

Steven Maijor: Banking in the digital age - seizing opportunities, managing risks

Speech by Mr Steven Maijor, Executive Director of Supervision of the Netherlands Bank, at the FSG (the Financial Study Association of Groningen) Conference, Amsterdam, 8 March 2022.

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I am not here today to discuss world politics, of course. But I do want to stress that the financial system is not an island. It is very much interlinked with other domains in our economies and societies. I think it's good to keep this in mind when discussing the challenges financial markets face today.

Before diving into a few of these challenges, allow me to properly introduce the organization I work for: De Nederlandsche Bank. Or DNB, in short.

Almost everyone knows we exist, almost everyone knows our name, but not everyone knows what we actually do.

Of course, you as finance and economics students probably know a lot more about us than the average Dutch citizen. But still: what is it then what we do at De Nederlandsche Bank?

First of all, we aim to keep inflation low and prices stable. This simply means you can buy as much with your money tomorrow as you can today. As you may have noticed – recent and less recent events have made this a challenging task.

Next, we supervise banks, insurance companies, pension funds and other financial institutions. We do this so they can weather a rainy day and can perform their essential role in our economy, and your money is safe.

We also ensure that payment systems are running efficiently and safely. Whether you are shopping or just paying your coffee, it is important that the network behind it helps the money flowing smoothly and efficiently.

And then there is still something called banknotes. The younger you are, the less probable you use them, but at De Nederlandsche Bank we also still develop and issue banknotes. And we use the newest technologies to make these banknotes more secure and resistant to wear and tear.

And then finally, we do research and we advise the government. We do this on all kinds of topics – ranging from the government's budget and the housing market, to the labour market and crypto assets.

Of course, we don't do *everything we do* just on our own. Contrary to what our name suggests, De Nederlandsche Bank has gradually, but essentially, become a European organization. We are part of the European System of Central Banks. This is where the ECB meets with the central banks of the other 18 countries that use the euro – and where jointly decisions are made.

Also together with the ECB, and with supervisors from the other countries of the eurozone, we supervise the banks. Take, for example, the teams that supervise the largest Dutch banks, such as ABN AMRO, ING or Rabobank. These are very international teams. So if you would visit our temporary offices next to the Amstel Station in Amsterdam, where we await our return to the Frederiksplein, you will just as easily hear Dutch as English, and even French or Italian or other European languages.

But that's only Amsterdam. If you come to work for us, it is very likely that before long you will head to Frankfurt, where the ECB has its offices. Or to any other European financial capital – to work, for example, on how to regulate bitcoin, or on how to keep payment systems safe from cybercrime. Or you could even be stationed at a major European bank for several months as member of an onsite supervisory team.

For an organization that was founded more than 200 years ago, that's pretty dynamic. And we have to be. Because the financial sector is dynamic. Take, for example, the area where I am mainly responsible for: banking supervision.

These are exciting times for banking. And this has everything to do with digitalization.

Let's take for example all the new players in the market. Even as short as 5 years ago, we all paid with our bank-issued debit or credit cards. Companies who wanted to take out a loan went to their bank or intermediary. Now, we pay with our smart phones using Apple Pay and Google Pay, or on web shops using innovative payment service providers. And companies who sell their goods on market places like Bol.com or Amazon can obtain credit through those platforms.

Moreover, banks are increasingly moving their ICT processes into the cloud, cooperating with large BigTech cloud providers like Amazon, Microsoft or Google Cloud.

So new players are coming into the financial sector and becoming increasingly important. These players are often tech players, be they BigTechs or FinTechs.

We are also seeing a change in business models. We see a move toward platforms that are a sort of one-stop-shop for consumers, providing them with all kinds of services, financial but also non-financial. Here we can think of BigTech platforms: as I said, Amazon allows vendors to obtain credit via its platform. Consumers can also get an Amazon credit card and buy insurance on Amazon products on the platform. Google, until recently, was planning to offer a portal, called Google Plex, in which its customers could manage their bank accounts.

And traditional financial institutions, on their side, are looking to set up platforms of their own. They still offer financial services, of course, but also focus more and more on non-financial services.

What drives all of this is, of course, technology. New technologies. Like data and Artificial Intelligence. These were initially not developed specifically for the financial sector, but as I said earlier, the financial sector is not an island. So these technologies have increasingly become important for banks and insurance companies. We all know FitBits or AppleWatches that track our health data. These data can then be used in

insurance, but also for banking services. And it's not just health data, of course. Many different types of data are increasingly used and useful. Think of data on energy consumption, or payments data. All these can help inform credit risks on loans. So with new analytical tools, like artificial intelligence and machine learning, banks can increasingly use *more* and *new* types of data.

Let me also say a few words on crypto assets and the use of blockchain. There has been a lot of talk about these in the financial sector. And indeed, this is likely to be one of the most important developments in payments, but also in banking more broadly. Blockchain technology, which enables something called decentralized finance, even puts into question the very need for traditional payment systems and key functions of banks, at least in theory.

To understand this, let's take a small detour and do a 1 minute crash course, or at least fresh-up, on banking. What is a bank? Of course there is a building, there are bank employees, there are ATM's, etc. But in theory, you could all do without these, and in fact banking is less and less about bricks and banknotes. What is left then, is essentially a balance sheet. That is where saving deposits are held and loans are provided. That is where a bank creates money. That is what you need to provide basic banking services. Right?

Well – enter blockchain. I will not go into the technical details, but this technology essentially makes it possible to do financial transactions as a chain of entries in a bookkeeping system that is accessible for everyone. The only thing you need to keep this running is a lot of computers. In such a system, decision-making, risk-taking and record keeping would all be decentralized. No balance sheets, no central records, no banks – at least in a traditional sense.

It is clear that we are far from widespread adoption of fully decentralized technologies in financial services. But still, the combination of new technologies, new players and new business models raises mind-boggling questions about the future of finance and what that means for policymakers and supervisors.

And that's the next issue I want to talk about. How can my colleagues and I, at De Nederlandsche Bank and elsewhere, ensure, also in the digital age, that the financial system remains robust, and you as consumers stay safe? Whom should we supervise? Do the existing policies and rules still apply? Or should new rules be set? These are fundamental questions that we are dealing with at the moment.

In the coming years, DNB will become more and more acquainted, in its supervision, with new technologies and new tech players. For instance, in the next few years, we and other financial supervisors will start overseeing large cloud providers that provide critical ICT services to banks. We will also play an important role in supervising new technologies used by banks, such as Artificial Intelligence.

Crypto-asset, like bitcoin and many other, are a case in point. We and other central banks have been monitoring crypto-asset developments closely over the past years. The most recent risk assessment shows that markets for crypto-assets are fast-evolving and could reach a point where they represent a threat to the stability of the global financial system.

Probably a lot of you hold some form of crypto-assets. Of course, it can be instructive to try things out on a small scale and get to understand the technology behind it. But I must say I have my concerns about crypto-assets. Let's take for example all the misnomers that are doing the rounds. Unbacked crypto-assets suggest all others are backed, which they are not. Most stablecoins are neither stable nor coins. Decentralized finance is often quite centralized. These misconceptions contribute to the fast growth of crypto-assets. And this is without even going into cybersecurity and money laundering issues.

So at the moment, we are investigating with central banks worldwide what is needed to keep the risks from crypto-assets in check, and what that means for regulation. The global Financial Stability Board, which is chaired by the president of DNB, Klaas Knot, is overseeing these activities.

And at European level, regulatory action is already well underway. The EU has almost reached agreement on legislation aiming to ensure that crypto assets and stable coins are properly regulated and supervised. As DNB we very much support the regulation of crypto-markets, because there are risks involved in crypto's that need to be kept in check. And because of the cross-border nature of crypto's it is important that these new rules apply across the EU. So that we can protect consumers but also help market players to do business across the EU without barriers.

And within the Eurosystem we are conducting a project to assess the need for a digital euro, an electronic alternative for the euro banknote. This digital euro could possibly serve as a safe and stable alternative to crypto-assets. Together with a few other central banks, DNB forms a pilot group that is actively investigating and experimenting with this.

So – a lot is going on. And a lot of this touches the very foundations of our financial system. So I can assure you – these are very exciting times to work for a central bank and banking supervisor.

At least two completely new dimensions are added to our supervisory work. First of all, we ourselves are increasingly using new technologies to improve our supervision. This includes the digitalization of our supervisory processes and using Artificial Intelligence.

And secondly, we are increasingly working with a whole new group of supervisory partners. I already mentioned the international dimension of our work. But with the changing banking landscape, we are also reaching out to data protection and privacy authorities, to criminal prosecution authorities, and to public authorities responsible for internet governance.

It is time to wrap up.

The banking landscape is changing fast, and the stakes for organizations like us, De Nederlandsche Bank, are high. As central banks and supervisors, we have a responsibility to make sure that we can continue to keep the financial system stable and safe. We want no holes in the global financial safety net, however much it gets stretched and reshaped. To do this, we need the best and the brightest from all kinds of disciplines. We need people that see the bigger picture.

And with this not so subtle hint, I am closing my remarks, and I am happy to answer any questions you may have.