Vital link in money chain

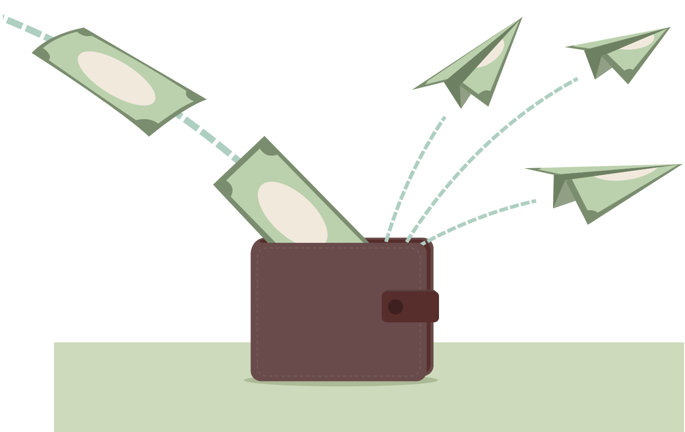
Gren Manuel explains why the Bank of England wants to replace a system that is 'the backbone of every payment in the UK' and looks at the advantages of the new version

The initials RTGS may not get hearts racing but the Real-Time Gross Settlement system operated by the Bank of England (BoE) is arguably the single most critical component of the UK financial system. This is why the BoE's proposal to throw out the current, 1986-vintage system and build an all-new replacement is such a high-stakes project.

The replacement was first mooted in 2016, with the final implementation tentatively scheduled for 2025 – longer than the construction phase of the Channel Tunnel. Done right, it could offer innovative benefits.

RTGS is the system by which banks, and now some non-banks, send money directly to each other. All participants maintain accounts at the BoE, the same accounts that the BoE uses to steer monetary policy. If a Santander customer wants to send £100 to a customer of NatWest, then a payment message can decrease Santander's account by £100 and increase NatWest's by the same amount, in effect transferring £100 between the two banks.

For large transactions, such as house purchases or big corporate payments, this is what happens using Chaps, the Clearing House Automated Payment System. In practice, a £100 payment would be made more cheaply by cheque, or online via the Faster Payments Service, systems where banks aggregate payments and only pay after netting transactions. But even for these systems the netted payments are made via RTGS.



RTGS also connects to the foreign exchange settlement system CLS and to multi-asset clearer LCH, and even settles payments for the Note Circulation Scheme, the system by which sterling banknotes are distributed and then collected at the end of their life. As such, every payment involving two banks in the UK ends up on RTGS, some £650bn a day, leading Mark Carney, BoE governor, in 2018 to describe it as "the backbone of every payment in the UK."

> *The nine-hour system outage caused havoc for those completing house purchases that day*

Alan Greenspan, the former Federal Reserve chairman, had a more colourful way of putting it. In his book, *The Age of Turbulence*, he revealed that the US equivalent was designed so that after a nuclear attack non-irradiated areas could still make payments, saying without it "the level of economic activity across the country would drop like a rock".

That is not quite what happened when RTGS suffered an unprecedented nine-hour outage on 20 October, 2014. Most transactions were completed on the day by keeping the system working late, although it created havoc for those completing house purchases within those 24 hours. But the glitch did start a chain reaction that has led to the upgrade programme.

The post-mortem revealed that the outage was caused by adding Danske Bank to the list of participants, which caused UBS to drop off the end. The official report talks about "configuration changes" and "triggering latent functional defects within process B", which presumably means the same thing. Payments to UBS failed and within minutes a cascade effect caused the whole system to collapse. The 1980s software was revealed as brittle and unsuited to a more flexible, fast-moving online financial system.

The critical question is: how will the UK's new payment backbone differ from its current one? The immediate answer is: in not many ways. There has been no fundamental rethink of the core principles – there is no fancy distributed ledger technology here.

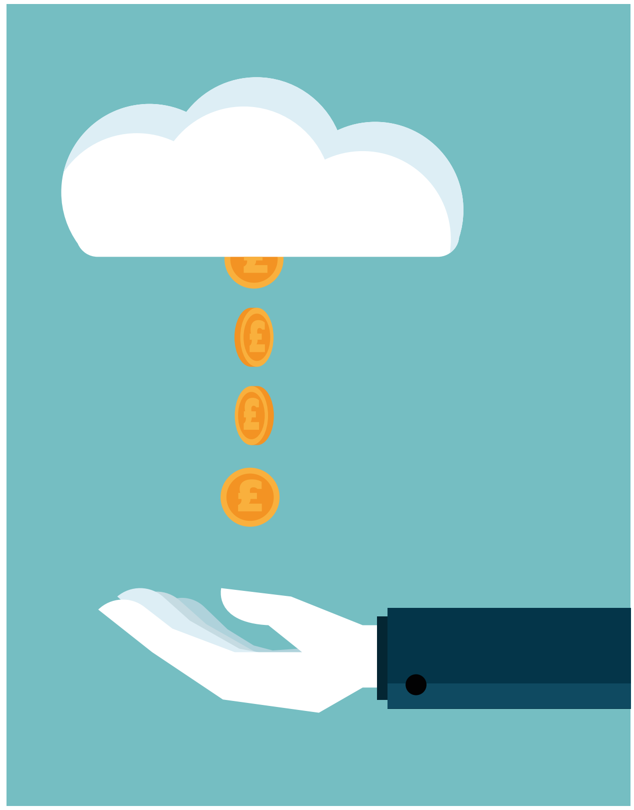
The most obvious advantage of a new system – the ability to add new and different participants reliably – has already been delivered out of the existing system. TransferWise was the first non-bank participant to join, in April 2018. Arun Tharmarajah, its head of European banking, says being able to use RTGS to settle Faster Payments obligations directly, instead of via a participating bank, "brings our costs down, makes our product better, and removes any of the bottlenecks with the banks had that we were previously faced."

But look more closely and the more open, flexible system could have significant implications. Perhaps the most intriguing is a conditional payments facility under consideration that would allow payment to proceed only if, for instance, another payment was made or a transaction completed on some external register such as the Land Registry. This could potentially replace large swathes of the current financial services that facilitate the trusted exchange of assets and funds, including lawyers' client accounts, escrow accounts and the complex infrastructure of trade finance.

At workshops hosted by the BoE earlier this year, some 60 participants talked about the potential uses. These include simultaneous transactions for a chain of housing purchases that all have to complete on the same day, currently an error-prone logistical tangle; and streamlining payments when firms complete an M&A transaction by allowing a complex series of payments to be made at once without any need to prefund. The "smart contract" facility offered by Bitcoin and some other cryptocurrencies, most notably Ethereum, supports this kind of solution but the RTGS upgrade would bring this concept into mainstream finance, backed by the central bank.

The BoE would potentially license a new type of financial player, named a synchronisation operator. This could be a global bank or a fintech that has spotted a new usage case and would use RTGS to offer a service that is more reliable and cheaper than current, often manual, systems. Automation opportunities are also opened up by the possibility of an application programming interface (API), effectively a software hook that would allow transaction automation, and the ability to interface with different payments systems such as distributed ledgers, on which the BoE ran a "proof of concept" trial in 2018. Both of these open the way for RTGS payments to be integrated into other systems and processes in innovative ways yet to be discovered.

The other potentially far-reaching implication is for the use of data. The new system will use the ISO 20022 financial messaging standard, which aims to be universal and has several benefits, making it easier for firms such



as TransferWise to build systems that interact with many national payments schemes and also for payments to be rerouted inside a country if one fails.

But it also allows for each message to carry a much richer payload in terms of data, potentially opening the way for the BoE and the Office for National Statistics (ONS) to have a "UK economy dashboard", a real-time overview

> *The new system opens the way to have a real-time overview of the economy to help in formulating policy*

of the economy that, with privacy safeguarded, would be particularly useful when formulating policy responses to economic shocks such as sharp currency moves.

"Payments data is brilliant, because of the richness and the coverage and the speed of it," says Louisa Nolan, a lead data scientist working on new data sources and techniques for tracking the UK economy at the ONS. It made a presentation to the BoE in the early days of the RTGS renewal programme about what could be possible. Bank officials now talk with enthusiasm about the potential to run a frequent report on housing activity broken down by region rather than having to wait for data from outside.

Today's payment messages contain only the data needed to move funds. Whether the economy dashboard can be built depends on how much additional information is carried in the payment messages, and this is yet to be decided. It is possible that by the mid-2020s RTGS messages will carry each counterparty's legal entity identifier (LEI), a 20-digit code that is kind of a global company registration number, or details about the type of transaction or geographic location, which would make this kind of analysis possible.

Another possible additional benefit of adding LEIs to funds transfers is that they would create a permanent payment record that businesses could use as part of a "portable credit file" that could help get access to finance.

Whether to use LEIs is just one of many decisions yet to be made. Until the BoE selects a technical partner to build it, scheduled for 2020, even the timescale is not set in stone. But one technical requirement is already in place: total reliability. If the new system lasts as long as the current one, it needs to be armour-plated not only against today's threats but also those coming in 2040. ■

***Gren Manuel** has been European editor for Dow Jones Newswires, European executive editor of* The Wall Street Journal *and editor of* Financial News. *He now works as an editorial and media consultant*

Down to the last penny

Is cash on the way out in the UK? ***Paul Wallace*** *shows that more people now prefer to pay by debit card but he argues that there are downsides to the decline in cash*

Cash is something we all take for granted, starting with pocket money. It is the stuff of TV drama, with *Line of Duty* showing crooked police officers taking payoffs in envelopes stuffed with notes. But more and more consumers now prefer to pay with a contactless card. Is cash on the way out in the UK?

Until recently, this was a fanciful notion. Cash has been a crucial part of the English monetary landscape since Anglo-Saxon times, which saw the birth of the silver penny. Cash provides both a store of value and a means of payment and embodies the sterling-based unit of account, thus satisfying the three defining functions of any money.

Over and above that, and unlike bank deposits, cash allows settlement between two parties without an intermediary. Splitting a bill after a meal, for example, is easy with cash: it can just be handed over. Cash also allows payments to be made anonymously, which is a benefit for privacy. Advocates of cash in Germany invoke Fyodor Dostoyevsky who wrote after his experience in a Siberian prison camp in the mid-nineteenth century, "money is coined liberty".

Although dwarfed by bank retail deposits (which are 20 times as high), demand for cash has until recently been resilient. Research published last year by the Bank for International Settlements found "scant evidence of a shift away from cash" between 2007 and 2016. Despite sharp increases in the value of card payments, cash as a share of

> "The apparent resilience of cash since the financial crisis owes much to ultra-low inflation and interest rates

nominal GDP generally rose among advanced economies, especially in Japan, Switzerland and the eurozone. The exception was Sweden, where it fell, continuing a decline already under way since the early 2000s. But the apparent resilience of cash since the financial crisis owes much to ultra-low inflation and interest rates. Fixed in nominal terms and offering no yield, cash has more appeal as a store of value when prices are barely rising and banks stop paying interest on accounts. Even so, over the past two years the value of cash in the UK economy has stalled at around £82bn (of which some £4bn is coin), causing it to decline as a share of nominal GDP.

As a means of payment in the UK, cash is in freefall. In 2017, the number of payments by debit cards overtook those made in cash for the first time. In all, 13.2bn payments were made with debit cards, just ahead of the 13.1bn made in cash. The gap is widening fast, thanks to the convenience of paying with a contactless card. There were 1.5bn UK debit card transactions in March 2019, up 9.7 per cent year-on-year, according to UK Finance, a trade body. But the value of those transactions was £50.3bn, up only 1.6 per cent year-on-year, as card use ate further into low-value payments.

> *Swedes were advised to keep some cash at home in case therewas a cyberattack on electronic payments*

As a share of the volume of all payments, cash is falling much faster than expected, from 60 per cent in 2008 to 28 per cent in 2018 and could drop to a mere 9 per cent (less than 4bn) by 2028 according to projections in June from UK Finance. By then it will be the fourth most used form of payment, behind direct debits and credit cards as well as debit cards.

The UK is travelling along a similar trajectory to that already pioneered in Sweden. There, cash was used by just 13 per cent of consumers for their most recent purchase in 2018, down from 39 per cent in 2010, according to the Sveriges Riksbank, the Swedish central bank. Payments through Swish, an app for mobile phones allowing instant transfers between individuals, are now widespread. Half of Swedish retailers believe that they will stop accepting cash by 2025 at the latest as its diminishing usage makes it increasingly expensive to handle.

In both Sweden and the UK, young people shun cash, which is becoming the preserve of the old. In Sweden, for example, more than 75 per cent of people aged 18-44 are using Swish, compared with 25 per cent of those aged 65-84. Similarly in the UK, mobile payments are much more common among the under-35s than those over 55.This suggests that cash is on the wrong end of demographics, as young digital users replace old cash users in the population.

In both countries the move to digital payments is being driven by the preferences of consumers rather than any difficulties in accessing cash or businesses refusing to accept it. In Sweden, the number of ATMs remained unchanged between 2006 and 2016 but the public withdrew less from them. A survey last year by the Riksbank found that four-fifths of Swedish households never or rarely (less than once a month) experienced problems in paying with cash in shops.

More and more UK consumers find paying by contactless card more convenient than paying in cash. They are not bound by limits set by the amount they have just taken out of an ATM. Though there is a £30 upper limit on individual contactless transactions, that is not a hurdle for most small purchases and more can be spent by inputting a PIN. Cards also spare people the need to carry small change. They especially dislike 1p or 2p coins; only a third of the coins issued by the Royal Mint are in active circulation according to the Treasury.

As the move away from cash accelerates, does it matter? After all, no one laments the virtually complete demise of the cheque even though at one time it was a crucial means of payment. Cash has disadvantages as well as advantages. Storing and distributing it is costly because of the high security needed. Cash is also vulnerable to counterfeiting. One in 30 of the old £1 coins (withdrawn in 2017) were forged. More generally, cash – especially high-denomination notes – facilitates the black economy and money laundering. In his *The Curse of Cash* book, economist Kenneth Rogoff, of Harvard University, advocates the phasing-out of all but small-denomination notes.

Even so, there are worries about the potential downside to the decline of cash. Digital money brings security risks that cash does not. Sweden's Civil Contingencies Agency advised all Swedes last year to keep some small-denomination cash at home to guard against an emergency such as a cyberattack on computer networks that disrupts electronic payments.

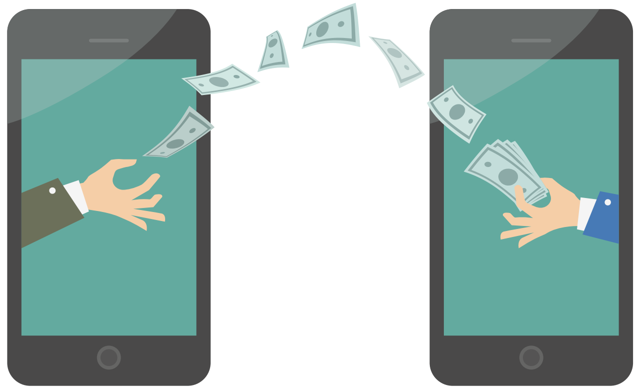
A more immediate concern in most countries is that an uncontrolled switch to a cashless society would create losers as well as winners. In particular, vulnerable groups who find cash a useful way of budgeting (although phone apps such as Monzo do exactly that) may suffer. There are around 1.3m unbanked adults in the UK, while about half of those with a basic bank account choose to manage their finances in cash, according to the Financial Inclusion Commission in 2015. But whether using cash really helps solve the financial problems of those on low income is a moot point.

> *The government should revisit its questionable decision to retain the unloved 1p and 2p coins*

The risk to the poor was highlighted in *Access to Cash*, a recent review funded by Link, the UK's main ATM network. Chaired by Natalie Ceeney, who heads Innovate Finance, a lobby for the fintech sector, the panel's report in March said that more than 8m people – 17 per cent of the adult population – would "struggle to cope in a cashless society". Pleading that cash should be seen as "a core part of Britain's national infrastructure, and not just as a commercial issue", it called upon the government to take the lead in ensuring continuing access to cash.

There were some good points in the report such as the need to rationalise the wholesale cash distribution system for lower usage. On the other hand, its central claim was exaggerated. The more than 8m adults who might struggle in a cashless economy came from a survey question: "Would it be problematic for you if there was no cash in society as we know it today?" Given that cash still remains a crucial means of payment, it is unsurprising that 17 per cent said they could not cope or did not know how they would cope. A more realistic guide to reliance on cash is the 1.9m people who mainly use it for payments, according to UK Finance.

Official policy is to safeguard cash for those who need it. To that end, the Treasury has set up and is chairing a "Cash



Strategy Group" together with the Bank of England (BoE), the Financial Conduct Authority and the Payment Systems Regulator to provide an overview of the cash infrastructure. But if the government really wanted to help, it should revisit the questionable decision in May to retain the unloved 1p and 2p coins, now a mere fourteenth of their worth when introduced in the decimalisation of 1971, which explains why so many drop out of active circulation. ATM providers for their part could ensure that cash machines routinely dispense £5 notes as well as £10s and £20s.

The UK is heading fast not to a cashless but to a "less-cash" economy. Attempts to arrest this are as likely to be futile as a mission to resurrect the cheque. The important question is whether the BoE should respond to the decline in cash by issuing e-money, which the Riksbank is already planning to pilot in Sweden. Providing an eventual digital substitute for central bank notes is a better approach than trying to resist the incoming tide of cashless payments. ■

***Paul Wallace** is the former European economics editor of* The Economist *and author of* The Euro Experiment, *published by Cambridge University Press*

Broking – and how to fix it

Richard Northedge reports on how the mortgage broking business is facing a shake-up, with customers now being allowed to shun help and take execution-only loans

Once, if homebuyers went to a mortgage broker it was an admission that they had a borrowing problem – the loan was too large, the property abnormal, their income too small or irregular. Brokers knew the specialist lenders, could pull strings, or find funds when mortgages were in short supply. Non-problem buyers did not need to shop around: a generation ago there were only repayment or endowment mortgages and all lenders charged the same rate. Anyway, during shortages borrowers had to apply to the building society where they had already built up savings.

Then mortgages got complicated. In came fixed rates, low-start rates, long and short terms, interest-only loans, over- or under-payment flexibility, penalties, rates reflecting deposit size and arrangement fees. Even currency loans. Banks entered the market – then non-banks. Bamboozled borrowers increasingly turned to brokers to guide them through the maze. Yet, even after the financial crisis, fewer than half of home loans involved an intermediary.

> “A survey found that 30% of borrowers could have had a cheaper mortgage loan on terms at least as good

The 2014 Mortgage Market Review changed that. Before the review, 30-40 per cent of loans came without advice from the lender or an intermediary. Since then, the proportion is just 3 per cent. The Financial Conduct Authority (FCA) admits that was the intention but, five years later, it is conceding it tightened the rules too tautly. In particular, whenever lender and borrower interact, that turns into advice. Even if a consumer asks for a recommendation but is not given one, that is deemed to be advice. Someone trying to arrange a loan on the internet who phones to say the page has frozen can be instantly dragged into the advised category because of the interaction. Nervous banks fear that if they point out that customers need not take advice, that itself is advice.

To avoid such catch 22 situations, the regulator is now doing a U-turn that will encourage more customers to shun help and take execution-only loans. That will re-introduce risk for borrowers, admits the FCA, but the watchdog now seems happy to give people the choice to make their own mistakes.

The pressure to take advice was promoted by the government-backed Money Advice Service – absorbed this year into the Money and Pensions Service – whose website includes ‘Why it’s usually a good idea to get mortgage advice’ and ‘Risks of not getting advice’. Besides filling-in forms for those who find them intimidating and explaining the choices, brokers can sometimes offer loans not available directly from lenders. And if an adviser makes a bad recommendation, the customer can complain – right up to the ombudsman, if necessary. The advise-yourself borrower forfeits those rights.

Getting the right home loan is important. Apart from the fact that most people will live in the property financed, it is probably the biggest transaction the customer will undertake until their next mortgage – possibly bigger than their pension pot. And first-time buyers are also first-time borrowers, unfamiliar with the complexities. Low interest rates may make a mistake less expensive but the Mortgage Market Study that preceded the review found that about 30 per cent of borrowers could have had a cheaper loan on terms at least as good – with customers advised by lenders just as likely to be overpaying as those using intermediaries.

So advisers are not perfect. Their knowledge is limited and they tend to recommend products with which they are familiar. Some are tied to specific lenders; some have limited lists; better loans may be available only to direct customers. The FCA’s *Financial Lives Survey* found that 45 per cent of recent borrowers used only one source of information and 22 per cent did not compare mortgages from two or more lenders. Some 23 per cent went to an adviser recommended by an estate agent (even though the agent acts for the seller, not the buyer/borrower). And many homebuyers using a non-advice mortgage source wrongly believed they were receiving advice.

The Money Advice Service thus suggests talking to a number of independent mortgage advisors as well as direct lenders. Some brokers charge a flat fee, some by the hour, others levy a percentage of the loan and some receive commission from the lender. There are now firms advising bewildered borrowers on which adviser to choose. Perhaps next there will be an app to advise which website is best for choosing brokers to advise on loans.

Clever IT ought to be an answer, but while the current systems and price-comparison sites can resolve simple enquiries, they cannot cope with the complex demands of non-standard loans, borrowers and properties – the very group that turns to brokers. Nor do all sites contain data on all loans. And the Mortgage Market Review is blamed for the slow development of better tools: lenders fear that a customer website using search and filter facilities could trigger the requirement to give advice.

> *The mortgage advice business is looking like a sector ready for serious consolidation*

The FCA now concedes that the Mortgage Market Review has hindered the development of IT solutions and, therefore, hampered execution-only loans. Consultation this year is expected to see the rules eased so that providing factual information, or a rudimentary interaction, need not constitute giving advice. Brokers will also have to explain why a recommendation is not the cheapest if it is not. A policy statement late in 2019 will set out the new rules.

Who will develop the websites? Brokers might like a site for internal use but making it public effectively makes them redundant. Disrupters in other industries – travel, flying, supermarkets, take-aways, banking, insurance comparison sites, for instance – are mainly new entrants to the market, not established providers.

Third-party mortgage advice remains a highly fragmented business – firms independent of each other as well as independent of the lenders. Small firms have difficulty mastering a large market fully, but their size also deters technological development. While investment advisers have built brands, mortgage brokers remain less well-known than the products they sell – even though the broker is the public's point of entry into the lending labyrinth. Mortgage advice looks like a sector ready for serious consolidation.

There are 5,200 directly authorised mortgage intermediary firms employing just over 34,000 approved people, according to the FCA. But there are also more than 14,000 appointed representatives. The Mortgage Market Review originally proposed extending the approved-persons regime to all mortgage intermediaries but this was considered too expensive. Instead, the regulator is backing a directory that will show whether individuals work for an authorised firm. Of course they all have to hold approved qualifications such as the Institute's Certificate in Mortgage Advice and Practice – CeMAP – and can take more advanced and specialist qualifications.

The Money and Pensions Service is expected to produce the directory next year but its main use is likely to be as a "yellow pages" for the public to find local firms. However, the "newly-designed user interface" promises to be easier to use than the current Financial Services Register.

But just lowering the existing barrier that diverts would-be execution-only borrowers into advice should encourage an increase in do-it-yourself loans. It might not seem much if the 97 per cent of people taking advice falls to, say, 91 per cent, but that would treble the proportion of execution-only customers. And the whole advice market is getting bigger as short-term fixed-rate loans require frequent refinancing, and switching becomes more common. Also, the booming equity-release market requires owners to take advice. The advisers may, therefore, have a thinner slice of a bigger cake.

The Mortgage Market Review was meant to protect borrowers but ended up protecting the broking industry. The FCA is belatedly allowing people to exercise choice – and making the advisers provide a service that attracts clients rather than relying on the regulator to introduce a stream of conscript customers. ■

Richard Northedge *is a former banking journalist of the year and was deputy City editor of The Daily Telegraph*