European Securities and Markets Authority

Date: 12 November 2018
ESMA71-319-89

New Financial Technologies and Regulation

FinPulse Regulatory Summit

Stuttgart 13 November 2018

Verena Ross
Executive Director

Ladies and gentlemen,

Good morning, it is both an honour and great pleasure to be here today.

Let me start by thanking the Boerse Stuttgart for hosting us today and for having invited me to speak.

I am delighted to be here with you all and to be able to talk on such an interesting and wide-ranging topic: financial technology and the regulatory response.

In my remarks today, I will present from my perspective, as a regulator, the opportunities and the challenges arising from financial technology and its use in the securities sector.

ESMA's Mission

The European Securities Markets Authority's mission is to enhance the protection of investors and to promote stable and orderly financial markets. And whether in terms of authorisation, supervision, or indeed innovation, one of ESMA's core activities is to promote supervisory convergence. We aim to achieve a coordinated European approach to the regulatory and supervisory treatment of new or innovative financial activities in the securities markets.

What do we mean when we say financial technology innovation? Financial Technology (or 'FinTech') is very much a subset of financial innovation. It is a type of financial innovation that relies on Information Technology to function and that can result in new business models, applications, processes, products, or services in the financial markets. ESMA regularly monitors financial innovations, including those arising from new technology developments.

Drivers of FinTech Innovation

We have been witnessing a virtual torrent of technological innovations coming to market. Why has the FinTech phenomenon occurred only now - compared to some non-financial sectors

where technological innovations were borne over 20 years ago? If we look to commerce, we know the way in which goods and services are traded has been permanently transformed by the like of Amazon (founded in 1994); peer to peer merchandise trading by entities such as EBay (founded in 1995); and more recently the services sector though innovations such as Airbnb (founded in 2008) and Uber (founded in 2009),

So what are some of the factors driving today's post-financial crisis FinTech revolution? Let me break them down into supply and demand factors.

On the supply side, first, there has been a sharp increase in power of technological capabilities and an associated decrease in costs. We see this in the increased ability to process large volumes of data combined with a sharp fall in hardware, software and storage costs. This is driving the ability to analyse large amounts of data quickly and cheaply, allowing the wide-spread use of artificial intelligence.

Second, are multiple new products or services that may spring from a single innovation. For example, smart phones are transforming the way in which certain financial services are transacted. I can now pay my bills, transfer money or choose investments or my car insurance via my smart phone. Another innovation, the distributed ledger technology (DLT), borne out of and used extensively in the context of virtual currencies such as bit coins, is another example where one single innovation might well change the way in which we transact and might have wide possibilities to transform parts of the financial sector.

Third, the withdrawal of traditional financial firms from some markets has opened the door to new entrants. Often these entrants arrive with novel ways of providing a service and employ new technology to scale up quickly. They come unburdened by legacy systems, established ways of doing things and regulatory incumbency, including compliance costs and capital requirements.

On the demand side. First, trust. Post-financial crisis there has been a notable decline of consumers' trust in traditional institutions, especially banks. Previously this 'trust' factor had been a barrier to entry for new entrants to financial services. Nowadays consumers may be more willing to use the services of new market entrants, and crucially they may now be willing to use 'a la carte' specialist providers of some services that formerly were offered by a single bank.

Second, heightened expectations. The spread of internet access and the real-time transacting capability of users of internet-connected devices provide an enhanced customer experience. This experience has given rise to higher customer expectations with regard to convenience, speed, cost and user-friendliness of financial services, which has in turn become one of the most important factors in consumer purchasing decisions.

Third, a related point, are demographic factors driving demand. Today, the IPhone has infinitely greater speed, processing power and memory than the first computers. As a result, our children are 'digital natives' and have a very different relationship with, and expectation of, technology from the generations before them.

Regulatory Challenges

The issue of FinTech, and the regulatory response to it, are critical topics for us at ESMA, as securities markets regulator. The challenge is to identify when and how the regulator should engage. On the timing, there is a regulatory 'tipping point' --- the point between 'too small to care' and 'too large to ignore'. At ESMA we will look at that from the perspective of our core objectives of investor protection, orderly markets and financial stability. On the how - regulatory responses can range from prohibition or sanctioning of such innovations to facilitation and support for new FinTech solutions through sandboxes or innovation hubs.

I want to share with you today a few examples of how ESMA has approached recent challenges in the FinTech space.

Binary Options/Contracts for Difference

The first example is the recent action that national supervisors and ESMA have taken this year on distribution and sale of binary options and contracts for difference to retail investors. The products in question may not be the most obvious example of technology-powered innovation, but it is worth noting that they have been most commonly offered to retail investors via electronic trading platforms. With MiFID II/MiFIR coming into force in January 2018, Member States and ESMA have been provided with product intervention powers. ESMA, along with National Competent Authorities (NCAs), concluded that there was a significant investor protection concern in relation to CFDs and binary options offered to retail investors. This is due to their complexity and lack of transparency; as well as particular features of both these products.

There is much evidence giving rise to the significant investor protection concern. For example, work by different national authorities has shown that a majority of retail clients investing in these products lose money from trading. NCAs' analyses for binary options also found consistent (and often significant) losses on retail clients' accounts.

A cross-European approach was needed to ensure a common minimum level of investor protection, given the cross-border nature of the products. Based on our objective of investor protection, the significant detriment to retail consumers led us as regulators collectively to decide to go for the most forceful action in our 'regulatory tool kit' – the banning of BO and restriction on CFDs for retail investors.

Innovation facilitators

The second example shows the other extreme of the regulatory reaction chain. It relates to the work that we have done to support national competent authorities in setting up innovation hubs (and in some cases so-called sandboxes), by sharing best practices and bringing regulators together to learn from each other. This work is by its nature driven by national supervisors, who are responsible for the authorisation and supervision of financial services firms. Many have over the last years tried to give additional support to the many new firms that want to bring their technological innovations to bear in the financial markets but are largely

small and recently established firms that have limited experience when it comes to how to navigate the financial regulatory regime. They will ask questions such as do I need to be authorised? What of my activity drives such a need for authorisation? What will falling into the supervisory regime mean for me? Who do need to contact and where do I find further information? In this example, ESMA has played a limited role, working to facilitate the exchange of information and best practices amongst national supervisors.

Two further examples I want to talk about today, are investment-based crowd funding and distributed ledger technology (DLT). In these two cases, our regulatory approach has been somewhat in between the two extremes described earlier. Here we took what I will call a "proactive monitoring" approach, aiming at understanding the impact of the relevant innovation/new financial technology on our regulatory objectives and suggesting, where necessary, to the European legislators possible mitigating actions.

Crowd Funding

Let me start with the stance ESMA has taken vis-à-vis investment-based crowd funding. After extensive research, we saw the potential for some investor protection harm to arise. We were particularly concerned about investment-based crowd funding platforms that operated outside of MiFID rules and thus provided limited investor protection. At the same time, we also saw that there existed both EU-wide regulation and local regulation that was potentially risking to inhibit the growth of crowd funding as a useful alternative funding mechanism. Our action was to draft an Opinion to the 28 National Competent Authorities on how they should consider supervising crowd funding; and provide advice to the European Institutions (Parliament, Council and the Commission) on how they should consider regulating crowd funding. As you might be aware, the Commission has since reacted by proposing a legislative framework for crowd funding at EU level (with a mix of EU-wide and national measures) that is currently under consideration by the co-legislators.

Distributed Ledger Technology

The other example in this 'middle space' is the approach that ESMA has taken towards DLT. There is a collective need to better understand DLT and its possible applications in the financial market.

Early last year, ESMA published a Report that reflected the results of a previously released Discussion Paper that gathered feedback from the market on the potential uses, benefits and risks of DLT applied to securities markets.

We believe that DLT could bring a number of benefits to securities markets, including (but not exclusively) to post-trade processes. We have seen a number of interesting proofs of concept, and application of DLT in a few parts of the post-trade securities market. However, DLT is still at an early stage and we believe there are a number of challenges to overcome to make it widely usable. Also, ESMA realises that while DLT may reduce or mitigate certain risks, it might at the same time create or exacerbate others.

We anticipate that the early applications of DLT will focus on optimising existing processes within the current market structure. Respondents to our Discussion Paper confirmed this belief arguing that they expect DLT to start small in low volumes, niche, relatively 'simple' and mostly unregulated markets, which is consistent with the early projects that we are seeing at this moment. For example,

- In August 2018, the World Bank launched the first public bond to be created, allocated, transferred and managed through its life cycle using distributed ledger technology. The two-year bond raised AUD 110 million (c. USD 80m equivalent) from seven investors. [1,2]

- Deutsche Börse Group, here in Germany, is at work on a Blockchain-based platform for securities lending in collaboration with an international group of central securities depositories (CSDs)[3] and has several other blockchain projects running.[4]

- And even closer to home, I was interested to see that Boerse Stuttgart (our host today) is working on creating an end-to-end infrastructure for digital assets, including a platform for initial coin offerings (ICOs), a multilateral trading venue for cryptocurrencies as well as solutions for safe custody.[5]

No doubt, sophistication in terms of applications and scale will increase, as the technology develops. Over time, we believe that DLT might help to rethink some of the functions of financial intermediation. ESMA's role in this context is to make sure that the regulatory framework provides relevant safeguards to investor protection, financial stability and orderly markets at all times.

I also want to stress in this context the importance of respecting existing regulation. Supporters of the technology need to consider existing rules when designing DLT solutions. Safety and soundness of financial institutions and markets in the field of clearing and settlement are fundamental to financial stability. Therefore, the deployment of new technologies needs to be launched in ways that are consistent with existing regulation in the trading and post-trading area and deal effectively with the risks to investors, markets and stability.

In terms of regulatory response, we decided to not proactively suggest any changes to the EU regulatory framework at this stage. The reason for this 'wait and see' approach is the current size and early stage of the DLT phenomenon, that does not create any immediate risks to our regulatory objectives. We believe it is, on the one hand, too early to fully understand all the implications and impact of these technological changes and thus the potential regulatory

[1] https://www.worldbank.org/en/news/press-release/2018/08/23/world-bank-prices-first-global-blockchain-bond-raising-a110-million
[2]https://www.cnbc.com/2018/08/24/world-bank-exceeds-expectations-with-world-first-blockchain-bondcba.html?utm_source=Blockchain+Ecosytem+Insights&utm_campaign=2454691a37-EMAIL_CAMPAIGN_2018_08_25_09_10&utm_medium=email&utm_term=0_ede4cf6fd3-2454691a37-87357267
[3] http://deutsche-boerse.com/dbg-en/media-relations/press-releases/Deutsche-Boerse-Group-expands-partnership-with-HQLAx-by-acquiring-minority-stake-/3479752
[4] http://deutsche-boerse.com/blockchain/
[5] https://www.boerse-stuttgart.de/en/company/news/media-relations/media-releases/?ID_NEWS=1365

response that may be needed. On the other hand, and referring back to the 'facilitating/supportive' role we might play in certain cases, we did not identify major impediments in the current EU regulatory framework within ESMA's remit that would hinder the emergence of DLT at this time. Having said this, ESMA realises that beyond pure financial regulation broader legal issues, such as contract law, insolvency law or competition law, may impact on the deployment of DLT.

ESMA will continue to closely monitor market developments around DLT to assess whether a regulatory response may be needed. Meanwhile, regulators must actively engage with market players to ensure that the technology does not create unintended consequences or poses risks to our regulatory objectives.

More generally, in this 'middle' category of FinTech examples I have provided just now, we actively aim to learn more about the innovation, but doing so while it remains sufficiently immature, so that we are not placing our objectives (stability, protection and integrity) at risk by not taking action. At the same time, by waiting to see how the innovation develops we do not risk stifling a potentially socially or economically useful product or service.

Crypto Assets

My final example today is that of crypto assets and ICOs. Late last year, our Board of Supervisors requested that we analyse how these instruments fit within existing European regulation to determine which crypto assets are clearly financial instruments and need the attendant regulatory and supervisory oversight. A few months later, in March this year, as part of the EC FinTech Action Plan, the EC also asked ESMA to analyse the characteristics of crypto assets relative to existing European regulation, whether they were financial instruments, and for those deemed not, whether a separate regulatory regime was needed.

We are in the midst of doing this work, analysing the sector and considering the regulatory and supervisory implications. We are working closely with experts from the national supervisory authorities, including the BaFIN. It is premature for me to predict where we might come out on this work over the next few months. However reflecting our regulatory approaches that I talked about so far in relation to other examples of financial technology innovation, we will have a range of possibilities at our disposal.

I suspect in the end we might well determine that some of these crypto assets are financial instruments under the current legislative framework, particularly MiFID, and thus that their sale (for example through ICOs) should be subject to the applicable regulatory requirements. Additionally, we will need to discuss how to deal with the regulatory perimeter and how to react as regulators and supervisors to the crypto assets, and the services surrounding them, where they are not within the regulatory regime, but might be very close to traditional financial instruments. The drivers that will lead our consideration will again be the risks to our regulatory objectives, arising amongst others from regulatory arbitrage across the boundary between regulated and unregulated business.

Conclusion

Ladies and gentlemen, it is time to conclude. Regulators face a constant balancing act when it comes to our approach to FinTech. We work to understand the risks that new technologies may introduce, carefully monitoring developments to be able to understand potential risks to our regulatory objectives of investor protection and orderly and stable markets, while at the same time not wanting to stifle innovation by restricting the use of certain technologies too early.

Our framework for monitoring financial innovation (whether driven by technology or not) is a principles-based one. I strongly believe that this framework needs to remain flexible and adaptive to market events. It also needs the subtlety to allow us to determine when to respond in a supportive as opposed to a protective manner. For this we (as ESMA and as national supervisors) need to stay in touch with market participants - to be aware of technological advances that might impact on financial markets and to keep an eye on how these are deployed into and impact on the European markets.

Thank you for your attention this morning.