



BANK OF ENGLAND

# Speech

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## **Openness and integration – the new finance and new economy in a global context**

Speech given by

Dave Ramsden, Deputy Governor for Markets & Banking

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## **Intro**

It is my great privilege to address you today. I would like to extend my sincere thanks to the China Finance 40 Forum, Huangpu District Government and the Shanghai Finance Institute for the opportunity to address this esteemed summit. I am here speaking on behalf of the Bank of England, the UK's central bank, where I am the Deputy Governor with responsibility for our financial markets and banking policy and operations, a key element of which is fintech.

China and the UK are both leading global centres of financial innovation. We share economies where commerce is rapidly becoming digital and financial systems are evolving in response. We share populations that are increasingly open to new finance providers and new financial products. We also share a common goal of ensuring regulators manage and regulate appropriately, to ensure the financial system remains sound, both domestically and globally.

The UK financial sector is a national asset and a global public good. Our strong partnership with our Chinese colleagues is at the heart of that. I am delighted to be here with colleagues from leading British investment banks and the London Stock Exchange: examples of UK financial institutions supporting the needs of global clients and delivering the type of open financial flows the global economy needs.

Internationally the UK books more international banking business than anywhere else and over 40% of global foreign exchange and interest rate derivative business. We are also home to the second largest global asset management and fourth largest insurance centre.

At the Bank of England, we want to support the financial sector to realise the full promise of new technology, so it is deployed safely and for the benefit of our people. We see our role as providing robust but dynamic regulation that is appropriate for emerging innovations. In June, we published a series of commitments setting out how the Bank could support the economy and the financial system of the future.<sup>1</sup> We know that all of these action areas will benefit from collaboration with international partners and learning from international best practice.

Today, I want to use this opportunity to explain what steps the Bank of England has taken in its approach to Fintech, and share a few lessons that we have learnt along the way. These lessons touch on the themes of openness and integration we have been discussing. In particular, I will stress the importance of three dimensions of openness:

- Being open to new ideas;
- Being open to new businesses entering financial services; and
- Being open to improving our own operations.

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<sup>1</sup> "New Economy, New Finance, New Bank", available online at <https://www.bankofengland.co.uk/-/media/boe/files/report/2019/response-to-the-future-of-finance-report.pdf>.

## **Openness to New Ideas**

Being open to new ideas and new ways of doing things is crucial for innovation. New approaches can improve the quality and inclusiveness of the financial services our people receive. However, this openness should not compromise our existing standards. Instead, we must weigh potential benefits to efficiency and resilience, against potential risks to financial stability. Let me give an example from our work in the U.K on machine learning that clarifies our approach.

New general purpose technologies like AI and machine learning hold the promise of increasing economic productivity and providing better products across the economy, including in financial services. However, if not overseen appropriately, this technology could introduce new risks and enhance existing ones. The challenges posed by AI/ML are well documented - I will not dwell on them here. AI raises a range of ethical, operational, consumer protection, and competition issues. What is more, these issues are not theoretical. We have already seen the potential for new financial risks from technology during flash crashes in algorithmic trading, reminding us of the potential for introducing new instability.

To ensure we balance the risks and opportunities appropriately, the Bank of England is researching machine-learning deployment. Together with the UK's Financial Conduct Authority (FCA), we surveyed firms across the financial sector to understand the current state of deployment. Our 'Machine learning in UK financial services' report, published earlier in October, is the first structured study of its kind, anywhere in the world.<sup>2</sup> This work has generated many interesting, policy-relevant findings.

- Two thirds of the financial services firms report they already use machine learning, live, in their business.
- Most firms stated that they did not identify UK regulation as a major barrier to their deploying machine learning, focussing instead on challenges internal to their organisation.
- The majority of users apply existing risk management frameworks. Several felt these frameworks might need to evolve as this technology becomes more sophisticated.

Having this up-to-date picture of AI/ML deployment is crucial to informing our perspective, as we continue to explore how policy can support the safe deployment of machine learning. We are continuing our engagement with industry, building on the results of this survey, with a public-private AI working group, which will be jointly chaired by the Bank and FCA. This will be a forum to gain deeper insights into AI deployment, the needs of the private sector and the steps they are already taking to reduce risk. We also want to learn from and collaborate with international colleagues.

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<sup>2</sup> Available online at <https://www.bankofengland.co.uk/-/media/boe/files/report/2019/machine-learning-in-uk-financial-services.pdf>.

Throughout our work on AI/ML we want to enable safe innovation. We are open to use of this technology, but with proper scrutiny to the practical details. This is how we balance the competing demands of our primary objectives, which include ensuring financial stability and ensuring safety and soundness of firms, and our secondary objectives such as promoting competition.

### **Open to new firms entering**

My second theme is the importance we at the Bank of England attach to being open to new firms entering markets. In addition to supporting new ideas and approaches, fintech is creating a more open, competitive and diverse financial ecosystem. At the Bank of England, we see more businesses working on identifying and solving global financial challenges as a welcome development. It is clear that on several dimensions today's financial system offers an imperfect service, including the cost and efficiency of domestic and cross-border payments and access for the disadvantaged or excluded. We want to improve the service consumers and businesses receive, without compromising our regulatory perimeter or undermining the 'same risk -same regulation' principle that underpins our approach.

At the heart of our vision for these improvements is putting consumers at the centre and empowering them to take full benefit from their data. I will discuss this in more detail at tomorrow's panel session on SME financing. But in summary, in the UK we have pioneered a model of open banking, using APIs that allow consumers to have better control over their banking data. If we can build the architecture and legal and technical safeguards, users can have sight of, and control permissions for, every use of their data. This approach has the potential to resolve many of the network effects in the data economy, making finance more competitive and more open.

At the Bank of England, we are exploring the possibility of applying this approach to help small businesses harness the power of their data, drawing on some positive aspects of China's experience with real-time data. We are championing the concept of a virtual credit file, which would aggregate user data from a range of public and private sources, allowing SMEs to share information easily and securely with potential creditors. This has the potential to yield enormous benefits for households and small private enterprises - opening up access to more diverse and competitive financing options, providing greater choice, better-targeted products and keener pricing. It has the potential to integrate the diverse set of potential lenders in the UK, both existing and new through an interoperable, user-permissioned system.

Such an approach could significantly reduce the UK's funding gap for SMEs – estimated to be up to £22bn, or 1% of GDP – with significant benefits to employment and productivity given SMEs' key role in driving these. We believe improving our credit provision infrastructure in this way can improve credit allocation and support firms to get the credit they need to grow, primarily by reducing information asymmetry between the creditor and the lender. Typically in the UK, it is only an SME's bank that has ready access to the data needed to price a loan. This makes it difficult for firms to shop around and get the best rate. Our approach

prioritises using technology to more accurately and competitively identify creditworthy borrowers, as a means to increasing aggregate credit flowing to SMEs.

### **Open to changing the way we work**

My third theme is the importance of the Bank of England being open to changing the way we work. Of course, it is not just the private sector who should be embracing change. We, as central banks, need to reflect on our own way of working. In particular, if we are going to regulate the digital economy effectively we will need to equip ourselves with appropriate digital tools.

Central Banks ingest and analyse huge volumes of data in the course of our regulatory activity. This is necessary for our surveillance, but comes at a cost to the firms we regulate. The bill for regulatory reporting in the UK is estimated at between £2bn and £4.5bn a year. We want to leverage modern technology so that the way we collect and analyse data becomes cheaper, faster, and more effective. This would provide a foundation that is both more resilient and has lower barriers to entry; helping private sector innovation to flourish.

To achieve these goals, we are reviewing our data strategy to ensure we embrace new technology. We have already started work to deploy proof of concepts to see what potential benefits AI/ML could have for identifying regulatory issues. We are also looking to make our regulatory rulebook machine-readable, providing a platform on which firms can develop innovative methods to ensure their compliance.

This principle of openness does not just apply to operational matters. We also need to reflect on the appropriateness of our rules and regulations for the digital economy. For example, traditionally only large banks could be a participant in the UK's High Value Payments System. We reviewed this rule given changes in the digital economy and the maturity of non-bank payment providers – we now have five such non-banks who have direct access to settlement accounts at the Bank of England. These changes increase competition but have been determined with a strong focus on appropriate safeguards. Similarly, next year, we are holding a consultation on widening access to our balance sheet, to gather evidence on whether this could further support competition and stability in the UK financial sector.

I have spoken about how fintech offers possibilities for more openness, and more integrated markets at a national level. We are seeing the benefits of being open to new ideas, open to new entrants and open to developing our own capabilities at the Bank of England. These developments hold the promise of integrating new firms and new consumers, such as the SMEs we believe could benefit from greater and safer access to finance.

## **International**

However, I want to turn now to an area where in my view we have seen less cause for optimism. At the international level, we have not yet seen the same benefits of growing openness and markets that are more integrated. In her incoming speech, IMF Managing Director Georgieva pointed out that fissures were emerging across the international economic and financial system, including in financial technology.<sup>3</sup>

Take payments - the last decade has seen a transformation in the global payments landscape, with users now finding it easier to pay for goods than ever before. However, the underlying technology varies dramatically by region. Today we use contactless cards in the UK, mobile money in Africa, e-money in China and UPI in India. These differences mean we will have to work harder to find solutions to the system of cross-border payments as our systems are not naturally interoperable.

What can we, as policy makers and private sector participants, do to ease this trend? To conclude let me suggest two priorities.

The first priority is simple – talk to and learn from each other, as we are doing here today. At the Bank of England, we place a very strong emphasis on learning from best practice around the world. Given the transformative outcomes in the Chinese economy and fintech sector, for example the rapid growth of digital payments, we know there is a lot we can learn.

It is for this reason that the Bank of England is engaging in dialogue on these topics through a programme led by our Centre for Central Banking Studies, supported by the UK government. The wider UK government is also engaging with China on fintech issues through the UK Government's Prosperity Fund.

The second priority is to leverage existing forums to promote global co-operation and co-ordination on technology issues. Regulators across the globe are not always going to agree on what technologies they want to use and how they fit into regulatory frameworks. However, global financial institutions for policy coordination such as the FSB, BIS and IMF provide important forums in which we can highlight concerns and work to find agreement where it exists. At the Bank of England we want to work with our partners to ensure we harness the benefits of technology in a way that maintains financial stability. And we want to work with our international partners to ensure fintech is supported by international cooperation, rather than creating new dislocation.

We believe these goals are achievable and that if met, they herald the promise of a better finance for the people we serve, both in the UK and in China and globally.

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<sup>3</sup> Available online at <https://www.imf.org/en/News/Articles/2019/10/03/sp100819-AMs2019-Curtain-Raiser>.