JOACHIM WUERMELING
Member of the Executive Board, Deutsche Bundesbank

Combining innovation and stability: A supervisor's perspective on digital finance

We are all experiencing a boost to digitalisation, particularly in the financial sector, due to the COVID-19 crisis. However, innovation goes far beyond this: I believe that we are just at the beginning, not the end, of the digital transformation in the financial system. Artificial intelligence, machine learning, the cloud, distributed ledger technology, quantum computing, big data – all of these buzzwords have the potential to disrupt each and every business model.

New technologies may not only make finance more digital, they could also make it more stable and more resilient. Digital innovation can enhance the stability of both individual institutions and of the entire financial system. For instance, financial institutions could use AI to better detect and ward off cyberattacks. Another example is an early warning system for loan defaults that is based on automatically evaluated economic news and which could improve risk management.

Banking supervision seems to be particularly suited to the use of digital technologies, because the first step in banking supervision always involves analysing data. Our goal is to collect and process supervisory data more quickly and easily via more flexible digital channels.

While digital innovation can certainly promote stability, it also brings with it new risks. That is why we as supervisors have to play a dual role here. On the one hand, we want to enable digital innovation in the financial sector, harnessing its potential for financial stability. On the other hand, we have to keep an eye on potential risks arising from the digital transformation. It is our job to monitor all risks to financial stability.

Therefore, we want to clarify our supervisory approach to the use of AI and machine learning technologies. Given the "black box problem", for instance, we have to assess the extent to which the individual bank and the supervisor can really understand the results of AI/ML procedures. To this end, we published a discussion paper on our website.[1] Our goal as supervisors is to provide banks with balanced, differentiated and practicable requirements so that they can exploit the potential benefits of AI/ML processes in a legally secure manner.

The same goes for the use of cloud technologies. For banks, outsourcing parts of the value chain can be an important lever to increase their competitiveness and to focus on their core business. At the same time, every bank remains responsible for its outsourced processes and activities and has a duty to monitor and control the risks arising from an outsourcing relationship. At present, the approach of joint reviews of cloud service providers (pooled audits) seems to be the most efficient and effective way for banks to gain insights into cloud service providers' risk management and their internal controls. That is why we will further support the advancement of such pooled audits.

But supervisors are not the only players working to provide a clear framework for digital finance. With its Digital Operational Resilience Act (DORA) initiative, the EU is – inter alia – taking steps to forge an effective European oversight framework for critical ICT third-party providers. We welcome stricter regulation of ICT service providers, including cloud providers, as this aims to create a level playing field for all financial services providers. It is important, however, that DORA rules are consistent with existing rules in banking regulation. Otherwise, this would lead to a further fragmentation of regulatory standards and overburden banks that engage in outsourcing arrangements.

DORA is part of the European Commission's Digital Finance Package, published last year. The Digital Finance Package addresses important regulatory issues relating to the use of innovative technologies in the financial sector, also looking at the new risks arising through the digital transformation. With this ambitious plan, Europe intends to pave the way for a competitive digital financial ecosystem whilst ensuring an up-to-date regulatory framework.

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[1] https://www.bundesbank.de/de/aufgaben/bankenaufsicht/einzelaspekte/risikomanagement/maschinelle-lernverfahren/maschinelle-lernverfahren-598692