WINTER 2020

FINANCE21

Embrace digital innovation to drive economic recovery. Simon Gray discusses

Kristalina Georgieva says the IMF is ready to foster a more resilient monetary system

Graham Bright on the challenges facing financial institutions

21ST CENTURY FINANCE

Foreword

Welcome to the Winter edition of Finance21, a *World Commerce Review* supplement. This publication has been prepared in response to readership demand for an overview of the financial sector in these turbulent and unique times.

All aspects of the sector are examined, with the most respected authors providing the reader with the most comprehensive information available. Our brief is to provide all the data necessary for the readership to make their own informed decisions. All editorials are independent, and content is unaffected by advertising or other commercial considerations. Authors are not endorsing any commercial or other content within the publication. ■

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Embracing digital innovation

Simon Gray discusses the benefits of embracing digital innovation to help drive economic recovery

Simon Gray, Head of Business Development and Marketing at BVI Finance

Li Keqiang, the Chinese Premier, once said that *"changes call for innovation and innovation leads to progress."* This is certainly true of the financial services ecosystem, which has undergone dramatic change over the last decade and seen a raft of new innovation centred around the digital economy.

Traditional financial service providers have had to grapple with a host of new challengers entering the space, from digital entrepreneurs through to blockchain and cryptocurrency pioneers. Unconstrained by legacy solutions, these new fintech innovators and start-ups have highlighted just how far things have progressed. And with the vast volume of data that is now available in real-time, these disruptive start-ups are leveraging data insights and intelligence in new ways, and for real business impact.

Alongside this trend, the pandemic has also positively accelerated digital innovation in all major economies. The sudden pivot towards remote working and ensuring business resilience has forced people and businesses to embrace digital technologies in new and agile ways. Reliance on digital platforms has also now become an essential part of the process in securing and completing financial deals and transactions in this new norm of remote working.

To overcome the challenges to business models and the ongoing global uncertainty, there is now an even greater urgency for companies to adapt and innovate. Businesses which were already using digital technologies coped better with the ongoing crisis, and others are rapidly upskilling and investing in their capabilities. However, the ability to embrace digital innovation will be crucial to a sustainable, post-pandemic economic recovery.

Leading by example

The British Virgin Islands (BVI) has a long track-record of promoting digital innovation and leveraging the full power of digital capability. The BVI, like other International Financial Centres (IFCs) more generally, provides agile, sophisticated and yet cost-efficient financial products within a supportive regulatory and business environment.

For example, the BVI's Incubator Funds are especially well-suited for digital asset start-ups. There has been much interest in these funds which provide start-ups with an easy to use platform without punitive administrative costs and enable a new manager to get established without having to appoint local directors.

This environment also provides valuable opportunities for digital asset start-ups to thrive. The jurisdiction's progressive corporate law fosters international trade while ensuring compliance with global regulatory standards. As a result, it is becoming increasingly attractive to structure investment vehicles in established jurisdictions like the BVI that provide the right balance between stability and attractive economic incentives.

... we must positively embrace innovation so that we can continue to progress as an industry for the benefit of the financial services sector as a whole and the wider global economy

The BVI actively invests in its own technological capabilities and has deployed leading-edge technology to ensure it maintains global international standards through establishing a more effective partnership with global regulators and law enforcement authorities around the world – driven by technology.

The BVI's Beneficial Ownership Secure Search system (BOSSs) is the gold standard in accessible company registers. This fully searchable platform is decentralised and cloud-based, and uses the highest levels of security and encryption to hold verified data on companies incorporated in the BVI.

The digital platform has been lauded by prominent law enforcement authorities like the UK's National Crime Agency (NCA) and was integral to disclosing information that warranted the UK's first Unexplained Wealth Order (UWO), obtained by the NCA in 2018.

The BVI has also been proactively exploring opportunities in cryptocurrency and blockchain technology. A recent report estimated that over 80% of crypto hedge funds are domiciled in IFCs, with the BVI continuing to attract a growing proportion attracted by the favourable funds regime and growing expertise.

Though cryptocurrencies have been undermined by volatility in the past, they have rapidly evolved in recent years, which means it is essential to take a renewed focus on possible avenues of potential. It is clear that digital currencies have a great potential to speed up transactions and reduce fees, while ensuring greater security. They also have the potential to foster financial inclusion, especially in developing economies where people might lack access to more traditional formal banking.

The underlying technology of crypto assets or blockchain is another innovative space with significant implications for the global financial services industry. This distributed ledger is a decentralised database where transactions are kept in a shared, synchronised and distributed book-keeping record, which is secured by cryptographic sealing. It can be an important tool for building a fair, inclusive and secure digital economy, as the platform can provide a transparent and user-centric digital service.

One area the BVI is keen to explore and maximise is smart contracts such as the Decentralised Autonomous Organisations (DAO) and Limited Liability Autonomous Organisations (LAO), which can codify transactions and contracts, and in turn 'legally' manage the records in a distributed ledger.

This is a rapidly evolving area and, in the future, we could see smart contracts potentially interacting with multiple financial systems, automatically transferring assets while monitoring for compliance and making sure the terms of a contract are fulfilled. This technology is still in its infancy and the BVI is committed to cooperation and dialogue between industry stakeholders and regulators to foster and deploy blockchain-based applications within an appropriate regulatory framework.

Developing the right regulation

There are new challenges that come with emerging technologies and many governments are struggling to put in place proper regulatory frameworks for new sectors like cryptocurrencies. Regulation has not always kept up, especially with digital assets which essentially live on borderless blockchains, unlike regulatory policies which are specific and vary across jurisdictions. Nevertheless, and to nurture further innovation, it is important to interrogate new technologies and make sure the right policies are in place.

The Organisation for Economic Cooperation and Development (OECD) is currently debating these inconsistent rules and plan to release a tax-reporting framework for crypto-assets based on the common reporting standard (CRS). Of course, crypto funds and assets will only mature in the coming years, so it is incumbent on all jurisdictions to cooperate and develop a coherent regulatory regime that satisfies global standards such as those set out by the OECD. It is, however, imperative that the right balance is achieved between enforcing good governance while making sure that strict rules do not dampen innovation.

In the BVI we are actively investing in fintech regulation and recently launched the Fintech Regulatory Sandbox – a testbed for fintech businesses to conduct live-testing and identify areas for improvement before they launch. This light-touch regulatory regime is designed to foster innovation and create a friendly ecosystem for digital start-ups to thrive and is helping formalise the existing significant digital activity already taking place in our business company and funds regimes

Innovation in the 'new normal'

Initiatives like this are helping to stimulate innovation and leverage technology in ways that improve business processes. Going forward this will be an important strategy to help kickstart recovery and ensure long term economic growth.

The pace of technological change, which has only been accelerated by the pandemic, is one of the most creative forces shaping today's financial services ecosystem. Like Li Keqiang, we must positively embrace innovation so that we can continue to progress as an industry for the benefit of the financial services sector as a whole and the wider global economy. ■

ABOUT THE AUTHOR

Simon and the BVI Finance team lead the efforts of the BVI in promoting the territory's international business and financial services both locally and overseas. Simon is a senior financial services professional with a strong international *background with experience of Europe, the Middle East, North America, Asia, Africa and Latin America and an established track record of success.*

Seizing the opportunities from digital finance

Developments in digital finance could transform how consumers and businesses make payments and raise finance. This could help revitalise the UK economy, says Andy Haldane

This is a critical time for the financial services sector and the economy as a whole. We all live in hope of the three Rs - Recovery, Rebalancing and Revitalisation. With the recent positive news about vaccines, that hope is now justified. I want to discuss 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.

In financial services, these digital opportunities in the areas of payments and lending are large and could deliver lasting benefits to individuals and companies

Rates of adoption of digital technologies were four times faster during the first few months of this year than in the 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 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

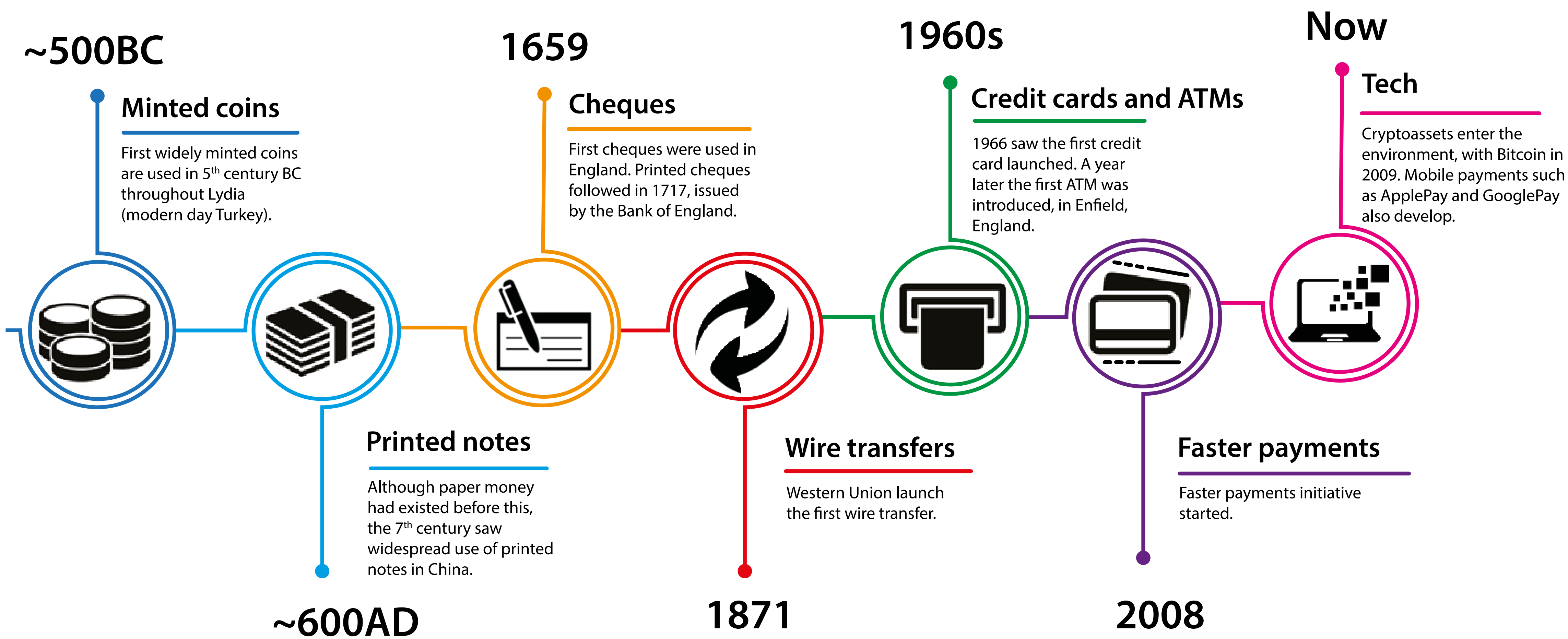
The making and receiving of payments is existential to banking. Uniquely, the liabilities of a bank are money – a payments medium. This distinguishes them from other commercial institutions and is what makes them 'special'[5]. Money has some of the characteristics of a quasi-public good, whose under- 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 the United States; from the first ATMs and credit cards in the mid-1960s to the first Bitcoin in 2009 (Figure 1)[6].

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.

Figure 1. Timeline of innovations in money



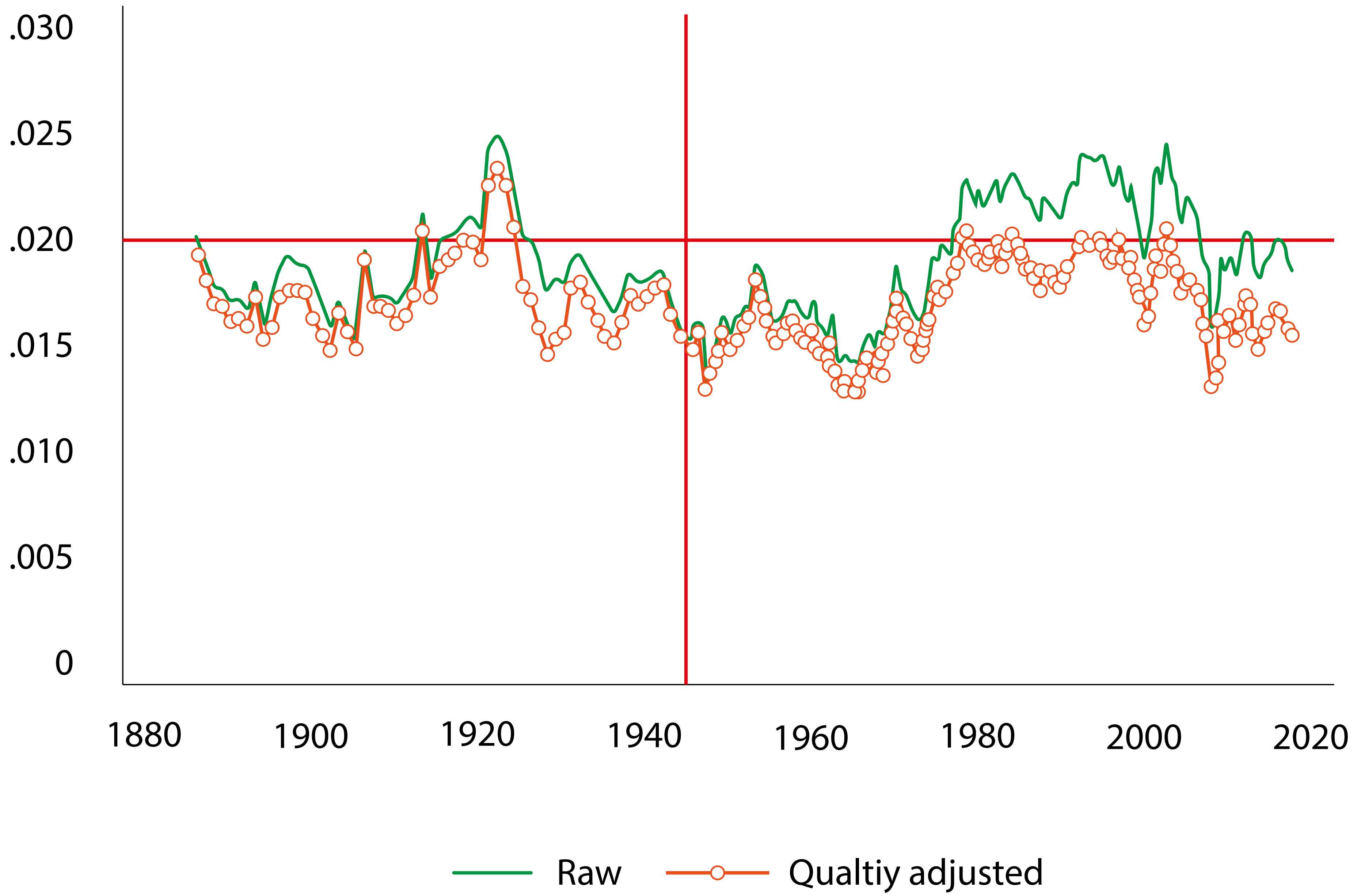
Thomas Philippon has constructed a time-series of the unit cost of financial intermediation in the United States, with adjustments for the improving quality of these services over time (Chart 1)[7]. Measuring those concepts is very difficult. Nonetheless, Philippon's striking finding is that the unit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

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.

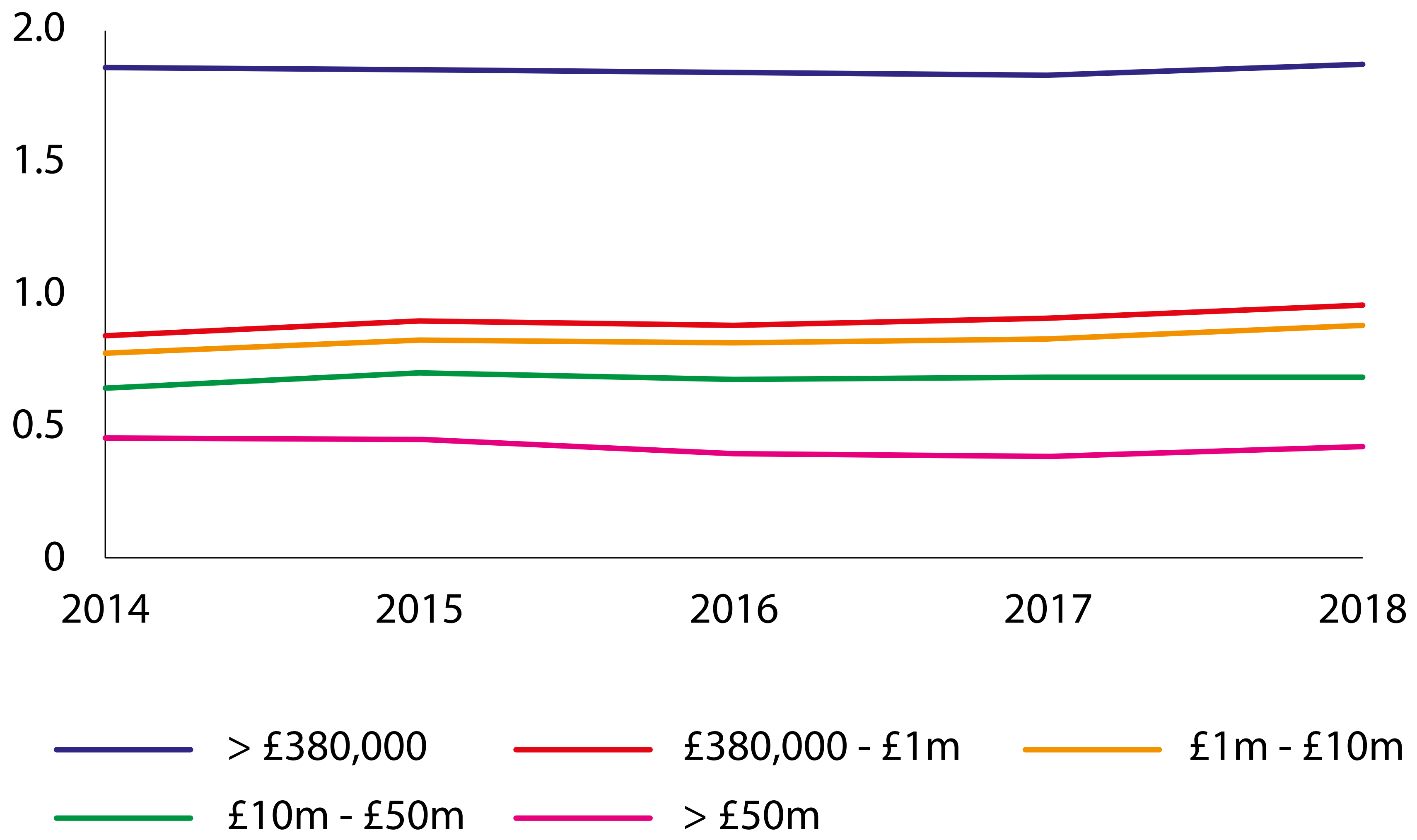
Of late, there is evidence of the picture on financial innovation generally, and payments specifically, having improved. Unit costs of financial intermediation in the US have started to fall over the past decade or so. And on a cross-country basis, the unit cost of intermediation in the UK has been materially 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.

Chart 1. Unit cost of finance in the United States



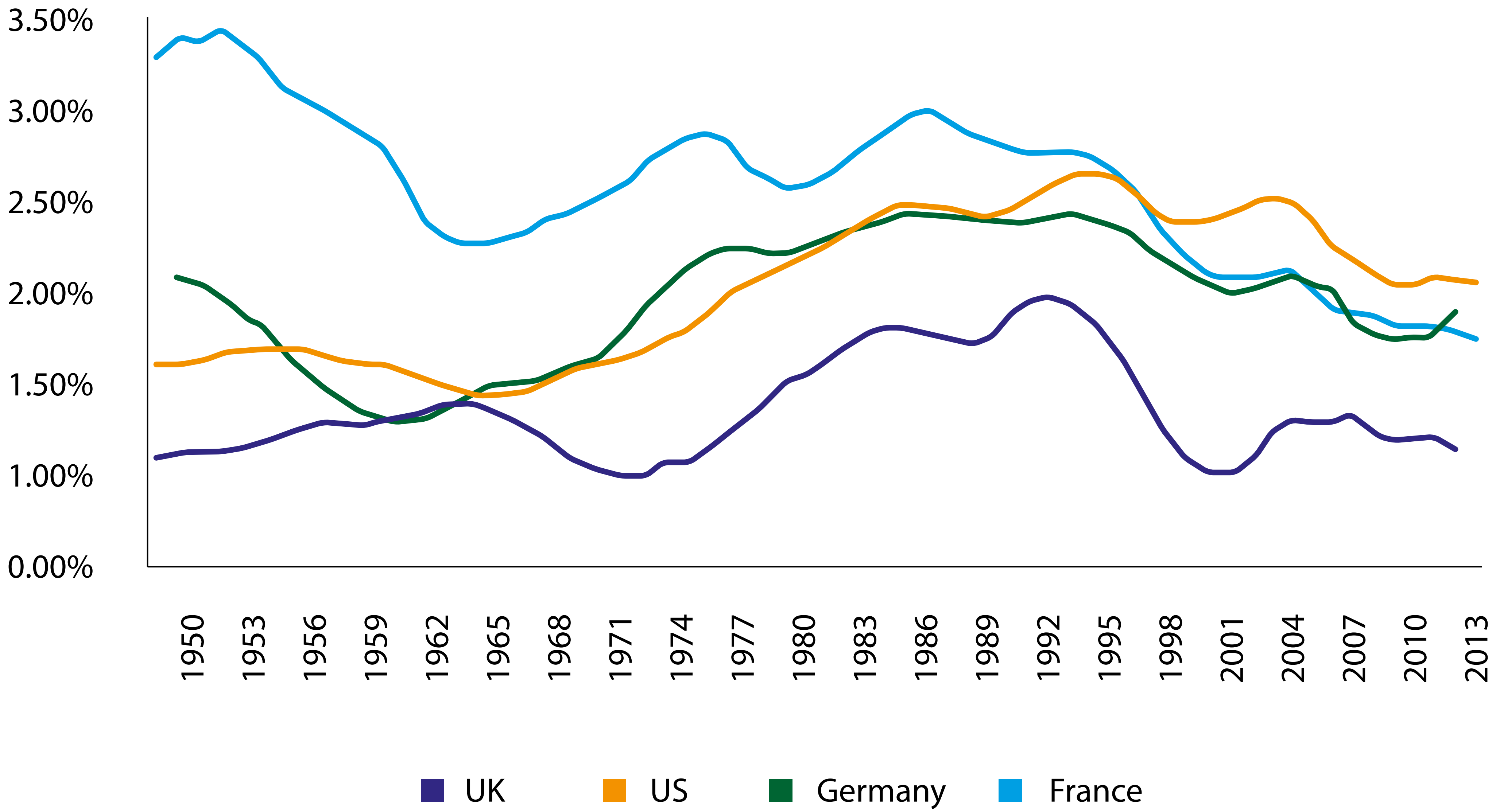
Source: Philippon (2019)

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



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.
Source: PSR (2020).

Chart 3. Unit cost of finance – international comparison



Source: Bazot (2018).

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 $3.6 billion in funding so far year, second only to San Francisco[11].

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 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]. In October 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 ecosystem 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 ecosystem, including financial ecosystems. 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.

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.

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 other ways, including through unconventional monetary policy tools and activist fiscal policy.

Nonetheless, I 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].

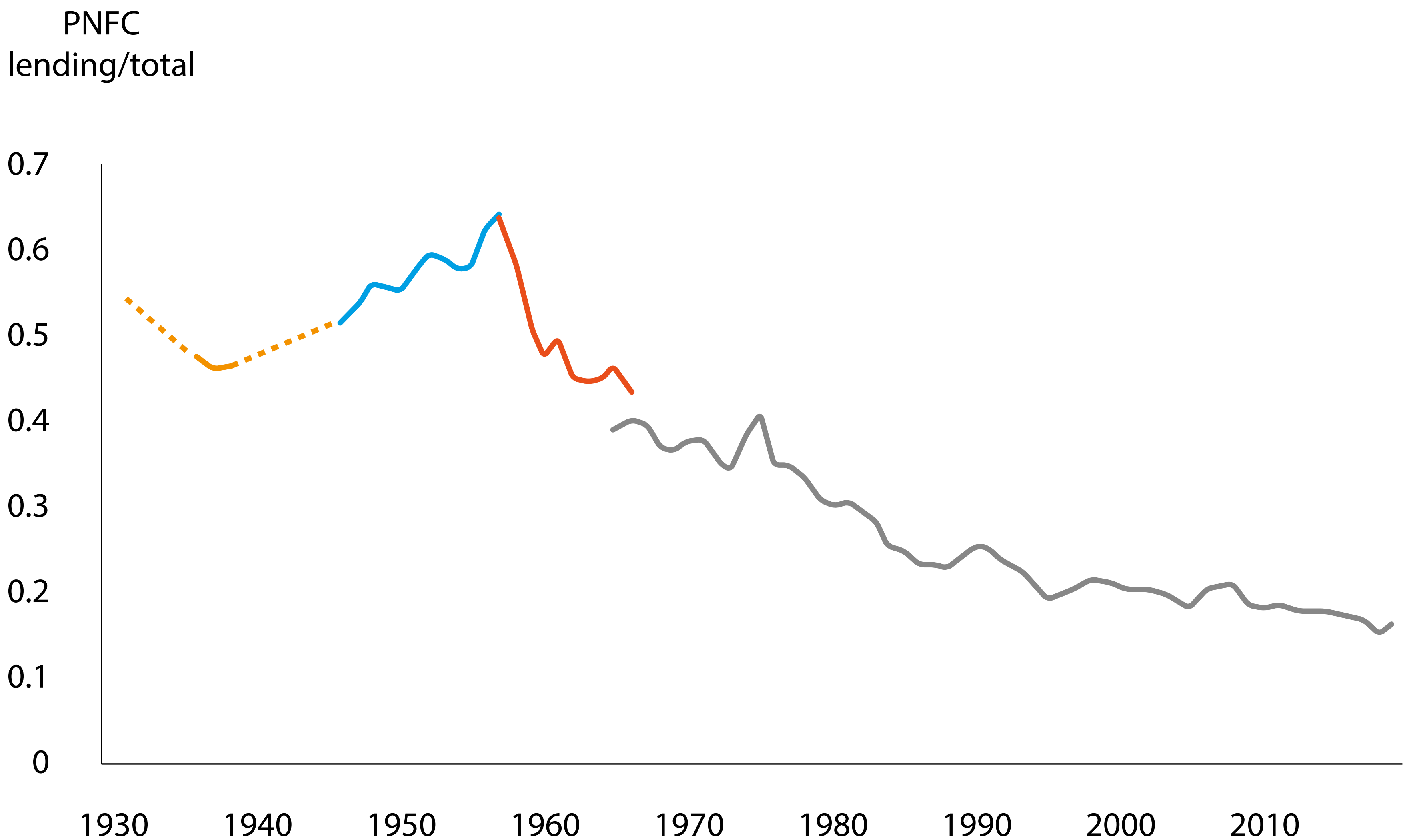
These gaps have persisted, perhaps even widened, in the period since. Corporate lending as a fraction of UK banks' balance sheets has fallen from over 60% in the 1950s to around 15% today (Chart 4). It has been estimated that UK SMEs face an annual funding gap of over £20 billion[30]. And what is true 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).

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 1½ million loans to SMEs extended.

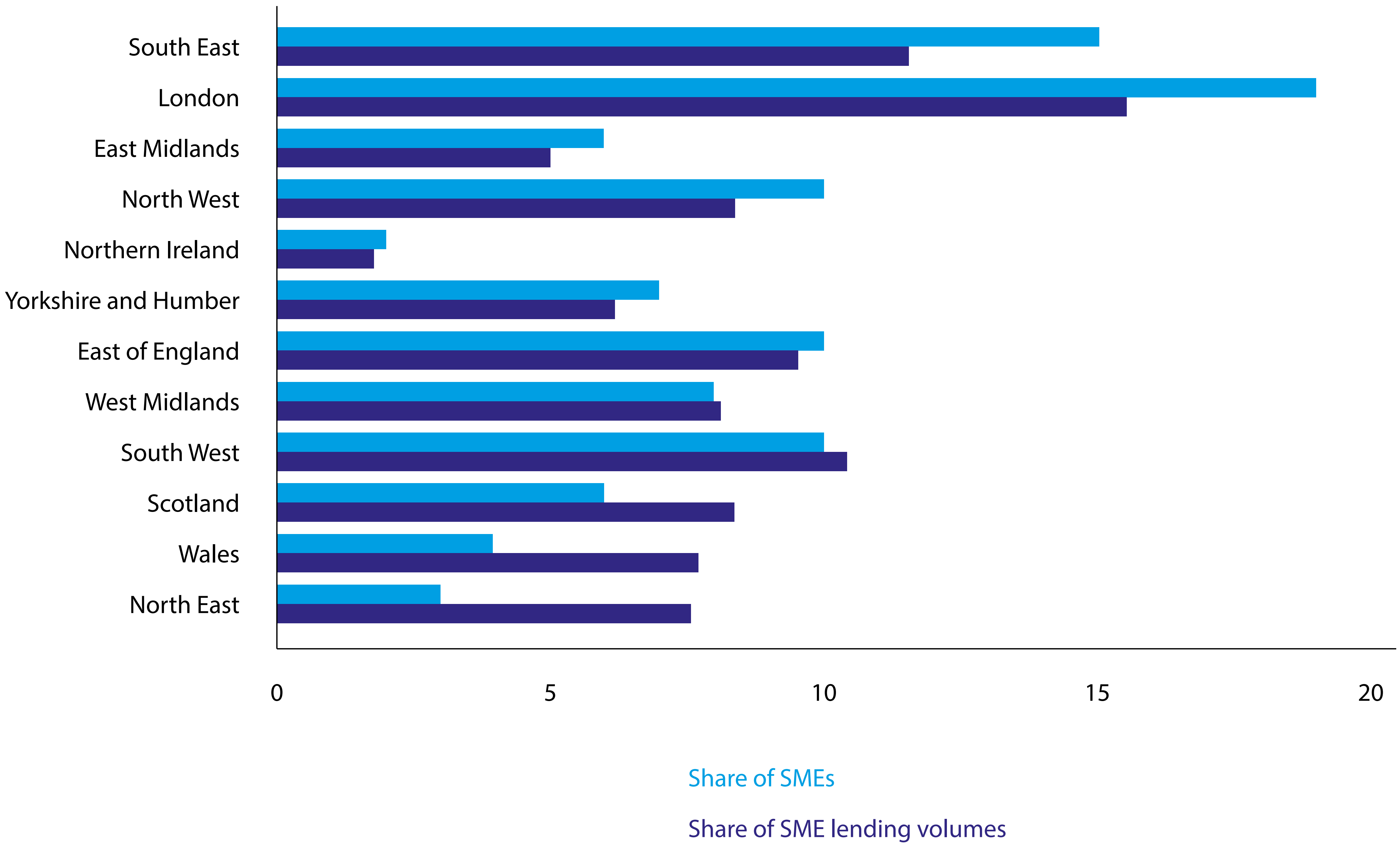
There are some signs innovation is making inroads into the MacMillan gaps. The number of new lenders to SMEs has grown rapidly and new lenders account for most of the flow of new SME lending over the past half a decade. Nonetheless, lending by new entrants remains modest as a fraction of the overall 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.

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



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.
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

Chart 5. Regional disparities in availability of SME finance



Note: Selection of countries based on data availability, estimation based on latest publicly available data
Source: UK Finance, SME Update 2018; BEIS, Business Population Estimates 2018

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 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 economies3[5]. So far, over 1.7 milliom LEIs have been issued globally.

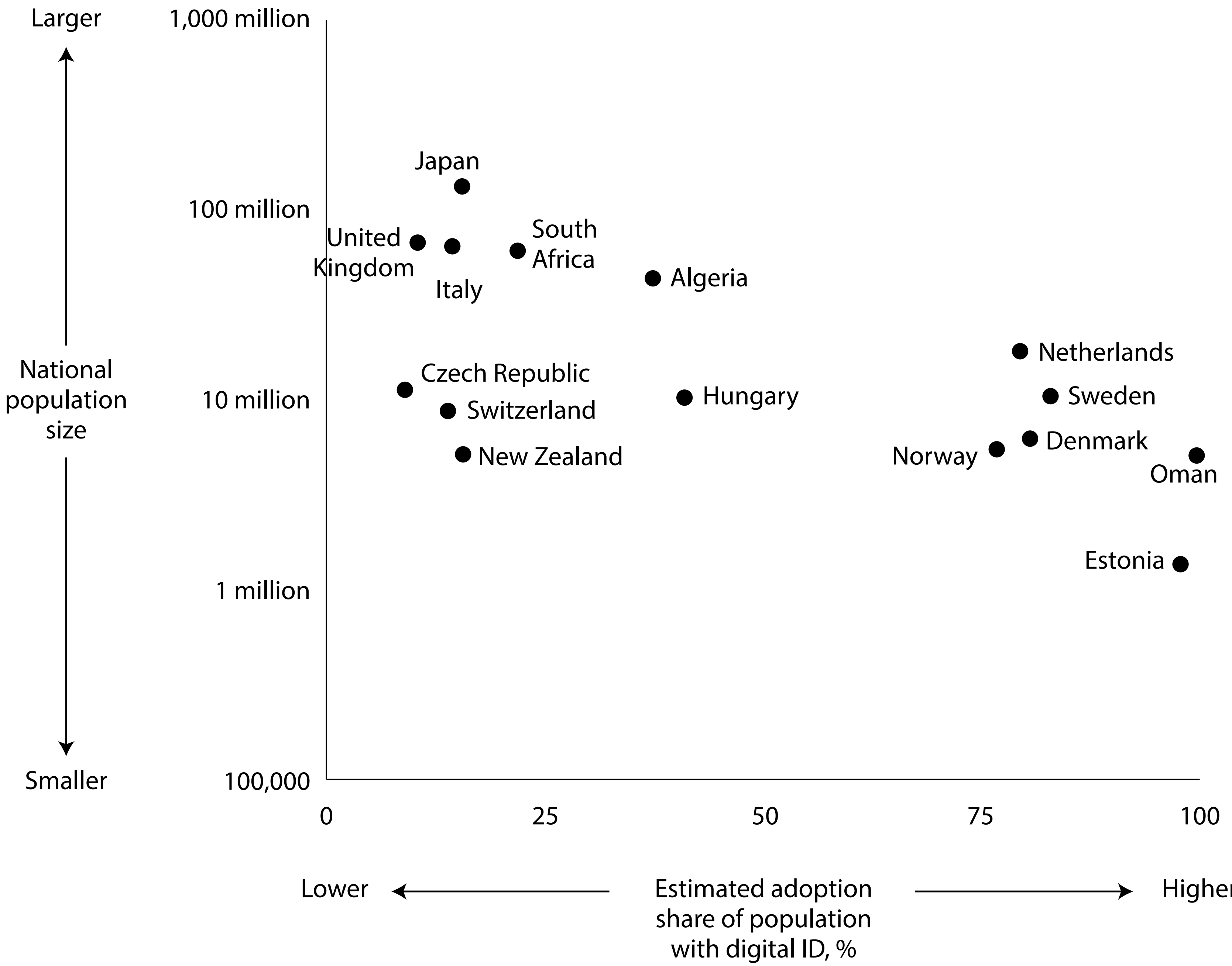
This same progress has not been seen, however, when it comes to creating digital identifiers for either individuals or small businesses. The UK is currently lagging behind many other countries in developing the appropriate infrastructure for digital identities and digital verification. Research suggests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

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



Source: Mckinsey (2020)

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.

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, will have a key role to play in seizing these opportunities. ■

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Endnotes

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5. Tobin (1963).
6. Birch (2019).
7. Philippon (2019).
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).
11. The UK capital also takes the top spot for deal count with 169 deals so far this year.
12. Bech and Garratt (2017).
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).
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
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The views expressed here are not necessarily those of the Bank of England or the Monetary Policy Committee. I would like to thank Kathleen Blake, Shiv Chowla, Harvey Daniell, Rachel Greener, Rachel James, Jack Meaning, Varun Paul, Andrei Pustelnikov, Oliver Thew, Ryland Thomas, Cormac Sullivan and Michael Yoganayagam for their help in preparing the text. I would like to thank Andrew Bailey, Alex Brazier, Jon Cunliffe, Andrew Hauser, Alice Pugh, Christina Segal-Knowles, Silvana Tenreyro and Jan Vlieghe for their comments. This article is based on a speech delivered at TheCityUK 10th Anniversary Conference, 18 November 2020.

The two sides of the (stable)coin

Global stablecoins signal the need for change, but they can pose serious risks, says Fabio Panetta. We should remain open to global competition to foster innovation and be prepared to make the most of it

The payments industry is undergoing a digital transformation, and this transformation is accelerating. We can now pay with cards that are stored in our mobile wallets, ready for a transaction to be initiated at the touch of a button. Mobile payment apps allow us to easily pay or send money to friends. New services based on application programming interfaces, such as payment initiation services, are expanding consumers' choice of e-commerce payments.

Fintechs have sparked the latest wave of innovation. In a recent survey by the European System of Central Banks, over 200 new payment solutions were reported, of which more than one-third were provided by start-ups[1].

New providers have progressively shifted their business models from fee-based to data-driven, where payment services are provided free of charge in exchange for personal data that offer deep insights into users' preferences.

The global technology firms – the so-called big techs – are using this model to leverage their large customer base and expand in global markets. Thanks to their global footprint, they are uniquely positioned to offer services in the area of global cross-border transactions, where current solutions are low quality and expensive.

This is the backdrop against which stablecoins have emerged. They could be used by the big techs to offer innovative payment solutions that work both within and across national borders. While stablecoin initiatives are still in their infancy, they should be carefully analysed as they could radically transform the payments landscape.

I will discuss the potential advantages and risks of stablecoins, and their implications for the payments market, the financial sector and the overall economy. I will then turn to the forward-looking policies that are needed to steer innovation towards welfare-enhancing outcomes.

Two sides of the same (stable)coin

Stablecoins are digital units of value designed to minimise fluctuations in their price against a reference currency or basket of currencies[2]. To this end, some stablecoin initiatives pledge to hold a reserve of state-issued currencies or other assets against which stablecoin holdings can be redeemed or exchanged. Stablecoins became the subject of heated debate last year, after the technology giant Facebook and its partners announced their own global stablecoin, Libra.

Global stablecoins are initiatives which aim to achieve a global footprint[3], without necessarily relying on existing payment schemes and clearing and settlement arrangements. For example, Libra is an integrated construct that simultaneously encompasses a new settlement asset, a new payment rail and new end-user solutions.

The process of digitalisation cannot be reversed – on the contrary, it is picking up speed. Global stablecoins are an expression of the need for change

Global stablecoins could drive further innovation in payments, responding to the need for cross-border payments and remittances that are more efficient and cheaper. Indeed, the Financial Stability Board has proposed a roadmap to enhance cross-border payments that recognises a role for sound global stablecoin arrangements[4].

The flip side of stablecoins is the host of risks they can pose to our social and economic life.

For example, data-driven models could pose a risk of misuse of personal information for commercial or other purposes, which could jeopardise privacy and competition and harm vulnerable groups. Another concern is that wide acceptance of stablecoins offered by foreign companies would make European payments dependent on technologies designed and governed elsewhere.

This could raise potential issues of traceability in the fight against money laundering, terrorist financing and tax evasion. It could also make the European payment system unfit to support our Single Market and single currency and vulnerable to external disruption, such as cyberattacks.

Risks to financial stability and monetary sovereignty

Other risks involve the monetary and financial system. In fact stablecoins, if widely adopted, could threaten financial stability and monetary sovereignty[5]. As I mentioned earlier, stablecoin issuers often promise that their stablecoins can be converted into fiat currencies. But this promise generally differs significantly from the convertibility mechanism for bank deposits or e-money.

In the case of bank deposits, one-to-one convertibility to the fiat currency is safeguarded by deposit insurance schemes and prudential regulation and supervision. The value and safety of e-money holdings are protected by the fact that e-money issuers must hold customer funds in custody by third parties.

These safeguards may not apply to stablecoins, which are therefore vulnerable to runs. If the issuer does not guarantee a fixed value, the price of the stablecoin will vary with the value of the reserve assets, and a run could occur whenever users – who bear all the risks – expect a decrease in the redemption price of the stablecoin. But a run could also occur if issuers do guarantee a fixed value of the stablecoin, if they are perceived as being incapable of absorbing losses.

Moreover, the need to cover redemptions could force the stablecoin issuer to liquidate assets, generating contagion effects throughout the entire financial system. In the case of a global stablecoin, this would affect multiple markets at once.

The payment network of a systemic stablecoin arrangement could also be a source of instability. Stablecoin arrangements are payment systems, insofar as they permit the transfer of value between stablecoin holders. Moreover, stablecoin arrangements can qualify as a payment scheme[6].

Just like any other payment system or scheme, if liquidity, settlement, operational and cyber risks are not properly managed, they may threaten the functioning of stablecoin arrangements and lead to systemic instability.

Large investments in safe assets by stablecoin issuers could have implications for monetary policy. By affecting the availability of safe assets, these issuers could influence the level and volatility of real interest rates, with potentially undesirable consequences for financial conditions from a monetary policy perspective. Market functioning could also be negatively affected.

Furthermore, to the extent that stablecoins are used as a store of value, a large shift of bank deposits to stablecoins may influence banks' operations and the transmission of monetary policy.

Extreme scenarios are probably not around the corner. Under current conditions, the reserve assets of the stablecoin issuers would be remunerated negatively[7], so non-interest-bearing stablecoins would hardly be viable unless they were subsidised by the issuer. We must nonetheless remain alert to possible developments that may affect how a central bank exercises its core mandate.

Risks would seemingly be mitigated by allowing stablecoin issuers to deposit funds in accounts at the central bank. This would eliminate custody and investment risks for stablecoins and underpin their issuers' commitment to redemption at par value into fiat currencies.

But other fundamental problems would then emerge. In fact, the perceived safety of a private settlement asset – the stablecoin – would come at the risk of relegating other settlement assets, especially public assets, to a minor role.

A large take-up of stablecoins could replace sovereign money – a public good offered for centuries by the state to its citizens – with a 'club good', whereby payment services are offered to a select group of people in exchange for platform membership and personal data.

This would not be acceptable. The function of sovereign money reflects citizens' need for safety and their trust in the State. Central banks offer sovereign money to all citizens, and manage it in the public interest. Citizens should not have to choose between the convenience of their favourite apps and devices and safety, of which central bank money remains the highest expression. And we should safeguard the sovereignty of public money.

Market structure, competitiveness and technological autonomy

Stablecoins would profit from the comparative advantages that characterise big tech business models and their control of large platforms. They could therefore amplify the risks inherent to big tech's expansion in the payments market[8].

The advantages of big tech firms are largely based on the control of crucial infrastructure for commerce and economic activity across Europe – from online marketplaces to social media and mobile technologies[9].

If access to this infrastructure by third-party payment solutions were unduly restricted to benefit a stablecoin issuer, competition and consumer choice might be harmed. Furthermore, big techs may discourage investment by firms that are prone either to sweeping competition or acquisition[10].

As I mentioned earlier, there is also a risk of global stablecoin issuers being handed the keys to vast amounts of personal data sitting on big tech platforms. Besides raising data privacy concerns[11], this could become a powerful vehicle to transmit market power from one market to another, especially in the provision of financial services.

Ultimately, entrusting foreign providers with the control of large pools of personal data could entail significant costs for both EU citizens and firms. The issues at stake range from data security and compliance with EU data protection law to cutting off the lifeblood of European financial innovation.

From analysis to policy

European authorities need to respond to the ongoing transformation of the European payments landscape and to the potential expansion of large foreign players by promoting a competitive and innovative market and completing the regulatory and oversight framework.

In order to contribute to reaching these objectives, the Eurosystem is implementing a comprehensive policy based on complementary elements.

The first element is the Eurosystem retail payments strategy. It pursues objectives such as promoting pan-European initiatives that allow consumers and merchants to have easy access to efficient payments[12], rapidly deploying instant payments, and harmonising electronic identity and electronic signature services and their use in payments.

The second fundamental element is the possible introduction of a digital euro. A digital euro would be a digital equivalent of banknotes. It would provide citizens with costless access to a simple, risk-free and trusted digital form of central bank money. It would both shape and promote the digitalisation of payments, in turn supporting the modernisation of the European economy.

The Eurosystem is assessing the economic, financial and technological challenges a digital euro would raise, as well as its societal and strategic implications. Earlier this month, we published our Report on a digital euro and started a public consultation[13]. We will assess the feedback we receive, so that if and when developments around us make it necessary, we will be ready to issue a digital euro that meets the needs of European citizens.

A digital euro would complement cash, not replace it. While its role is diminishing, cash remains the main way people make retail payments in the euro area, and we will ensure that it remains widely available and accepted as a reliable payment instrument and store of value.

These policies are being complemented with appropriate regulation capable of addressing the risks posed by new players while enabling innovation in financial services.

The ECB is introducing an innovative payment oversight framework. We have just launched a public consultation on a new framework for electronic payment instruments, schemes and arrangements (the PISA framework)[14].

This new framework reviews some of our oversight tools and responds to the various technological and market changes by redefining the scope of our oversight activity and providing a future-proof, harmonised and proportional framework inspired by the principle of 'same business, same risks, same rules'.

In parallel, the European Commission has published a proposal for a Regulation on Markets in Crypto-assets (MiCA)[15], which sets Europe on a steady path to tackle emerging challenges. The legislative journey has just begun and will provide further opportunities for fine-tuning the proposal. The ECB is analysing it with a view to providing a formal legal opinion.

Implementing these oversight and regulatory initiatives will guarantee that the prospective use of stablecoins to provide payment services within the EU will respect the same standards that currently exist for payment systems and instruments.

A multi-sectoral response from central banks, financial regulators, data protection authorities and competition authorities is necessary. The European Commission, in its Retail Payments Strategy for the EU, announced that it will examine the need for legislation in this area[16].

Introducing systemic products based on stablecoins before the necessary elements of a comprehensive policy have been implemented, especially as regards the oversight and regulatory response, could endanger rather than benefit the European financial system.

In September, five EU member states (Germany, Spain, France, Italy and the Netherlands) issued a joint statement which maintained that no global stablecoin[17] project should begin operation until the relevant legal, regulatory and oversight requirements have been addressed and met by the project.

And in October, the G7 Statement on Digital Payments[18] recognised the regulatory and public policy issues arising from global stablecoins.

Conclusion

The process of digitalisation cannot be reversed – on the contrary, it is picking up speed. Global stablecoins are an expression of the need for change.

However, they can pose serious risks, both to our monetary sovereignty and financial stability and to the EU's market structure, competitiveness and technological independence. We should continue to be open to global competition in order to foster innovation. But we should first ensure that we are prepared to make the most of it, to the benefit, not the detriment, of EU citizens.

The ECB's response to the ongoing transformation of the payment system is first and foremost a policy response. Our focus is on stimulating the development of safe and efficient EU payments that are fit for global competition. ■

Fabio Panetta is a Member of the Executive Board of the ECB

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This article is based on a speech delivered to Il Salone dei Pagamenti 2020, Frankfurt am Main, 4 November 2020

Digital money and financial stability

Tao Zhang considers the implications for monetary and financial stability of new forms of digital money

When I tried to select the topic that may best link all the elements in financial risks, innovation and inclusion post-COVID, I thought about cross-border payments, digital money, and their impact in the post-COVID world. Let me start with why we care about cross-border payments.

Many consider cross-border payments as 'plumbing' and normally keep it hidden. It is actually at the centre-stage in policymaking today. Cross-border payments are at the heart of the international monetary system, as well as the lives of the most vulnerable. And yet, cross-border payments have limitations, especially for lower-income countries and emerging markets. Cross-border payments remain slow, opaque, costly, and inaccessible to many.

Remittances still cost 7 percent on average, more than twice the target set by the UN Sustainable Development Goals. Meanwhile correspondent banks—those providing access to cross-border payments—are 22 percent fewer since 2011. And, they may not even be accessible to part of the 1.7 billion people worldwide who are unbanked.

So, as you can expect, in the COVID-era, those hit harder are countries with a higher share of unbanked population, greater reliance on remittances, lower access to correspondent banks, and less liquid foreign exchange markets.

Several key frictions explain the limitations of cross-border payment systems. These limitations have been widely recognized for some time, but not enough has been done to date. Countries tend to under-invest in solving issues of interoperability and in creating public goods that can be made available across borders—the international version of the collective action problem.

Can digital money come to rescue?

It looks hopeful. While the potential, exploratory solutions could bring significant efficiency gains, it could also affect monetary and financial stability.

In short, it is very timely to discuss this issue. We are living through a phase of unprecedented global drive to improve the efficiency of cross-border payments. For example, Facebook's Libra pledges to improve cross-border payments. Many countries are working with CBDC, or Central Bank Digital Currency. The international community has worked tremendously on this topic, including the G20, the Financial Stability Board, the Committee on Payments and Market Infrastructures, the Bank for International Settlements, and of course the IMF.

Therefore, much of my article is drawn from these discussions and developments, especially the IMF publication *Digital Money Across Borders: Macrofinancial Implications*.

Recently, seven advanced economy central banks, including the US Federal Reserve, issued a report articulating their views on fundamental principles and core features of CBDC design

I will start with what is CBDC and a brief overview of global trends in the exploration of CBDCs. I will then look at the potential macro-financial implications that the adoption of CBDCs in cross-border payments may present, focusing on four selected key policy areas.

After that, I will outline the policy challenges that country authorities and international community could face as they aim to realize the benefits of CBDCs and mitigate the risks when considering CBDCs in cross-border payments.

What are CBDCs?

CBDCs are a digital form of fiat money issued by a central bank. There are two variations of CBDC prototypes—wholesale and retail (general purpose)—but I will limit the discussion to retail CBDCs, defined as a widely accessible digital form of central bank fiat money that is legal tender.

Thus far, no central bank has issued a retail CBDC, but several central banks (the Bahamas, the Eastern Caribbean, China, Sweden, and Uruguay) have started to run CBDC pilots. Some countries—such as the United States, Canada, Australia—which have not yet decided to issue CBDCs are also undertaking experiments as a contingency.

Recently, seven advanced economy central banks, including the US Federal Reserve, issued a report articulating their views on fundamental principles and core features of CBDC design.

Now let's look at how CBDCs are adopted/envisaged to be adopted for cross- border payments.

Cross-border use of currencies generally falls into two categories, namely the use of currency for international transactions, and domestic use of currency issued by a foreign entity. In the first category, international currencies serve as a medium of exchange, store of value, and unit of account and are used for international trade, international finance, and foreign exchange reserves. In the second category, a foreign currency displaces a domestic currency for domestic transactions, a situation commonly referred to as currency substitution.

Traditionally, the economic weight of a country and broader geopolitical factors have been major drivers of the international use of currencies. Network effects or externalities reinforced by synergies across monetary functions also have a strong effect on the international use of a currency.

Once a currency is established internationally, the fact that it is used by many entities increases the likelihood that others will adopt it.

So, why are CBDCs being considered for the cross-border adoption and use?

The most notable reason is their ability to lower transaction costs and increase accessibility/financial inclusion. Access to foreign currency can be challenging to establish, especially in rural areas in developing countries. CBDCs have the potential to overcome some of these impediments as they can designed either as direct claim on the issuing central bank, or some form of digital cash that can be transferred peer-to-peer without going through a bank.

Although many of the current CBDC projects and pilots are domestically focused, various bilateral experiments have demonstrated the feasibility of using CBDCs for cross-border payments. Here we consider three scenarios of CBDCs to be adopted in cross-border payments.

Scenario 1: niche use for cross-border payments

A CBDC is used as the preferred means for small-value transactions, such as remittances across borders—due to its low cost and efficiency, or due to legal and regulatory limits that are placed on the purpose and amounts that can be transferred internationally.

The CBDC would not be held for very long—in most cases for the duration of the transaction—and in some cases as a store of value. The CBDC would be exchanged for local currency to make purchases domestically, and the CBDC would not supplant the local unit of account.

Scenario 2: greater currency substitution in some countries

Under this scenario, for example, a foreign CBDC pegged to an existing fiat currency induces greater use of foreign currency in countries with high and volatile inflation and unstable exchange rates.

In those countries, use of the CBDC or a global stablecoin is intensive and replaces the domestic currency significantly: as a store of value (in and of itself, or to access assets in that currency), as a means of payment for many but not all transactions (including some regional cross-border trade), and as a common (though not necessarily ubiquitous) unit of account.

Scenario 3: global adoption with multi-polarity

This is a scenario of competition between a few major CBDCs that represent independent units of account. In the case of CBDCs, there may be 'currency blocs' within which countries choose one common CBDC for both international and domestic transactions.

Macro-financial Impacts of CBDCs in cross-border payments

The impacts of CBDCs occur primarily across 4 areas: monetary policy; financial stability; capital flow management; and the international monetary system.

1) Monetary policy

Most of the concerns about monetary policy focus on the effect of currency substitution/dollarization.

Domestic use of foreign CBDCs can impair monetary policy transmission by increasing currency substitution. It is well known in economics theory that currency substitution reduces monetary authorities' control over domestic liquidity by limiting the component over which the authorities have direct influence.

Though substitution into CBDCs is no different from traditional 'dollarization' that occurs in countries that have suffered from high inflation and large exchange rate volatility, the convenience and easier accessibility of CBDCs enables substitution at a faster pace and larger scale.

If CBDCs are used for specific international transactions, such as remittances, the direct impact on monetary policy may be limited. However, there could be indirect effects if digital currencies reduce transaction costs or regulatory barriers which result in increased remittance flows.

In such a case, currency substitution could still be significant and impair monetary policy effectiveness of recipient countries. In a non-CBDC world, empirical evidence shows that there is a close link between the domestic availability of a foreign currency and substitution into that currency.

In Cambodia, US dollar usage rose rapidly within a few years, as large foreign aid flows provided ample dollar liquidity. Initially, the dollars were mostly used for payments, but consumers began to save in dollars—thus the dollar migrated from being a payment instrument to a store of value.

If countries with weak fundamentals use a foreign currency, including by granting legal tender status to CBDCs, currency substitution could be sizeable and monetary policy effectiveness could be significantly eroded.

CBDCs could also have impact on choice of exchange rate regimes. If several globally adopted CBDCs would come to co-exist (Scenario 3), the monetary policy implications will depend on whether this multipolarity takes the form of country currency blocs or currency competition within each country.

For instance, multipolarity could imply that each country witnesses the domestic use of multiple currencies. Such an environment could complicate exchange rate anchoring, if the domestic currency is still in use. Moreover, households and firms would need to monitor several exchange rates and frequently adjust price quotations, in such an environment.

And finally, cross-border use of a CBDC could also complicate the conduct of monetary policy in the issuing country if external demand for the CBDC results in large capital flows. The impact would be more pronounced if the financial markets are shallow relative to the size of the economy.

2) Financial stability

The financial stability implications of a CBDC largely depend on the design, scale of adoption and financial system structure of the countries concerned.

Greater currency substitution induced by foreign CBDCs could add additional pressures on funding and solvency risks relative to those typically observed in partially 'dollarized' economies. The CBDC could increase the degree of currency substitution in countries that already use a foreign currency, as frictions in access and transacting in this currency are likely to decrease.

Some commentators have argued that CBDC could lead to disintermediation even in normal times and higher 'run risks' in times of stress in the issuing countries. IMF staff have argued that such effects would depend on specific features of the CBDC and can be mitigated by design choices.

In a scenario of several major CBDCs co-existing (Scenario 3), currency competition within a jurisdiction could make local financial conditions more volatile. Low switching costs between the CBDCs could make the participation in a currency bloc or digital currency area unstable. On the other hand, competition could foster discipline in monetary management in order to maintain the attractiveness of the currency in the longer term.

3) Capital flow management/capital account restrictions

Capital flow management measures and other capital account restrictions have been used by many countries and could be circumvented by CBDCs. If so, countries could face a starker 'policy trilemma', that is, the inability to have all three of the following at the same time: a fixed foreign exchange rate, free capital movement, and an independent monetary policy. This would complicate the conduct of both monetary and exchange rate policy.

However, it is also possible that CBDCs could allow for a greater control of capital flows, depending on how they are designed and the degree of cooperation between the issuer and recipient country.

4) International monetary system

In general, it is very hard to forecast how the international monetary system might evolve with the advent of CBDCs. Changes to the international monetary system are likely to be slow, as the adoption of reserve currencies is typically accompanied by structural changes involving the establishing of policy credibility, rule of law, and deep and liquid markets in the same denomination.

In the longer term, the existence of widely available CBDCs, and strong network externalities, could accelerate shifts in reserve currency status. Digitalization could facilitate cross-border use of currencies, reshaping the demand for and supply of safe assets.

In terms of demand, an uneven pace of technological advances across countries or currency blocs, emergence of alternative cross-border payment 'rails', or a shift to trade-invoicing and financial intermediation denominated in a CBDC or global stable coin, could reposition reserve currencies.

In terms of supply, new digital platforms could emerge and achieve global scale, offering alternative networks that CBDCs may tap into in order to spur adoption upon issuance.

Adoption and use of CBDCs may alter the incentives for both reserve holders and issuers. The official sector uses reserves as safe stores of value and for ready access to international liquidity.

or reserve holders, key drivers of the currency composition of reserves are the size and credibility of the issuers, the currency's usefulness in trade and financial transactions, including foreign exchange intervention, and inertia as safety is reinforced by coordination of beliefs.

Niche adoption of CBDC (Scenario 1) would most likely have limited implications for reserves as the unit of account of trade and financial transactions would not change. In this case the CBDC would serve purely as a conduit for completing cross-border payments, and their value would not become an important relative price that affects economic decisions. Central banks will thus see little need to adjust the composition of their reserves.

Greater currency substitution induced by CBDC (Scenario 2) would lead central banks to increase foreign reserves for precautionary motives. For reserve holders, increased adoption of a foreign CBDC in trade and financial transactions, especially if paired with greater exposure of financial institutions to exchange rate volatility, may shift reserves into the unit of account of the CBDC.

While the qualitative impact is akin to traditional currency substitution, a potentially faster roll-out of CBDCs might lower the inertia in reserve holdings observed so far.

However, the confidence in reserve issuers, for example their ability to ensure cybersecurity or provide emergency liquidity, would still matter greatly.

For issuers, the incentives to supply more safe assets may vary. If internationalization is a policy objective, issuers would at least partially accommodate the shift in demand. Otherwise higher demand could lead to a shortage of safe assets, causing possible side effects such as depressed risk premiums and higher leverage in the financial system.

If a few CBDCs become widely adopted and compete, reserve holdings could become more diversified. With many reserve issuers, total issuance is high but individual issuance is low which protects the issuer' domestic financial stability.

However, with few issuers, coordination worsens, and instability ensues as investors can quickly substitute away from one reserve asset and towards another.

In a multipolar world, reserve composition could be diversified between or within countries—depending on whether currency blocs form or currencies compete within each country.

When a country adopts a single CBDC, then reserves of the country will mostly be denominated in its currency bloc's unit of account. In contrast, use of multiple currencies by residents could diversify reserve holdings also within countries.

Finally, the issuance of CBDCs across borders also raise broader issues for the international payment ecosystem. The reason is obvious, as CBDCs could give countries the ability to transact separately. This would lower demand for correspondent banking services and SWIFT international financial messaging and payment systems. ■

Tao Zhang is a Deputy Managing Director at the International Monetary Fund

Four cornerstones of payments in the digital age

Kristalina Georgieva says the IMF stands ready to help foster a more resilient monetary system – one that is more inclusive, smarter, and greener

2020 has been an extremely difficult year. The pandemic has caused immense suffering. Too much of the economic toll has been borne by the most vulnerable people, in wealthier and in poorer countries alike. But there are some bright spots. Heroic nurses and doctors saving lives. Essential workers keeping the lights on, water running, and store shelves full.

And there are many others who kept businesses going – like the people of the technology industry. You have profoundly changed our ways of working, interacting, and living our daily lives. You have brought the digital future to our fingertips – and to our doorsteps.

Let me capture a vision of that future, and the four cornerstones needed to build it.

Picture a furniture maker – a skilled artisan – working in a factory in Thailand. Recession hits. She loses her job. Then, with an unemployment benefit sent to her phone, she starts her own workshop and sells locally.

The artisan makes and receives mobile payments. She chooses to share her payment data, allowing her to get an online loan, to hire people and grow her business. One day she gets a message asking if she ships abroad.

You no longer have to be big to be global.

A digital platform processes her payments from abroad at a low cost. And it provides insurance, savings, and investment options for her deposits, making her livelihood more resilient.

None of this would have been possible even ten years ago.

This is a story about human drive and ingenuity…

A story about a revolution in payments that erases physical distance; that generates data—which is the new gold and hence often the new collateral. It is about payments that are cheap and widely accessible; that are seamlessly integrated in our digital lives.

And as the way we make payments changes, our world changes. We can provide access to financial services for 1.7 billion adults who are still unbanked. And help many more vulnerable people who are currently paying high fees.

Also, the banking and financial industry is being reshaped by data, automation, and real-time analytics. Finally, payment innovations can change the international monetary system — the ways in which we transact across borders, access foreign assets, exchange currencies, and price goods.

Digital payments are not just for the tech-savvy – they have huge implications for the whole world

Digital payments are not just for the tech-savvy – they have huge implications for the whole world.

So we must tread courageously – and carefully. We must ensure that payments evolve to meet user needs while remaining safe and resilient. That's at the micro level. And at the macro level, we need to foster a financial sector and international monetary system that are efficient and trusted, equitable and inclusive, and still dynamic.

The artisan's digital future will rest on four cornerstones: (i) private sector innovation; (ii) public sector involvement (iii) regulatory and legal frameworks; and (iv) international cooperation.

Let's look at each.

I. Private-sector innovation

Private sector innovation has served many people well. Think of the bank accounts in which we save, and the cards we use to pay. Or the mobile money of our artisan.

Many people still use cash, but the numbers can decrease rapidly: take Sweden, where only 10 percent of the adult population still uses cash, down from 40 percent a decade ago. In the same period, mobile money accounts in Kenya increased exponentially from 12 million to 61 million—more than the country's population.

The private sector is best able to gauge the needs of people and businesses, provide the diversity of products and services they want, and take the risks necessary for innovation.

But we must ensure these risks do not translate into risks to end-users or the financial system. And we must avoid other pitfalls – such as monopoly power, or underserving vulnerable people.

For that, we need the other three cornerstones.

II. Public-sector involvement

The next one is public sector involvement, to provide verifiable digital ID, communications infrastructure, central bank money, and other necessities.

Digital ID allows our artisan to enrol in new financial services. It is one precondition to financial inclusion.

The other is internet access – our story only works if the artisan is online. And nearly half the world's people are not, including 75 percent of the population in Sub-Saharan Africa and nearly 70 percent in South Asia. The picture is reversed in North America, where 75 percent are connected.

The IMF strongly encourages investment in infrastructure now, as part of post-COVID recovery efforts. A synchronized public investment push is best. If countries act together, they can achieve two-thirds more at the same cost than if each country acts alone. And they can draw in critical private investment, too.

And of course, central bank money – traditionally notes, coins, and reserves – remains essential. The ability of our Thai artisan to convert the digital money she receives into local currency on demand is a key metric of stability.

Central bank currency also helps her accept payments in mobile money issued by different providers. Just like a common language, central bank money allows one provider to pay another. With this foundation, each fintech company can offer and evolve its own services. Interoperability gives wings to innovation and diversity in payments.

How should central bank money evolve in the digital age? As new payment providers emerge, will they, too, have access to central bank money? Will a digital version of notes and coins be introduced? Many countries are considering just that possibility.

While the form of central bank money may change, its function should not. It should still anchor the stability of other forms of money, while enabling their evolution and diversity.

III. Regulatory and legal frameworks

The third cornerstone is equally important – robust regulatory and legal frameworks. They should allow innovation and start-ups to flourish, while achieving essential goals: protection and privacy for consumers, countering money laundering and other crimes, and providing stability and resilience for all.

Regulatory clarity is essential, and particularly challenging as technology and products evolve rapidly. Starting a business is not difficult because there are multiple forms to fill out. The real impediment is not knowing how many more there will be. New entrants will ask: what rules am I subject to? Will my product be considered a deposit, a security, a payment system, or something else?

In the tradition of Lee Kuan Yew, Singapore's government continues to innovate – its new payments law is promising. It seeks to define digital payment instruments, and to adopt an activity- and risk-based approach to regulating payments.

Done right, that levels the playing field for new entrants: same activity, same risks… same rules. But evaluating these risks raises new questions. For instance, our artisan offered payments data in place of collateral. But are loans based on more accurate data and analytics less risky? Should she pay less?

Lawmakers and regulators should be given the resources to succeed and stay ahead of the curve. They will need to be far-sighted and collaborative given the wide ramifications of new payments: central banks and finance ministries working with antitrust agencies, privacy groups, data-protection agencies, law enforcement, civil society, and consumer advocates, just to name a few.

IV. International cooperation

And just as money crosses borders, so too must our regulatory efforts. This brings me to the final cornerstone: international cooperation, including to facilitate international payments and manage spillover effects.

Will our artisan be able to send money across borders as easily as we send text messages? Or will she have to pay seven percent average fees, as do today's 800 million people who depend on remittances?

But sending money is more involved than sending texts. It will require technology standards between digital monies, mutual regulatory and legal treatment, and ID systems that are trusted across borders. The Financial Stability Board, with IMF support, recently offered a roadmap to enhance cross border payments. But much work lies ahead to implement it.

Cooperation is also key to address spillovers. As digital money becomes more widespread, effects will ripple around the world. These include domestic currencies being swapped for more enticing foreign currencies, reduced monetary policy effectiveness, and circumvention of capital account restrictions.

Spillovers can be even more far-reaching. Under some conditions, new digital money can affect the international monetary system.

The nations of the world created the IMF to help them guide the international monetary system and make it an engine of growth for everyone. At a time when the risk of further divergence between rich and poor has increased, we recognize that responsibility has never been greater.

Today, we stand ready to help foster a more resilient monetary system – one that is more inclusive, smarter, and greener.

Nobel Peace Laureate and former Liberian President Ellen Johnson Sirleaf once said, *"If your dreams do not scare you, they are not big enough."*

Global companies, start-up entrepreneurs, and our artisan are dreaming big. We need to make the payments revolution work for all. ■

Kristalina Georgieva is Managing Director of the International Monetary Fund

This article is based on a speech delivered at the (Virtual) Singapore FinTech Festival 2020, December 11, 2020

Innovating in a changing world

Victoria Cleland says faster, cheaper, more transparent, and more inclusive cross-border payment services will have widespread benefits by supporting economic growth, international trade and global development

Introduction

It is an exciting time in central banking and the payments industry. I would like to introduce some Greek philosophy to get us started. Plato taught us that 'Necessity is the Mother of Invention', and necessity and invention are at the heart of payments too. Every one of us needs to make payments.

While the medium of exchange might have undergone considerable invention and innovation since Plato's day, the importance of being able to exchange money safely and efficiently has not. Topics such as cyber security, artificial intelligence and digital currencies gives an insight into the scale and pace of innovative thinking currently taking place in the payments industry.

Innovation is at the heart of the topic I will be focusing on today – cross-border payments. I will cover why greater innovation is needed in cross-border payments and outline the G20 initiative to develop a roadmap for action. I will then seek to bring it to life by outlining some of the key developments already underway at the Bank of England to support the international agenda in this area.

Cross-border payments lag behind

Over the last decade or so, there has been a strong focus on further enhancing domestic payments with a significant increase in instant payments and great innovation at the customer-facing end. Just consider our ability to pay for goods and services not just with cards and phones but also with watches and smart speakers. There is also a move to enhance the core underlying infrastructure.

In the UK, the Bank of England is renewing its Real Time Gross Settlement Service and Pay.UK is developing a New Payments Architecture for retail payments. Many other countries are undergoing similar transformations, including the US with FedNow and Australia's New Payments Platform.

Traditionally, however, there has been less focus on cross-border payments even though they are so significant in both value and volume. The value of cross-border payments is estimated to increase from almost $150 trillion in 2017 – already a pretty substantial figure – to over $250 trillion by 2027, equating to a rise of over $100 trillion in just 10 years[1].

Despite their importance, cross-border payments still suffer from a number of challenges around cost, speed, access and transparency. As a stylised fact, it can, in certain cases, take up to 10 days to transfer money to another country, it can cost up to 10% of the value of the transfer and be up to 10 times more expensive than a domestic payment.

The challenge of cross-border payments has been on the agenda for a long time. But bringing about change in this multi-dimensional area is not easy. It requires strong international collaboration and commitment

Admittedly, not all cross-border payments fit this mould, and there have been great advances in recent years. For example, in SWIFT GPI where more than one third of payments arrive within 30 minutes and almost all of them within 24 hours. But, across the overall cross-border market, there are still less than half of all payments being completed within 24 hours: this needs to change.

In discussing cross-border payments, we are not just talking about big companies or countries. The World Bank estimates that flows of remittances to some economies are greater than 30% of their country's GDP[2] and we know that this problem often hits individuals and small companies hard.

Faster, cheaper, more transparent, and more inclusive cross-border payment services would have widespread benefits for citizens across the globe both directly and by supporting economic growth, international trade and global development.

International work to enhance cross-border payments

The challenge of cross-border payments has been on the agenda for a long time. But bringing about change in this multi-dimensional area is not easy. It requires strong international collaboration and commitment. It was, therefore, very welcome that enhancing cross-border payments was set as a priority for the Saudi Arabian Presidency of the G20 this year.

This important G20 initiative has been structured around a three-stage process at the international level:

- Stage 1 was an assessment undertaken by the Financial Stability Board (FSB) working with other standard setting bodies, including the Committee for Payments and Market Infrastructures (CPMI), to identify the challenges and frictions in cross-border payments. The work, which was published in April this year[3], identified seven underlying frictions that together contribute to challenges around cost, speed, access and transparency of cross-border payments.

While a number of these frictions are related to technology (such as legacy platforms, and fragmented and truncated data formats), it is not simply a technology issue. It is a multi-faceted challenge also including issues such as divergent compliance checks, differing operating hours of payment systems and the liquidity costs associated with funding payments.

- Stage 2 was the development of the building blocks needed to remove these frictions. I was delighted to be asked to chair the CPMI Task Force on Cross-Border Payments which led the Stage 2 work. To help to find solutions to this long-standing problem our assessment involved reviewing previous work undertaken, industry outreach and new analysis to get beneath the skin of what is really happening. It culminated in a CPMI report published in July 2020, outlining a set of 19 'building blocks' necessary to enhance cross-border payments[4].

- Stage 3, just published by the FSB, is a roadmap setting out a high level plan on how to take forward the building blocks. I will say more about the roadmap later, but first I want to say more about the ingredients for success – the building blocks.

An overview of the building blocks and focus areas

The building blocks took a broad view: rather than addressing an individual area such as payment systems or compliance or regulation, Stage 2 sought to bring together these issues allowing us to really start to address the challenge in a holistic way. The 19 building blocks were grouped into five focus areas, which I will highlight[5].

The building blocks in Focus Area A create a commitment to a joint public and private sector vision to enhance cross-border payments by agreeing a common set of objectives.

Much of the complexity in making progress in cross-border payments arises from the significant number of stakeholders in the public and private sector. The building blocks under this Focus Area are intended to drive meaningful, coordinated change at a global level over a sustained period.

This will address frictions where complex regulatory, political and operational issues are prevalent. It will also provide the foundations to deliver interdependent building blocks in other focus areas.

To date, much focus on removing frictions in cross-border payments has centred on technology and operations. But divergent regulation, legislation, supervision and oversight frameworks across jurisdictions, or overlaps and underlaps in frameworks, can reduce any benefits of such initiatives.

The building blocks in Focus Area B are intended to foster greater coordination by advancing consistent international rules and standards. And this covers not just regulation of firms, or infrastructure providers but broader compliance and anti-money laundering type issues too.

That does not mean everything will end up being identical, but rather it seeks to promote greater consistency in rules and standards.

The building blocks in Focus Area C are targeted at improving the existing payment infrastructures and arrangements to support the requirements of the market. This is at the heart of what we, as central banks, are doing.

Addressing technical and operational restrictions rooted in the design of both international and domestic systems can tackle the key frictions underlying the challenges in cross-border payments, including different operating hours, access criteria and long transaction chains.

The building blocks do not require every system to be the same, but highlight areas where benefits can arise from carefully implemented and coordinated harmonisation. This focus area benefits from the building blocks in the first two focus areas and is a key enabler of innovation as much of the work represents a 'no regrets' step towards future technology, some of which we are already considering in the UK as part of our ongoing renewal of our RTGS system.

Focus Area D targets data quality and processing by enhancing data and market practice to tackle frictions around fragmented and truncated data.

It stems from a simple reality – the better the data we have, the more we understand and can make the right decisions. We know that poor data quality and limited standardisation make cross-border payments more complex to process, in turn affecting their speed, price and transparency.

Currently around 60% of all payments need an element of manual intervention. For example, SWIFT estimates that enquiry management is costing banks 25-35 times more than payment processing itself and that efforts to automate cross-border payments processing have had very limited results[6].

The building blocks in this Focus Area go deeper than identifying standards: it extends to incorporating crucial mapping and translation tools that support widespread interoperability between systems. This is where the introduction of APIs and the greater harmonisation of data through the important move to ISO 20022 can really make a difference.

These building blocks have the potential to improve compliance processes and address data handling issues within legacy technology platforms, and maximise the positive impact of the technical, operational and regulatory process changes advanced under the other focus areas.

Focus Area E is different: it is more exploratory and long term in nature. It includes assessing the potential for innovative new propositions such as central bank issued digital currencies (CBDCs), privately issued stablecoins and areas that are even less developed such as multilateral payment platforms.

These innovations are still in their infancy on a domestic, let alone global, level. But if in time they are introduced, it is really important to consider the possible cross-border benefits they could bring.

Importantly, real progress can only be made in these building blocks if work on the earlier building blocks has delivered. Issues around operating hours, AML checks and messaging harmonisation to name but a few will be relevant for these more far reaching innovations.

The roadmap

A broad set of building blocks needs a broad set of players to deliver them. And that is why the Stage 3 roadmap is so important. The FSB, working with the CPMI and other relevant international organisations and standard-setting bodies, today published an ambitious but achievable roadmap to deliver these building blocks including initial actions and milestones[7].

Importantly, the roadmap incorporates a framework where individual actions are taken forward by the most suitable expert bodies, in accordance with their mandates, with the FSB providing coordination and reporting annually on progress to the G20 and the public.

Many of the building blocks are owned by CPMI and the FSB, but the IMF, FATF, World Bank and BIS Innovation Hub are also among the owners/co-owners.

The Bank of England is already making progress in a number of these areas

To bring some of these building blocks to life and to show you that there is already significant innovation underway, I will outline work the Bank of England is undertaking to address some of these challenges.

The Bank is involved through a number of roles – as a payment system operator, a supervisor of firms and of financial market infrastructures, and through our overriding mission to promote the good of the people of the UK by maintaining monetary and financial stability.

My focus will be on our role as an operator, and in particular the Real Time Gross Settlement (RTGS) service Renewal Programme of which I am the Executive Sponsor. The RTGS service settles an average of £685 billion electronic payments each working day and we are in the process of renewing it to adapt to the changes in payments technology to make sure we have a system that is fit for the future.

Our vision for the renewed service Blueprint was published in 2017[8] and is based on five key benefits: increased resilience, wider interoperability, greater access, strengthened end-to-end risk management and improved user functionality.

While resilience is at the heart of the changes we also want to promote innovation within the payments landscape. As part of this we have work underway that will tackle a number of the existing frictions in cross-border payments, in particular those identified in Focus Areas C and D.

We have, for example, undertaken research into atomic settlement mechanisms to develop the capability to facilitate conditional settlement of transactions to remove settlement risk. Once introduced these could be extended to include Payment-Versus-Payment settlement for FX transactions.

The Bank has already made progress in widening access to its RTGS service to include non-bank payment service providers (NBPSPs) and as a result of a policy change in 2017 there are now half a dozen NBPSPs that hold settlement accounts in RTGS, with more set to join.

The renewed service will support even greater access through a streamlined testing and on-boarding process and will be designed with the flexibility to enable new payment infrastructures, such as those using Distributed Ledger Technology to interface with the service.

Operating hours are often cited as a key friction. We are developing near 24/7 technological capability which will have the flexibility to be upgraded to full 24/7 operating hours in line with industry demand. This will help to tackle the mismatch of operating hours and increase the overlap of operating schedules to make payments quicker and cheaper, an ambition outlined in building block 12.

Of course, to fully realise the benefits of extended operating hours other jurisdictions will need to play their respective part, but the Bank can and will lead by example.

The Bank has also committed to adopting, in 2022, the harmonised ISO20022 messaging format in recognition of the benefits of greater interoperability. As set out in building block 14, adopting common message formats can play an important role in the interlinking of payment systems and addressing data quality and quantity restrictions in cross-border payments.

It can also enhance automated straight through processing functionalities, supporting quicker and more efficient payments. As part of this work, we are also looking to introduce Legal Entity Identifiers (LEIs) for payments between financial institutions[9].

The renewed service will also provide a new API layer that can support automated data transfer between systems. This in turn facilitates greater integration and interoperability between payment systems and potentially reduces long transaction chains associated with the correspondent banking model. Building block 15 calls for harmonised API data protocols and the Bank will support this objective in its development of an API layer.

The Bank is also involved in the more exploratory building blocks in Focus Area E. In the light of the continued decline in cash for transactional purposes, and great technological advancement, many central banks, including the Bank of England, are considering whether introducing a CBDC would be appropriate.

In March this year, the Bank published a discussion paper[10] to explore the benefits, risks and practicalities of a retail CBDC in the UK. We have received valuable feedback from across the payments industry, technology providers, academics and public authorities and we look forward to setting out more information in due course.

The Bank's Financial Policy Committee also set out regulatory expectations for payment stablecoins in 2019 and 2020, which is feeding into our work on designing appropriate regulation and requirements for firms proposing these.

As set out in the building blocks it is important that as these issues are debated it is also done with an eye to how they could support cross-border payments.

These examples provide just a taste of the areas that the Bank of England is involved in and we will be working closely with other central banks and relevant organisations to address the building blocks as a whole.

Next steps to deliver meaningful change

Due to strong interdependencies between the building blocks, the most significant enhancements will arise if over time all building blocks are advanced and implemented in a coordinated way, and appropriate monitoring and governance will be needed to ensure that this work progresses.

The Stage 3 roadmap for change has set out the goals, actions, milestones and actors needed to deliver the building blocks. While all actions for 2021 are committed deliverables, those beyond 2021 are necessarily more indicative to allow for adjustment in response to new information and developments.

The roadmap also acknowledges that different countries might need to introduce the building blocks at different times, reflecting different starting points and legislative frameworks. The involvement of the private sector, sharing their insights and practical expertise, as well as delivering change, will be key to support the practical implementation of the roadmap.

I believe that the timelines and actions in the roadmap and the fact that the pace of this work has been maintained during what has been an unprecedented year for us all, underlines the importance and urgency placed on improving cross-border payments.

No single building block or focus area can act as a silver bullet, but together they form a holistic solution to the long-standing frictions which have been on the agenda for many years.

Strong collaboration and sustained commitment across all of these areas is necessary to tackle an issue spanning multiple players, time zones, jurisdictions and regulations. This will require work internationally and, as I hope my examples from the Bank's own RTGS Renewal Programme has shown, domestically too.

This is an ambitious agenda. But it is also a really important one, where collectively we can enhance global economies, international trade and support financial inclusion. ■

Victoria Cleland is Executive Director, Banking, Payments and Innovation, at the Bank of England

Endnotes

1. https://www.bcg.com/en-ch/publications/interactives/global-payments-interactive-edition
2. https://databank.worldbank.org/reports.aspx?source=2&series=BX.TRF.PWKR.DT.GD.ZS&country=
3. See Annex 1 & https://www.fsb.org/2020/04/enhancing-cross-border-payments-stage-1-report-to-the-g20/
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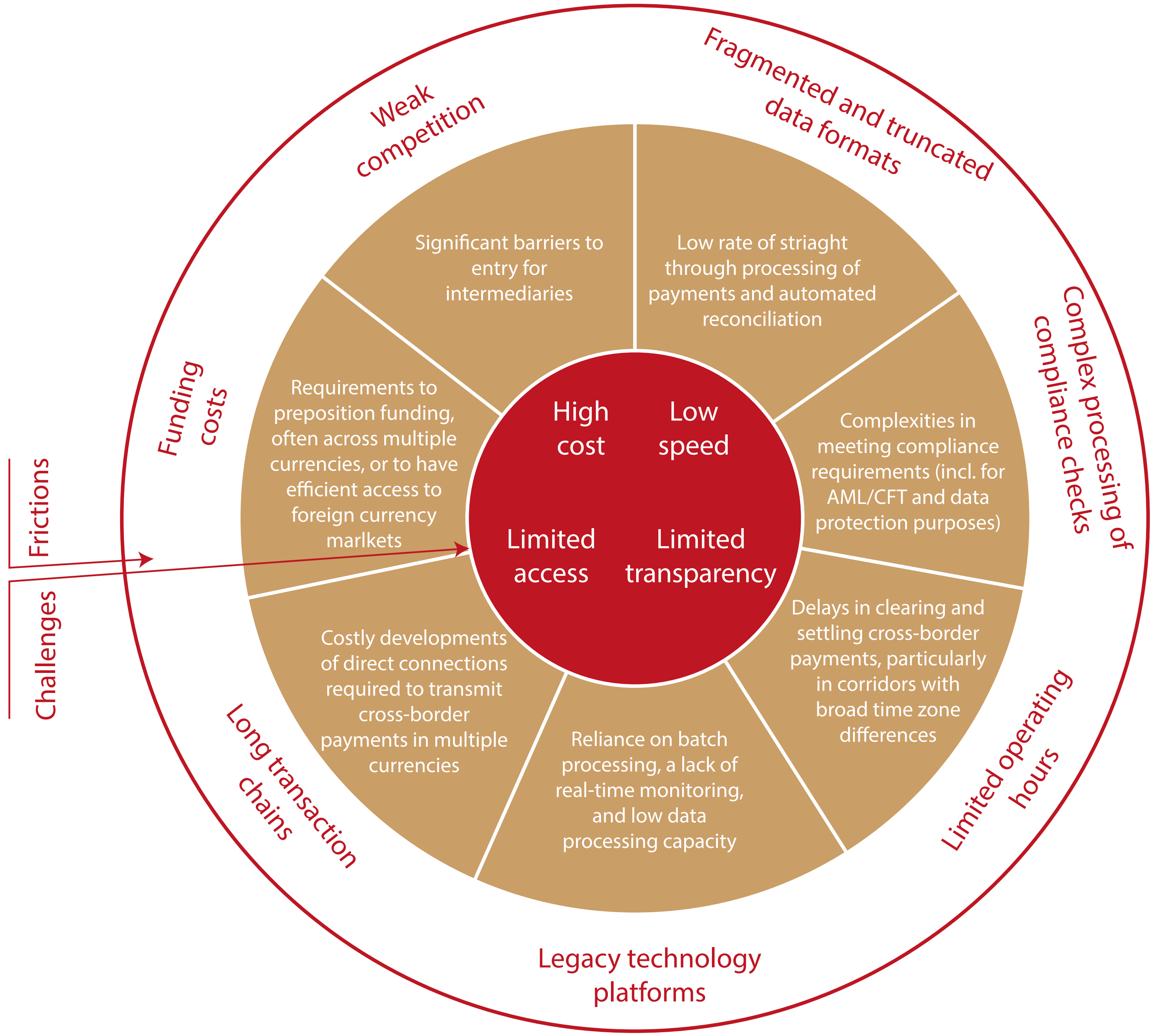
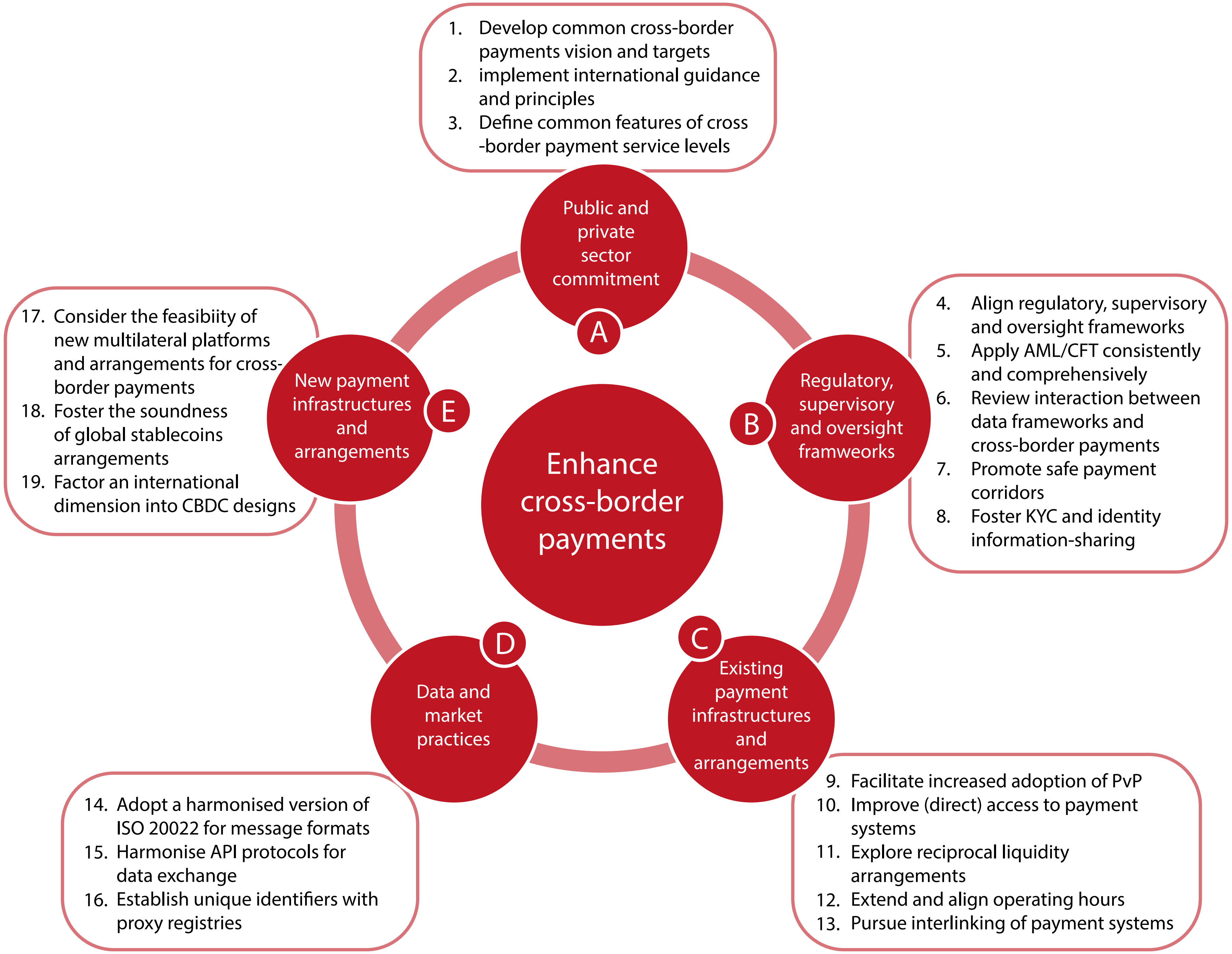
I would like to thank Michael Pywell, Michaela Costello, Laurie Roberts and Cameron Brooks for their assistance in preparing this speech. This article is based on the speech delivered at the Central Bank Payments Conference, 13 October 2020

Annex 1. Stage 1



Annex 2. Stage 2



From the payments revolution to the reinvention of money

The digital transformation is triggering a revolution in the financial sector, which will bring innovation but also risks, says Fabio Panetta. The ECB strategy provides a forceful policy reaction

Retail payments play a fundamental role in our daily lives and for the economy. Last year, adults in the euro area made two payments per day on average[1]. The universe of retail transactions[2] amounted to 213 billion payments – two million every five minutes – with an estimated total value of €164 trillion[3].

As part of its mission to promote the smooth operation of the payment system, the Eurosystem has two main objectives in the area of retail payments. The first is to guarantee that people have access to efficient payment solutions that meet their preferences. The second is to ensure that transactions remain safe, underpinning confidence in our currency and the functioning of our economy.

Technological innovation means that the policy implications of these objectives are changing, and new opportunities and risks are emerging. I will present the Eurosystem's response: a strategy for empowering Europeans with efficient, inclusive and secure payments in the digital age. And I will argue that the impending revolution in payments requires us to stand ready to reinvent sovereign money.

Convenience and safety in the digital age

Payments have evolved substantially over time, but the key determinants of their success have remained fundamentally unchanged. People want payments that offer convenience and safety at a low cost. Convenience requires payments to be easy to use, fast and widely accepted, while safety requires low risk from an economic, financial and societal perspective.

The digital transformation is raising the bar for convenience and safety. With the growth of e-commerce and connected lifestyles, people are increasingly demanding immediacy and seamless integration between payments and digital services. At the same time, they are increasingly concerned about privacy, cybersecurity and reliability.

This wide range of desirable features creates scope for innovative payment solutions. Currently, none of the existing solutions – cash, cards, credit transfers, direct debits and e-money – meet all the required features at once. People are forced to use several instruments at the same time. In-person transactions[4] are mostly conducted with cash and cards[5]. Remote purchases are dominated by cards and e-payments[6]. And bills are generally paid using direct debits and credit transfers[7].

We want to enable people to choose their preferred way of paying without having to compromise on their expectations of fast, secure, inclusive and seamless payments

The coronavirus (COVID-19) shock has accelerated the trend towards digitalisation, leading to a surge in online transactions and contactless payments in shops. This trend is likely to persist once the pandemic is over[8]. So we must ask ourselves whether the available means of payment adequately meet the needs of consumers in the digital age.

Cash offers a secure and inclusive way of making in-person payments, but it is not well suited for payments in a digital context, such as in e-commerce. So it is no surprise that it is being used less[9]. Payment cards, on the other hand, facilitate digital, contactless payments. But they are not accepted everywhere. And the Europe-wide acceptance of cards issued under national card schemes currently relies on agreements with international card schemes. As a result, people mostly use international schemes for cross-border card payments, and the European market for card payments is dominated by non-European schemes.

Generally, Europe is increasingly relying on foreign providers, with a high degree of market concentration in some segments, such as card transactions and online payments[10].

We should not let this reliance turn into dependence. Dependence on foreign providers and excessive market concentration would harm competition, limiting the choice for consumers and exposing them to non-competitive pricing. It could reduce the resilience of the payment system and weaken the ability of European authorities to exercise controls.

We must ensure that the payment market remains open to competition, including from European suppliers and technology.

The influx of technology firms

Fintech companies have sparked the latest wave of innovation, accelerating the evolution of the payment system[11]. Many of them have adopted data-driven business models, where payment services are provided free of charge in exchange for personal data. Numerous banks are expanding their range of digital services by entering into agreements with fintechs; in some cases, integration is achieved when a bank acquires a fintech firm.

The global tech giants – the so-called big techs – are aiming for a revolution in the payments landscape, and represent a threat to traditional intermediation[12]. These firms can use data-driven models on an entirely new scale by leveraging their large customer base, real-time data and control of crucial infrastructures for commerce and economic activity – from online marketplaces to social media and mobile technologies.

They can use these advantages, their financial strength and their global footprint to provide new payment solutions and expand in both domestic and cross-border transactions. This would offer them an even stronger base to further expand the range of their financial activities, including lending, as their superior ability to collect and analyse large volumes of data gives them an information advantage.

If not properly regulated, big techs may pose considerable risks from an economic and social perspective and they may restrict, rather than expand, consumer choice. They can aggravate the risk of personal information being misused for commercial or other purposes, jeopardising privacy and competition. And they can make the European payment market dependent on technologies designed and governed elsewhere, exacerbating its vulnerability to external disruption such as cyberattacks.

The big techs may also contribute to a rapid take-up, both domestically and across borders, of so-called stablecoins[13]. As I have argued previously[14], stablecoins raise concerns with regard to consumer protection and financial stability. In fact, the issuer of a stablecoin cannot guarantee the certainty of the value of the payment instrument it offers to consumers. Such a guarantee can only be provided by the central bank.

Moreover, unlike bank deposits, stablecoins do not benefit from deposit guarantee schemes, their holders cannot rely on the degree of scrutiny that is now the norm in banking supervision, and the issuers do not have access to central bank standing facilities. As a result, stablecoin users are likely to bear higher credit, market and liquidity risks, and the stablecoins themselves are vulnerable to runs[15], with potentially systemic implications[16].

These risks could be mitigated if the stablecoin issuer were able to invest its reserve assets[17] in the form of risk-free deposits at the central bank, as this would eliminate the investment risks that ultimately fall on the shoulders of stablecoin holders[18].

This would not be acceptable, however, as it would be tantamount to outsourcing the provision of central bank money. It could endanger monetary sovereignty if, as a result, private money – the stablecoin – were to largely displace sovereign money as a means of payment. Money would then be reduced to a 'club good' offered in return for the payment of a fee or membership of a platform[19].

We should safeguard the role of sovereign money, a public good that central banks have been managing for centuries in the public interest and that should be available to all citizens to satisfy their need for safety.

Monetary sovereignty could also be threatened if foreign central bank digital currencies became widely used in the euro area, with implications for international monetary spillovers[20].

These risks are not imminent. We must nonetheless be alert to possible non-linear developments that could endanger financial stability and monetary and economic sovereignty. As we aim to enhance the efficiency of European payments, we therefore need to be prepared to rethink the nature and the role of sovereign money.

The Eurosystem policy response

The Eurosystem is implementing a comprehensive policy to ensure that citizens' payment needs are met, while safeguarding the integrity of the payment system and financial stability. Our policy is based on interconnected elements addressing the entire payment value chain.

First, we have enhanced our retail payments strategy, in order to foster competitive and innovative payments with a strong European presence. We are actively promoting pan-European initiatives that offer secure, cheap and widely accepted payment solutions[21].

We are supporting access to bank accounts by non-bank providers, so that they can expand the range of payment initiation services they offer. The Euro Retail Payments Board, chaired by the ECB, has launched a work stream to facilitate this access. We are working to make the European e-identity and e-signature frameworks better suited for payments and the financial sector more broadly.

Our retail payments strategy also builds on the promotion of instant payments, which make funds immediately available to recipients. We have created a solid basis for instant payments, with commonly agreed rules and powerful infrastructures, including the TARGET Instant Payment Settlement (TIPS) service, operated by the Eurosystem. Thanks to the measures we have taken in recent months, all euro instant payment providers and infrastructures will have access to TIPS by the end of 2021.

Second, we are adapting our regulatory and oversight framework to the fast pace of financial and technological innovation. We have reviewed our Regulation on oversight requirements for systemically important payment systems[22], introducing a more forward-looking approach to identify payment systems that are systemically important. And today we are launching a public consultation on the new regulation, which will then become operational by mid-2021.

We are also completing the public consultation on our new framework for electronic payment instruments, schemes and arrangements, the so-called PISA framework. PISA extends our oversight[23] to digital payment tokens[24], including stablecoins, and to payment arrangements providing functionalities to end users of electronic payment instruments[25]. As a result, technology providers can become subject to oversight.

As part of our comprehensive policy, we are working to safeguard the role of sovereign money in the digital era: we want to be ready to introduce a digital euro, if needed.

A digital euro would combine the efficiency of a digital payment instrument with the safety of central bank money. It would complement cash, not replace it. Together, these two types of money would be available to all, offering greater choice and access to simple, costless ways of paying.

We have started a public consultation to seek feedback from people across Europe and gain a better understanding of their needs. It will be completed in January, and the results will be published once they have been analysed.

A digital euro would need to be carefully designed, in order to enhance privacy in digital payments[26], respect the rules on countering illegal activities and avoid interference with central bank policies, first and foremost monetary policy and financial stability.

In particular, a digital euro should be a means of payment, not a form of investment that competes with other financial instruments. This would require limiting the holdings of individual users[27] and mean that, unlike stablecoin issuers, the issuer of the digital euro – the ECB – would not aim to acquire deposits.

A digital euro would support the modernisation of the financial sector and the broader economy. It would be designed to be interoperable with private payment solutions and would thus represent the 'raw material' that supervised intermediaries could use to offer pan-European, front-end payment solutions.

A digital euro would also generate synergies with other elements of our strategy, facilitating the digitalisation of information exchange in payments through e-invoices, e-receipts, e-identity and e-signature. And in making it easier for intermediaries to provide added value and advanced technological features at lower cost, it would give rise to products that could compete with those of the big techs, thereby benefiting end users.

The ECB and the national central banks have started preliminary experimentation through four work streams. First, we will test the compatibility between a digital euro and existing central bank settlement services (such as TIPS)[28]. Second, we will explore the interconnection between decentralised technologies, such as distributed ledgers, and centralised systems. Third, we will investigate the use of payment-dedicated blockchains with electronic identity. And fourth, we will assess the functionalities of hardware devices that could enable offline transactions, guaranteeing privacy[29].

We will take the necessary time to explore all aspects of different options: whether they are technically feasible, whether they comply with the principles and policy objectives of the Eurosystem, and whether they satisfy the needs of prospective users.

Conclusion

Let me conclude. The digital transformation is triggering a revolution in the financial sector, which will bring innovation but also risks. In particular, big techs and stablecoins could disrupt the European financial system. And while they could offer convenient and efficient payment solutions, they also risk endangering competition, privacy, financial stability and even monetary sovereignty.

Our policies provide a forceful policy reaction to the digital shock. We want to create the conditions for a resilient, innovative, diverse and competitive payments landscape that can better serve the evolving needs of European people and businesses. We are promoting safe, pan-European instant payments.

What is at stake is nothing short of the future of money. As private money goes digital, sovereign money also needs to be reinvented. This requires central bank money to remain available under all circumstances – in the form of cash, of course, but also potentially as a digital euro.

We want to enable people to choose their preferred way of paying without having to compromise on their expectations of fast, secure, inclusive and seamless payments. This is our aim today, and it will remain our aim in the future. ■

Fabio Panetta is a Member of the Executive Board of the European Central Bank

Endnotes

1. The data refer to European citizens aged 18 or over and include point-of-sale, person-to-person and remote *transactions, as well as bill payments. See ECB (2020), Study on the payment attitudes of consumers in the euro area (SPACE), forthcoming.*

2. Whether they are made at the physical point of sale or online and whether they are made by private individuals, businesses or the public sector.

3. Source: ECB staff estimates based on payments statistics (ECB Statistical Data Warehouse) and findings from ECB (2020), ibid.

4. Payments at the physical point of sale and person-to-person payments.

5. As of 2019, cash is used by euro area adults for 73% of in-person transactions in terms of volume and 48% in terms of value. Card payments account for most of the remainder: 24% in terms of volume and 41% in terms of value. Source: ECB (2020), op. cit.

6. Examples of e-payment providers include PayPal, Sofort and Afterpay. Card payments account for approximately half of all remote purchases, and e-payments for approximately one-quarter, in terms of both volume and value. Source: ECB (2020), ibid.

7. Direct debits account for 41% of bill payments in terms of volume and 37% in terms of value. Credit transfers account for 20% of bill payments in terms of volume and 29% in terms of value. Source: ECB (2020), ibid.

8. About 41% of respondents to a recent survey say they have reduced their use of cash. The vast majority of them expect to continue to pay less with cash after the pandemic is over. See ECB (2020), "Survey on the impact of the pandemic on cash trends (IMPACT)", in ECB (2020), ibid.

9. In terms of the total volume of in-person transactions by euro area adults, cash declined from 79% in 2016 to 73% in 2019. In terms of the value of in-person transactions, it fell from 54% to 48%. In some countries, the use of cash is decreasing more rapidly.

10. VISA and Mastercard intermediate two-thirds of EU card payments and, along with PayPal, dominate online payments.

11. A recent survey identified over 200 new payment solutions, of which more than one-third were provided by start-

ups. For a detailed analysis of these solutions, see ECB (2019), "Implications of digitalisation in retail payments for the Eurosystem's catalyst role", July.

12. See Panetta, F (2018), "Fintech and banking: today and tomorrow", speech at the Bicentennial Annual Reunion of the Harvard Law School Association of Europe, Rome, 12 May.

13. Stablecoins are digital units of value designed to minimise fluctuations in their price against a reference currency or basket of currencies. To this end, some stablecoin initiatives pledge to hold a reserve of State-issued currencies or other assets against which stablecoin holdings can be redeemed or exchanged. Global stablecoins are initiatives which aim to achieve a global footprint, without necessarily relying on existing payment schemes and clearing and settlement arrangements. See Bullmann, D, Klemm, J and Pinna, A (2019), "In search for stability in crypto-assets: are stablecoins the solution?", Occasional Paper Series, No 230, ECB, August.

14. See Panetta, F (2020), "The two sides of the (stable)coin", speech at Il Salone dei Pagamenti, 4 November.

15. A run could occur whenever users – who bear all the risks – expect a decrease in the redemption price of the stablecoin. A run is possible even when the stablecoin issuer provides a financial guarantee, if such a guarantee loses credibility over time as doubts emerge about the issuer's capacity to absorb potential losses.

16. Moreover, large investments in safe assets by stablecoin issuers could influence the level and volatility of real interest rates, with adverse effects on market functioning and the implementation of monetary policy.

17. Reserve assets are the assets against which the stablecoins are valued and redeemed.

18. In the current situation the viability of such a business model is however challenged by the fact that short term rates are negative.

19. If allowed to invest the reserve assets in the form of risk-free deposits at the central bank, the stablecoin issuer could offer the stablecoin holders a means of payment that would be a close substitute for central bank money. In contrast, the substitutability between central bank money and bank deposits is limited by the fact that, on bank balance sheets, deposits are matched against risky assets (bank loans).

20. Ferrari, MM, Mehl, A and Stracca, L (2020), "Central bank digital currency in an open economy", Working Paper Series,

No 2488, ECB, November.
21. In 2019 the ECB's Governing Council formulated five objectives that any such initiative would need to fulfil: pan-European reach and seamless customer experience; convenience and low cost; safety and security; European brand and governance; and global acceptance.
22. Regulation of the European Central Bank (EU) No 795/2014 of 3 July 2014.
23. Up to now, oversight activity has been focused on traditional electronic payment solutions such as payment cards, direct debits, credit transfers and e-money.
24. The European Commission's legislative proposal on crypto-assets (MiCA) is an important step in this regard.
25. These include payment initiation services, payment integrators, wallets storing data and tokenised payment account numbers.
26. The ECB has already started work on privacy-enhancing techniques in cooperation with the Bank of Japan. See ECB and Bank of Japan (2020), "Balancing confidentiality and auditability in a distributed ledger environment", Project Stella, February; and ECB (2019), "Exploring anonymity in central bank digital currencies", In Focus, No 4, December.
27. The limits on individual holdings could be achieved by setting a level of remuneration for the digital euro that would make it unattractive to hold amounts in excess of a given threshold. See Bindseil, U and Panetta, F (2020), "Central bank digital currency remuneration in a world with low or negative nominal interest rates", VoxEU, October. Alternatively, limits on individual holdings could be achieved by imposing direct quantitative constraints.
28. The experimentation will examine the scalability of TIPS (i.e. whether it could handle the accounts of hundreds of millions of citizens).
29. The goal is to explore how the bearer of a digital euro could be provided with a positive user experience.

This article is based on a speech delivered at the Deutsche Bundesbank conference on the 'Future of Payments in Europe', Frankfurt am Main, 27 November 2020

Building financial security

COVID-19 has exacerbated a challenging financial situation. Cosmina Amariei says it is paramount to strengthen the EU policy framework for retail investors

Context

The COVID-19 crisis has only exacerbated what for many individuals across the EU is already a challenging financial situation. Large-scale fiscal and monetary counter-programmes continue to be deployed, but the full extent of the economic fallout has yet to be understood.

For this reason, it is paramount to build financial security and resilience by promoting personal responsibility, and by strengthening the social safety net. Undoubtedly, asset allocation will take on new relevance in the context of the lower-for-longer yield scenario (including negative real interest rates), or during other episodes of financial volatility.

In recent months, beneficiaries of pension funds in several countries were allowed emergency access to parts of their savings, or to have the payment of their contributions deferred. Some member states subsidised employers/employees' contributions or limited the materialisation of investment losses.

The shift from defined benefit to defined contribution schemes is expected to accelerate, which creates uncertainty about income in retirement. This will depend more on market returns and decumulation type (lump sum, annuities, phased-in withdrawals).

Market developments

At first glance, it would appear that capital markets offer multiple options, such as stocks and bonds, investment funds, insurance contracts, pension products, etc. In terms of supply, some national markets are more open than others.

But in practice, retail investors do not always find the way to cost-efficient options with a rewarding risk-return profile. These can be further supported by reducing unwarranted complexity, breaking down barriers between countries, as well as by tackling unhelpful fiscal signalling/biases.

On an aggregate level, participation in capital markets varies substantially across the EU for many reasons, such as net financial wealth, market structure, investor knowledge/preferences, regulatory/supervisory aspects and tax regimes.

... it is paramount to build financial security and resilience by promoting personal responsibility, and by strengthening the social safety net

More generally, savings in bank accounts (Figure 1) are simply denied the wealth-generative effect of long-term investments in equities or alternatives, which could establish stronger links with and contribute to recovery in the real economy. Nevertheless, conservative strategies (fixed-income dominated portfolios) remain adequate for certain categories of investors.

The environment in which individuals make financial decisions is inherently 'noisy', regardless of whether they choose to engage directly or go through financial intermediaries. Ensuring that they are not trapped in the web of products or lose the ability to act in their best interests is crucial.

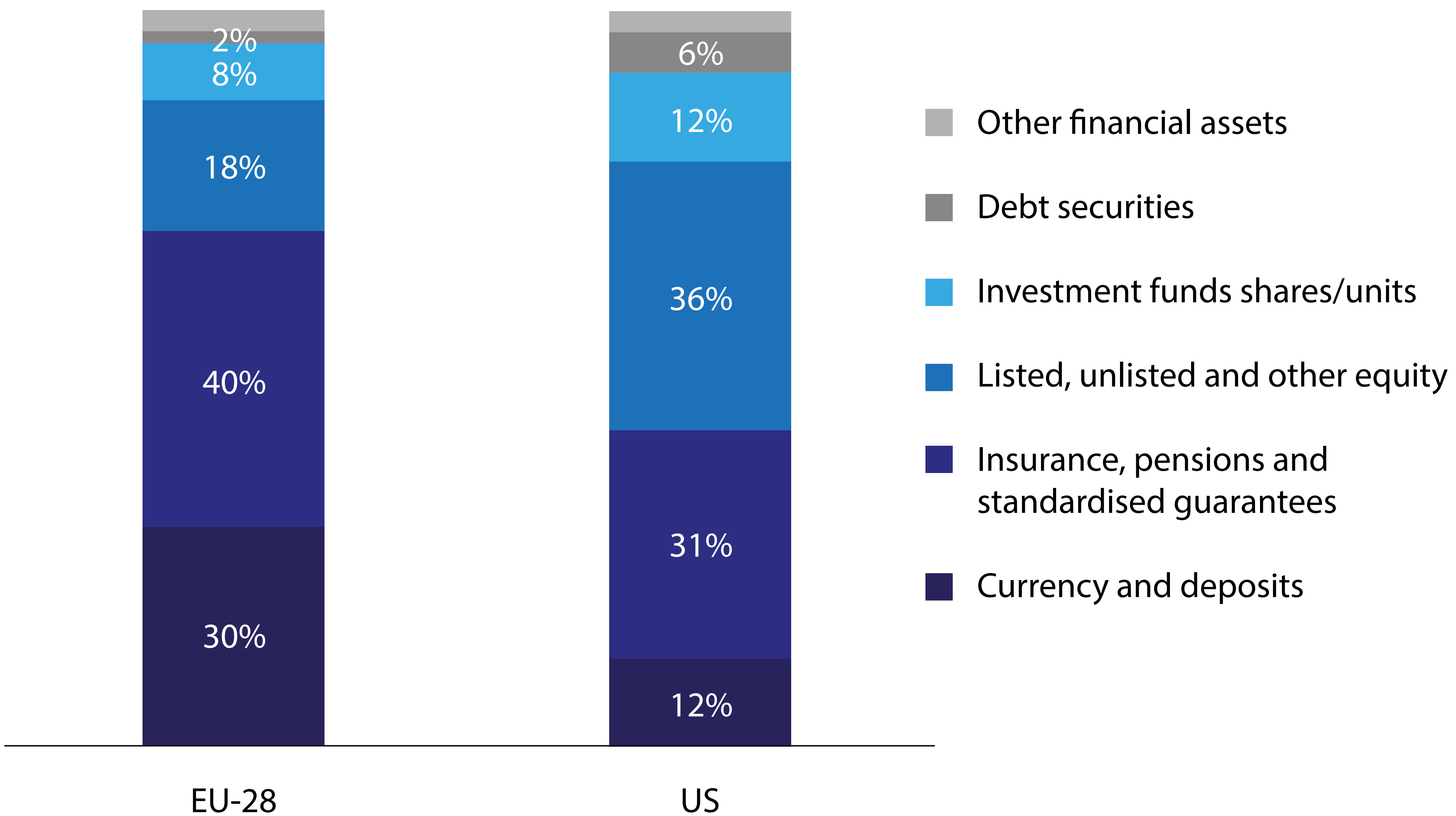
Many relevant criteria for retail investment are hardcoded in legislation[2]. However, the socio-demographic characteristics, available capital, the purpose of the investment, the degree of expected liquidity, the acceptable level of volatility, risk appetite, the search for diversification, all these stand out.

Yet many individuals continue to face obstacles when seeking financial advice or analysing relevant information and comparing various investment options. In this regard, the experience with packaged retail investment and insurance products (PRIIPs) has been far from satisfactory, for consumers or for providers.

The development of an EU-wide database for retail savings/investment products, ideally run by the ESAs (in coordination with NCAs), based on disclosures by regulated entities, would certainly be a significant step forward.

A feasibility study is called for, namely to look into the usability for consumers, relevant search criteria, what products to prioritise, how to ensure consistency across sectors, meaningful data to be populated by providers, and whether to go for a public-private option, etc.

Figure 1. Asset allocation by households (EU-28[1] vs US)



Sources: Eurostat (Q3 2019) and US Fed (Q4 2019).

Retail investors generally also find it difficult to understand the remuneration schemes of financial intermediaries. In most cases, they cannot draw conclusions from the information provided and end up not taking any action based on the disclosed conflict of interest.

Their choice of advisor is more influenced by personal trust and convenience, perceived quality and objectivity and the diversity of products (in-house or third-party). Distribution via banks and insurers is the norm, and is rarely handled directly by asset managers. Generally, fund supermarkets, platforms and online brokers focus on non-complex products.

Most importantly, less sophisticated individuals or those with modest portfolios often struggle to manage their financial affairs and need to be protected from mis-selling practices. The use of default options, mandatory auto-enrolment and execution-only (low-risk investments) versus discretionary mandates or advisory-based models could be more suitable for them.

The trends towards fully bearing the investment risk should also be carefully analysed because it may deter certain types of potential savers. Financial education is also important, but it cannot replace affordable advice, open distribution channels, redress tools or tax incentives.

Regulatory conditions

Sectoral silos could be tackled with the horizontal review of the disclosure, inducements and suitability rules. Regulation should balance investor protection with inclusion/access and be guided by the general principle that products with similar economic characteristics are treated in the same way.

Levelling the playing field between packaged and non-packaged products is also necessary. Sustainable finance (integrating ESG preferences in client profiling and product selection, transparency on features and performance, or the eco-label for financial products) and digitalisation/technology (robo-advice, platforms, comparison tools) will remain important cross-cutting behavioural drivers.

Feeding evidence back into EU policies is not an easy task due to, for example, inconclusive findings or heterogenous conditions. Changes must be informed by normative/positive and behavioural finance based on micro-data, large-scale consumer testing, mystery shopping and benchmarking exercises, in addition to business model analysis across the value chain (manufacturing, distribution, investment).

Isolating institutional determinants or incentives that are present only at national level might add another layer of difficulty for the cross-border dimension. Much work remains to be done to create a fully integrated retail market.

While necessary, driving pricing discipline may not be sufficient. Identifying market segments and/or investment strategies (active vs passive) where investors are in a suboptimal situation is however imperative, without necessarily favouring one product over another.

In their reports on costs and performance, ESMA and EIOPA continue to highlight data challenges, in particular with regards to distribution and advice. The focus has been so far on disclosure, but any other tools (mandated fee levels) could gain traction if preceded by adequate impact assessment.

The Pan-European Personal Pension Product (PEPP) was the first of its kind to introduce an 'all inclusive' cost cap; its economic viability will depend on both savers and providers.

Going forward

Retail investors need coherent and reliable narratives around capital markets. This requires moving away from reductive debates about products and providers. Rather, a comprehensive agenda for retail investors should focus on solutions (and underlying asset classes) to meet specific financial objectives (fully scalable and/or customised). And ultimately, the financial industry must deliver 'good value for money'.

The CMU 2.0 Action Plan alone is not likely to solve long-standing structural problems. Ensuring that retail investors benefit in practice from the same safeguards as professional and institutional investors is essential. Weaknesses in supervision and enforcement could give rise to regulatory arbitrage or market fragmentation, which will be to the detriment of these investors. ■

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Endnotes

1. The differences would be even more pronounced without the UK.

2. For example, MiFID2, IDD, PRIIPS, UCITS, AIFMD, ELTIF, Solvency2, IORP2, PEPP, SFDR, etc.

This commentary is part of a dedicated series, as a follow-up to the CEPS–ECMI Task Force Report on Asset Allocation in Europe: Reality vs Expectations released in April 2020.

A new Bretton Woods moment

The COVID crisis has created economic calamity. Kristalina Georgieva argues that now is the time to build a more sustainable and equitable world

‘A sisterhood and brotherhood of humanity’

Reflecting on the dramatic change in the world over the last year, I paid a visit to the Bretton Woods, New Hampshire, where 44 men signed our Articles of Agreement in 1944. Our founders faced two massive tasks: to deal with the immediate devastation caused by the War; and to lay the foundation for a more peaceful and prosperous post-war world.

At the conclusion of the conference John Maynard Keynes captured the significance of international cooperation as hope for the world. *“If we can continue…The brotherhood of man will have become more than a phrase”*, he said.

As we look forward to welcoming Andorra as our 190th member, the work of the IMF is testament to the values of cooperation and solidarity on which a sisterhood and brotherhood of humanity is built.

Today we face a new Bretton Woods ‘moment’. A pandemic that has already cost more than a million lives. An economic calamity that will make the world economy 4.4% smaller this year and strip an estimated $11 trillion of output by next year. And untold human desperation in the face of huge disruption and rising poverty for the first time in decades.

Once again, we face two massive tasks: to fight the crisis today— and build a better tomorrow. We know what action must be taken right now. A durable economic recovery is only possible if we beat the pandemic. Health measures must remain a priority—I urge you to support production and distribution of effective therapies and vaccines to ensure that all countries have access.

I also urge you to continue support for workers and businesses until a durable exit from the health crisis.

We have seen global fiscal actions of $12 trillion. Major central banks have expanded balance sheets by $7.5 trillion. These synchronized measures have prevented the destructive macro-financial feedback we saw in previous crises.

But almost all countries are still hurting, especially emerging market and developing economies. And while the global banking system entered the crisis with high capital and liquidity buffers, there is a weak tail of banks in many in emerging markets. We must take measures to prevent the build-up of financial risks over the medium term.

We have an historic opportunity to build a greener world—also a more prosperous and job-rich one. With low interest rates, the right investments today can yield a quadruple dividend tomorrow: avert future losses, spur economic gains, save lives and deliver social and environmental benefits for everyone

We face what I have called a long ascent for the global economy: a climb that will be difficult, uneven, uncertain—and prone to setbacks. But it is a climb up. And we will have a chance to address some persistent problems — low productivity, slow growth, high inequalities, a looming climate crisis. We can do better than build back the pre-pandemic world – we can build forward to a world that is more resilient, sustainable, and inclusive.

We must seize this new Bretton Woods moment.

Building forward: three imperatives

How? I see three imperatives. First, the right economic policies. What was true at Bretton Woods remains true today. Prudent macroeconomic policies and strong institutions are critical for growth, jobs, and improved living standards.

One size does not fit all—policies must be tailored to individual country needs. Support remains essential for some time—withdrawing it too early risks grave and unwarranted economic harm. The stage of the crisis will determine the appropriate shape of this support, generally broader early on and more targeted as countries begin to recover.

Strong medium-term frameworks for monetary, fiscal and financial policies, as well as reforms to boost trade, competitiveness and productivity can help create confidence for policy action now while building much-needed resilience for the future.

That includes keeping a careful watch on risks presented by elevated public debt. We expect 2021 debt levels to go up significantly – to around 125 percent of GDP in advanced economies, 65 percent of GDP in emerging markets; and 50 percent of GDP in low-income countries.

The Fund is providing debt relief to its poorest members and, with the World Bank, we support extension by the G20 of the Debt Service Suspension Initiative.

Beyond this, where debt is unsustainable, it should be restructured without delay. We should move towards greater debt transparency and enhanced creditor coordination. I am encouraged by G20 discussions on a Common framework for Sovereign Debt Resolution as well as on our call for improving the architecture for sovereign debt resolution, including private sector participation.

We are there for our member countries—supporting their policies. And policies must be for people —my second imperative. To reap the full benefits of sound economic policy, we must invest more in people. That means protecting the vulnerable. It also means boosting human and physical capital to underpin growth and resilience. COVID19 has underscored the importance of strong health systems.

Rising inequality and rapid technological change demand strong education and training systems—to increase opportunity and reduce disparities. Accelerating gender equality can be a global game-changer. For the most unequal countries, closing the gender gap could increase GDP by an average of 35 percent.

And investing in our young people is investing in our future. They need access to health and education, and also access to the internet—because that gives them access to the digital economy – so critical for growth and development in the future.

Expanding internet access in Sub Saharan Africa by 10 percent of the population could increase real per capita GDP growth by as much as 4 percentage points. Digitalisation also helps with financial inclusion as a powerful tool to help overcome poverty.

Just as the pandemic has shown that we can no longer ignore health precautions, we can no longer afford to ignore climate change—my third imperative. We focus on climate change because it is macro-critical, posing profound threats to growth and prosperity. It is also people-critical and planet-critical.

In the last decade, direct damage from climate-related disasters adds up to around $1.3 trillion. If we don't like this health crisis, we will not like the climate crisis one iota. Our research shows that, with the right mix of green investment and higher carbon prices, we can steer toward zero emissions by 2050 and help create millions of new jobs.

We have an historic opportunity to build a greener world—also a more prosperous and job-rich one. With low interest rates, the right investments today can yield a quadruple dividend tomorrow: avert future losses, spur economic gains, save lives and deliver social and environmental benefits for everyone.

The IMF's role

At the Fund we are working tirelessly to support a durable recovery—and a resilient future as countries adapt to structural transformations brought on by climate change, digital acceleration and the rise of the knowledge economy.

Since the pandemic began, we have committed over $100 billion—and we still have substantial resources from our $1 trillion in lending capacity. We will continue to pay special attention to the urgent needs of emerging markets and low-income countries—especially small and fragile states, helping them to pay doctors and nurses and protect the most vulnerable people and parts of their economies.

Our unprecedented action was only possible thanks to our members' generous support. The doubling of the New Arrangements to Borrow and a new round of bilateral borrowing arrangements preserves this financial firepower. Members have also stepped up with essential contributions to our Catastrophe Containment – and Relief and Poverty Reduction and Growth—Trusts.

This has allowed us to support our low-income members with debt relief and to triple our concessional lending. We are engaging with members to further boost our concessional lending capacity adapt our lending toolkit and increase support for capacity development.

IMF staff, working day and night, have been magnificent in this crisis. My sincere thanks to them and my management team. My deep appreciation also to our Executive Directors – they have been there every step of the way over the past six months.

Conclusion: seize the moment

The best memorial we can build to those who have lost their lives in this crisis is, in the words of Keynes, *"that bigger thing"*—building a more sustainable and equitable world. Our founders did it. It is now our turn.

This is our moment. ■

Kristalina Georgieva is the IMF Managing Director

This article is based on a speech delivered at the IMF Annual Meetings in Washington, DC, October 15, 2020

The digital age

Graham Bright gives his thoughts on the digital challenges facing financial institutions post-crisis

Graham Bright is Compliance and Operations head at Euro Exim Bank

The current pandemic-induced crisis is yet to reach its peak and is leaving a trail of personal and economic destruction. What does this mean for the fintech in terms of opportunities and which sectors will emerge?

The COVID crisis has had a profound impact on the credit market with many lenders withdrawing mortgage products and tightening risk policy. But with short term removal of stamp duty on house sales, demand for credit is returning and presenting a real opportunity for product diversification and disruption for traditional lenders.

Alternative finance providers, underpinned by innovative financial technology, have seen significant increases in client base and ability to make faster lending decisions.

Digital services have created channels to marketplaces of financial services that customers can dip in and out of according to their current needs and future plans, whether this be a savings account or car insurance, accessing the most suitable product from an expansive portfolio selection.

This enables all players in the financial ecosystem to offer sustainable services which are crucial for customer retention and with opportunities for up and cross-selling.

The pandemic has highlighted again that the holy grail for financial services is being able to attract, add value and retain customers in a cohesive way. Core to all of this is technology, the digital savvy consumer and partnerships – with these three ingredients financial services companies can meet client expectations and create enduring long-term strategies for success.

The future of payments was already transforming, as new entrants enable the market with new technologies; such as contactless payment, NFC enabled smartphones, cloud-based PoS, and digital wallets. How do you see this trend continuing?

Technology is impacting payments in two ways. First, it's creating demand for a very different type of payment network. But also, it's creating the toolkit with which banks and payment providers can create a much better payment model globally.

In that new world, only the most fast-adapting innovative organisations, whether they're banks or payment companies, will succeed, leaving slower companies behind. The change in payments has only just begun and those organisations that lack the agility to adapt at speed to the transformation to come, risk being left behind.

Dependency on fiat currencies such as USD and Euro will reduce, where more nation-states are interested to launch their own digital currencies to retain control of economic policy.

Regulators will step up their powers to police the payments process with harsh penalties forcing international consensus and standardisation on data privacy, greater roll-out of digital ID, improved financial inclusion and more global inter-connected payments networks.

As usage of cheques and cash diminish, cross-border transactions facilitating trade, with real-time payments will become the norm, with change coming faster than ever.

There is an awareness of the need for financial inclusion in rural and remote areas of countries. Indeed, the World Bank says globally 1.7 billion adults remain unbanked, yet two-thirds of them own a mobile phone that could help them access financial services. How do you see digital technology as an enabler to bring people into the financial system?

Digital technology is not only the enabler but the vital component to bring financial services finally to the masses at an affordable price point and applications fit for the 21st century. And this is not just about payments, but providing

Our lives will never be the same. Use of credit cards and on-line access for home-based workers and the public in general has increased, whilst the acceptance of cash has markedly declined real financial inclusion, with access to cost-effective investment, pensions, deposits, loans, insurance, mortgages, especially in economies where loans are not collateral backed.

What is the impact of the US election on fintech and global trade?

As the sun sets on Trumps 'America first' isolationism and nationalism stance, a Democratic Biden presidency may just be the provider of renewed economic stimulus, trade collaboration and diplomacy that the world needs in these challenging times. We expect more investment, with a desire to eliminate inefficiency, opening new trade opportunities in a collaborative approach with alliances and long-term mutual benefit.

Throughout the COVID pandemic, fintechs have shown that they are not just disrupters but robust, dependable and invaluable players in the financial system. Is it time for a re-think in the way we describe technology-led financial services firms?

It took an earlier financial crisis to see the emergence of fintech companies. From 2008 it was necessary to improve processes, providing systems which afforded a better view of credit, tighter security, more control over automated dealing systems, and above all oversight, new entrants were able to scope what the financial world should be, even if the incumbent players were playing catch up.

However, the finance sector still needs 'significant events' to spark firms to review, budget, and implement new technologies.

A financial services firm without capacity, cash flow, connectivity, loyal client base and trusted digital apps is not viable in todays' dynamic, regulation filled, non-standard world.

It is important to consider how the current crisis will impact society for years to come. What are your thoughts on the digital challenges facing financial institutions?

Our lives will never be the same. Use of credit cards and on-line access for home-based workers and the public in general has increased, whilst the acceptance of cash has markedly declined.

The digital age has opened more opportunities for development and growth than ever before, and this has to be embraced by financial firms and their clients to ensure long term sustainability.

As the high street is decimated, large chains going into administration and liquidation, the primary cause of failure seems to be the lack of foresight in assessing the impact of going digital with on-line internet channels, investment in digital delivery and blindness to the changes in consumer buying habits.

For banks, branches are in decline, and the momentum to supply fast, trusted mobile and smart phone apps, with the ever-present threat of bad reviews on social media.

This makes the role of IT and roll out of digital strategy all the more pertinent, with the necessity to improve speed, access and cost of payment mechanisms to meet burgeoning unprecedented consumer demand.

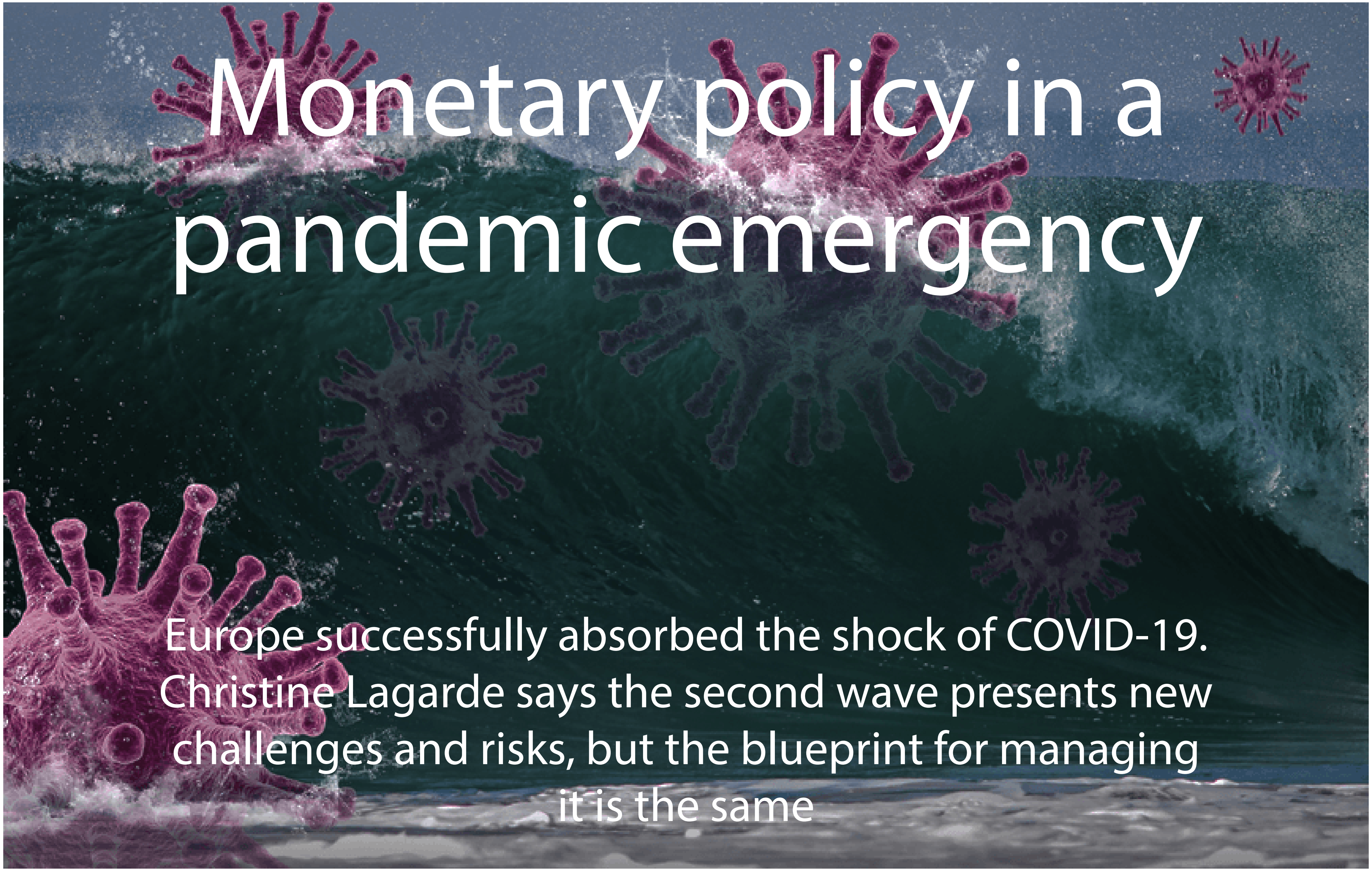
This demand also challenges the banks to adopt a new mindset, business approach and innovative technologies to take their services to the next level. Success in tackling these challenges relies on customer trust and loyalty, where key factors to consider include:

- Constantly changing customer expectations
- Ability to switch brand, bank, supplier etc in moments
- Variety of digital platforms transforming consumer choice and spending

Major challenges to implementing successful financial projects include adherence to complex regulations which constrain large-scale transformation initiatives, rethinking the workforce of the future, the talent pool, and traditional risk-averse cultures clashing with high-risk pursuit of innovation.

Financial institutions are all too aware that digital transformation is no longer a 'nice to have' but a critical enabler of a financial institution's strategy. The ultimate success of digital strategy must be a board-led process designed to achieve both business and organizational transformation.

By revisiting business models, focusing on customer needs, experience and preferences, constantly rethinking the brand, and delivering new opportunities through digital channels, linked with evolving the corporate culture, embracing remote and new ways of working, and building capabilities and alliances around ecosystems that are truly suited to our new normal, institutions can safeguard their business and look forward to long term sustainability. ■



Monetary policy in a pandemic emergency

Europe successfully absorbed the shock of COVID-19. Christine Lagarde says the second wave presents new challenges and risks, but the blueprint for managing it is the same

The purpose of this year's conference is to examine the challenges facing central banking in a shifting world. We will be discussing many of the long-term trends monetary policy has to contend with, including shifting patterns of globalisation, climate change and a lower natural interest rate.

Actually, the largest shift central banks are facing today may well turn out to be the pandemic itself. As John Kenneth Galbraith said, *"the enemy of the conventional wisdom is not ideas, but the march of events."* And the events we are seeing today are momentous.

The coronavirus (COVID-19) has produced a highly unusual recession and is likely to give rise to a similarly unsteady recovery. I would like to talk about how the ECB's monetary policy has responded to this unique environment, and how we can best contribute to supporting the economy going forward.

A highly unusual recession

The deliberate shutdown of the economy triggered by the COVID-19 pandemic has produced a highly unusual recession. Most importantly, it has infiltrated and crippled sectors that are normally less sensitive to the economic cycle. In a regular recession, manufacturing and construction are typically hit harder by the cyclical downturn, while services are more resilient. But during the lockdown in the spring, we saw the reverse.

Compare our experience in the first half of this year with the first six months following the Lehman crash. After Lehman, manufacturing contributed 2.8 percentage points to the recession and services contributed 1.7 percentage points. But this year, the loss was 9.8 percentage points for services and much less, 3.2 percentage points, for manufacturing.

This has three important implications. First, research finds that the recovery from a services-led recession tends to be slower than from a durable goods-led recession, as services create less pent-up demand than consumer goods[1]. For example, people are unlikely to take twice as many holidays abroad next year to compensate for their lack of foreign travel this year.

Second, as services are more labour-intensive, services-led recessions have an outsized effect on jobs. Five million people in the euro area lost their jobs in the first half of this year. Of those, almost half worked in retail and wholesale trade, accommodation and food services, and transportation, despite these activities representing less than one-fifth of output. In the six months after Lehman, the worst affected sector – industry – suffered only 900,000 job losses.

The ECB was there for the first wave and we will be there for the second wave. We are, and we continue to be, totally committed to supporting the people of Europe

And third, these job losses hurt socio-economic groups unevenly. In the first half of 2020, the labour force contracted by almost 7% for people with low skills – who typically also have lower incomes – while it fell by 5.4% for those with medium skills and rose by 3.3% for those with high skills. This is double the loss of low-skilled jobs we saw in the six months after Lehman.

In addition to their social impact, job losses for people with lower incomes present a particular threat to the economy, because around half of those at the bottom of the income scale face liquidity constraints and therefore consume more of their income[2]. The labour-intensity of the worst-hit sectors also heightens the risk of hysteresis and 'scarring' in the labour market.

While job retention schemes have played a key role in mitigating these risks, they could not eliminate them entirely. Even though many workers quickly returned to regular employment once restrictions were lifted, a large number of people who lost their jobs in the spring left the labour force and stopped looking for work, with 3.2 million workers classified as 'discouraged'. This is so far different from the post-Lehman period, when the drop in employment was matched by a rise in unemployment.

And young people have been particularly affected, seeing disproportionate lay-offs and delayed entry into the labour market. Research finds that this can have a variety of long-lasting effects, including lower earnings ten to fifteen years later, and worse future health conditions[3].

So, from the outset, this unusual recession has posed exceptionally high risks. That is why an exceptional policy response has been required. And what has defined this policy response, in Europe in particular, is the policy mix. Learning the lessons of the last decade, there has been a renewed consensus that the composition of policies matters for overcoming the crisis. More than ever before, macroeconomic, supervisory and regulatory authorities have dovetailed and made each other's efforts more powerful.

Policy responses to the pandemic

What has this meant for monetary policy? There are two main ways in which we have adapted the ECB's policy to the pandemic: via the design of our tools and via the transmission of our monetary policy.

First of all, we have responded to the unique features of the recession by designing a set of tools specifically tailored to the nature of the shock, including recalibrating our targeted longer-term refinancing operations (TLTROs), expanding eligible collateral, and launching a new €1.35 trillion pandemic emergency purchase programme (PEPP).

The PEPP in particular has the dual function of stabilising financial markets and contributing to easing the overall monetary policy stance, thereby helping to offset the downward impact of the pandemic on the projected path of inflation.

The stabilisation function of the PEPP is ensured by its flexibility, which is crucial given the unpredictable course of the pandemic and its uneven impact across economies. In this context, the PEPP's flexibility allows us to react in a targeted way and counter fragmentation risks. This was key in reversing the tightening of financing conditions that we saw in the early days of the crisis.

In parallel, the stance function of the PEPP gives us the scope to counter the pandemic-driven shock to the path of inflation – a path that has also been greatly influenced by the specific characteristics of this recession. Not only has inflation fallen into negative territory, but we have already seen services inflation, which is normally the more stable part of the price index, drop to historic lows.

But the PEPP, together with the other measures we have taken this year, has provided crucial support to the inflation path and prevented a much larger disinflationary shock[4]. And its impact has been amplified by interactions with other policies. For instance, the combined effect of the ECB's monetary and supervisory measures is estimated to have saved more than one million jobs[5].

At the same time, the nature of the pandemic also affects the transmission of monetary policy. Normally, an easing of financing conditions boosts demand by encouraging firms to borrow and invest, and households to bring forward future income and consume more. In turbulent times, monetary policy interventions also eliminate excess risk pricing from the market.

But when interest rates are already low and private demand is constrained by design – as is the case today – the transmission from financing conditions to private spending might be attenuated. This is especially true when firms and households face very high levels of uncertainty, leading to higher precautionary saving and postponed investment[6].

In these circumstances, it is crucial that monetary policy ensures favourable financing conditions for the whole economy: private and public sectors alike. Indeed, these are the times when fiscal policy has the greatest impact, for at least two reasons.

First, fiscal policy can respond in a more targeted way to the parts of the economy affected by health restrictions. Research shows that, while monetary policy can increase overall activity in this environment, it cannot support the specific sectors that would be most welfare-enhancing. Fiscal policies, on the other hand, can directly respond where help is most needed[7].

We have seen the efficacy of such targeting in the euro area this year. The ECB's Consumer Expectations Survey shows that households with lower income have seen a greater reduction in the hours they work, but they have also received a higher share of government support.

As a result, while compensation of employees fell by more than 7% in the second quarter, household disposable income fell by only 3%[8], because government transfers compensated for the loss of income.

Second, fiscal policy can break 'paradox of thrift' dynamics in the private sector when uncertainty is present. Public expenditure accounts for around 50% of total spending in the euro area and can therefore act as a coordination device for the other 50%.

Our consumer survey demonstrates this: people who consider government support to be more adequate display less precautionary behaviour. And in this way, by brightening economic prospects for firms and households, fiscal policy can help reinvigorate monetary transmission through the private sector.

The risk of an unsteady recovery

But regrettably the economic recovery from the pandemic emergency could well be bumpy. We are seeing a strong resurgence of the virus and this has introduced a new dynamic. While the latest news on a vaccine looks encouraging, we could still face recurring cycles of accelerating viral spread and tightening restrictions until widespread immunity is achieved.

So the recovery may not be linear, but rather unsteady, stop-start and contingent on the pace of vaccine roll-out. In the interim, output in the services sector may struggle to fully recover.

Indeed, services were already showing a declining trend before the latest round of restrictions: the services PMI fell from 54.7 in July to 46.9 in October. And while manufacturing has so far remained relatively resilient, there is a risk of the recovery in manufacturing also slowing once order backlogs are run down and industrial output becomes better aligned with demand.

In this situation, the key challenge for policymakers will be to bridge the gap until vaccination is well advanced and the recovery can build its own momentum. The strength of the rebound in the third quarter suggests that the initial policy response was effective and the capacity of the economy to recover is still in place. But it will require very careful policy management to ensure that this remains the case.

Above all, we must ensure that this exceptional downturn remains just that – exceptional – and does not turn into a more conventional recession that feeds on itself. Even if this second wave of the virus proves to be less intense than the first, it poses no less danger to the economy.

In particular, if the public no longer sees the pandemic as a one-off event, we could see more lasting changes in behaviour than during the first wave. Households could become more fearful about the future and increase their precautionary saving.

Firms that have survived up to now by increasing borrowing could decide that remaining open no longer makes business sense. This could trigger a 'firm exit multiplier', where the closure of businesses faced with health restrictions cuts demand for complementary businesses, in turn causing those firms to reduce their output[9].

If that were to happen, the recession could percolate through the economy to sectors not directly affected by the pandemic – and potentially trigger a feedback loop between the real economy and the financial sector. Banks might start tightening credit standards in the belief that corporate creditworthiness is deteriorating, leading to firms becoming less willing or able to borrow funds, credit growth slowing and banks' risk perceptions rising further.

The ECB's bank lending survey is already signalling a possible tightening in the months to come. We are also seeing indications that small and medium-sized firms are expecting their access to finance to deteriorate.

A continued, powerful and targeted policy response is therefore vital to protect the economy, at least until the health emergency passes. Concerns about 'zombification' or impeding creative destruction are misplaced, especially if a vaccine is now in sight.

Remember that lockdowns are a non-economic shock that affects productive and unproductive firms indiscriminately. Policies that protect viable businesses until activity can return to normal will help our productive capacity, not harm it.

The right policy mix is essential. Fiscal policy has to remain at the centre of the stabilisation effort – the draft budgetary plans suggest that fiscal support next year will be significant and broadly similar to this year, and the Next Generation EU package should become operational without delay.

Supervisory authorities are working to ensure that banks can continue to support the recovery by readying them for a potential deterioration in asset quality[10]. And structural policies have to be stepped up so that policy support can accompany the wide-ranging changes that the pandemic will bring, such as an accelerating spread of digitalisation and a renewed focus on climate issues[11].

The outlook for monetary policy

So what is the role of monetary policy in this response? It is clear that downside risks to the economy have increased. The impact of the pandemic is now likely to continue to weigh on economic activity well into 2021.

Moreover, demand weakness and economic slack are weighing on inflation, which is expected to remain in negative territory for longer than previously thought. This is partially due to temporary factors, but the fall in measures of underlying inflation also appears to be connected to the weakening of activity. And developments in the exchange rate may have a negative impact on the path of inflation. Continued policy support is therefore necessary to achieve our inflation aim. But we should also consider how best to provide that support.

The unusual nature of the recession and the unsteadiness of the recovery make assessing the inflation path harder than in normal times. Shifts in consumption baskets caused by supply-side restrictions are creating significant noise in the inflation data[12]. And the stop-start nature of the recovery means the short-term path of inflation is surrounded by considerable uncertainty.

In these conditions, it is vital that monetary policy underpins inflation dynamics by supporting demand and preventing second-round effects, where the negative pandemic shock to inflation feeds into wage and price-setting and becomes persistent. To that end, the best contribution monetary policy can make is to ensure favourable financing conditions for the whole economy. Two considerations are important here.

First, while fiscal policy is active in supporting the economy, monetary policy has to minimise any 'crowding-out' effects that might create negative spillovers for households and firms. Otherwise, increasing fiscal interventions could put upward pressure on market interest rates and crowd out private investors, with a detrimental effect on private demand.

Second, monetary policy has to continue supporting the banking sector to secure policy transmission and prevent adverse feedback loops from emerging. Firms are still dependent on new flows of credit. And those that have borrowed heavily so far need certainty that refinancing will remain available on attractive terms in order to avoid excessive deleveraging.

In other words, when thinking about favourable financing conditions, what matters is not only the level of financing conditions but the duration of policy support, too. All sectors of the economy need to have confidence that financing conditions will remain exceptionally favourable for as long as needed – especially as the economic impact of the pandemic will now extend well into next year.

Currently, all conditions are in place for both the public and private sectors to take the necessary measures.
The GDP-weighted sovereign yield curve is in negative territory up to the ten-year maturity. Nearly all euro area countries have negative yields up to the five-year maturity. Bank lending rates are close to their historic lows: around 1.5% for corporates and 1.4% for mortgages. And our forward guidance on our asset purchase programmes and interest rates provides clarity on the future path of interest rates.

But it is important to ensure that financing conditions remain favourable. This is why the Governing Council announced last month that we will recalibrate our instruments, as appropriate, to respond to the unfolding situation. The Council is unanimous in its commitment to ensure that financing conditions remain favourable to support economic activity and counteract the negative impact of the pandemic on the projected inflation path.

In the weeks to come we will have more information on which to base our decision about this recalibration, including more evidence on the success of the new lockdown measures in containing the virus, a new set of macroeconomic projections and more clarity on fiscal plans and the prospects for vaccine roll-outs.

While all options are on the table, the PEPP and TLTROs have proven their effectiveness in the current environment and can be dynamically adjusted to react to how the pandemic evolves. They are therefore likely to remain the main tools for adjusting our monetary policy.

Looking beyond our next policy meeting, our ongoing strategy review gives us an opportunity to reflect on the best combination of tools to deliver financing conditions at the appropriate level, how those tools should be implemented, and what features our toolkit needs to have to deliver on such a strategy.

Conclusion

The pandemic has produced an unusual recession and will likely generate an unsteady recovery. All policy areas in Europe have responded promptly and decisively. The European policy mix has proven that when different authorities work together – within their respective mandates – countries can successfully absorb the pandemic shock.

The second wave of COVID-19 presents new challenges and risks, but the blueprint for managing it is the same. The ECB was there for the first wave and we will be there for the second wave. We are, and we continue to be, totally committed to supporting the people of Europe.

In pursuit of our mandate, we will continue to deliver the financing conditions necessary to protect the economy from the impact of the pandemic. This is the precondition for stabilising aggregate demand and securing the return of inflation to our aim. ■

Christine Lagarde is President of the ECB

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This article is based on a keynote speech delivered at the ECB Forum on Central Banking, Frankfurt am Main, 11 November 2020

The road ahead

Jerome Powell assesses recent economic developments and discusses the path ahead for the US economy post-pandemic

It has been just eight months since the pandemic first gained a foothold on our shores, bringing with it the sharpest downturn on record, as well as the most forceful policy response in living memory. Although it is too early for definitive conclusions, I will offer a current assessment of the response to the economic fallout of this historic event and discuss the path ahead.

The pre-COVID economy

As the coronavirus spread across the globe, the US economy was in its 128th month of expansion—the longest in our recorded history—and was generally in a strong position. Moderate growth continued at a slightly above-trend pace. Labour market conditions were strong across a range of measures. The unemployment rate was running at 50-year lows. PCE (personal consumption expenditures) inflation was running just below our 2 percent target.

The economy did face longer-term challenges, as all economies do. Labour force participation among people in their prime working years had been trending down since the turn of the millennium, and productivity gains during the expansion were disappointing. Income and wealth disparities had been growing for several decades.

As the expansion continued its long run, however, productivity started to pick up, the labour market strengthened, and the benefits of growth began to be more widely shared. In particular, improved labour market conditions during the past few years encouraged more prime-age workers to rejoin or remain in the labour force. Meanwhile, real wage gains for all workers picked up, especially for those in lower paying jobs.

Most economic forecasters expected the expansion and its benefits to continue, and with good reason. There was no economy-threatening asset bubble to pop and no unsustainable boom to bust. While non-financial business leverage appeared to be elevated, leverage in the household sector was moderate.

The banking system was strong, with robust levels of capital and liquidity. The COVID-19 recession was unusual in that it was not triggered by a build-up of financial or economic imbalances. Instead, the pandemic shock was essentially a case of a natural disaster hitting a healthy economy.

Given the condition of the economy, in the early stages of the crisis it seemed plausible that, with a rapid, forceful, and sustained policy response, many sectors of the economy would be able to bounce back strongly once the virus was under control. That response would need to come from actions across all levels of government, from health and fiscal authorities, and from the Federal Reserve.

On a more positive note, we have seen that the economy can sustain historically high levels of employment, bringing significant societal benefits and without causing a troubling rise in inflation

It also seemed likely that the sectors most affected by the pandemic—those relying on extensive in-person contact—would face a long and difficult path to recovery. These sectors and people working in them would likely need targeted and sustained policy support.

Some asked what the Fed could do to address what was essentially a medical emergency. We identified three ways that our tools could help limit the economic damage from the pandemic: providing stability and relief during the acute phase of the crisis when much of the economy was shut down; vigorously supporting the expansion when it came; and doing what we could to limit longer-run damage to the productive capacity of the economy.

The recession and nascent recovery

When it became clear in late February that the disease was spreading worldwide, financial markets were roiled by a global flight to cash. By the end of the month, many important markets were faltering, raising the threat of a financial crisis that could exacerbate the economic fallout of the pandemic.

Widespread economic shutdowns began in March, and in the United States, with many sectors shut down or operating well below capacity, real GDP fell 31 percent in the second quarter on an annualized basis. Employers slashed payrolls by 22 million, with those on temporary layoff rising by 17 million. Broader measures of labour market conditions, such as labour force participation and those working part time for economic reasons, showed further damage.

In response, we deployed the full range of tools at our disposal, cutting rates to their effective lower bound; conducting unprecedented quantities of asset purchases; and establishing a range of emergency lending facilities to restore market function and support the flow of credit to households, businesses, and state and local governments. We also implemented targeted and temporary measures to allow banks to better support their customers.

The fiscal response was truly extraordinary. The unanimous passage of the CARES Act and three other bills passed with broad support in March and April established wide-ranging programs that are expected to provide roughly $3 trillion in economic support overall—by far the largest and most innovative fiscal response to an economic crisis since the Great Depression.

What have these policies managed to accomplish so far?

First, the substantial fiscal aid has given vital support to households. The rise in transfers supported necessary spending and contributed to a sharp increase in household saving. Goods consumption is now above its pre-pandemic level. Services consumption remains low, although it seems likely that much of this weakness is the by-product of health concerns and social distancing, rather than reductions in income and wealth.

Consumption held up well through August after the expiration of expanded unemployment insurance benefits, indicating that savings from transfer payments continue to support economic activity.

A recent Fed survey showed that households in July had surprisingly upbeat views of their current financial well-being, with 77 percent of adults either 'doing okay' or 'living comfortably', an improvement even over the reading immediately preceding the pandemic[1]. Still, since it appears that many will undergo extended periods of unemployment, there is likely to be a need for further support.

Second, aid to firms—in particular, the Paycheck Protection Program—and the general boost to aggregate demand have so far partly forestalled an expected wave of bankruptcies and lessened permanent layoffs.

Business investment appears to be on a renewed upward trajectory and new business formation similarly appears to be rebounding, pointing to some confidence in the path ahead.

Third, after briefly seizing up in March, financial markets have largely returned to normal functioning, albeit in the context of extensive ongoing policy support. Financial conditions are highly accommodative, and credit is available on reasonable terms for many—though not all—households and businesses. Interest-sensitive spending has been relatively strong, as shown in the housing and auto sectors.

Taken together, fiscal and monetary policy actions have so far supported a strong but incomplete recovery in demand and have—for now—substantially muted the normal recessionary dynamics that occur in a downturn. In a typical recession, there is a downward spiral in which layoffs lead to still lower demand, and subsequent additional layoffs.

This dynamic was disrupted by the infusion of funds to households and businesses. Prompt and forceful policy actions were also likely responsible for reducing risk aversion in financial markets and business decisions more broadly.

While the combined effects of fiscal and monetary policy have aided the solid recovery of the labour market so far, there is still a long way to go. Payrolls have now recovered roughly half of the 22 million decline. After rising to 14.7 percent in April, the unemployment rate is back to 7.9 percent, clearly a significant and rapid rebound.

A broader measure that better captures current labour market conditions—by adjusting for mistaken characterizations of job status, and for the decline in labour force participation since February—is running around 11 percent.

The burdens of the downturn have not been evenly shared. The initial job losses fell most heavily on lower-wage workers in service industries facing the public—job categories in which minorities and women are overrepresented.

In August, employment of those in the bottom quartile of the wage distribution was still 21 percent below its February level, while it was only 4 percent lower for other workers[2].

Combined with the disproportionate effects of COVID on communities of colour, and the overwhelming burden of childcare during quarantine and distance learning, which has fallen mostly on women, the pandemic is further widening divides in wealth and economic mobility.

The road ahead

I will now turn to the outlook. The recovery has progressed more quickly than generally expected. The most recent projections by FOMC (Federal Open Market Committee) participants at our September meeting show the recovery continuing at a solid pace. The median participant saw unemployment declining to 4 percent and inflation reaching 2 percent by the end of 2023.

Of course, the economy may perform better or worse than expected. The outlook remains highly uncertain, in part because it depends on controlling the spread and effects of the virus. There is a risk that the rapid initial gains from reopening may transition to a longer than expected slog back to full recovery as some segments struggle with the pandemic's continued fallout.

The pace of economic improvement has moderated since the outsize gains of May and June, as is evident in employment, income, and spending data. The increase in permanent job loss, as well as recent layoffs, are also notable.

We should continue do what we can to manage downside risks to the outlook. One such risk is that COVID-19 cases might again rise to levels that more significantly limit economic activity, not to mention the tragic effects on lives and well-being.

Managing this risk as the expansion continues will require following medical experts' guidance, including using masks and social-distancing measures.

A second risk is that a prolonged slowing in the pace of improvement over time could trigger typical recessionary dynamics, as weakness feeds on weakness. A long period of unnecessarily slow progress could continue to exacerbate existing disparities in our economy.

That would be tragic, especially in light of our country's progress on these issues in the years leading up to the pandemic.

The expansion is still far from complete. At this early stage, I would argue that the risks of policy intervention are still asymmetric. Too little support would lead to a weak recovery, creating unnecessary hardship for households and businesses.

Over time, household insolvencies and business bankruptcies would rise, harming the productive capacity of the economy, and holding back wage growth. By contrast, the risks of overdoing it seem, for now, to be smaller.

Even if policy actions ultimately prove to be greater than needed, they will not go to waste. The recovery will be stronger and move faster if monetary policy and fiscal policy continue to work side by side to provide support to the economy until it is clearly out of the woods.

Given this audience, I would be remiss were I not to mention our review of our monetary policy strategy, tools, and communications, which concluded recently with our adoption of a flexible average inflation-targeting regime.

My colleagues and I have discussed this new framework in detail in recent remarks. I will just note that the underlying structure of the economy changes over time, and that the FOMC's framework for conducting monetary policy must keep pace. The recent changes to our consensus statement reflect our evolving understanding of several important developments.

There has been a decline in estimates of the potential or longer-run growth rate of the economy and in the general level of interest rates, presenting challenges for the ability of monetary policy to respond to a downturn.

On a more positive note, we have seen that the economy can sustain historically high levels of employment, bringing significant societal benefits and without causing a troubling rise in inflation.

The new consensus statement acknowledges these developments and makes appropriate changes in our monetary policy framework to position the FOMC to best achieve its statutory goals.

The forward rate guidance adopted at our September meeting reflects our new consensus statement. The new guidance says that, with inflation running persistently below our longer-run 2 percent goal, the Committee will aim to achieve inflation moderately above 2 percent for some time so that inflation averages 2 percent over time and longer-term inflation expectations remain well anchored at 2 percent.

The Committee expects to maintain an accommodative stance of policy until these outcomes are achieved. The Committee also left the target range for the federal funds rate unchanged at 0 to 1/4 percent, and it expects it will be appropriate to maintain this target range until labour market conditions have reached levels that are consistent with the Committee's assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time.

We expect that the new framework and guidance will support our efforts in pursuit of a strong economic recovery. ■

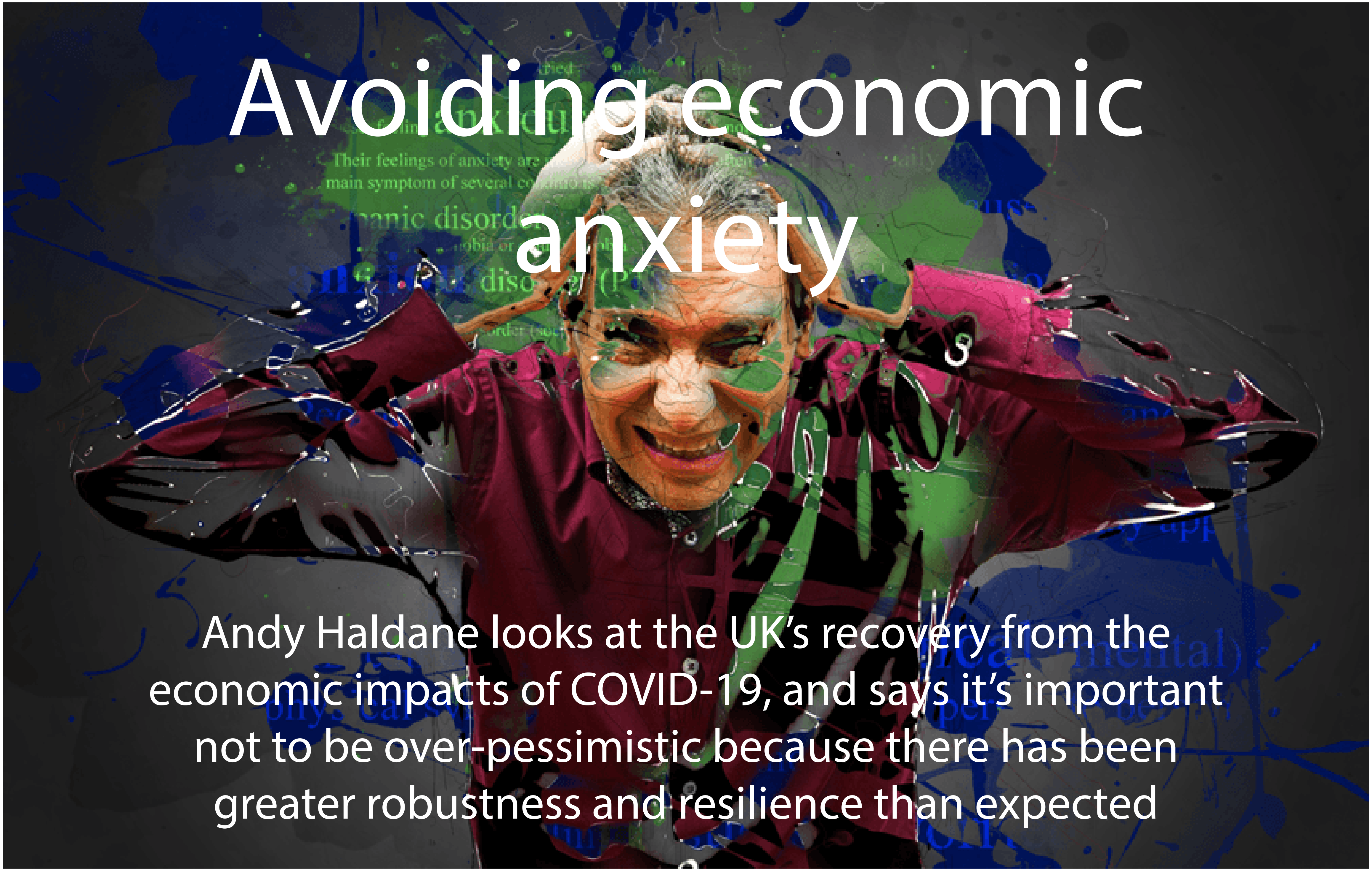
Jerome H Powell is Chair of the Board of Governors of the Federal Reserve System

Endnotes

1. See Update on the Economic Well-Being of US Households: July 2020 Results, or SHED, issued in September 2020 and available on the Board's website at https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-update-202009.pdf

2. Using data from ADP, the Board staff estimate that at the end of April, 41 percent of the workers in the bottom quartile (based on their previous wage) had lost their jobs, compared with only 13 percent for the other three quartiles. See the Board's June 2020 Monetary Policy Report, available at https://www.federalreserve.gov/monetarypolicy/files/20200612_mprfullreport.pdf for more details.

This article is based on a speech delivered at the National Association for Business Economics Virtual Annual Meeting, October 06, 2020



Avoiding economic anxiety

Andy Haldane looks at the UK's recovery from the economic impacts of COVID-19, and says it's important not to be over-pessimistic because there has been greater robustness and resilience than expected

I thought I would focus on the economic outlook in the UK, updated in the light of events since the publication of the Bank's *Monetary Policy Report* in August. Plenty has since happened. But one factor has remained the same: the extraordinary degree of uncertainty about the economic outlook. That makes monitoring the economy closely, and setting policy to support it, more important than ever.

At present, the largest clouds on the economic horizon in the UK come from: the effects of rising numbers of COVID cases across the UK and the accompanying policy measures taken to contain them; risks to business activity and jobs in the light of these public health developments; and the effects of moving to new trading arrangements with the EU at year-end. This unholy trinity of risks give good grounds for caution.

Some degree of caution is desirable - in how we socialise, shop and work - to prevent the spread of this awful disease. But we need at the same time to prevent healthy caution morphing into fear and fatalism. Pessimism can be as contagious as the disease - and as damaging to our economic fortunes. Avoiding economic anxiety is crucial to support the on-going recovery. This has important implications for how businesses and policymakers act and communicate.

The fall and rise of the UK economy

Let me start by running through the fortunes of the economy so far this year. The early months saw a collapse in UK economic activity unprecedented in its speed and scale – a fall in GDP of around a quarter in a matter of weeks.

This recession was unique in its source as well as its speed and scale. An extreme shock to public health required extreme public health measures, restricting the flow of goods, services and people. Large parts of the economy were, in effect, put into a policy-induced coma.

The resulting collapse in aggregate demand would ordinarily have resulted in huge numbers of job losses. Economists call the relationship between demand and jobs Okun's Law[1]. Historically, the Okun coefficient is found to lie around 0.5-0.6.

On that basis, the 25% fall in output would have been expected to lower employment by perhaps 12-15% and to raise the unemployment rate by maybe 10 percentage points, taking the pool of unemployed workers to around 5 million.

The Government's job support packages, notably the Coronavirus Job Retention Scheme (CJRS), avoided this catastrophic outcome. The CJRS provided support to around 9 million workers at its peak, in addition to which income support was provided to around 2½ million self-employed workers.

Encouraging news about the present needs not to be drowned out by fears for the future. Now is not the time for the economics of Chicken Licken

Currently, it is estimated that around 2.75 million workers remain on furlough. The CJRS will end next month, to be replaced with the Job Support Scheme (JSS) announced by the Chancellor last week.

Of course, not all jobs have or could have been protected. Data from the ONS's Labour Force Survey (LFS) is, at present, difficult to interpret when gauging employment trends. But based on HMRC data on paid employees, around 700,000 workers may have been laid-off, in addition to around 280,000 self-employed workers.

That means around 1 million workers in total may so far have lost their jobs. This figure, more than any other, underlines the gravity of the shock the UK economy has faced this year.

The better news is that the economy began its recovery from this dramatic fall earlier, and has since recovered far faster, than anyone expected. The speed and scale of the UK's recovery has surprised to the upside, persistently and significantly, for at least the past four months.

Back in May, the Bank expected GDP to be around 18% below its pre-COVID level on average during the third quarter. Consensus forecasts by professional economists were, at the time, weaker still.

Four months on, we now expect GDP to be around 3-4% below its pre-COVID level by the end of the third quarter. In other words, the economy has already recovered just under 90% of its earlier losses. Having fallen precipitously by 20% in the second quarter, we expect UK GDP to have risen by a vertiginous 20% in the third quarter – by some margin its largest-ever rise. Put differently, since May UK GDP has been rising, on average, by around 1.5% per week.

The pace of recovery has varied, starting slowly in May, picking up pace rapidly during June and July and is then expected to have slowed a little during August and September. Even if our GDP nowcasts for August and

September come to pass, there remains an average recession-sized gap between output and its pre-COVID level. Nonetheless, had this economic outcome been offered as a forward contract in the early summer months, absolutely everyone would have been a buyer.

So what explains this faster-than-expected recovery? And, crucially, will it persist in the face of the unholy trinity of risks from COVID, unemployment and Brexit that potentially lie in store?

These are related questions because behaviours exhibited by households and businesses so far are likely to be revealing about what impact future risks might have. Habits tend to persist. That means, for all the uncertainty about the outlook, the UK's recent economic performance does offer some signal about the future outlook.

The simplest explanation for the upside surprises to UK activity over recent months would be that lockdown measures have been released sooner and faster than expected. But the pace of release from lockdown in the UK has in fact been broadly in line with what the Bank had expected in May.

The biggest surprise has been the robustness of peoples' spending behaviour in the face of lockdown constraints and other risks, not the evolution of these constraints and risks per se.

The behaviour of UK consumers has been most surprising. Based on our suite of fast indicators, UK consumption has been rising by, on average, around 2% per week since May[2]. As best we can tell, consumer spending now stands at around pre-COVID levels.

In other words, consumption has fully recovered more than a year earlier than the Bank expected as recently as August. Large-ticket purchases, such as cars and houses, are also back to around pre-COVID levels.

Against a backdrop of more than 40,000 COVID-related deaths, an extra 1 million people unemployed and perhaps a quarter of the workforce having faced a cut in their incomes, the speed and scale of this recovery in consumption is, I think, fairly remarkable.

It suggests considerable resilience on the part of consumers in the face of adversity. It also indicates considerable flexibility in both how and on what they spend.

On the how, UK consumers have (perhaps unsurprisingly) switched from the High Street online to meet their spending needs. Online spending has jumped from 20% to almost 27% of overall spending during the course of this year, peaking at a third of all spending in May. It seems probable some of this switch online will endure into the future. Online habits tend to persist.

On the what, there have been notable switches in expenditure patterns in the face of new working and socialising patterns (Table 1). According to data from Visa, on average this year spending on hotels and accommodation is down by over 40% and on travel by over 35%.

Table 1. Average year-on-year changes in Visa Consumer Spending Index since March 2020

	Food etc	Clothing & Foot	Household Goods	Health & Edu.	Trans. & Comms	Rec. & Cult	Hot. & Rest.	Misc. Goods
%	25.7	-18.2	8.0	-30.9	-35.4	-11.2	-41.8	-9.0

Source: Visa

By contrast, spending on households goods is up 8% and food spending is up by over 25%. Home production and home consumption has surged to counterbalance the effects of reduced time and money spent away from the home.

Some of these spending habits are likely to persist. If more people work from home, travel spending is likely to be permanently lower and office equipment spending permanently higher. Other spending switches are likely to reflect pent-up demand and prove temporary – for example, on household goods, cars and houses.

Nonetheless, with cumulative spending this year still running significantly below last year's levels – for houses and cars, 20-40% below – considerable pent-up demand remains.

An interesting case study in consumer resilience comes from restaurant spending. Peak to trough, this fell over 90% as restaurants closed. As they re-opened in July, restaurant spending picked-up, if initially slowly.

In surveys at the start of August, almost half of consumers said they felt very or quite uncomfortable about visiting a restaurant. That suggested considerable caution about eating out, with many consumers seemingly putting a high price on personal safety.

The Government's Eat Out to Help Out scheme provided a £10-capped subsidy to eating-out during August. By the end of the month, it had supported 100 million meals across the UK. The scheme also provided an interesting testbed for answering the question: what price do people put on overcoming their caution about visiting a restaurant? At £5.22, the answer was strikingly low.

The economic news has not all been positive. Job losses have continued to mount (though the Bank revised down its estimate of job losses by around 720,000 between May and August). And the recovery in consumer spending has not been matched among businesses.

Business surveys suggest investment is still 20-30% below its pre-COVID level and online job vacancies are around 45% lower. For the worst-affected sectors, such as retail, hospitality and culture, the situation is weaker-still.

Where next for the economy?

The key question, at this juncture, is what happens next? Will the positive momentum of the past few months continue or was this a false dawn? Will the resilience of the consumer, or the reticence of companies, win out? Is the economic glass nine-tenths full or one tenth empty?

Such is the uncertainty, it would be imprudent to make confident predictions about the shape of the recovery from here - which is one reason why, contrary to some commentary, I have not done so.

Recovering the final few percentage points of lost output was always certain to be the hardest. Adding to that difficulty, storm clouds have recently begun re-gathering over the recovery.

The three darkest of these clouds come from the rising number of COVID infections and the accompanying re-tightening of some lockdown restrictions across the UK; the threat from further job losses, including from the closure of the CJRS; and the risks from the transition to the UK's new trading arrangements with the EU at year-end.

All three of these risks - the unholy trinity - are clear and present dangers to the UK's recovery. They are the reason why, in its August projections, the MPC included a significant downside skew to demand.

At the same time, these risks need to be put in proportion and in context. While recognising their gravity, my concern is that perceptions of these risks among household and businesses are, at present, exaggerated.

By creating excess caution, this has the potential to restrain unnecessarily the recovery. Levels of anxiety among the general public ratcheted-up dramatically in March and April, by a factor of two- thirds. Despite falling gradually, anxiety has remained at elevated levels, a third above pre-COVID levels (Chart 1).

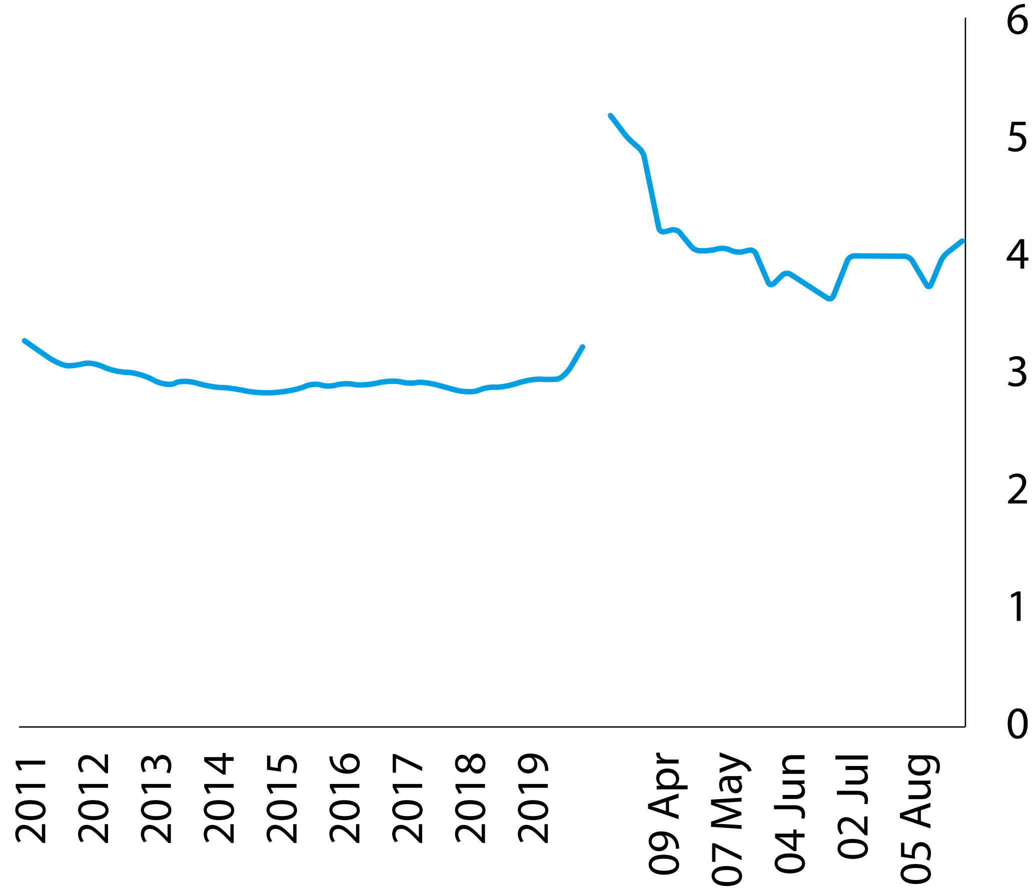
Measures of confidence among businesses and households have followed a similar pattern, spiking sharply downwards and largely remaining at those low levels, despite the sharp economic recovery (Chart 2). This suggests a persistent, and perhaps puzzling, degree of pessimism.

The failure of consumer confidence to recover is particularly striking, given the complete recovery in consumption by households over the same period. Put differently, the historical correlation between consumer confidence and spending appears to have broken down (Chart 3).

A wedge has emerged between peoples' expectations and their spending, between their risk perceptions and economic reality. The same is true, to a somewhat lesser extent, among businesses.

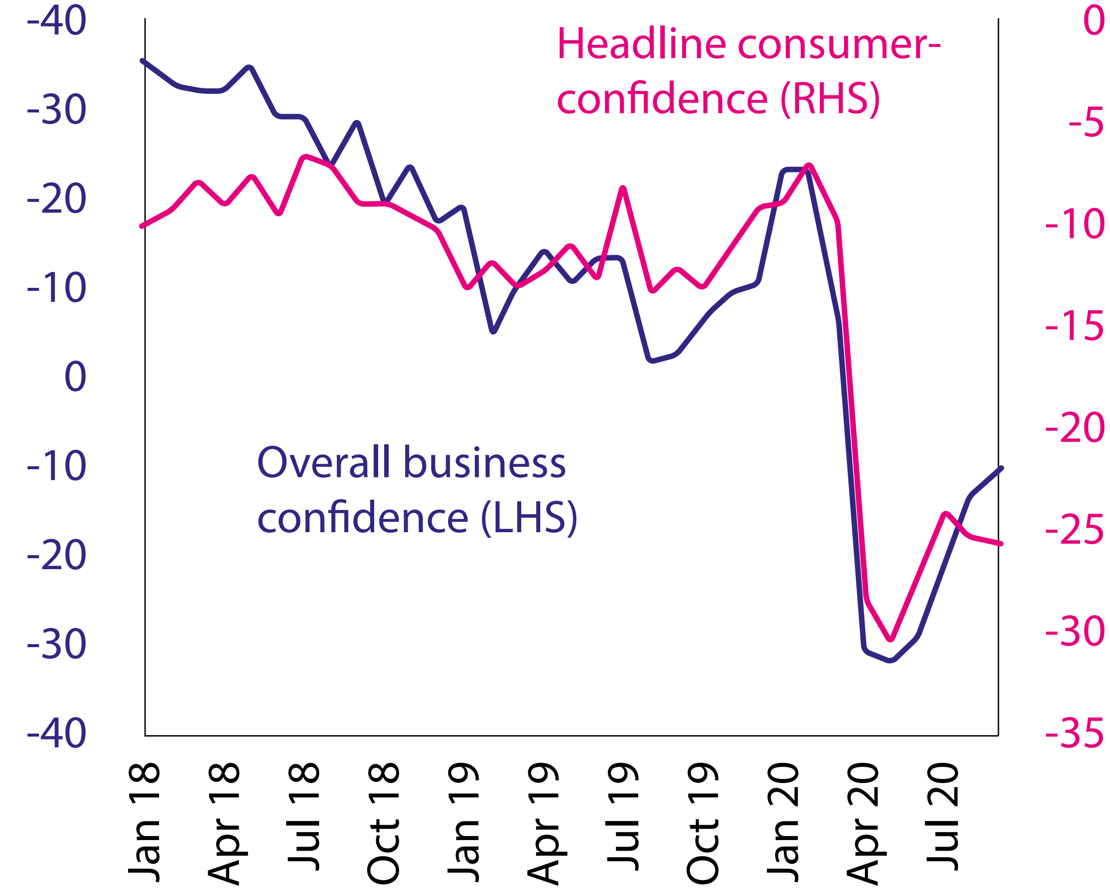
For households, that wedge might have arisen because of fears about future unemployment or inflation. Past experience suggests peoples' perceptions are sensitive to these macro-economic factors which is why economists sometimes combine the two in a so-called 'misery index'[3]. (Economics is not called the dismal science for nothing.) If you plot this index over time, and project it into the future using the Bank's most recent forecasts, two features stand out (Chart 4).

Chart 1. Anxiety score (mean response)



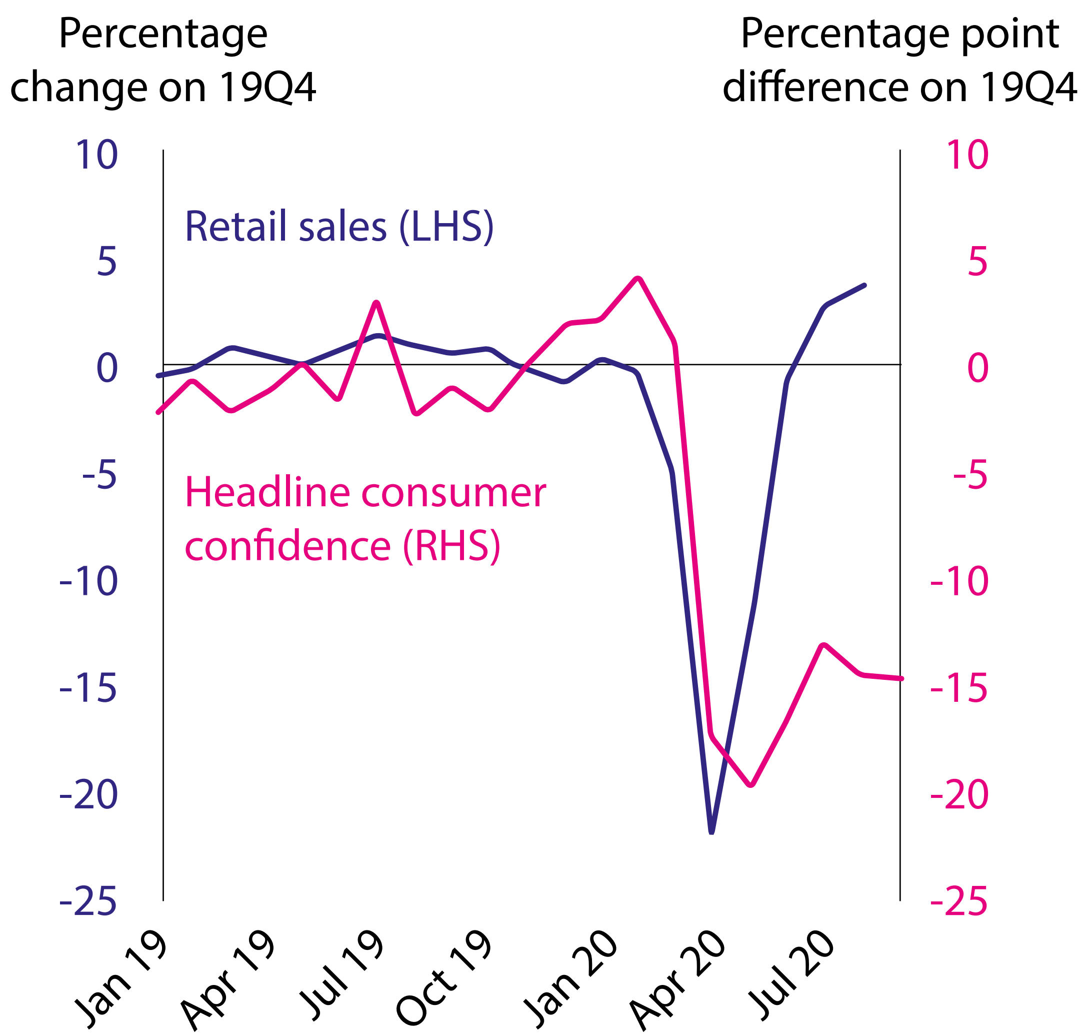
Note: Quarterly data to March 2020 and weekly data thereafter
Source: ONS

Chart 2. HH and business consumer confidence



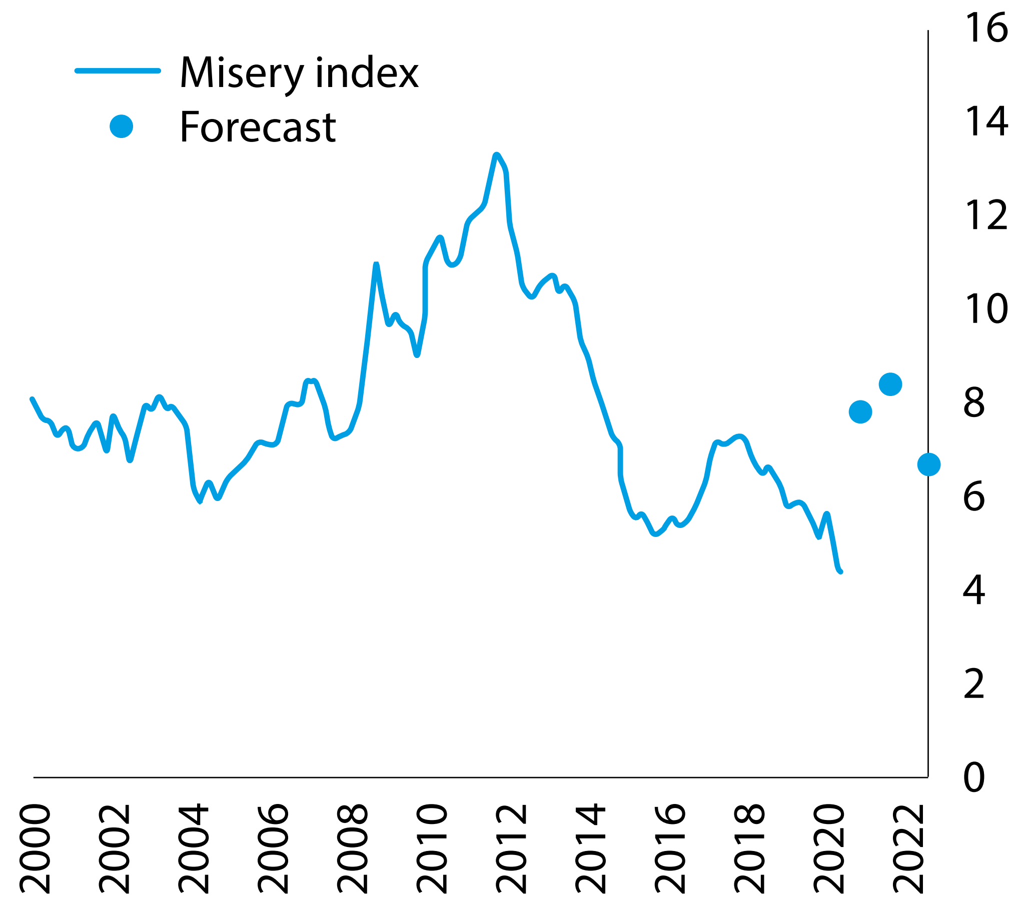
Note: Headline consumer confidence is based on the average of five survey balances: general macroeconomic situation over the past 12 months and expectations for the next 12.
Source: GfK/EC Consumer Confidence Survey, Lloyds Business Barometer

Chart 3. Consumer confidence and spending



Notes: Headline consumer confidence is based on the average of five survey balances: general macroeconomic situation over the past 12 months and expectations for the next 12
Sources: GfK/EC, ONS.

Chart 4. UK Misery Index



Notes: Index is summation of the unemployment rate and inflation rate. Forecast is based on projections in Aug 2020 Monetary Policy Report.
Sources: ONS and Bank calculations

First, by the end of this year the misery index will have risen to around 8%, over two percentage points higher than at the start of the year. Economically, this is a significant rise.

But, second, in the historical scheme of things this move is nonetheless fairly modest and the level of misery, comparatively-speaking, remains fairly low. The misery index also suggests some wedge has opened up between public perceptions and policymaker expectations for the economy.

If the public do have an exaggerated sense of the risks they face, what might be its source? Psychological studies suggest it may reflect behavioural biases inherited from our hunter-gatherer past. Humans tend to over-estimate systematically risks that are systemic or existential to lives and livelihoods[4].

This 'dread risk' causes excessively cautious behaviour, sometimes with harmful side-effects – as when the exaggerated fear of flying after 9/11 caused more people to drive[5].

These exaggerated risk perceptions are often amplified by others' words and actions. Caution is contagious. What often then emerges is a 'popular narrative'. These narratives have been found to be an important driver of collective behaviour in financial markets and the economy[6].

Behavioural biases at times of existential risk, spreading contagiously, can result in pessimistic popular narratives detached from reality. At times of stress, a global game of Chinese Whispers can generate unduly negative expectations.

I think the prevailing popular economic narrative, among businesses and households currently, is unduly negative. It has emphasized recession and risk over recovery and resilience. It has resulted in good economic news (of which there has been plenty) being discounted too readily, and fearfulness about the future being accentuated. Let me give a few simple examples.

Chart 5 plots a simple Google search of the relative incidence of two words –'recession' and 'recovery'; it is an economic pessimism ratio. Before the COVID crisis, the pessimism ratio was steady.

As the crisis struck there was a predictable and sizable spike upwards, by a factor of roughly 8. Since then the ratio has fallen somewhat, as we might expect as the economy has moved from recession to recovery.

The dynamics of this sentiment indicator are nonetheless revealing. The drift down in the ratio has been very gradual. It remained elevated well after economic recovery had commenced and recession ceased.

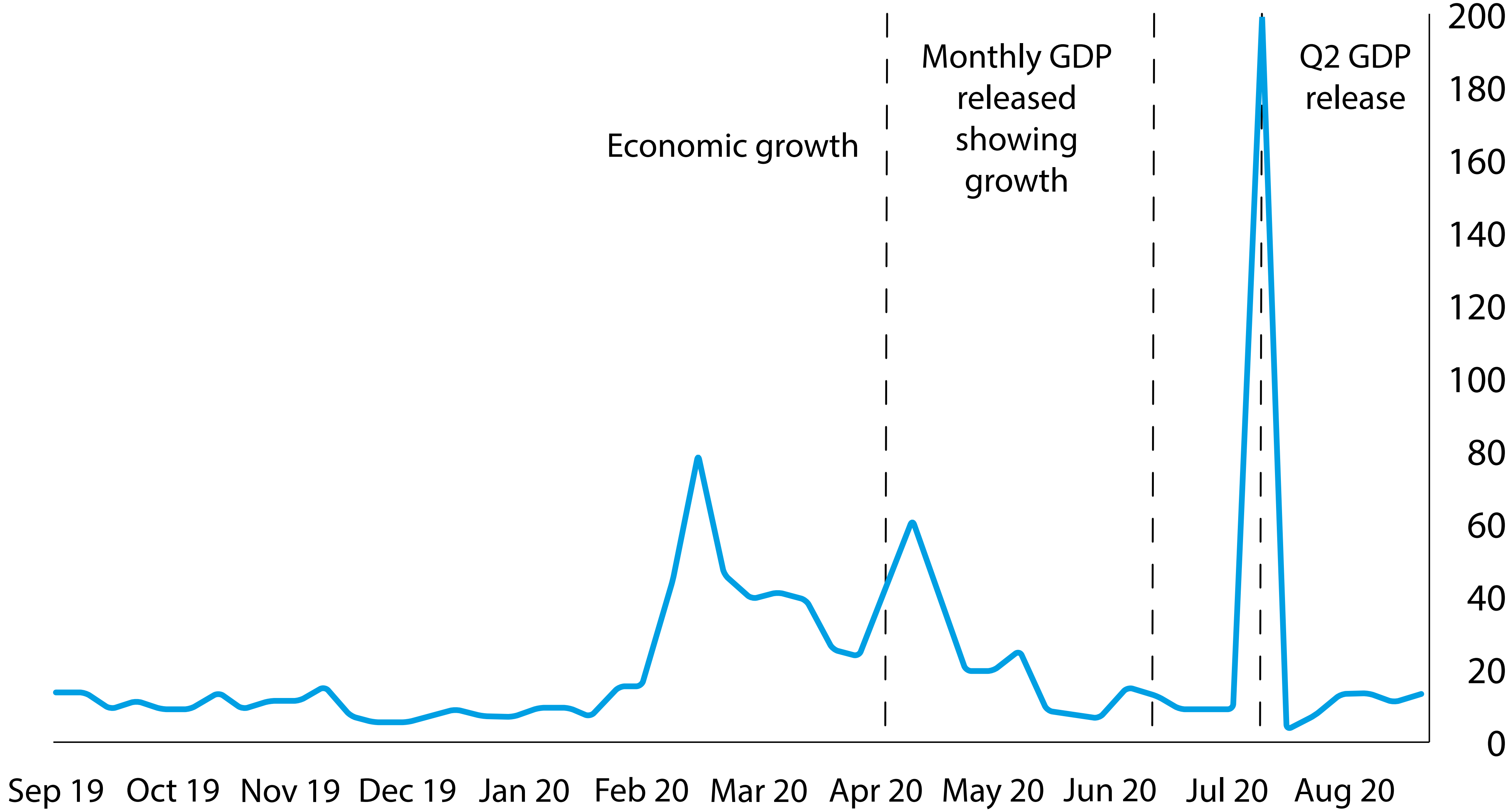
Even now, four or five months into recovery, recession is out-Googling recovery by a factor of 15 to one, above its pre-COVID level. The prevailing popular narrative on the economy has remained recessionary.

A particularly revealing episode is associated with the notable spike in the pessimism ratio on the 12 August. This was when the Office for National Statistics published second quarter GDP figures for the UK. These showed a huge fall of over 20% in GDP, the largest quarterly fall on record by far.

This, understandably, was one of the top three new stories on the day. Here are some of the headlines that accompanied it:

Covid-19: UK economy plunges into deepest recession since records began

Chart 5. Ratio of Google Trends topic searches for the term recession vs economic recovery



Source: Google Trends

UK crashes into deepest recession of any major economy

The UK suffers the worst recession of any G7 country

UK economy suffers worst slump in Europe in second quarter

UK crashes into recession with record 20pc quarterly slump

UK plunges into deepest ever recession as GDP tumbles 20%

Yet the irony is that the only news in this release was GDP growth for the month of June, the final month of the quarter. This saw an almost 9% rise in activity, by far the largest rise in any month ever and above market expectations. Yet negative media headlines outnumbered positives by many multiples. Positive economic news was media-filtered into an extreme negative event.

This filtering of good news, and accentuation of the bad, is a familiar pattern of human behaviour at times of stress and uncertainty. Psychologists call it 'catastrophizing' – discounting the best and fixating on the worst, whatever the balance of risks. It is a well-known problem among people suffering anxiety or depression. Economy-wide, the result has been collective dread risk, fanned by contagious pessimism.

There is some evidence of a detachment from fundamentals in the behaviour of financial markets too. Chart 6 plot the responsiveness of various financial prices (interest rates, equities and the exchange rate) to macro-economic news in the two years period to the COVID crisis and during this year.

Pre-COVID, all three market prices were sensitive to macro news. Since COVID, this relationship has disappeared. Financial markets, recently, have detached from economic fundamentals.

The role of policy

There is another reason why people may, at present, have an exaggerated sense of anxiety. The risks they face (to health, jobs and Brexit) are perceived to be beyond their control. It is well-known that events perceived to be uncontrollable add to anxiety. Indeed, anxiety can itself generate perceptions that events are beyond your control, contributing to fatalism about the future and excess levels of caution[7].

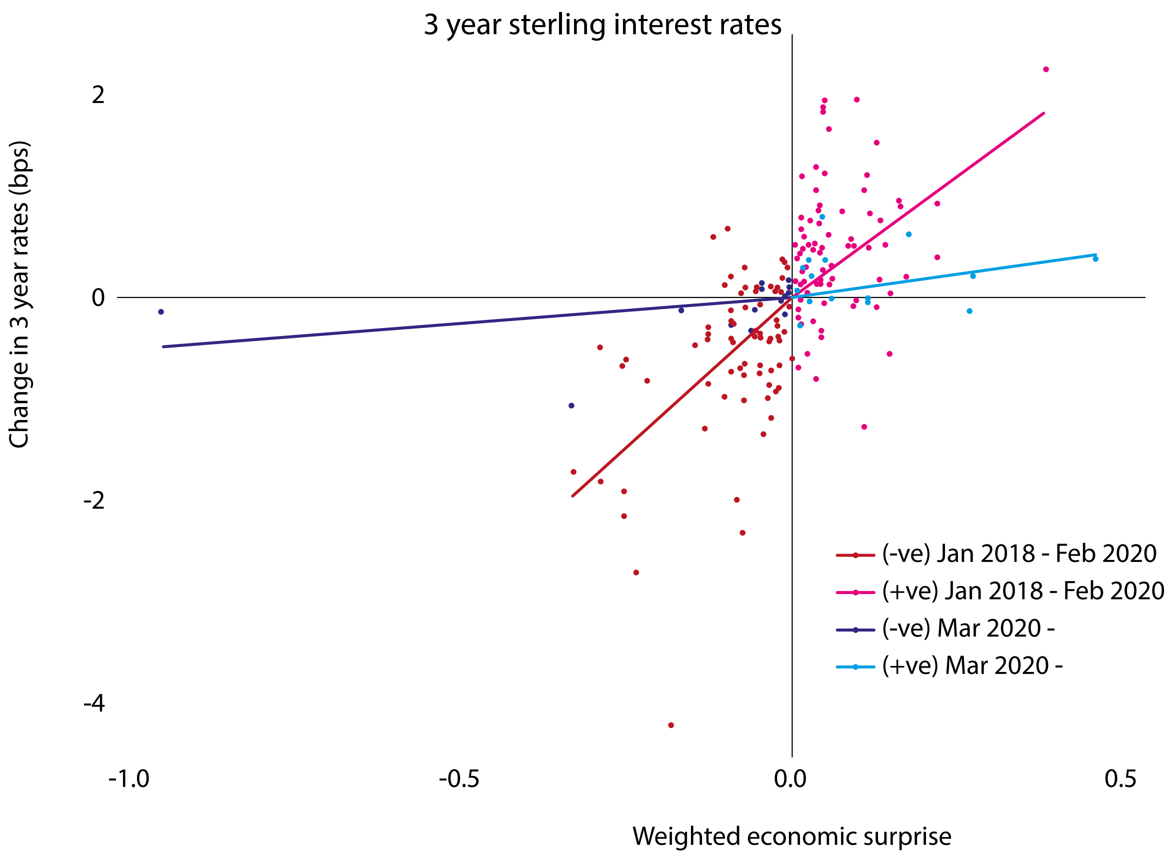
Yet the risks facing individuals, businesses and the economy at present are, at least to some degree, within our control, collectively if not individually. All of these risks can be mitigated, if not eliminated entirely, by the actions of individuals, businesses and policymakers.

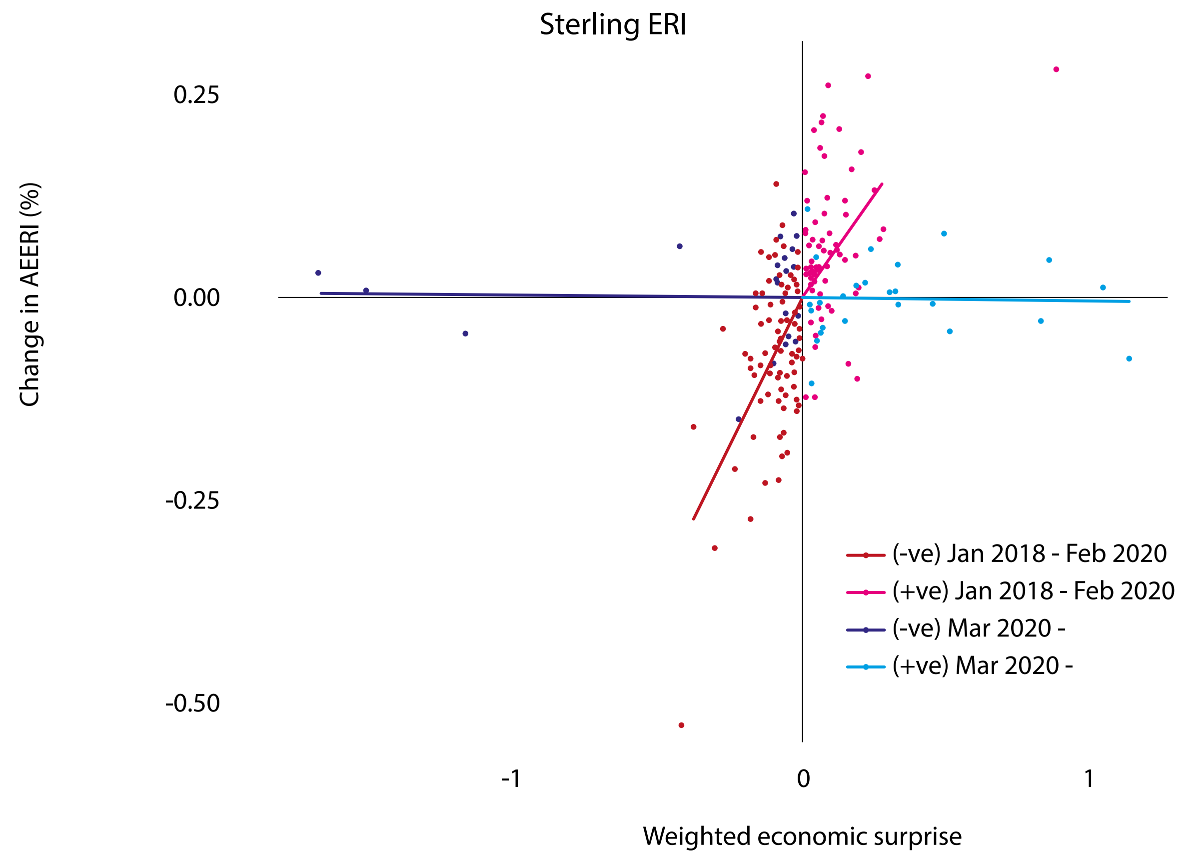
One safeguard against these risks comes from our individual actions when we socialise, shop and work. A further, collective, source of insurance comes from public policy – public health policy, fiscal policy and monetary policy.

Extraordinary action has been taken on all three fronts during the COVID crisis to contain risks to the public, businesses and the economy. As importantly, it has been made clear that further action would be taken on all three fronts where risks to re-escalate.

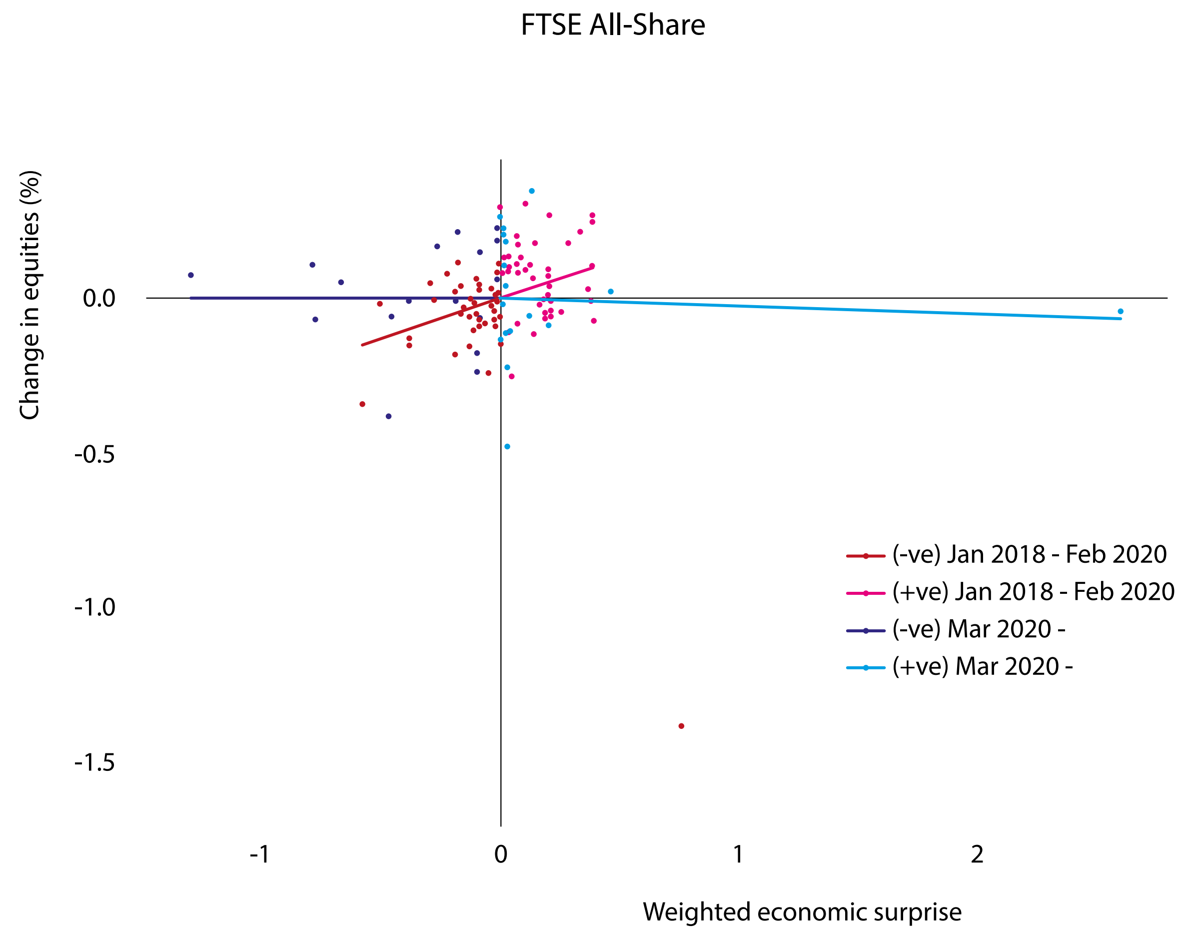
Taking the three largest risks in turn, on public health there has been a worrying rise in COVID cases across the UK recently. In response, a sequence of local lockdown measures have been put in place and last week these were accompanied by some tightening of national restrictions. While it is too early to judge what economic impact these measures will have, they are likely to restrain economic activity and slow growth.

Charts 6. Financial market sensitivity to economic news





Charts 6. Financial market sensitivity to economic news continued



Source: Bloomberg Finance L.P., Reuters Tick data from Refinitiv and Bank calculations.

At the same time, it is important to put the likely impact of these measures in proportion. While the impact on individual businesses may be large, their direct impact on aggregate activity is likely to be modest.

The measures affect only a sub-set of spending, notably hospitality (7% of total consumption) and work-related travel (also 7%). If both categories were to fall to their levels at the start of summer, as lockdown began to be eased, this would take a little over 3% off levels of consumption in the fourth quarter and 2% off GDP.

But there are good reasons to think this is likely to be a significant over-estimate. Measures announced so far are nothing like as severe as earlier in the year. Even during that earlier period, we saw significant substitution between spending categories, partially insulating aggregate spending.

In this respect, it is notable how quickly spending in the worst COVID-affected US States bounced back recently following their second wave.

Of course, it is possible the indirect effects of lockdown measures hit spending harder. The most important of those effects would arise if they caused a further significant dip in consumer and/or business confidence.

But that rather underscores my central point – the importance of avoiding over-pessimistic commentary on the economic outlook which fuels anxiety, heightens caution and risks becoming self-fulfilling.

On the risks to jobs, this is clearly real and it is very likely further losses lie ahead. In its August projections, the MPC expected unemployment to rise to around 7.5% (or 2½ million people) by the end of the year. On that assumption, around two-thirds of the net job losses from the COVID crisis have already occurred, with a further 500,000 losses expected in the remainder of the year.

That unemployment projection, while necessarily very uncertain, flowed from an assumption that UK output would be around 7% below pre-COVID levels by year-end. With an Okun coefficient of around 0.6, that translated into a rise of unemployment of 3-3.5 percentage points. In the August projections, this took unemployment from its pre-COVID level of 4% to around 7-7.5% at its year-end peak.

Since then, there have been three significant pieces of news about the jobs outlook. First, output has continued to recover faster than expected. By the end of Q3, output is now expected to be only around 3-4% below its pre-COVID level. Other things equal, this lowers risks to the MPC's unemployment projections.

Second, acting in the opposite direction, there are downside risks to this output projection as we move into the fourth quarter due to the new lockdown measures and any future measures.

The third piece of significant news is the announcement of the Government's new JSS last week, which provides wage subsidies to workers returning on reduced hours for a six-month period. With details still to be finalised, it is too early to reach quantitative conclusions on the impact of the JSS.

The direction of its impact is clear, however, reducing risks to unemployment relative to the Bank's August projections which assumed no successor scheme.

The balance of these effects on jobs is unclear. Surveys of employment expectations among households and businesses are at low levels. For example, households' expectations are consistent with a rise in unemployment to around 8 or 9%, at least a percentage point higher than the MPC's August projections.

This is another example of the wedge between public and policymaker expectations. It also means households and businesses would be positively surprised if the MPC's projections were to materialise.

The third of the unholy trinity of risks – Brexit – is in some ways the hardest of all to judge. It too, though, is a controllable risk, at least to some degree, by businesses and policymakers.

Whatever the final outcome of the trade negotiations, it is clear the UK will be leaving the customs union with the EU at the end of the year. Doing so in a way that reduces operational frictions in trade, and hence costs for the economy, will require intensive preparatory work by the Government and businesses.

Existing surveys suggest many firms still have a distance to travel before they are fully prepared for leaving the customs union with the EU, understandably so given the disruption caused by COVID.

But there is still time for this operational work to be done and it will be important businesses prioritise that in the weeks ahead to minimise disruption to their businesses and the economy. I am confident UK companies will rise to this challenge, as they have to the challenge of COVID.

Let me say a final word on monetary policy. The MPC has already taken extraordinary monetary policy action in the face of the COVID crisis, reducing Bank Rate by 65 basis points and expanding QE by a further £300 billion.

Through its forward guidance, the MPC has made clear that it will not tighten monetary policy until there is clear evidence of progress being made towards reducing unemployment and returning inflation to target on a sustainable basis.

The MPC has also made clear that it stands ready to take whatever further action is needed to support the economy and return inflation sustainably to target, should that prove necessary. Alongside public health and fiscal measures, this forms part of the on-going economy-wide insurance policy put in place during the COVID crisis. That insurance policy should be a source of confidence and comfort for companies and households with understandable concerns about their businesses and jobs.

At its meeting earlier this month, MPC decided no further monetary policy action was needed to achieve its statutory objectives. The MPC's minutes also explained that the Bank would be taking forward operational work to assess the feasibility of implementing negative interest rates, should this be required in future.

Commencing that operational work underlines the MPC's commitment to having negative rates as a potential tool in the monetary policy toolbox.

Some commentators have interpreted the start of this work as conveying a signal about the likelihood of the MPC introducing negative rates in the near-term. The minutes contained no such signal. The operational work necessary to assess the feasibility of negative rates is likely to take a number of months.

After that work is complete, judgements on negative rates will depend on the economic outlook at the time and in particular on whether that necessitates further monetary stimulus.

If that condition was satisfied, any decision on negative rates would then depend on whether the balance of costs and benefits from using this tool was positive and whether this cost/benefit balance favoured negative rates over other monetary tools.

All three of these conditions would need to be satisfied before negative rates became a reality. At present, none of those conditions is in my view satisfied.

Conclusions

The economy faces uncertainties that are extraordinarily large and risks that are skewed to the downside. In this environment, caution is natural and understandable.

It is important policymakers are vigilant to these risks and uncertainties and responsive to them with their policy actions. It is important they provide, as they have so far, economy-wide insurance to support businesses and households during these troubled times.

That has been the approach of the MPC so far and it will continue to be its approach if new risks arise.

At the same time, it is important the unexpectedly positive progress the economy has made so far this year is not overlooked. The economy has recovered further and faster, and has shown far-greater robustness and resilience, than anyone expected.

This positive news has received less attention than it deserves, both on its own terms and because of what it may tell us about the economy's resilience to future shocks.

My concern at present is that good news on the economy is being crowded-out by fears about the future. This is human nature at times of stress. But it can also make for an overly pessimistic popular narrative, which fosters fear, fatalism and excess caution.

This is unhealthy in itself but, if left unaddressed, also risks becoming self-fulfilling. I have a Rooseveltian fear of fear itself.

If the economy were sat on a psychiatrist's sofa, the diagnosis would not be especially difficult. A propensity to dismiss good news and dwell on bad? To catastrophize about the future?

The sense of events being beyond our control? These are the psychological symptoms of anxiety. And collective anxiety is as contagious, and could be as damaging to our well-being, as this terrible disease.

Averting an economic anxiety attack calls for a balanced and flexible approach to the words and actions of businesses and policymakers. Planning for the worst is important, but needs to be accompanied by hope for the best.

Encouraging news about the present needs not to be drowned out by fears for the future. Now is not the time for the economics of Chicken Licken[8].

That means balance in how the economic outlook is described, acknowledging good news as well as bad, contemplating upside as well as downside scenarios, taking positive signals (as well as some comfort) from the resilience shown so far.

This is not boosterism; it is balance, at a time when behavioural biases and pessimistic popular narratives offer an unbalanced lens on the economy. The policy authorities, including the Bank, have a public responsibility to avoid economic catastrophizing.

Policymakers, including the MPC, have already demonstrated a willingness to act at speed and scale to mitigate economic risks. They have put in place the UK's largest-ever economic insurance policy. It is important this insurance policy continues to flex as new risks arise, to build damaged confidence among households and businesses.

For its part, the MPC has committed to keeping borrowing costs at current extraordinarily low levels to support jobs and incomes for as long as necessary to return inflation to target. ■

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Endnotes

1. See Okun (1962)

2. See Haldane and Chowla (2020).

3. See Nessen (2008)

4. See Haldane (2015)

5. See Gigerenzer (2004)

6. See Akerlof and Shiller (2009)

7. See Grupe and Nitschke (2013).

8. The fictional fowl who, having been hit on the head by an acorn, declared the sky was falling in.

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The views expressed here are not necessarily those of the Bank of England or the Monetary Policy Committee. I would like to thank Jack Meaning and Andre Moreira for their help in preparing the text. I would like to thank Andrew Bailey, Frances Cassidy, Alan Castle, Shiv Chowla, Liam Crowley-Reidy, Jon Cunliffe, Harvey Daniell, Pavandeep Dhami, Simon Hayes, Saurav Kamath, Zaar Khan, Simon Kirby, Nick Mclaren, Becky Maule, Shahid Nazir, Mette Nielsen, Douglas Rendle, Michael Saunders, Michal Stelmach and Jan Vlieghe for their comments. This article is based on a speech delivered at the Cheshire and Warrington LEP Economic Summit Webinar 30 September 2020

They don’t need to be green

The EU needs a liquid market in bonds to fund the recovery programme. Alexander Lehmann argues green bonds would complicate matters

The plan to fund the European Union's recovery programme via debt issuance has raised hopes that a new type of euro-denominated safe asset could emerge. As a priority, the European Commission needs a strategy to create a liquid and transparent market in EU bonds. For now, funding through EU green bonds would complicate that effort.

To fund its future programmes, SURE (employment support, €100 billion) and Next Generation EU (economic recovery, €750 billion), the European Union will expand considerably its role as an issuer in the sovereign debt markets. Political agreement on these programmes earlier this year has raised hopes that at long last a common euro-denominated safe asset – backed by a joint and several guarantee – will emerge.

The EU itself is as yet a minnow in international debt markets. Only €52 billion is outstanding from 18 issues. All were tied to specific programmes and passed on to member states in back-to-back transactions. EU issuance has so far been dwarfed by national issuers with high (AAA) credit ratings and by issuance by the European Stability Mechanism and European Investment Bank.

The EU needs a more modern debt issuance strategy

In issuing such substantial volumes the EU will need to compete for investors alongside other AAA-rated sovereign and supranational issuers. The vision for the EU should be to adopt the practices that it has itself promoted for national capital markets.

Typically, national governments publish a debt management strategy and state their plans for future bond issuance. In each market a small set of dealers is designated to quote a price for trades at all times, and to act as market makers. This in turn means sovereign financing costs can be kept low, and private debt is priced on the basis of a sovereign benchmark.

The European Commission's September 2020 presentation to investors underlines that the EU is not yet close to adopting such practices. With greater transparency and predictability, EU bond issues could become the foundation for more integrated and liquid internal capital markets, and the euro could ultimately become a more significant reserve currency in the international financial system.

The new EU bonds would boost integration between national financial systems, but also reduce the risk of runs on national bond markets and of the destructive interaction between banking and sovereign balance sheets.

In issuing such substantial volumes of debt, the EU will need to compete for investors alongside other AAA-rated sovereign and supranational issuers

The early appeal of sovereign green bonds

A substantial part of the funding of Next Generation EU will need to be devoted to Europe's Green Deal. To make this commitment more credible, the European Commission has now said that 30% of the funding will be raised through green bonds.

Sovereign green bonds are a very recent innovation in capital markets but have been taken up eagerly by investors, though relative to the overall market this segment remains very small. Green bonds are essentially standard bonds that offer enhanced transparency about the use of proceeds for environmental projects and expenditures.

They are invariably backed by the same balance sheet of the issuer that backs standard bonds and have therefore the same credit risk. Poland and France were the first European governments to issue such bonds in 2016-17, since when seven others have joined (Table 1).

Verification standards, the definition of eligible projects and expenditures, and the governance of fund allocation vary widely between the nine issuers.

The EU as an issuer of green bonds?

EU green bond issuance would tap into the strong demand seen so far. But the amount of EU green bonds that has been announced (€225 billion between 2021 and 2026) would be close to the total global issuance in 2019 of such instruments by the private and public sectors.

Three key issues would need to be resolved for international debt markets to absorb such substantial amounts.

Table 1. European country sovereign green bonds

	Cumulative amount (€)	Number of issue	Max maturity (years)
Poland, 2016	3.7 billion	3	30
France, 2017	27 billion	1	22
Hungary, 2020	1.5 billion	1	15
Ireland, 2018	5 billion	2	12
Netherlands, 2019	11.6 billion	1	20
Belgium, 2018	5.7 billion	1	15
Lithuania, 2018	20 million	1	10
Sweden, 2020	8.3 billion	2	10
Germany, 2020	6 billion	1	10

Source: Bruegel.

- The first question is whether there will be a sufficient supply of projects within member states in line with the announced funding targets, and that fit the new EU taxonomy that defines green activities. EU countries have already funded operational as well as capital expenditures from their green bonds. Investors would be wary of past expenditures being refinanced.

- Secondly, a more complex governance system for funds raised would need to be set up. Green bond investors – who seek strict environmental, social and governance (ESG) standards – will expect transparency on the allocation of proceeds, and ideally on the impact of the funds raised.

  Some member states have addressed this by issuing only to the extent and in line with green projects being generated. On occasion, separate accounts have been set up where funds were parked, though it is of course difficult to ring-fence parts of a national budget.

  In France, an independent green evaluation council monitors the use of funds raised. The EU as the issuer of record in all legal documentation would need to offer similar transparency and scrutiny.

  This may well result in tensions between the Commission and member states over allocations, further undermining the quality of the new assets.

- Finally, the requirements of investors seeking a safe asset in a liquid European bond market will need to be reconciled with the expectations of investors seeking ESG attributes in their assets. Standard and green bonds of the same maturity and backed by the same common guarantee would be offered to the market.

This could undermine liquidity and result in pricing differentials, in particular if different EU green bonds are associated with projects or monitoring practices in individual member states.

Priorities for a credible green bond standard

The new EU Green Bond Standard is now doubly needed, though so far no political agreement has been found for the proposal that was published in 2019. The Commission's updated sustainable finance strategy, which is due before the end of 2020, offers a chance to relaunch this initiative.

As sovereign issuers will play a much more prominent role in the green bonds market, new priorities need to be set. This should be done in a way that enables national green bond frameworks to ultimately converge on a strong common EU standard.

A new class of EU green bonds must be limited to a well-defined set of projects, and it is clear the new bond standard will need to refer to the new EU taxonomy. Alongside climate mitigation and adaptation objectives, which have been clarified, four more objectives, including biodiversity, need to be fleshed out within the taxonomy. Trade-offs between the six areas will need to be resolved.

'Greenwashing' by individual issuers would be a key risk, which could undermine the entire asset class. The technical working group on the green bond standard proposed that verification and reporting should be done only by accredited providers and in a standardised process.

The European Securities and Markets Authority, as the EU supervisor of securities markets, would have a key role in the accreditation process, and such powers require legislation.

As for other assets, EU capital markets can become more vibrant and integrated if there is a uniform quality and transparency in each asset class. The new green bond standard should be defined to ultimately allow a single bond type to emerge, comprising both EU and national instruments. ■

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This article was originally published by Bruegel