I would like to thank Michael Pywell, Michaela Costello, Laurie Roberts and Cameron Brooks for their assistance in preparing this speech.
Introduction

I was delighted to be invited to speak at this event, during such an exciting time in central banking and the payments industry. I am sorry that we are unable to all meet face to face, not least as it was originally hoped for this conference to take place in Athens. I cannot offer you the Greek sunshine, but I would like to introduce some Greek philosophy to get us started. Plato taught us that ‘Necessity is the Mother of Invention’ - this year’s virtual conference is a great example of that. So thank you to Jean-Michel and the team for their flexibility and ingenuity in holding this conference during such challenging times.

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. The agenda for this conference – covering 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. 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


\(^3\) See Annex 1 & [https://www.fsb.org/2020/04/enhancing-cross-border-payments-stage-1-report-to-the-g20/](https://www.fsb.org/2020/04/enhancing-cross-border-payments-stage-1-report-to-the-g20/)
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 now.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

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4 [https://www.bis.org/cpmi/publ/d193.htm](https://www.bis.org/cpmi/publ/d193.htm)
5 See Annex 2
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. 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:

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.

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6 Source Euromoney (2019) - [https://www.euromoney.com/article/b1h6r02s16dnf9/removing-frictions-in-cross-border-payments](https://www.euromoney.com/article/b1h6r02s16dnf9/removing-frictions-in-cross-border-payments)

7 [https://www.fsb.org/2020/10/enhancing-cross-border-payments-stage-3-roadmap/](https://www.fsb.org/2020/10/enhancing-cross-border-payments-stage-3-roadmap/)
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 today 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 £685bn 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 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.

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8 [https://www.bankofengland.co.uk/-/media/boe/files/payments/a-blueprint-for-a-new-rtgs-service-for-the-uk.pdf](https://www.bankofengland.co.uk/-/media/boe/files/payments/a-blueprint-for-a-new-rtgs-service-for-the-uk.pdf)
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.  

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\(^9\) 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

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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.

Annex 1: Stage 1
Annex 2: Stage 2

1. Develop common cross-border payments vision and targets
2. Implement international guidance and principles
3. Define common features of cross-border payment service levels

4. Align regulatory, supervisory and oversight frameworks
5. Apply AML/CFT consistently and comprehensively
6. Review interaction between data frameworks and cross-border payments
7. Promote safe payment corridors
8. Foster KYC and identity information-sharing

14. Adopt a harmonised version of ISO 20022 for message formats
15. Harmonise API protocols for data exchange
16. Establish unique identifiers with proxy registries
17. Consider the feasibility of new multilateral platforms and arrangements for cross-border payments
18. Foster the soundness of global stablecoins arrangements
19. Factor an international dimension into CBDC designs
20. Facilitate increased adoption of P2P
21. Improve (direct) access to payment systems
22. Explore reciprocal liquidity arrangements
23. Extend and align operating hours
24. Pursue interlinking of payment systems