BANK OF ENGLAND

Speech

Seizing the Opportunities from Digital Finance

Speech given by

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Let me thank the TheCityUK for the opportunity to speak at this 10th Anniversary event at such a critical time for the financial services sector and the economy as a whole. We all live in hope of the three Rs that are the theme of the conference - Recovery, Rebalancing and Revitalisation. With the recent positive news about vaccines, that hope is now justified. I want to discuss today the three R's in the context of financial services.

Covid is a twin crisis, a health crisis and an economic crisis rolled into one. It has exposed every person and every business in every country in the world to that double jeopardy. In the UK, it has already resulted in over 50,000 deaths, more than 1 million people losing their jobs, around 9 million people seeing their incomes fall and almost the whole country feeling more anxious about the future.

For those reasons, the Covid crisis risks leaving lasting scars on us as individuals and on the wider economy. Economic scars, such as persistently lower levels of investment and innovation and persistently higher levels of unemployment and debt, which drag on economic growth. And psychological scars, such as increased levels of caution in how and how much we interact, travel and spend.

The role of economic policy, including monetary and fiscal policy, is to cushion the impact of these risks on households and companies, thereby limiting the depth and longevity of the scarring effects of the crisis on the wider economy. Indeed, limiting that long-term scarring helps explain why monetary and fiscal policies have responded on an unprecedented scale and at an unprecedented pace during the Covid crisis.

Covid is not a traditional *cyclical* shock whose effects will eventually wash-out. It is instead a *structural* shock with lasting implications for the behaviour of individuals and the business models of companies. While some behavioural shifts will leave scars, others will open up new opportunities. The crisis has already flicked a digital switch, accelerating pre-existing shifts in how companies and individuals work, save and spend.

At its peak in April, around half the UK workforce was working remotely, up tenfold from its pre-Covid levels. There has been a Zoom-boom, with the video-conferencing platform's users rising 20-fold and its share price having risen almost tenfold at one point in October compared with its pre-Covid level. Most workers and businesses expect these remote working habits to persist, if on a less dramatic scale, long after Covid has abated, with a mixed model of office and home working the new norm.[1]

This digital switch has also been flicked on how we spend. There has been a surge in online shopping, which has risen from a fifth of transactions pre-Covid to more than a quarter now. Online food deliveries have doubled since the start of the year. And what is true of consumers is true of businesses too. Rates of adoption of digital technologies were four times faster during the first few months of this year than in the

[1] Haldane (2020)

whole of 2019.[2] E-commerce platforms like Shopify and Etsy have seen booming growth, with new stores created on Shopify rising over 70% between the first and second quarters.

These digital switches are clear within financial services too, not least in payments. There has been a further ratchet down in the use of physical cash for transactions, with ATM withdrawals in October around a quarter lower than a year ago, while use of contactless and remote payments rose more than 10% in the 12 months to July and now make up more than 6 out of every 10 card transactions.[3]

In my comments today, I want to focus on two specific areas of financial services - payments by individuals and lending to small and medium-sized enterprises (SME). These activities have long been at the very heart of banking. Yet they were also activities where the pace of innovative change had, until recently, been sedate, with costs high and access constrained.

That is changing. Even before Covid struck, new technologies, data and players were promising a phase shift in financial innovation, a fintech revolution. While this embraced all aspects of financial services, progress was most rapid in the area of payments and lending. Last year the Bank of England published a report on the *Future of Finance*, overseen by Huw van Steenis, which laid out an ambitious reform agenda.[4]

The Covid crisis has accelerated that change and could serve as a catalyst for faster innovation in future. What was a digital priority pre-Covid has, for many, now become a digital necessity. The combination of new technology, and shifts in behaviour resulting from Covid, presents a real opportunity to refashion the payments and lending landscape, for good, in ways which benefit households, companies and the economy.

The Evolving Payments Landscape

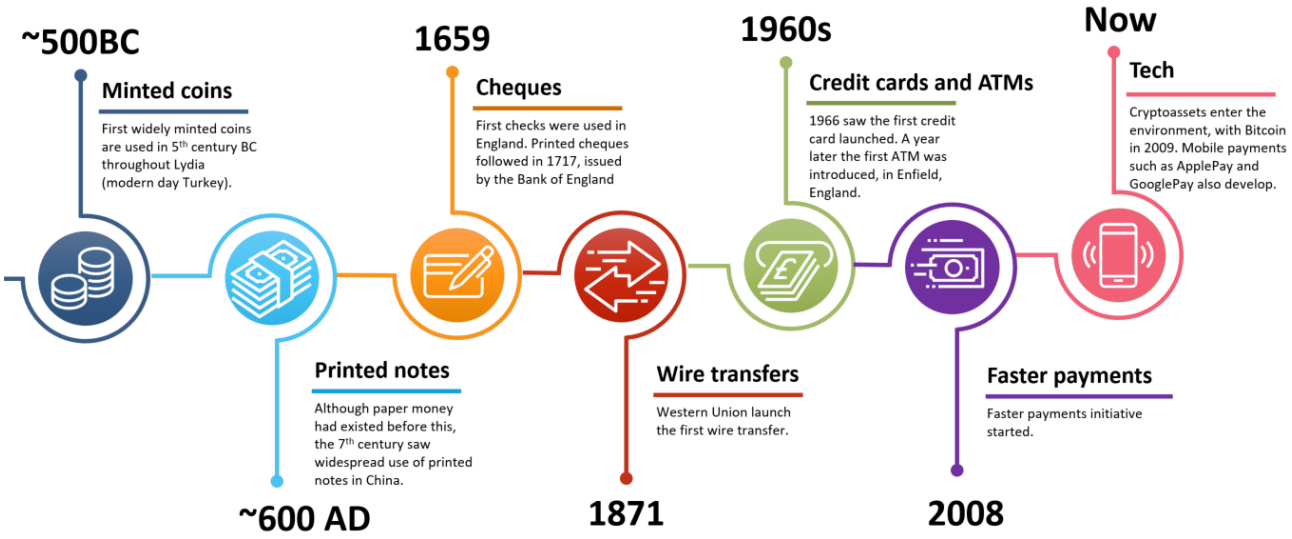
The making and receiving of payments is existential to banking. Uniquely, the liabilities of a bank are money – a payments medium. This distinguishes them from other commercial institutions and is what makes them "special".[5] Money has some of the characteristics of a quasi-public good, whose under- or over-supply imposes negative externalities on the economy. That explains why banks and payments systems, who have a special role in creating and distributing money, are subject to state oversight and support.

Over the arc of history we have seen steady innovations in payments technologies, some initiated by the private sector, others by the state: from the first widely minted coins in 5th century BC Turkey to the first notes in 7th century AD China; from the first cheque in 1659 in England to the first wire transfer in 1871 in

[2] Haldane and Mayfield (2020)
[3] UK Finance
[4] https://www.bankofengland.co.uk/report/2019/future-of-finance
[5] Tobin (1963).

the United States; from the first ATMs and credit cards in the mid-1960s to the first Bitcoin in 2009 (Figure 1).[6]

Figure 1: Timeline of innovations in money



These improvements in payments technologies have delivered gradual, but significant, benefits to households and companies as they pay their bills and manage their finances: improved financial safety and security, and increased accessibility and convenience, often at ever-increasing speeds and ever-lower costs. Through these new payment technologies, some of the fruits of financial innovation have been harvested. Whether enough have been harvested, in particular in the area of payments, is an open question.

It is just over a decade ago that the late Paul Volcker famously remarked: "the ATM has been the only useful innovation in banking for the past 20 years". Enfield in North London – the home of the first ATM – might be surprised to hear it is the cradle of modern-day financial innovation. There is empirical evidence beyond the anecdote, however, to suggest financial innovation has not always proceeded at warp speed.

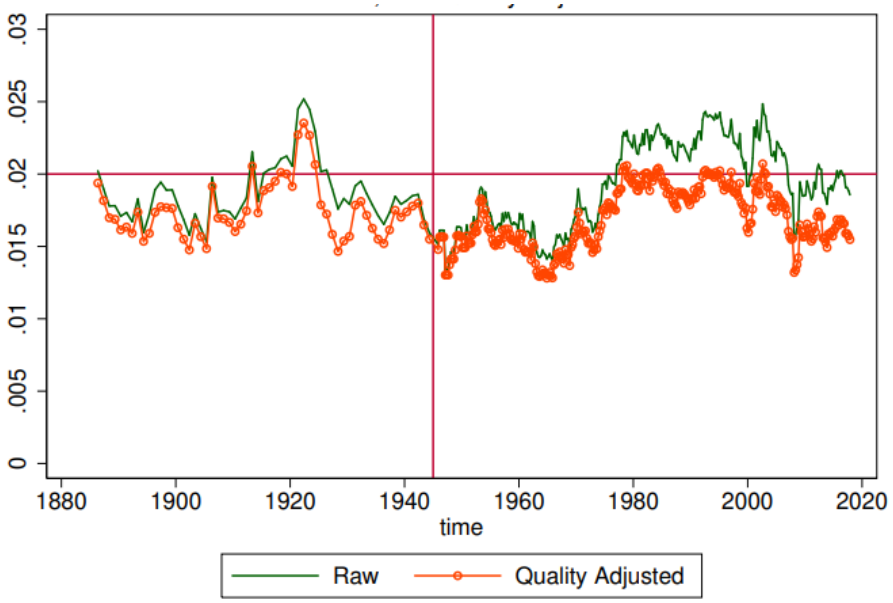
Thomas Philippon has constructed a time-series of the unit cost of financial intermediation in the United States, with adjustments for the improving quality of these services over time (Chart 1).[7] Measuring those concepts is very difficult. Nonetheless, Philippon's striking finding is that the unit cost of financial services has barely changed over the past century. That is difficult to reconcile with rapid-fire financial innovation.

In payments it is easier to see progress – for example, the secular rise in use of card payments over cash. Often less visible to the end-consumer is the cost to them of those payments. For cards, these include the

[6] Birch (2019).
[7] Philippon (2019).

merchant service charge (MSC) paid by the merchant to their merchant acquirer (such as Worldpay or Barclaycard) for each transaction. Ultimately, these costs are borne by consumers through higher prices.

Chart 1: Unit cost of finance in the United States



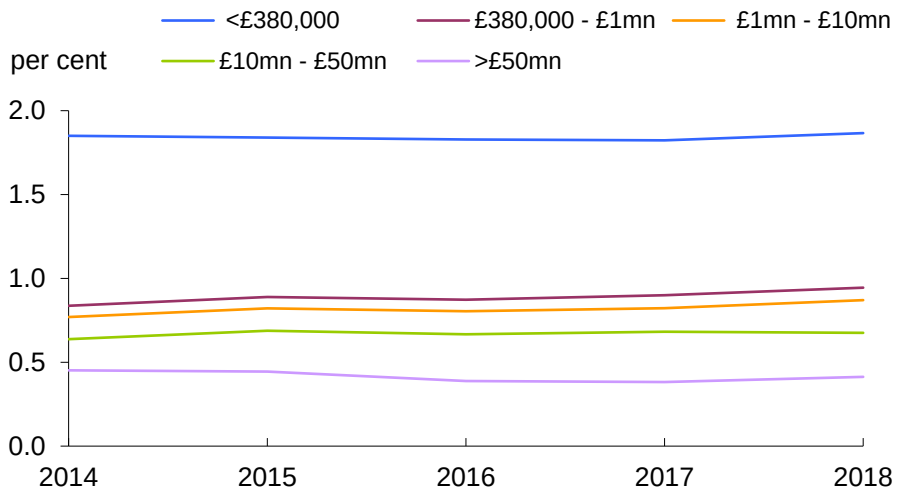
Source: Philippon (2019)

The Payment System Regulator has estimated the weighted average MSC across UK card transactions to be around 0.6% (Chart 2). As roughly 40% of merchant acquirer revenue comes from other fees, the all-in cost of cards is higher-still.[8] These costs are not evenly distributed. For SMEs with the lowest-turnover, the average MSC is three times larger, at around 1.9%. Card fees operate like a regressive tax on smaller businesses and their customers.[9] More generally, these card transaction fees seem high for what is, by banking standards, not an especially complex task.

Of late, there is evidence of the picture on financial innovation generally, and payments specifically, having improved. Unit costs of financial intermediation in the US have started to fall over the past decade or so. And on a cross-country basis, the unit cost of intermediation in the UK has been materially lower than in other countries for several decades (Chart 3).[10] This chimes with other evidence suggesting financial innovation has gathered pace since the Global Financial Crisis.

[8] It is well-established that the cost of cross-border payments is higher still, sometimes much higher, see Carney (2019).
[9] Data on WeChat and AliPay in China suggests their business models have led to lower fees for smaller merchants.
[10] Bazot (2018).

Chart 2: Prices paid for card-acquiring services by merchants of different sizes

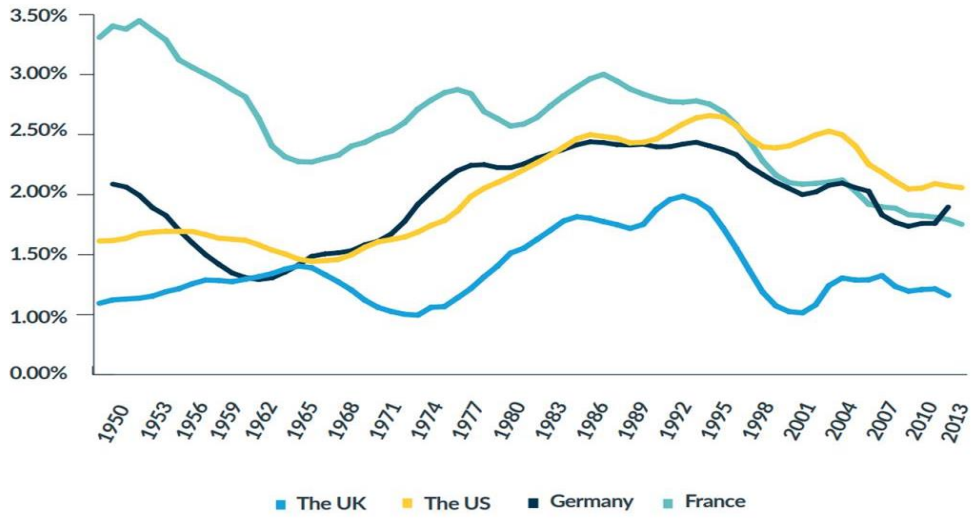


Source: PSR (2020).

Note: Based on data provided by the five largest merchant acquirers. The average MSC is calculated by dividing the total value of fees paid for card-acquiring services by the total value of purchase transactions. Merchant size categories are based on annual card turnover.

The past decade has seen a rising number of new, non-traditional players and new, often data-driven, technologies and products enter the financial services market. As in the past, London has been a global hub for this fintech reformation, a home to over 2,000 fintech companies, more than any other global city. London fintechs have received $3.6bn in funding so far year, second only to San Francisco.11

Chart 3: Unit cost of finance – international comparison



Source: Bazot (2018).

[11] The UK capital also takes the top spot for deal count with 169 deals so far this year.

The fintech wave is affecting every dimension of financial services, from lending to insurance to asset management. Interestingly, though, it is in payments where the pace of change has been fastest. Having been at the back of the innovation queue a decade ago, payments have quickly moved to the front. In the third quarter, payments companies globally raised almost $4 billion across over 100 deals, comfortably above any other fintech sector.

At a retail level, we have seen innovation reflected in the rapidly rising share of online, mobile and contactless payments. In the UK, card payments overtook the use of cash for everyday transactions in 2017. In several countries alternatives to card payments are developing, with app-based retail payments which allow fast, online person-to-person (P2P) and person-to-business (P2B) payments. Examples include Swish in Sweden, iDEAL in the Netherlands and Zelle in the US.

In the UK, a significant step forward was taken with the introduction of Faster Payments in 2008. More recently in 2017, the UK introduced Open Banking. Subject to privacy and security requirements being in place, Open Banking allows individuals to share their financial data with financial services providers – such as fintechs – promoting wider competition and better enabling customers to shop around.

By October, more than 2 million customers had signed up to Open Banking, with more than 80 live open banking apps and products in the Open Banking App Store. Some of these were consumer-facing (bank account aggregators, debt advice, charitable giving), while others were business-focussed (accountancy and tax, debt management, loans and alternative lending, SME financial management).

Despite this progress, the UK remains behind some other countries on P2P and P2B payments. And the full potential of Open Banking remains largely unrealised, with awareness and use remaining low. Around two-thirds of banking customers have never heard of Open Banking and, for around half of customers, their current bank does not even offer an Open Banking service. This unrealised potential is perhaps greatest among SMEs, to which I will return.

More recently still, we have seen the rapid emergence of so-called “digital currencies” as an alternative, if not entirely new, payments medium. These are intended to serve as cheaper and more convenient means of payment than either cash or cards and already come in a variety of flavours, depending on the nature of the transaction (retail versus wholesale), the provider (public versus private) and the underlying technology (for example, distributed ledgers).[12]

A number of companies are developing digital currencies to enable settlement of *wholesale* transactions. For example, Fnality - a consortium of banks – is aiming to build a network of 24/7 high-value payment

[12] Bech and Garratt (2017).

systems in multiple currencies, enabling improved wholesale settlement efficiency and reduced exposures between financial institutions. The Bank is considering whether this model can be enabled in sterling.

There are a number of initiatives to create private digital currencies for *retail* transactions. Some of these are so-called "stablecoins" which use backing assets to seek to maintain a tight relationship with an existing currency or basket of currencies. This distinguishes them from crypto-assets, such as Bitcoin, which have no such backing. Perhaps the best-known of these stablecoins is the proposal by Libra, though there are others.[13]

Finally, a number of central banks, including the Bank of England, are in parallel assessing the case for issuing their own digital currencies, either for wholesale or general purposes. The Bank issued a discussion paper on Central Bank Digital Currencies (CBDC) earlier this year.[14] Last month, seven central banks and the BIS outlined some foundational principles and core features for any publicly-available CBDC.[15]

The precise evolutionary path of digital currencies from here is unclear. If history is any guide, a co-evolutionary path is likely, with an eco-system of diverse and competing payments media and systems emerging, some wholesale, others retail, some private, others public. The technologies supporting these systems may also differ. This is the pattern we see across many national payments systems today.

Diversity and competition are, generally-speaking, positive features of an eco-system, including financial eco-systems. Other things equal, they tend to foster both efficiency and stability, a divine combination.[16] Nonetheless, as history also shows, market-driven evolutionary forces do not always result either in a stable transition, or in an optimal end-point, for users of these systems.

One reason for that is because there are very significant network economies of scale and scope in payments, which can lock in first-mover advantages and stymie competition and contestability. These same competitive forces can also result in higher-risk (higher-return) payments media and payments systems crowding-out lower-risk (lower-return) alternatives, thereby raising systemic risk. This is another example of Gresham's Law ("bad money driving out good") at work.

To address these systemic problems of deficient competition and excess risk, regulatory intervention, or in some cases state provision, has typically been necessary to shape the evolutionary path of payments and payments systems. Interestingly, the Faster Payments and Open Banking innovations in UK payments over recent years came largely at the behest of regulators. And the design of retail and wholesale payments systems in the UK has been heavily shaped by regulatory interventions to safeguard systemic risk.

[13] Including Tether, TrueUSD and Paxos.
[14] See https://www.bankofengland.co.uk/paper/2020/central-bank-digital-currency-opportunities-challenges-and-design-discussion-paper
[15] See https://www.bis.org/publ/othp33.htm
[16] For example, Haldane and May (2011).

In the area of systemic risk, the Bank's Financial Policy Committee (FPC) recently set out some principles to underpin the safety and soundness of private sector stablecoins used for payments. In essence, these are expected to meet equivalent standards to commercial bank money in relation to stability of value, robustness of legal claim and the ability to redeem at par in fiat.[17] In his recent statement to Parliament, the Chancellor announced an HMT consultation on private sector stablecoins.

A key principle underlying the FPC's and Chancellor's statements is that the impact of stablecoins may extend well beyond payments system stability and efficiency. As they potentially disrupt the ultimate settlement medium – money – they may carry important implications for financial and monetary stability too. Generally speaking, the debate on digital currencies has so far focussed rather too little on these foundational issues.

A minimalist criteria would be that digital currencies, whatever their form, should "do no harm" to financial and monetary stability.[18] By that, I do not mean these innovations should not cause some disruption to existing players and products - that is in the very nature of innovation and competition. But there are legitimate concerns a digital currency, whether public or private, could generate systemic risks – for example, due to large, unstable flows of funds from commercial banks deposits into private sector stablecoins or CBDC, especially at times of stress.[19]

There are also concerns that rapid growth of, in effect, "narrow banking" institutions could crowd-out funding, and ultimately credit provision, by the banking system over the medium-term.[20] They may also affect the transmission of interest rates to the economy. In either case, digital currencies could potentially impose a macro-economic cost.[21]

It is clearly crucial these minimalist "do no harm" assurances are satisfied before advancing too far down the digital currency path. The Bank is undertaking research, as part of its newly-published research agenda, to do just that.[22] At the same time, it is also important that some of the longer-term potential structural *benefits* of digital currencies are not overlooked when charting an evolutionary path for digital currencies.

On financial stability, a widely-used digital currency would change the topology of banking in a potentially profound way. It could result in the emergence of something closer to narrow banking, with safe payments-based activities to some extent segregated from banks' riskier credit-provision activities. In other words, the traditional model of banking would be disrupted.

[17] See https://www.bankofengland.co.uk/financial-stability-report/2019/december-2019
[18] As laid out in https://www.bis.org/publ/othp33.htm
[19] Broadbent (2016).
[20] "Narrow banks" are institutions whose deposit liabilities are backed by highly liquid and low risk assets that better match the risk and duration characteristics of these liabilities.
[21] See Meaning et al (2018) and Barrdear and Kumhof (2016).
[22] https://www.bankofengland.co.uk/research/bank-of-england-agenda-for-research

While the focus so far has been on the costs of this disruption – for funding and credit provision – weight needs also to be given to the potential longer-term *benefits* of such a structural shift. Banking instabilities arise from the risk and duration mismatch which arise between the asset and liability sides of a bank's balance sheet. Leverage and illiquidity are the common denominator of all banking crises.[23]

In principle, separating safe payments and risky lending activities could lead to a closer alignment of risk and duration on the balance sheets of those institutions offering these services. We would move closer to a bifurcated intermediation model of narrow banking for payments (money backed by safe assets) and limited purpose banking for lending (risky assets backed by capital-uncertain liabilities).[24] In principle, this would reduce, at source, the intrinsic instabilities of the traditional banking model.

Of course, there could be costs as well as benefits from such a functional separation, including the possibility of reduced credit provision due to reduced levels of liquidity and maturity-transformation, that need to be worked through.[25] At the very least, however, these longer-term potential stability benefits of a very different functional model of intermediation need to be evaluated and weighed. And, so far at least, they have largely been ignored in discussion of the case for digital currencies.

On the monetary policy side, one of the most pressing issues for monetary policymakers today is the zero (or close to zero) lower bound (ZLB) on interest rates. At root, the ZLB arises from a technological constraint on the ability to pay or receive interest on physical cash, whether positive or negative. In principle, a widely-used digital currency could mitigate, if not eliminate, that technological constraint by enabling interest rates to be levied on retail monetary assets. How far it is able to do so will depend on the supply of physical cash to the public, as well as any impact of the new regime on the financial system.[26]

The potential macro-economic benefits of easing the ZLB constraint appear to be significant. Studies prior to the global financial crisis suggested the ZLB would bind infrequently and have only a modest macroeconomic cost. With global real interest rates having since fallen, recent work suggests the ZLB could bind much more frequently, between 20 and 40% of the time. That, in turn, could lead to significant shortfalls in average output relative to potential (of around 2%) and average inflation relative to target (of as much as 2pp).[27]

The macro-economic costs of the ZLB constraint require thorough exploration. To be clear, what I am discussing here is a structural shift in the monetary regime and carries no implications for the costs and benefits of negative interest rates in the shorter-term. And these costs can of course be mitigated in others ways, including through unconventional monetary policy tools and activist fiscal policy. Nonetheless, I

[23] Kindleberger (2001).
[24] Chamley et al (2012).
[25] Kashyap et al (2002).
[26] The Bank of England supplies cash to the public on demand.
[27] See Kiley and Roberts (2017) and Coenen, Montes-Galdon and Smets (2020).

believe it is important these potentially large macro-economic benefits of a digital currency are explored when evaluating the case for a new monetary order. So far, that has not been the case.

The Evolving Lending Landscape

The second area I want to discuss is lending, in particular to SMEs. This, too, has been at the heart of what makes banks special since the first Medici banks began serving Florentine merchants in the 14th century. SMEs remain at the heart of the economy today, in the UK accounting for around 50% of GDP and 60% of private sector employment.

For many decades, the market for SME lending has misfired, constraining the quantity and raising the price of SME financing in ways which have hindered economic growth. That is not a criticism of either banks or borrowers. Instead it reflects the fact that this market suffers from an especially acute problem of two-sided information asymmetry.[28]

Small borrowers know a lot more about their business than lenders ever could. That is true of all borrowers, of course. But the problem is particularly acute for SMEs, information on whom is typically not publically available and for whom the only collateral is sometimes their business plan or the owner's house. Facing this uncertainty, lenders have a natural tendency to demand a premium, or ration the supply, of SME finance.

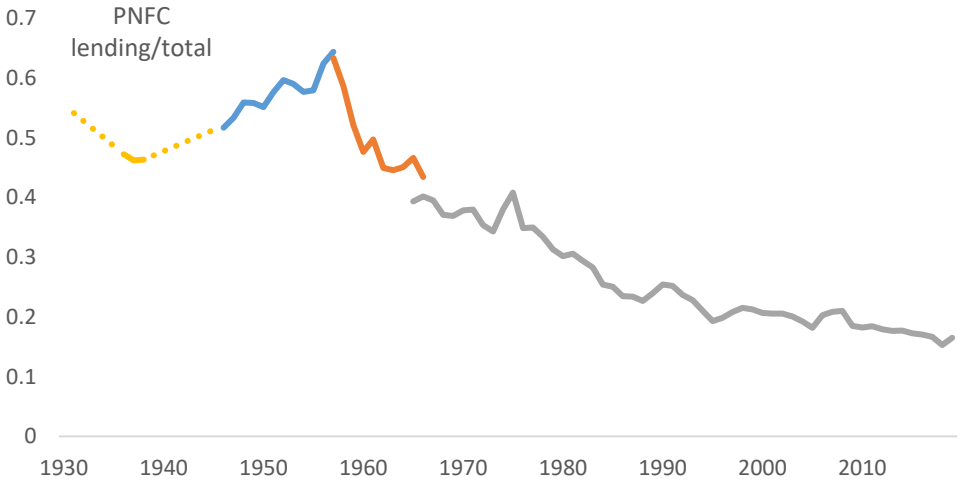
A second information asymmetry arises because existing lenders know a lot more about their SME customers than prospective new lenders. Without access to this information, the supply of finance from alternative lenders is constrained and the scope for SME borrowers to shop around is limited. Acting together, these information frictions have resulted in an SME lending market that, historically, has been patchy and fragile.

In 1929, the Macmillan Commission was set up by the UK government to assess whether the financing needs of SMEs were being met. It concluded decisively that they were not, with large and widespread shortfalls in access to finance by UK companies of all sizes, but especially small, high-growth companies. The so-called "Macmillan Gaps" were born.[29]

These gaps have persisted, perhaps even widened, in the period since. Corporate lending as a fraction of UK banks' balance sheets has fallen from over 60% in the 1950s to around 15% today (Chart 4). It has been estimated that UK SMEs face an annual funding gap of over £20 billion.[30] And what is true in aggregate across the UK is even more acutely true within some of its regions, with sharp spatial disparities in the distribution of SME finance (Chart 5).

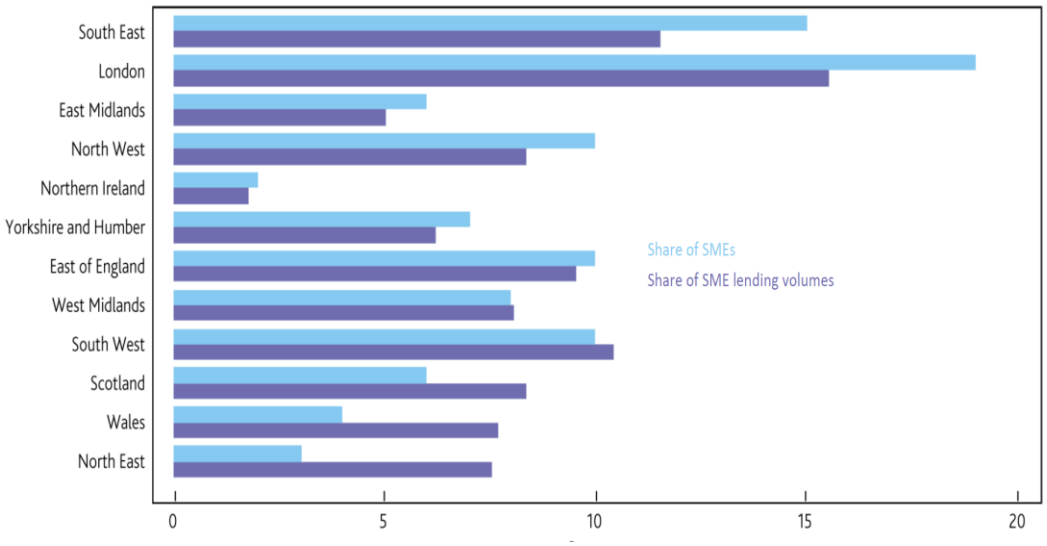
[28] Akerlof (1970).
[29] The Macmillan Report (1931).
[30] https://www.nao.org.uk/report/improving-access-to-finance-for-small-and-medium-sized-enterprises/

Chart 4: Corporate lending as a fraction of total bank lending



Source: Return from clearing banks collected from Macmillan Committee (1931), Bank of England Statistical Summaries (1937 and 1938), Roe (1971), Sheppard (1971), Bank of England.
Note: For 1930-1938, London Clearing Bank advances excluding lending to the public sector, financial companies, NPISH and Personal and Professional sector as a share of total advances. For 1957-1966, UK Resident Bank advances to PNFCs as a share of total advances. For 1963- M4 lending to PNFCs as a share of total M4 lending. This represents £ lending by banks and building societies plus investments.

Chart 5: Regional disparities in availability of SME finance



Source: UK Finance, SME Update 2018; BEIS, Business Population Estimates 2018

These fragilities in SME lending have shown up most vividly at times of financial stress, during which the Macmillan gaps have tended to chasm. During the Global Financial Crisis, stress on banks' balance sheets led to a sharp contraction in loan supply to SMEs by the main lenders, which persisted for years thereafter.

More recently, SME financing gaps re-opened overnight during the Covid crisis when many companies found themselves needing credit to tide over cashflow shortfalls. It was only when so-called Bounce-Back Loans to SMEs were 100%-guaranteed by the Government, effectively removing any credit risk from banks' balance sheets, that SME lending flowed at pace and scale, with around 1 ½ million loans to SMEs extended.

There are some signs innovation is making inroads into the MacMillan gaps. The number of new lenders to SMEs has grown rapidly and new lenders account for most of the flow of new SME lending over the past half a decade. Nonetheless, lending by new entrants remains modest as a fraction of the overall stock, at around 10%. And the incumbency bias towards larger lenders remains considerable. For example, almost all of the Bounce-Back loans extended recently emanated from the major banks.

Surveys make clear the on-going frictions, on both the demand and supply sides, of the SME lending market. More than 50% of SMEs consider only one provider when seeking a loan. A quarter are put off from shopping around by the hassle or time. 60% of those who would like to borrow use personal funds instead. 70% would rather grow more slowly than borrow. And those SMEs seeking to switch lender face a 50% higher chance of being rejected for a loan than existing customers.

Breaking down those well-entrenched barriers calls for a new infrastructure, one which expands the scale and scope of Open Banking – an Open Data platform for SMEs. The Bank set out some ideas on the design of such an open platform for SMEs earlier this year.[31] This would provide a standardised means of permissioned sharing of data about businesses. In addition to data held by banks, this could include data from insurance and utilities companies, credit rating and social media data companies, and Government sources such as the Passport Office, DVLA, HMRC and Companies House.

The platform would run as a decentralised network of data providers using a standardised set of APIs. There would be no central data repository, physical credit file or central infrastructure. Instead, like the internet, the platform would be built around standard protocols that would enable interoperability between decentralised data providers and data users, with businesses having control of this process.

At a practical level this would mean an SME could, at the touch of a button, permission an API call to a handful of data providers to instantly share specified data fields with a third-party, such as a lender. The data transfer would be close to real time and encrypted end-to-end. This would greatly expand the dataset, and shorten the application process, for SME loans.

Digital identification and verification through the platform would reduce KYC and AML checks, shortening and simplifying the on-boarding process for SMEs to banks. Customers could cheaply and quickly compile

[31] See https://www.bankofengland.co.uk/paper/2020/open-data-for-sme-finance

and share their credit files with different providers, or indeed create personal financial passports, thereby providing lenders with a richer and more timely basis for credit assessment.

For lenders, a less costly on-boarding and credit risk assessment process would lower materially many of the supply-side barriers to SME finance. It would also potentially lower the barriers to entry among new, innovative companies, thereby improving the contestability of the SME lending market and making it easier for businesses to shop around.

While the case for such a platform was strong pre-Covid, the Covid crisis has materially strengthened the case as a means of supporting the three R's. One legacy of the Covid crisis is that many corporates will emerge with materially higher levels of debt. While many will be able to pay down these debts over time, others may require some debt remediation or re-profiling. Indeed, in many cases this will make sense for both the borrower and the lender.

Debt restructuring is a tortuous and time-intensive process, in large part due to the information frictions that afflict the SME lending market in normal times. That problem is likely to be particularly acute today, given the scale (around £60 billion) and scope (around 1½ million loans) of borrowing during the Covid crisis. The Open Platform could reduce significantly those information frictions, lubricating the process of corporate debt workout and recovery, in ways which would support companies, lenders and the economy as a whole.

The same is true of the second R, rebalancing. Covid is amplifying pre-existing imbalances between different sectors of the economy and different regions of the UK. Those imbalances are, at least in part, the result of frictions in cost and information which are larger in the less well-performing parts of the UK. These are frictions that an Open Data platform could potentially help to reduce.

The final R is revitalisation. Seed financing for start-up and scale-up is a crucial ingredient in the revitalisation of the economy, helping create new businesses and new jobs. Work by TheCityUK and led by Adrian Montague has made the case for new equity-based financing vehicles to support these companies. An open data platform could play an important supporting role, especially among new, high-growth companies whose credit file will, almost by definition, be thin.

Building the Digital Foundations

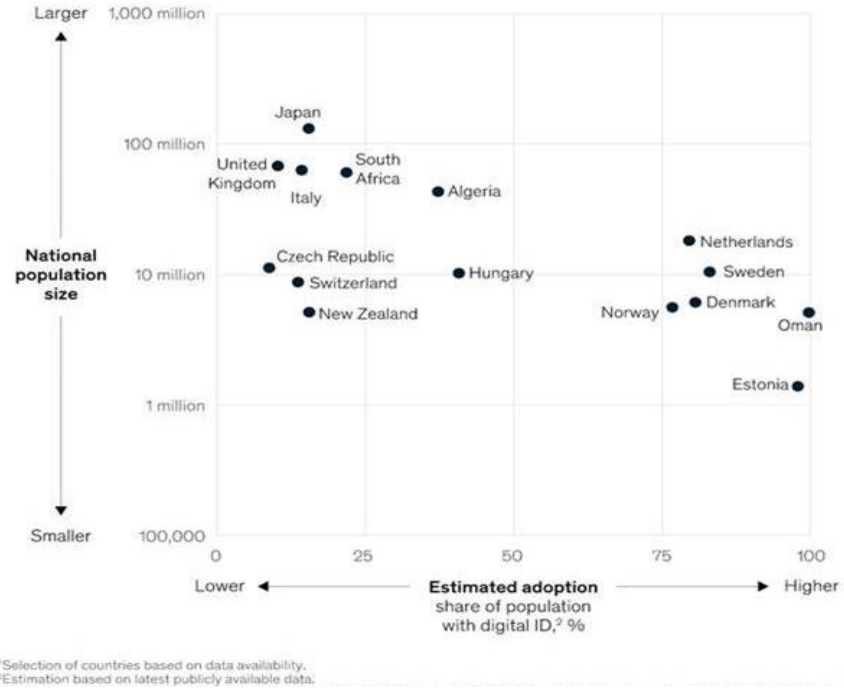
History tells us that nurturing financial innovation, in a way that is safe, efficient and lasting, requires the combined efforts of the private and public sectors. It also tells us that it requires the right foundational building blocks. Let me end by discussing briefly a couple of those foundation stones: *digital identifiers* and *digital skills*. Both are plainly important within and beyond the financial services sector.

We know from historical experience that identifiers are a fundamental, if often overlooked, driver of growth in trade and activity. The past half-century has seen a dramatic deepening and lengthening of international supply chains, in particular for trade in goods.[32] One of the unsung heroes of this transformation in supply chains was the emergence of internationally-agreed identifiers for goods and their location – barcodes.[33]

The same is true of the World Wide Web. The emergence and exponential growth of the web has been astounding. Today, it connects almost 5 billion people globally – around 60% of the planet's population – and adds another 880,000 users each day.[34] Yet that success would have been impossible without a common internationally-agreed language (HTML) and set of locational identifiers (URLs).

The costs of not having common identifiers was exposed by the Global Financial Crisis. Then, their absence for firms and products generated levels of uncertainty that caused seizures in many financial markets. That is why, in the period since, international efforts have been made to develop Legal Entity Identifiers (LEIs) for financial firms across most advanced economies.[35] So far, over 1.7m LEIs have been issued globally.

Chart 6: Estimated coverage of digital ID solutions, by country



Source: Mckinsey (2020)

This same progress has not been seen, however, when it comes to creating digital identifiers for either individuals or small businesses. The UK is currently lagging behind many other countries in developing the

[32] Baldwin (2012).
[33] Haldane et al (2012)
[34] Based on 321 million new users in the 12 months to October 2020.
[35] See https://www.bankofengland.co.uk/bank-overground/2020/legal-entity-identifiers-the-code-to-a-digital-economy

appropriate infrastructure for digital identities and digital verification. Research suggests it is close to the bottom of the international league table, far behind Estonia, Netherlands, Sweden and Denmark (Chart 6).[36]

This shortcoming was exposed in the UK during COVID crisis, when a means was needed of transferring monies to individuals and companies, efficiently, speedily and safely. In response, sign-ups to the GOV.UK Verify service between March and May were more than double the pre-Covid rate. The Department of Culture Media and Sport (DCMS) is currently developing a trust framework that might enable the development of digital IDs across the UK.

The benefits of digital identities for consumers and SMEs are clear. They would make moving money around the financial system safer, cheaper, and faster. Safer, by reducing the risk of financial crime. Cheaper, by reducing the costs of KYC checks for financial institutions. And faster, by reducing barriers to customers switching between providers.

There are rightly concerns about the privacy and security implications of digital IDs. But the truth of the matter is that anyone who communicates or transacts digitally – which is almost everyone - already has multiple digital identities, often poorly protected. A single, unique digital ID would enable the permissioned sharing of specific data, reinforcing personal security and giving consumers much greater control than now over their identities and data.

Finally, digital skills. Even before Covid crisis, the UK suffered from an acute digital skills deficit, hindering the effectiveness of individuals and businesses at work and at home. These digital deficits have been a significant contributor to the UK's productivity under-performance relative to other countries over recent years and to the widening performance gaps between different regions of the UK.[37]

The digital skills gap in the UK is not just related to an ageing population: 44% of those offline are under the age of 60. At a regional level, regions outside of London and the South East are far less likely to have basic digital skills as measured by the ONS. And while the pandemic has forced lots of businesses and individuals online, only 32% of staff at SMEs say they are comfortable with digital technology.

It is clear a concerted effort will be needed to close these digital deficits and divides. There are plenty of useful initiatives already in play. One example is the Government's Digital Apprenticeship Programme (DAS) which started in 2017. The DAS currently takes on an additional half a million apprentices each year. While significant, this falls well short of the numbers that will be needed to create a digitally literate workforce.

[36] Mckinsey (2020) https://www.mckinsey.com/industries/public-and-social-sector/our-insights/how-governments-can-deliver-on-the-promise-of-digital-id
[37] Haldane (2019).

Conclusion

The Covid crisis has led to a massive loss of lives and livelihoods. It will leave lasting scars, financial and psychological. At these times, the three R's – Recovery, Rebalancing, Revitalisation – are more important than ever. So too is the need for optimism about the opportunities this crisis will serve up, as all crises do.

In financial services, these digital opportunities in the areas of payments and lending are large and could deliver lasting benefits to individuals and companies. As it enters its second decade, and working with the financial services sector, the Bank and other regulatory authorities, TheCityUK will have a key role to play in seizing these opportunities.

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