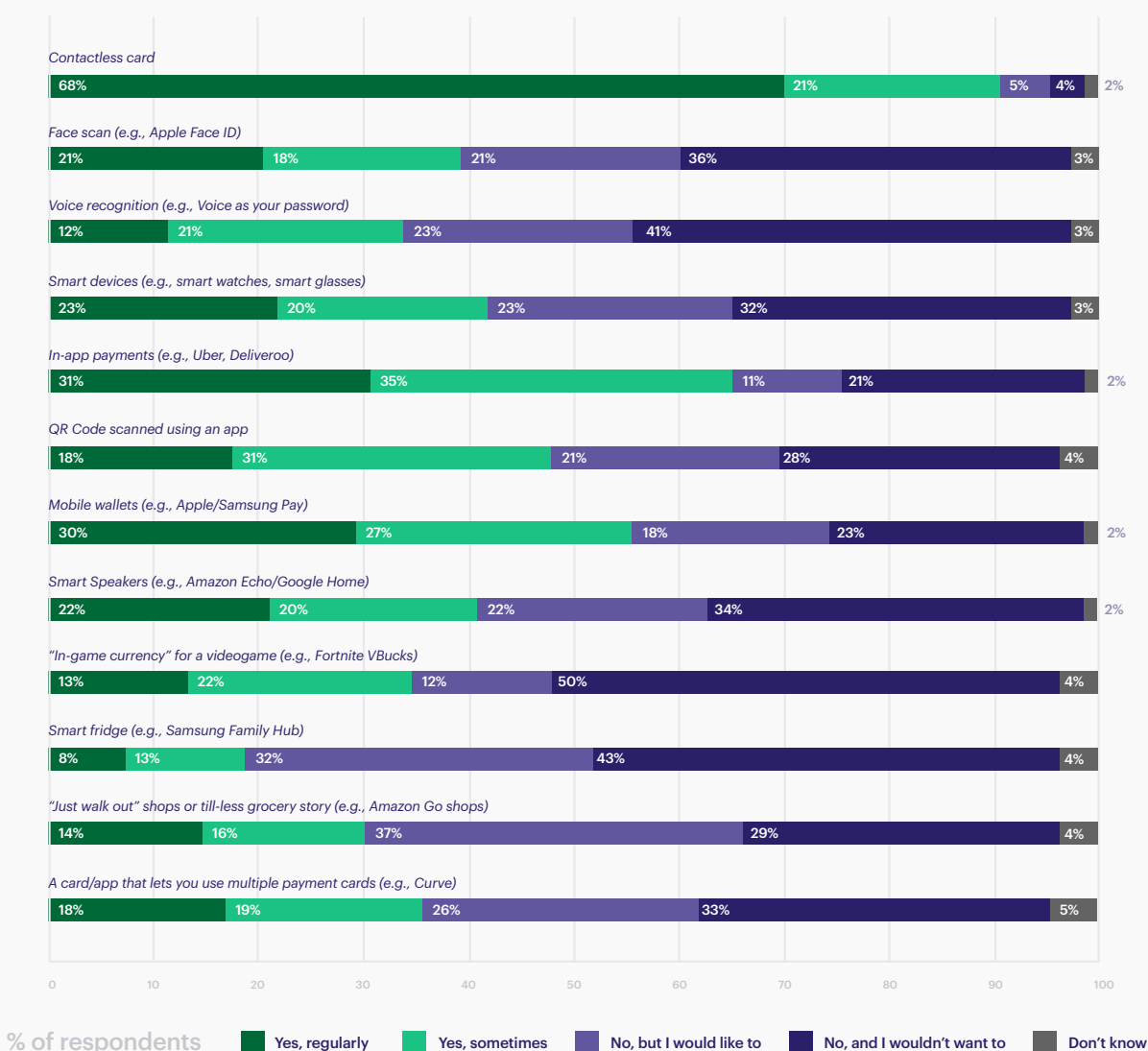
Charles Cohen, entrepreneur in the open banking and eCurrency space



There was general agreement here, although opinions did differ on the pace of adoption. Payment methods that are still at early stages of adoption, such as face scanning and voice recognition, are likely to tip into the mainstream, while others will have drifted off the scene, replaced with a more convenient alternative. So while the same technologies will likely be in use, what a typical payment looks like could be very different.

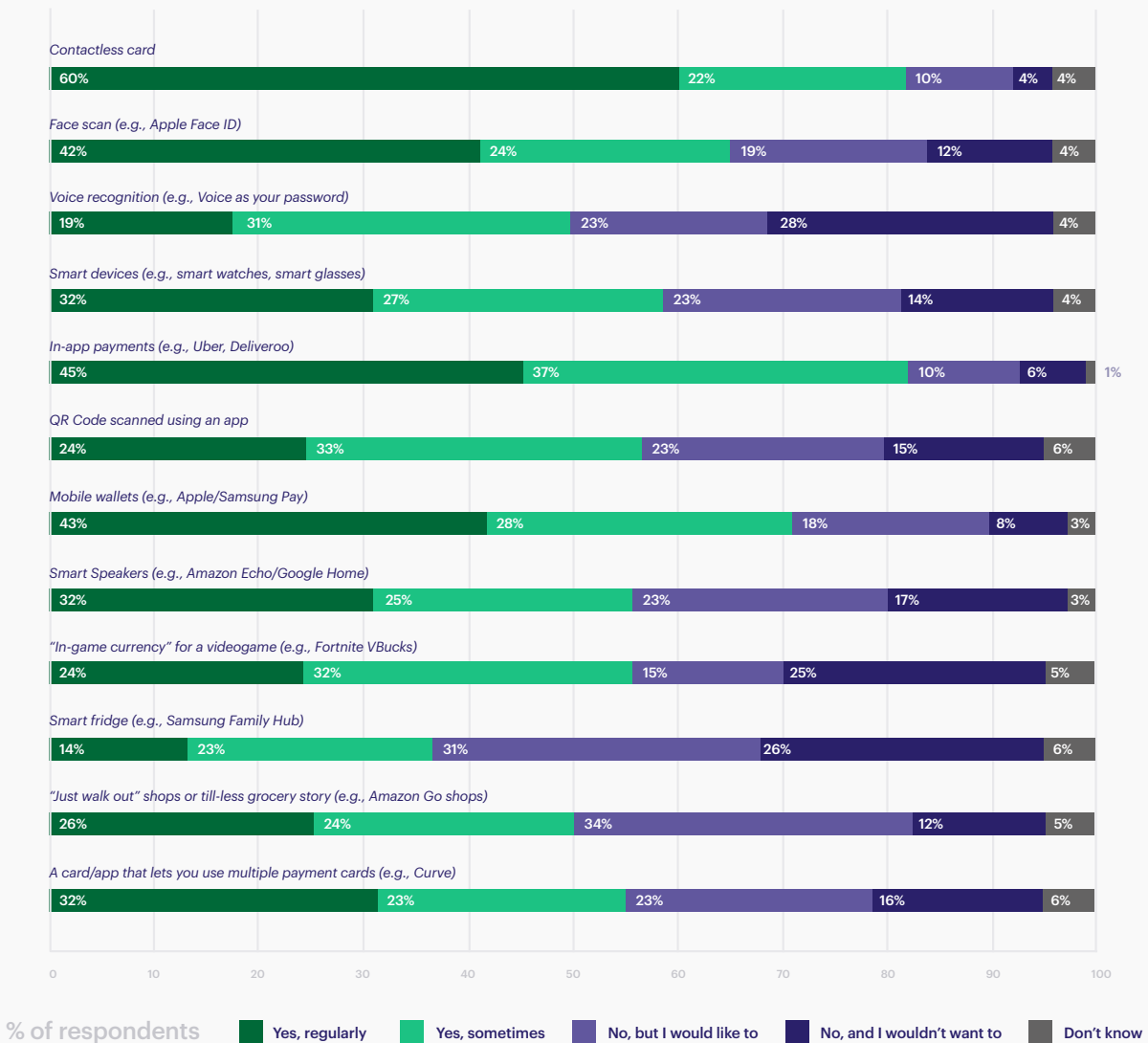
While the consumer data from our survey largely supports the view that most people will stick to what they know when it comes to payments, there is a significant group who are readily embracing new payment methods today – from biometrics to smart devices.

Have you used any of the following technologies while making a payment? (18-65+ years of age)



Those aged 18-24 are leading in the adoption of most of these payment methods. As these individuals mature over the next decade, they will be a crucial demographic for driving uptake of new and emerging payment technologies.

Have you used any of the following technologies while making a payment? (18-24 years of age)



Building on this, an interesting theme raised was that ‘tribes’ and influencers will play a key role in the adoption of new payment technologies in the future. Jane Jee, Chair at Kompli-Global Limited, explained how tribe mentality can influence people into using certain products and services, which may differ entirely from one tribe to another. Online communities can also form tribes, often taking a steer from influencers and adopting the products and services that they promote.

These tribes and influencers could pave the way for more unusual forms of payments to gain traction where they wouldn’t have before. However, the separate values, concerns and goals of different tribes could mean that we will not see blanket adoption of specific payment methods by 2030. Rather, Nilixa Devlukia pointed out, adoption of different technologies could be pocketed, and even balkanised, as tribes and demographics pursue their own interests.

Yet with or without influencers, many consumers seem surprisingly prepared to embrace unusual – even extreme – methods of payment. For instance, more than half (51%) of survey respondents say they would consider using a microchip implanted in their hand to pay, provided it hit certain criteria. If we break that down: 8% said they would be comfortable using it if its privacy measures were water-tight, 23% if it was proven to be medically safe, and a fifth (20%) simply said that yes, they would be comfortable using this payment method. The vast majority (83%) think a microchip implant would make them “feel like they are in a sci-fi movie”, and nearly half (48%) feel the chip would be useful if they were caught without cash or card. However, invasiveness and security issues remain major concerns.



83%

of survey respondents feel a microchip would make them “**feel like they’re in a sci-fi movie**”

20%

of survey respondents simply said yes, they would be **comfortable using this payment method**

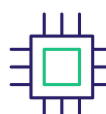


23%

of survey respondents would use a microchip if it was **proven to be medically safe**

8%

of survey respondents said they would be comfortable using a microchip, but only if **privacy measures are water-tight**



51%

of consumers surveyed say they would consider using a microchip **implanted into their hand to pay**

48%

of survey respondents feel a microchip would be useful if **they were caught without cash or card**

2 | Turn your brain off, let technology do the work

Financial education proved to be a divisive topic amongst our experts. Some, such as Kristian T Sørensen, Founding Partner at Norfico & The Tokenizer, felt that it was vital for financial education to exist alongside the emergence of new technologies – payments or otherwise. Others, including Brett King, Founder of Moven, suggested the best way to support financial health isn't to educate, but to simply facilitate.

One matter that was agreed amongst our experts was that convenience has always been a major driver of innovation in payments. Consumers want what's easiest and fastest, and what allows them to think the least.

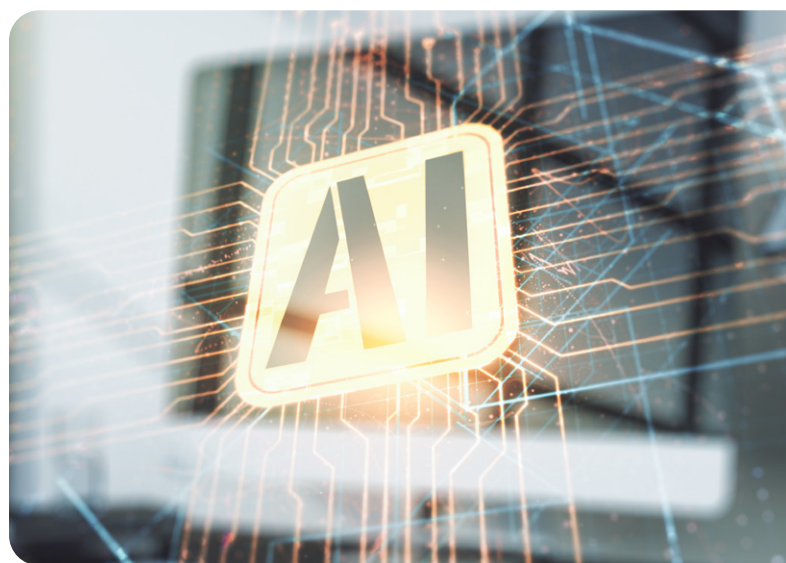
We are already seeing this, with apps that can remind you how long you need to wait until payday if you try to make a big purchase. However the extent of technologies involved in financial education is still up for debate.

“We need to create behavioural mechanics, behavioural economics that change people's behaviour to become financially healthy. And you're better off doing that through creating tools that help them do that, rather than educating them. The challengers will build those platforms that say you don't need financial education, you just need to use this tool and we will look after you.”

Brett King, Founder of Moven

So this raises the question: will consumers have any need to be financially educated in a decade's time, or will there be the payments infrastructure in place to make these decisions for them behind the scenes? According to Brett King, Founder of Moven, technology will soon be doing our thinking for us.

The evolution of smart wallets opens the door to this next level of hyper personalisation. We're all familiar with the feeling of lingering at an online checkout, deciding whether the best option is to pay in full, in instalments, or at a later date. Scenarios like this may have died out by 2030. According to Brett our payments will soon be orchestrated by AI-powered smart wallets that can decide in an instant what the most sensible payment method is for any given purchase. A glass of wine? Debit card. A sofa? Credit card. An expensive dress or suit, but it's a week until payday? Buy Now, Pay Later. These smart wallets could also store your advantage cards, ensuring you never miss out on reward points.

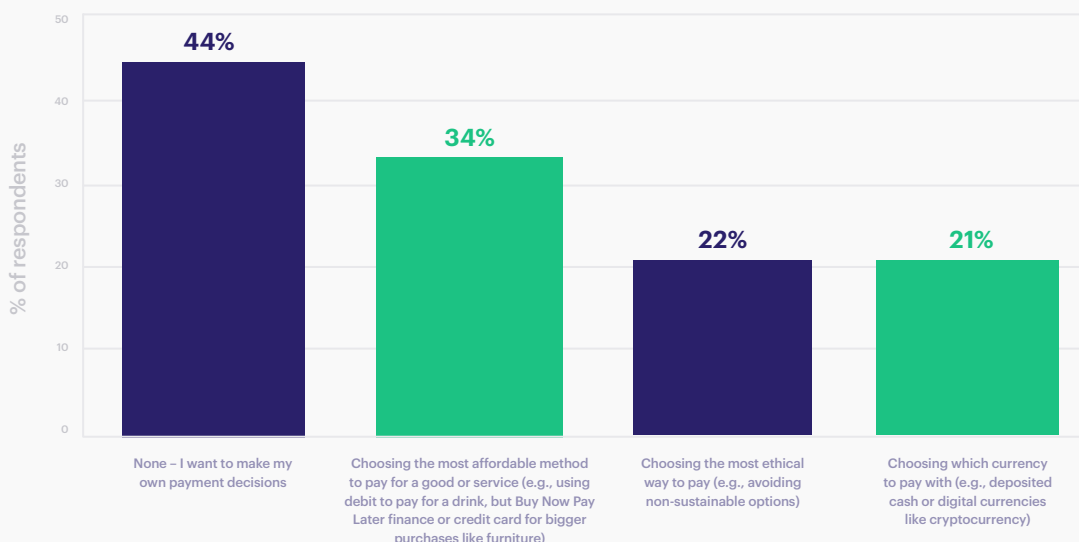


By pooling all of an individual's financial resources into one place, the AI may be able to naturally guide its user into a better financial position, without them ever having to think about it. This could extend to smart bank accounts too, which could automatically move surplus funds to savings, or put the brakes on overspending.

However, whether people trust AI enough to hand over this much control is another question.

44% of consumers surveyed said they would not feel comfortable with AI making automated purchasing decisions on their behalf. However, many would in certain circumstances: a third (34%) said they would trust AI to choose the most affordable method to pay for goods or services, 22% to select the most ethical way to pay, and 21% to choose which currency to pay in.

What would you be comfortable with AI making payments decisions on?



“The second half of this decade will be the smart bank account wars or the smart wallet wars. That’s how people will choose a bank account or a wallet in the future – based on how intelligent it is, and how it frames payments and day-to-day money management to you as an individual.”

Brett King, Founder of Moven

3 | A 'post-payments' world

A headline development in payments that sparked excitement amongst workshop attendees was the development of “ambient commerce”. Ambient commerce builds on the increasing trend for payments to happen invisibly in the background. It marks the next evolution from the embedded finance apps that we have today – such as Uber or Deliveroo – where the payment function is removed from the customer experience.

Notable examples of ambient commerce include Amazon’s “Just Walk Out” and the new cashier-less Carrefour store in Dubai. Customers simply scan an app on entering a store, and then a mixture of facial recognition and sensors are used to track their route through the store and what they put in their basket. When finished, they simply leave and their account is automatically charged. Interestingly, many consumers surveyed have already embraced, or are willing to embrace, this model.

30%

of survey respondents have used “Just Walk Out” shops or till-less grocery stores like Amazon Go, **14% do so already**

37%

of survey respondents have not used “Just Walk Out” yet, **but would like to**

22%

of survey respondents think “Just Walk Out” technology **is cutting edge**

Alessandro Hatami, Founder and Managing Partner, Pacemakers.io, ventured that, in a decade’s time, paying for something will, in many instances, see no device to pay with, no pin to remember or phone to tap – certainly no need to register or create an account.

We can envisage a future where someone could simply walk into a café or bar, be handed a drink, and leave without ever having to think about paying. Instead, the person’s biometric data would be captured by cameras, along with the drink they are ordering. This information would be collected, processed and then sent instantly to their bank, which would then make a decision on the cheapest, most convenient way of making that payment.

In this scenario, consumers could even agree with their bank to put controls in place to help ‘save them from themselves’. The bank could be instructed by the customer to put limits in place to manage spending in bars, on gambling, or even on buying chocolate. By processing their location and reading what is in the shopping basket in real-time, the bank could put a stop to a purchase, or at least give a nudge to check whether they are sure. In the future we could see the bank operating as a “trusted friend” looking out for the customer’s welfare.

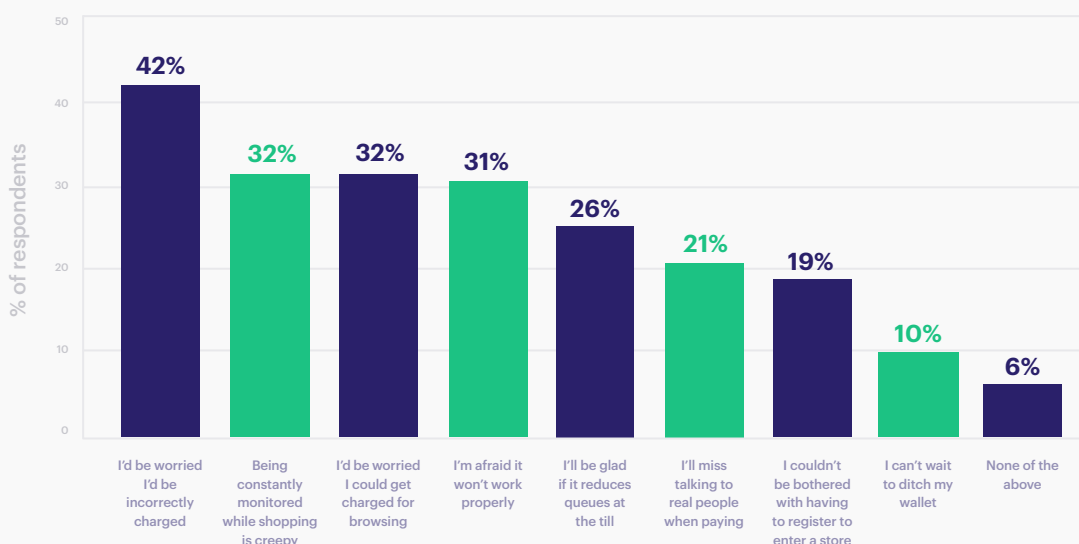
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However, it is possible that such a concept will be met with consumer resistance. Despite many being excited by the potential benefits of ambient commerce, such as reduced waiting time at tills, others worry that the technology won't work, or that they will be overcharged, while others just find it creepy.

It's very possible that such concerns would be amplified in the scenario Alessandro describes.

However, workshop attendees were quick to point out that consumers will often default to resisting change when asked. They cited the fact that the concept of getting out of an Uber would have seemed unsettlingly modern to many just ten years ago, but now nobody thinks twice about it. Ultimately, the true future of payments may be a post-payments world, where we forget that payments even exist.

How do you feel about the prospect of invisible payments?



"Payments will not operate like they do now. We will be able to think beyond price and consider affordability and alignment of every purchase with our long-term goals. At the point of making a purchase – especially a large one – the bank will be able to show us if we can afford a purchase today and how this spend would affect our long-term goals. Technology will allow us to do what we want to do, creating the obstacles around us when we reach the limits of our financial wellbeing."

Alessandro Hatami, Founder and Managing Partner, Pacemakers.io

Part Two

Will the next generation be a force for positive change in the cashless future?

1 | The death of cash and the fight for financial inclusion

While technology is driving innovation in payments to make it easier and safer to pay, there are social and ethical implications that must also be considered. A key part of this discussion is the decline of cash, something that again divided opinion in the workshops. The likes of Theodora Lau, Founder, Unconventional Ventures, and Jane Jee argued that cash will certainly not die out by 2030. For that to happen, there is a huge amount of infrastructure that would need to be built.

Beyond infrastructure, there was a feeling that cash won't die out because people will still use it – something that many of the experts felt was unlikely to change unless people's hands are forced.

While many noted that one of the key drivers for this was the black market, other, more legitimate users were also identified. 'Cash tribes' of people exist who would find it difficult to move to digital payments, or who simply do not want to – for example, the elderly, the unbanked and digital skeptics who worry about the loss of privacy that digital payments may entail. Interestingly, product design was noted as an area of potential discrimination for such groups – in particular the elderly.

“There are all sorts of technologies that have biases against people who are older. One example is that biometric fingerprint scanners don't tend to work as well with people who are over the age of 70 because, in some cases, their skin tends to be drier and therefore has less ridge definition. So, they don't get quite as good a read if they're trying to use fingerprints”

Jonathan Williams, Technical Payments Specialist, Payment Systems Regulator



Concern for the elderly in relation to the death of cash were echoed by consumers. Nearly three-quarters (73%) of respondents had older friends or relatives that were still highly dependent on cash, which was a cause for concern for many, who felt that this could put them at a disadvantage (Graph 7). Three-quarters (75%) of people aged 65+ said they have felt pressure to ditch cash due to places only taking card/contactless payments; significantly higher than the 50% average.

However, others – including Alessandro Hatami and Hamish Blythe, Founder & CEO at Trilo – believed Europe would be cashless by 2030, and that digital currencies could be built to be inclusive for all. Using technology to enable financial inclusion was seen as something that will be essential as the use of cash declines. This could lead to people gravitating towards products that are more purpose-built for family life which could help them care for elderly parents or other vulnerable parties, creating a GoHenry app for the elderly, for example.

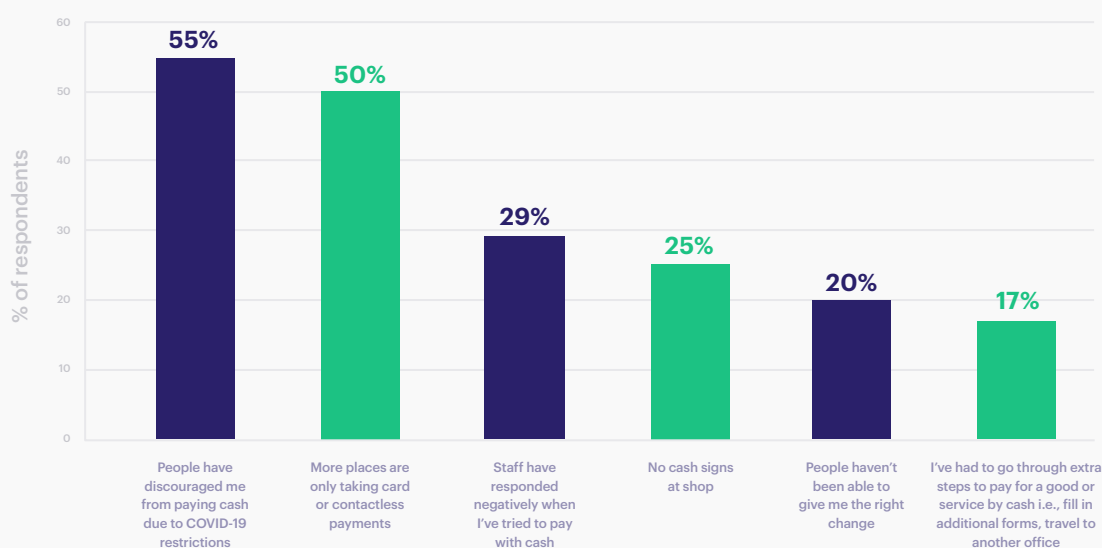
73% 

of people have older friends or relatives that are still **highly dependent on cash**

75% 

of survey respondents aged 65+ said they **have felt pressure only taking card/contactless payments;** significantly higher than the 50% average

In what way(s) have you felt pressure to ditch cash?



65%



of survey respondents feel it is becoming harder to get cash out as increasing numbers of bank branches and ATMs close down

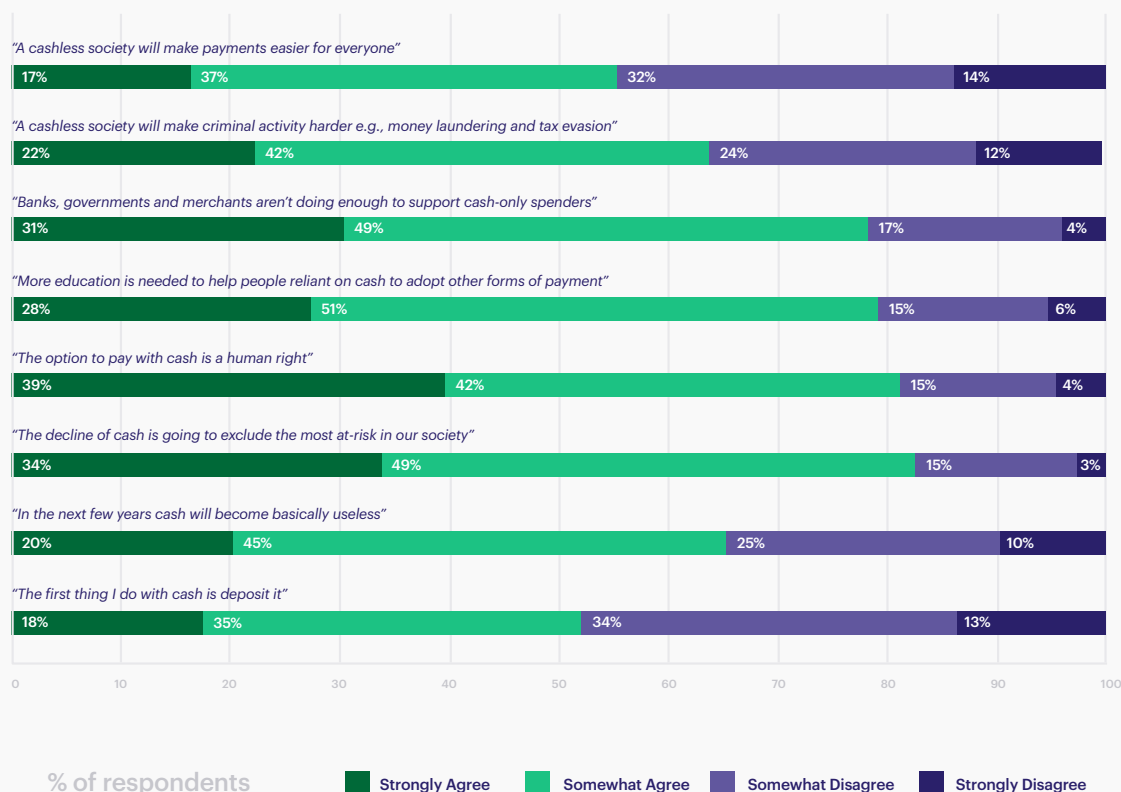
63%



of survey respondents are **concerned by this**

Any transition to a cashless society could be met with challenges from citizens. More than two-thirds (65%) feel that it is becoming harder to get cash out as increasing numbers of bank branches and ATMs close down, and 63% are concerned by this. The fears surrounding the decline of cash often centre around inclusion, and the vast majority (83%) of consumers surveyed say the decline of cash will exclude those most at-risk in society.

How much do you agree with the following statements?



Do CBDCs hold the answer to financial inclusion challenges?

In the workshops, Central Bank Digital Currencies (CBDCs) were discussed as a possible antidote to the problems of financial exclusion that come with declining cash use. CBDCs act as digital alternatives to fiat currencies and could provide a way for societies' unbanked to still have access to a digital currency without the need to open a bank account. **The Bank of England recently stated** that if a UK CBDC were to go ahead, financial inclusion consideration should be "prominent by design". The Bank also said:

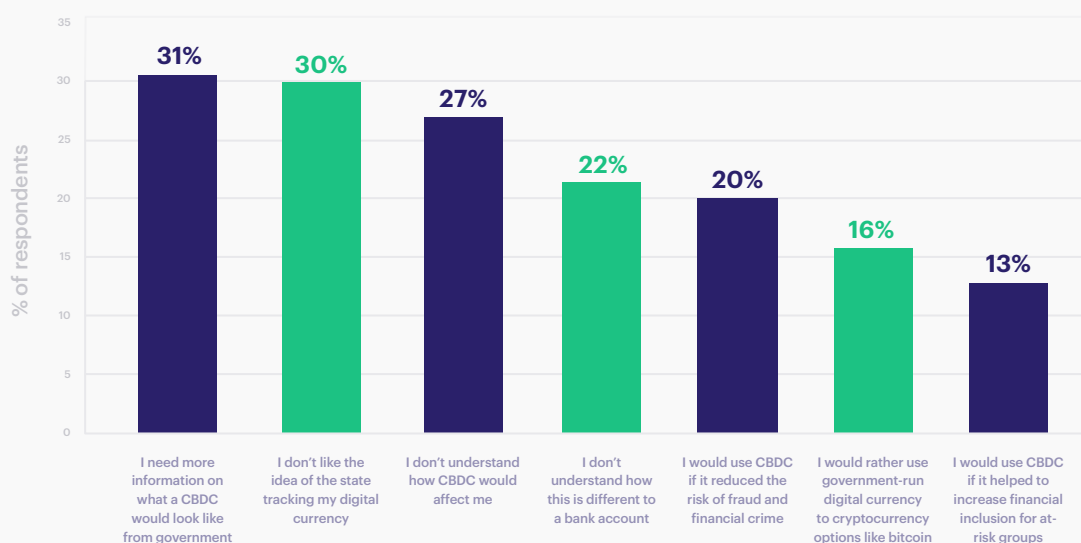
"There are all sorts of technologies that have biases against people who are older. One example is that biometric fingerprint scanners don't tend to work as well with people who are over the age of 70 because, in some cases, their skin tends to be drier and therefore has less ridge definition. So, they don't get quite as good a read if they're trying to use fingerprints"

The Bank of England

Julian Wilson, Managing Director, Valido Limited, suggested that CBDC-based payments could even become a pseudonymous payment alternative to cash by 2030. Brett King also ventured that CBDCs offer a way to roll-out Universal Basic Income (UBI), as money could be easily routed straight into individuals' digital wallets. These wallets could also have controls, ensuring that money is being spent sensibly and in a way that promotes financial wellbeing. Collectively, this could serve to boost inclusion and even stimulate economies.

However, for CBDCs to become a reality, there is still much work to be done to gain consumers' trust and to educate them on their benefits, with 30% of survey respondents saying they don't like the idea of the state tracking their digital currency and 27% saying they don't understand how CBDCs would affect them.

How do you feel about the prospect of using Central Bank Digital Currency?



2 | The no-cash generation

Discussions around declining cash and the future of digital payments led to an interesting question being raised in the workshops: how do we educate children about money when it is disappearing? And is this something we even need to be worried about as technology advances?

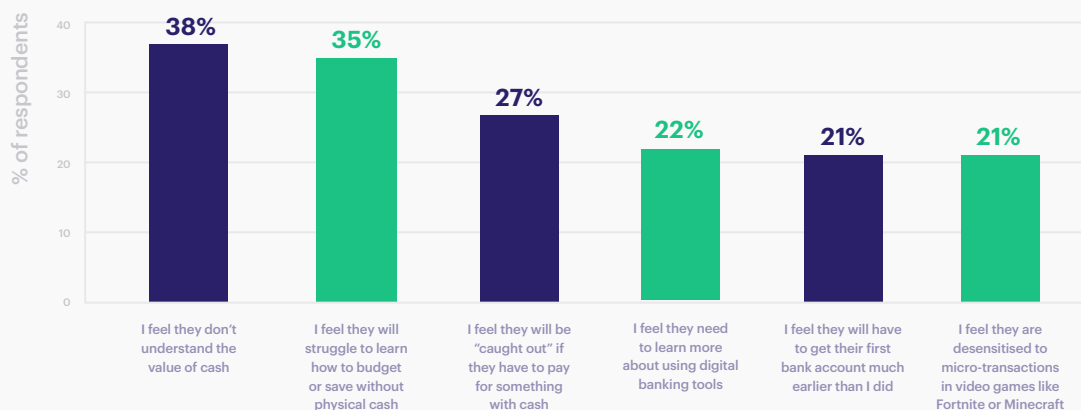
Children are often taught in terms of tangible objects. Early maths involves counting the number of apples pictured, for instance, or explaining fractions with slices of pie. Today, many children are learning about payments from an early stage through in-game transactions and currencies. But with transactions taking place in the invented universe of games, far removed from real life, are young people being distanced from the realities of money?

Many consumers also seem to share these concerns. More than a third (35%) of survey respondents worry that the young people they know that don't use cash will struggle with learning to budget or to save without physical cash. They also have concerns that they won't understand the value of cash (38%) and that they are desensitised to microtransactions in video games (21%).

“For children who are learning about money, it's invisible to a certain extent. If it's not tangible, how do you learn to use it? How do you learn to make sure that you have enough and you budget? I believe we should be concerned about how that education piece is going to work as we move away from physical to digital”

Nilixa Devlukia, Founder at Payments Solved

What concerns do you have about younger friends or relatives who rarely use cash?



So where does this leave us for 2030, and how do we teach children to handle money, budget, save and spend appropriately when cash is dying out?

Dave Birch even pondered whether there could be humans alive in 2030 that have no concept of physical money in the same way we do now.

Yet others in the workshop were quick to argue that in some ways children have better means of understanding money and budgeting than they did ten years ago. With apps such as Go Henry helping to educate them on spending and saving, there are ways that technology can help children to understand the value of money.

Another facet of this is gamification, where children are nudged towards smarter decisions and rewarded for doing so, helping to increase engagement in financial education.

Of course, when we enter the territory of designing payment solutions targeted at children, the importance of digital responsibility is absolutely paramount. In particular, technology companies and gaming companies must ensure that responsible design requirements are followed, so that products they create operate with children's financial wellbeing at their very centre.



3 | The young may carve the path for embedded ethics

The decline of cash could also pave the way for positive change. Cash is far from green, with the cost of printing and transporting it leaving a considerable carbon footprint. As such, its decline could leave room for more sustainable and ethical forms of payment to emerge.

It was universally agreed in the workshops that sustainability will be a huge charter for payments in 2025 and onwards to 2030. The likes of Brett King and Julian Wilson discussed the payment industry's role in incentivising consumers to choose greener options, in turn incentivising companies to adopt a more sustainable approach to doing business.

This is another area where AI-driven smart wallets could come into play, to embed ethical behaviour into payments. Almost a quarter (22%) of consumers surveyed said they would be comfortable with AI making automated decisions on their behalf to choose the most ethical way to pay. However, this increases to 31% among

18–24-year-olds. As this younger demographic ages and becomes more financially influential – and as their focus continues to be on sustainability – they could be the driving force behind making embedded ethics a reality.

Julian Wilson suggests that future consumers will have far greater visibility and control over what they buy to enable easier ethical purchasing. Blockchain technology could be used to establish the provenance of goods, recording where materials were sourced and so on. An individual's smart wallet could then interact with the blockchain and cross reference this data against its user's profile. If the supplier ticks enough, or all of the boxes, then the smart wallet could process the payment. If not, then it could flag it to the consumer, asking them if they want to go ahead with the purchase. In this way, consumers with values around sustainability can be sure that they are always choosing the most sustainable products, from the most sustainable brands.

“We know with crypto building blocks, which will be available with these new means of payment, that we will have much more reliable ways of determining things like “this was responsibly made or caught”, “this company treats its employees well”, and so on. And that’s going to become increasingly important.”

Julian Wilson, Managing Director of Valido Ltd., Board Member of ORCA LGS Solutions Ltd., Chief Product Officer at Ecospend



Appetite for embedded ethics



30%

of consumers surveyed would be happy to receive a mobile push before making payments to warn if a purchase is not ethical

39%

...which jumps 9% higher in 18–24 year olds



9%

of consumers surveyed (on average) see sustainability practices as important when selecting a banking provider

13%

...this figure jumps 4% higher for 18–24 year olds

Bradley Leimer, Co-Founder of Unconventional Ventures, suggested that we could even see the emergence of a new major payment network by 2030. This network's USP would be its sustainability – thus tapping into a major consumer concern and helping to drive wider behavioural changes when it comes to making payments.

Part Three

Part Three: Regulation must stop playing catch up

1 | Regulation must get ahead

Payments are a critical part of modern society. And with so much scope for error – from persistent fraudsters to loss of money – regulation of the space will always be important. There are a range of factors that require regulatory oversight, from bias and discrimination, to fraud prevention and security. However, the consensus of the workshops was that the pace of payment innovation is far outstripping that at which regulation can move.

Helene Panzarino, Vacuumlabs, SME Expert, Community & Fintech Partnerships, argued that The European Commission's Regulation of Markets in Crypto-assets (MiCA), which has been in development since 2018, will soon not be fit for purpose. Other recent regulations like PSD2 and GDPR are already outdated, and some of the workshop attendees said we may need GDPR2 and PSD3, if not PSD4, to keep up.

“The gap between any regulation coming into force and the status of the technology and innovation will just increase and keep increasing. The regulator will get behind. This means that future regulation has to be even less specific with regard to technologies and more specific about the desired outcomes in this space”

Gijs Boudewijn, General Manager at Dutch Payments Association

This isn't to say that progress hasn't been made in the right direction. If we look at AI, for instance, the technology comes with a whole host of challenges and concerns around bias and ethics.

91%



of consumers surveyed **expressed concerns** about AI bias creeping into financial services

This shows there is work to be done to give people confidence in the veracity and objectivity of AI solutions. The EU recently released proposed AI regulation in an effort to pre-emptively tackle these issues – prohibiting the use of “subliminal techniques” to cause “physical or psychological harm”, as well the exploitation of “any of the vulnerabilities of a specific group”. The draft also proposes to ban AI systems from providing social scoring of individuals for public authorities, and covers much more.

While there are undoubtedly gaps in the regulation, it shows a conscious effort on behalf of the EU to get ahead of AI, and to contain it before it can be used in any harmful way.

While this is positive to see, whether or not the regulation can keep up with the pace of AI's advancement over the coming years remains to be seen. Many of the workshop attendees also raised the challenge that separate pieces of regulation often conflict with one another. Consider PSD2, for instance, which enacts data sharing requirements between financial service providers. Much of this contradicts the requirements of GDPR, which restricts freedoms around sharing information and gives individuals greater control over their personal data. All of this conflict only serves to muddy the waters, slowing regulation even further, and so addressing this between now and 2030 will be paramount.

2 | The importance of digital responsibility

One area that workshop attendees felt like regulators had a critical role to play in was upholding digital responsibility. Digital responsibility means that new digital products and services are developed with consumer wellbeing in mind throughout the design process.

Providers have a responsibility to ensure that their services do not work to the detriment of users, and regulators must hold them to account for that responsibility. Digital responsibility is important across all areas, but particularly in finance, where encouraging unhealthy spending behaviours could mean the difference between someone being able to pay rent that month or failing to.

This digital responsibility will only continue to become more important as payments continue to move further away from physical methods, and as new technologies rapidly spring up. Bradley Leimer talked about the over-saturation of the market, with new payment methods constantly being developed and pushed to consumers.

He felt it was possible that, by 2030, this overcrowding could become even worse.

Amid all this building and innovating, regulators must be able to cut through the noise and ensure that providers are respecting consumer wellbeing and are not delivering products and services that could be harmful – such as encouraging overspending or misusing data.

Regulators are already getting involved in creating new legislation to drive greater digital responsibility, a trend we can expect to continue. Some notable examples include the UK's [Online Harms Bill](#), which in particular is geared towards protecting children, and the EU's [The Digital Services Act](#), which followed the Online Harms Bill and aims to create a safer digital space which protects the fundamental rights of all users of digital services. These are examples of a growing trend in regulation to protect the consumer but, if Bradley Leimer's prediction of an increasingly oversaturated market in 2030 becomes true, more measures and even greater vigilance may be needed.



3 | Systemic resilience will be paramount

The systemic resilience of payments and payment networks will be another key area of digital responsibility. Today, payments are core to modern life and integral to the running of societies. A service outage can have major repercussions for individuals and businesses – potentially causing mass disruption and financial loss, as well as undermining faith in financial institutions.

Yet the systems that payment organisations and banks rely on are incredibly complex, often combining newer cloud-based solutions with older legacy technologies. Added to this, Open Banking has widened the network of third party integrations considerably, meaning banking environments are not as closed as they once were.

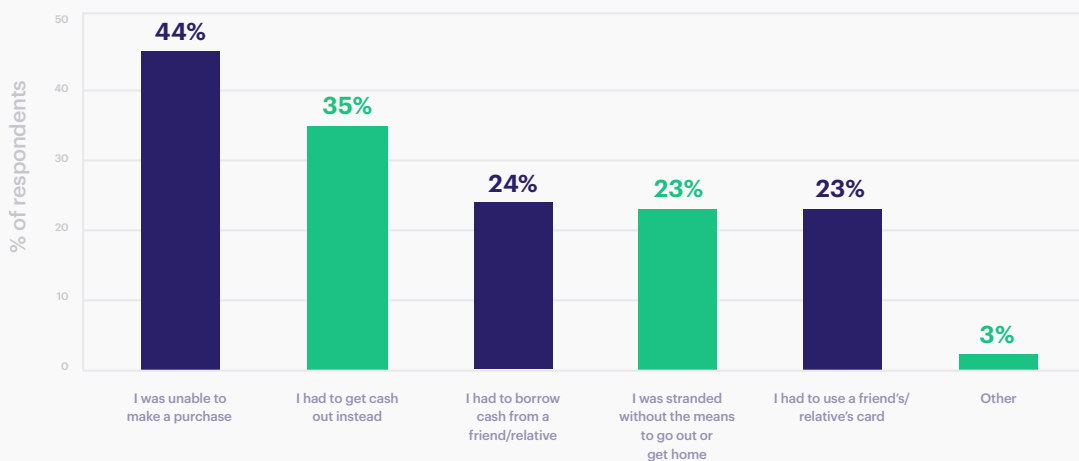
Such interventions are likely to be welcomed by users. Today, more than a quarter (27%) of consumers surveyed have been affected by outages. The result of being affected by an outage ranged from mild inconvenience – such as having to get cash out or borrow from a friend or relative – to more serious consequences, such as being unable to make a purchase or even being stranded with no means of getting home. And, in the future, the fallout could be even more serious. Dave Birch observed that the likelihood of a state sponsored attack on payment networks occurring between now and 2030 is highly likely, if not inevitable.

27%



of consumers surveyed have been **affected by outage**

What concerns do you have about younger friends or relatives who rarely use cash?



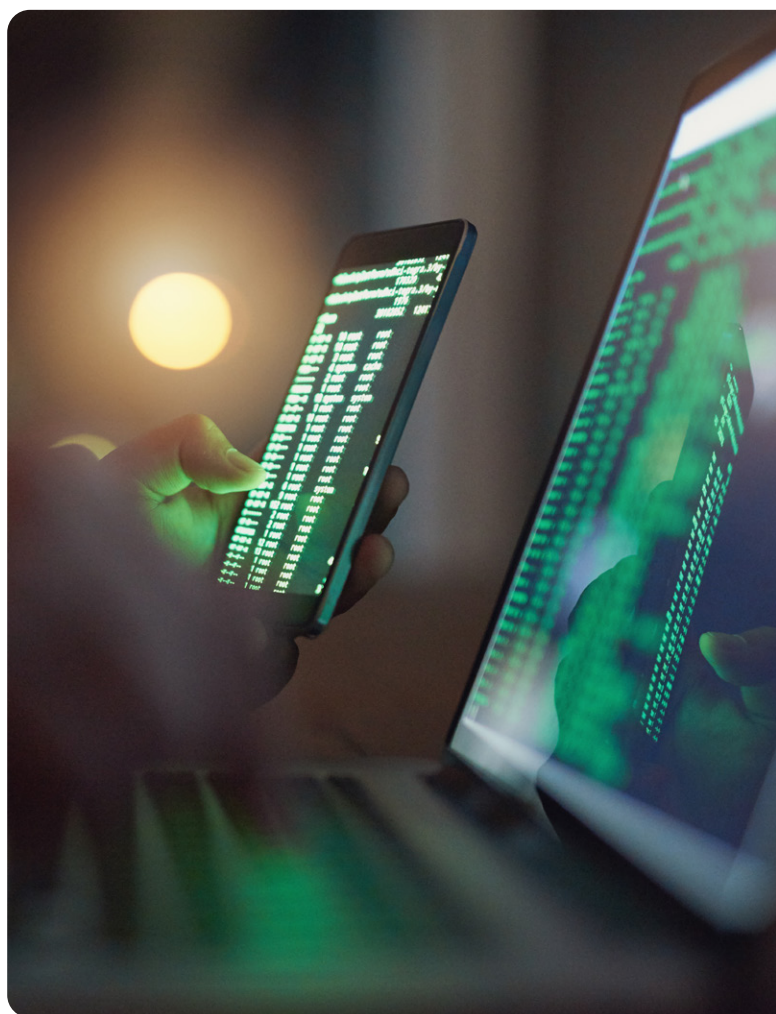
This could mean that the industry will have to cope with far more severe outages in the not-too-distant future. Large scale attacks could result in the loss of consumer data, and even money from accounts. Consumers also have fears around this, with 76% saying they worry their digital banking records could be wiped out by cyber criminals. Nearly three-quarters (71%) also worry about the security of their digital funds and 76% fear that banks are helpless against IT outages.

71%

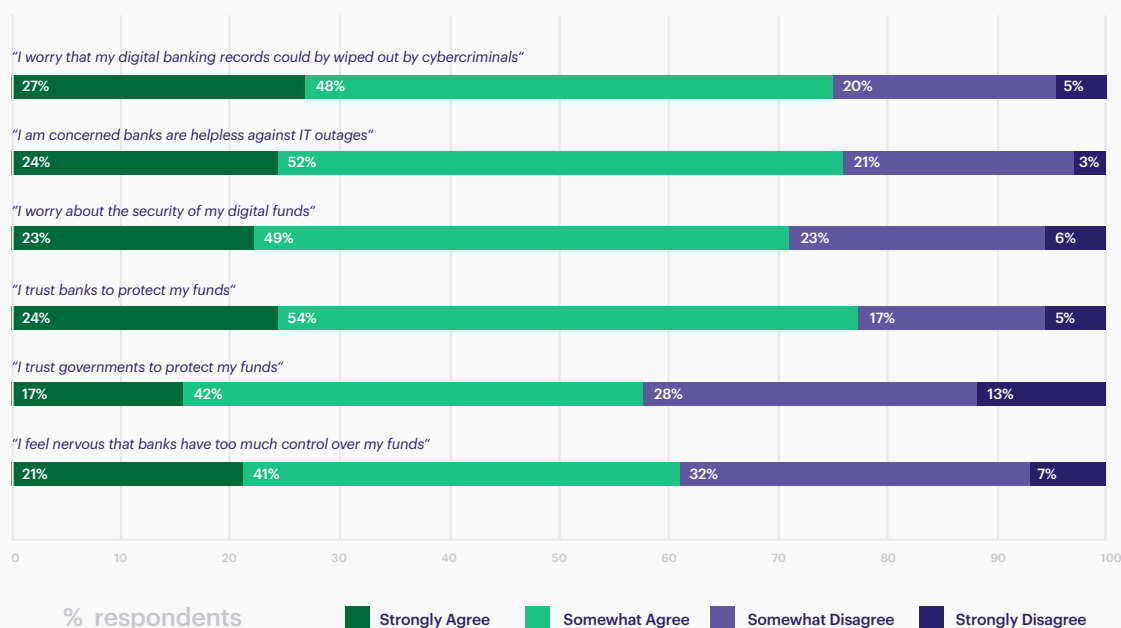
of survey respondents **worry about the security** of their digital funds

76%

of survey respondents **fear that banks are helpless** against IT outages



How much do consumers agree with the following statements?



The industry as a whole needs to be prepared for a scenario like this, and regulators need to hold players accountable when it comes to security and protocols around outages to ensure that best practice is being followed.

Of course, regulators' ability to fully protect consumers does greatly depend on how well they can keep pace with the developments of the payments space. And currently, progress here is still too slow. Helene Panzarino describes it as an issue of trying to squeeze new rules and considerations into regulations in an attempt to keep up with the pace of innovation.

But this doesn't work. To work properly, regulation must instead become an ally to innovation. It must work alongside new innovations, providing the security and privacy that consumers need to be able to accept and trust evolving methods of payment.

“When it comes to regulation, we need to not look from the point of where we are now, but from where we're going. We need a new structure. At the moment, we're trying to put old clothes on the new body. We have to suspend and forget what came before to a large extent, and look at where we are now in that space to create these new regulations.”

Helene Panzarino, Vacuumlabs, SME Expert,
Community & Fintech Partnerships

Final thoughts from Marqeta

If the past two years have taught us anything, it's that no one can predict the future and, of course, 2030 is still full of uncertainties.

In a decade's time the payments landscape could be largely the same, or we could be paying by blinking or waving a hand. In all likelihood we will see a mixture of both what we know and what we haven't thought of yet, with some continuing to use cash and cards while others pay in ways not yet even conceived.

There are, however, some key take-aways that give an indication of what is to come:

- 1. The options with which we pay will continue to multiply, as technology races ahead**
- 2. Consumers' love of convenience could see purchasing power handed over to AI**
- 3. Payments will become increasingly invisible, as cards and even devices begin to disappear from the transaction**
- 4. Cash will give way to digital, but is unlikely to disappear entirely, with financial inclusion continuing to be a key debate**
- 5. The invisibility of money may mean young people may not understand it in the same way we do today**
- 6. Calls for greater sustainability will fuel the emergence of "embedded ethics" in transactions**
- 7. Regulation will need to transform itself to contain fast-moving innovation**

Whatever the future may hold, the most ambitious and innovative payment methods will likely be those that are underpinned by agility and the ability to make automatic, real-time decisions. A flexible payment ecosystem will also be key for making all this happen, creating room for more offerings to enter the space. In turn, this could support greater inclusion and sustainable alternatives becoming mainstream. What's clear is that in 2030 and beyond, payments will continue to hold centre stage in our lives – tying into our ethics, our future education, and the smooth functioning of our economies. All that remains to be said is, watch this space.



Methodology

- A national online survey of 2,037 UK consumers, ages 18+ was conducted by Propeller Insights between July 30th and August 3rd, 2021. Respondents opted into an online database, from there, they were targeted based on demographics. The maximum margin of sampling error was +/- 2.2 percentage points with a 95 percent level of confidence
- Consult Hyperion hosted workshops, run by Dave Birch
- The three workshops were held across the 28th June and 1st July, 2021
- Each workshop was attended by a cross-section of global industry commentators, with a total of thirteen attendees across the three workshops

Workshop attendees

- **Alessandro Hatami:** Founder and Managing Partner, Pacemakers.io
- **Hamish Blythe:** Founder & CEO at Trilo
- **Nilixa Devlukia:** Founder at Payments Solved
- **Charles Cohen:** Entrepreneur in the open banking and eCurrency space
- **Brett King:** Founder of Moven
- **Julian Wilson:** Managing Director, Valido Limited
- **Theodora Lau:** Founder of Unconventional Ventures
- **Bradley Leimer:** Co-Founder Unconventional Ventures
- **Kristian T Sørensen:** Founding Partner at Norfico & The Tokenizer
- **Helene Panzarino:** Vacuumlabs, SME Expert, Community & Fintech Partnerships
- **Gijs Boudewijn:** General Manager at Dutch Payments Association
- **Jane Jee:** Chair at Kompli-Global Limited
- **Jonathan Williams:** Technical Payments Specialist, Payment Systems Regulator

About Consult Hyperion

AWAITING DETAILS

About Marqeta

Marqeta's modern card issuing platform empowers its customers to create customized and innovative payment cards. Marqeta's platform, powered by open APIs, gives its customers the ability to build more configurable and flexible payment experiences, accelerating product development and democratizing access to card issuing technology.

Its modern architecture provides instant access to highly scalable, cloud-based payment infrastructure that enables customers to launch and manage their own card programs, issue cards, and authorize and settle transactions.

Marqeta built its simple, trusted, and scalable platform from the ground up to help companies design seamless payment experiences, streamline purchase flows, and bring products to market faster while minimizing fraud risk.

- **Card issuing:** Instant issuance of physical, virtual, and tokenized cards with direct provisioning to digital wallets
- **Card processing:** Real-time funding using our Just-in-Time (JIT) Funding feature with dynamic spend controls to reduce fraud
- **Card applications:** A suite of applications and tools that help you build, manage, and run your card program
- **Modern architecture:** Developer-friendly, modern open APIs, cloud infrastructure, and webhooks

Marqeta is headquartered in Oakland, California and is enabled in 36 countries globally.

For more information, visit www.marqeta.com, [Twitter](#), and [LinkedIn](#).

You see a card. We see endless possibilities.