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Technology and regulation: bridging the gap in the collective interest

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Ladies and Gentlemen, good morning.*

I am delighted to be here today at the Milan Fintech Summit. Since its first edition – four years ago – this summit has provided a valuable opportunity to strengthen the dialogue among stakeholders and market participants, bringing together financial institutions, fintech companies, academics, and experts with different backgrounds.

Innovative technology affects the entire financial system, globally and domestically [Slide 1]. Fintech reshapes traditional business models, opening the door to newcomers, developing new services, and restructuring value chains. The impressive, fast, and interrelated changes push policy makers and supervisors to run in-depth analyses to update the regulatory landscape and the supervisory toolbox.

Global fintech investments increased significantly from 2010 to 2019, peaking at around 217 billion U.S. dollars [Slide 2]. In 2020 – in the midst of the pandemic – investments fell by more than 40 per cent to 124 billion U.S. dollars, eventually rebounding to over 229 billion U.S. dollars in 2021. In the last two years, however, global fintech investments have entered a downward trend, owing to the uncertain macroeconomic situation and to the heightened geopolitical risks that, unfortunately, we are living through.

Fintech applications are widely implemented in the financial sector, especially in the payments field. The digital evolution has led to lower research costs, more efficient services, higher security levels, and the use of large amounts of data to analyse customer behaviour and to customize the products and services being offered.

These technological solutions come with both opportunities and considerable challenges for households, enterprises, public institutions, newcomers, traditional intermediaries, regulators and supervisory authorities alike.

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To deal with these challenges and maximize the benefits of technological solutions – while minimizing possible negative spillovers – over the last five years, the European Parliament and the European Council have passed a significant number of regulatory measures, both 'vertical' (e.g. the Instant Payments Regulation and the Payment Services Directive 3) and 'horizontal' (e.g. the Artificial Intelligence Act – AI Act).

The ongoing technological evolution and a comprehensive legislative framework are spurring intermediaries to adopt new business models, enabling them to expand revenue opportunities and to improve the services they provide.

At the same time, the range of risks – for example, fraud, cyber risk, operational and strategic risks – and the interconnections among players are increasing.

It seems reasonable that these phenomena will be amplified in the short term by the introduction of the open finance framework currently under discussion at EU level, and in the medium term by the open data model.

The times we are living in are being shaped – among other things – by two main forces. The first is complexity, which implies interdependencies among different parts of the financial sector, such as, for instance, the interlinkages between the centralized and decentralized ecosystems. The second driving force is the speed of change. These two forces combined create and amplify a gap between market practices and rules.

To bridge this gap, policy makers are required first and foremost to fix ex ante the 'rules of engagement', in order to give market participants a clear sense of the direction of regulatory choices and expectations. We need to develop a flexible set of rules, which should, in principle, not just follow innovation but also address it, by adopting a dynamic and modular approach.

In Europe, the Markets in Crypto-Assets Regulation (MiCA) and the AI Act are two examples of this strategy. Regardless of the pros and cons of these pieces of legislation, it is important to identify milestones that can help financial institutions chart their course, especially in times of uncertainty. Regulation and supervision will need to be adapted to make them future-proof for the fintech ecosystem.

Once again, the lesson learnt from the crypto scandals in 2022 is that regulation should not be introduced only after households and firms have been affected.

Highly dynamic markets fuelled by overly optimistic assumptions can pose a significant risk to financial stability. They represent a challenge for central banks that should be addressed swiftly, as financial stability is a prerequisite for durable and sustainable economic growth.

The fintech market is changing rapidly and new categories are emerging, such as the 'Fintech for Good' sector (F4G). To improve knowledge and awareness of the challenges and opportunities of the fintech sector, a constructive dialogue among regulators, financial intermediaries, academia, technology providers and consultancy firms is essential for steering the potential of innovation in a positive direction.

Dialogue is crucial for all of the participants in this Fintech Summit in terms of encouraging best practices, defining common standards and principles, promoting sound risk management tools, prompting the development of robust operating models – also with regard to the economic, social and environmental impact – and ensuring adequate levels of interoperability between various technological solutions.

By leveraging a dialogue with the fintech ecosystem, the Bank of Italy is implementing a clear strategy to support financial institutions and promote the development of sustainable, sound and responsible innovation, thereby ensuring financial stability, financial inclusion and consumer protection.

To this end, the Bank of Italy has defined a fintech strategy, refined its policy tools and identified a set of innovation levers to promote the development of the domestic market. This approach is also mirrored in our Strategic Plan, whose update was published in July.

The Fintech Channel is the point of contact through which operators can dialogue easily and informally with the Bank of Italy. They can present projects in the fields of financial services and payments, based on innovative technology, or propose technological solutions designed for banks and financial intermediaries.

The regulatory sandbox, set up in close cooperation with the two other Italian supervisory authorities (IVASS and Consob) and with the involvement of the Ministry of Economy and Finance, is a controlled environment where supervised entities and fintech operators can test technologically innovative products and services in the banking, financial and insurance sectors for a limited period of time.

Milano Hub is the innovation centre created by the Bank of Italy to support the digital evolution of the financial market and to encourage the attraction of talent and investments. The third call for proposals – dedicated to digital payments – has entered the project evaluation phase. Once again, the quality and the number of applications bear witness to the vitality of the Italian and European fintech sector.

This three-pronged approach provides a unique and privileged vantage point for monitoring developments and trends in the financial market. Moreover, it facilitates a mutual 'learning process' that, on the one hand, allows regulators to better assess the risks relating to fintech firms and, on the other hand, enables the latter to benefit from the regulators' expertise in applying the legal framework.

Over the last few years, academics and market participants have been advocating for a more extensive use of tools such as innovation hubs and sandboxes to address new emerging challenges in the financial sector.[1]

1 Ringe, W.G. and Ruof, C., 'Regulating Fintech in the EU: the Case for a Guided Sandbox', European Journal of Risk Regulation, 2 March 2020, Vol. 11, Issue 3. OCSE, 'The role of sandboxes in promoting flexibility and innovation in the digital age', 12 June 2020. European Parliament, 'Regulatory Sandboxes and Innovation Hubs for FinTech', September 2020.

The main objectives of innovation hubs revolve around enhancing firms' understanding of regulation and of supervisory expectations, providing guidance on the conformity of proposed business models with regulatory requirements, and getting insights on potential needs, in order to adjust the regulatory framework accordingly.

As to the regulatory sandbox, academics and stakeholders have observed that testing within it can be an optimal solution to fuel the development of innovative services, to address most of the shortcomings of the current regulatory framework, while simultaneously ensuring consumer protection.

Empirical evidence confirms this assumption. The latest Report on the functioning of innovation facilitators published by the three European Supervisory Authorities (ESAs)[2] highlighted that, as of October 2023, there were 41 innovation hubs, with at least one in each of the 30 European Economic Area (EEA) countries, and 14 regulatory sandboxes in 12 EEA countries. The majority of innovation hubs were established between 2016 and 2019, while most of the regulatory sandboxes were launched between 2020 and 2021.

The evolution of technology and of related solutions increasingly requires dialogue also at international level, through cooperation and coordination with foreign standard-setters, public institutions, academia, and other stakeholders.[3]

A tangible example is offered by the recent developments – which we are monitoring – in artificial intelligence applications within the financial sector. From payments to wealth management, from lending to anti-money laundering (AML), AI applications will reshape the fintech sector in the upcoming years.

Therefore, it is not surprising that there is an intense debate worldwide on how to implement these algorithms and on how to establish a set of ethical principles to avoid bias and discrimination among people. This is a complex problem that cannot be addressed at a single jurisdictional level; it requires a common approach to ensure a correct application of these new technological solutions.

So far, central banks have faced a clear trade-off between innovation and regulation [Slide 3]. Now, a new variable needs to be added to this situation: the data dimension.

AI algorithms, clouds, and big data analytics allow for the processing and management of vast amounts of data; as a result, public authorities must consider new risks, such as privacy concerns and infrastructure resilience, to name a few.

It is important to highlight that fintech solutions are not about an entirely new product or a new service or a new type of service provider. More frequently, they are about new technology that enables already existing products or services to be offered differently and more efficiently, reaching a large number of users.

2 EBA, ESA, EIOPA, 'Update on the functioning of innovation facilitators – innovation hubs and regulatory sandboxes', 11 December 2023.

3 EBA, ESA, EIOPA, 'Joint Committee of the European Supervisory Authorities 2025 Work Programme' 7 October 2024.

When developing policy on fintech, therefore, the issue is not so much about devising a new tailor-made framework to regulate the new technology, but rather about finding ways to allow this new technology to be used by existing products, market infrastructures and service providers, while addressing any additional risks that this technology might pose, in particular to consumers.

For this reason, we need to find a solution to a complex equation based on three parameters: how to regulate; what to regulate, and how much to regulate.

These variables lead me to the following question: what should a central bank's approach to fintech look like? I believe that the answer to this question should be based on two main principles: 1) same activity, same rules, in order to ensure a level playing field among market participants; and 2) regulation should reduce the administrative burden in order to favour innovation while minimizing its risks.

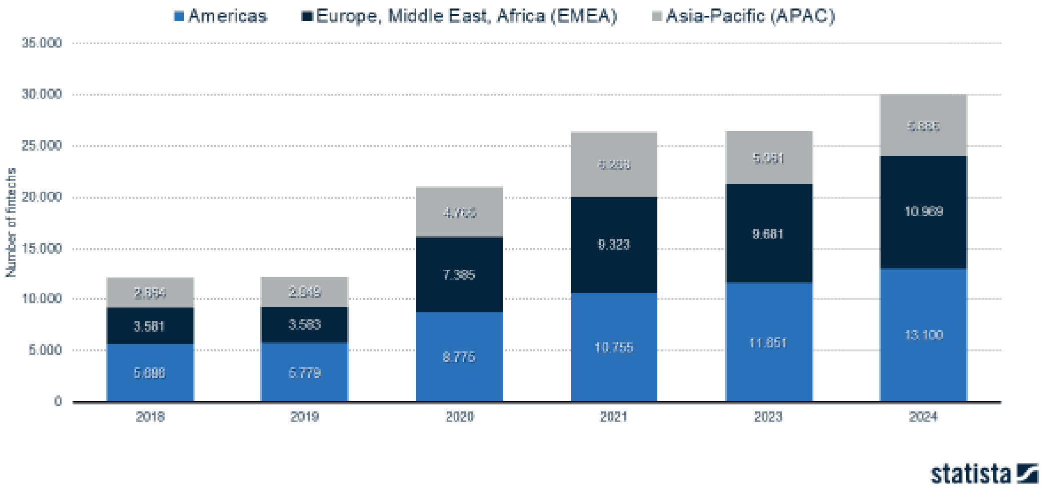
This approach would allow central banks to promote good innovation, which increases efficiency and benefits consumers, enterprises, public administrations and all the remaining components of society.

To achieve this goal, however, we need the support of all the other stakeholders, since good innovation relies on common principles and best practices.

Thank you very much for your attention.

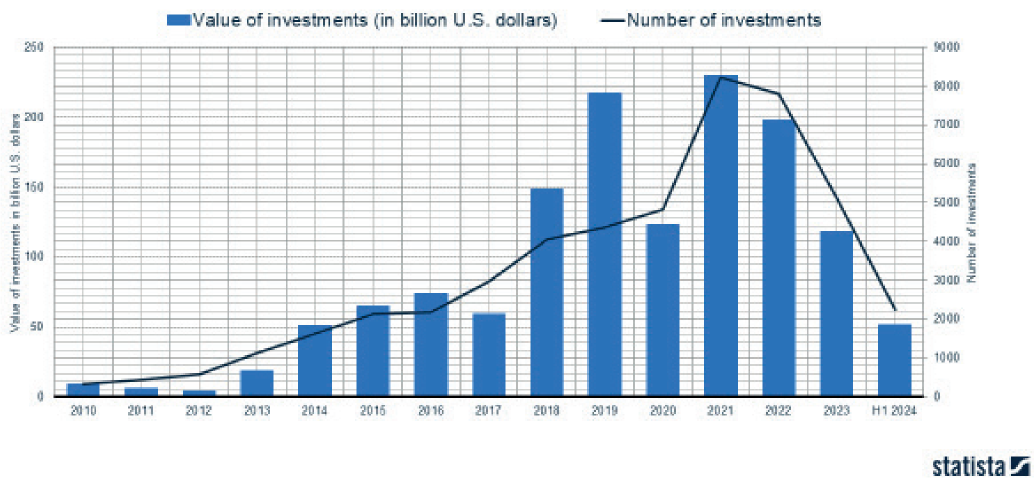
Slide 1

Number of fintechs worldwide from 2018 to 2024, by region



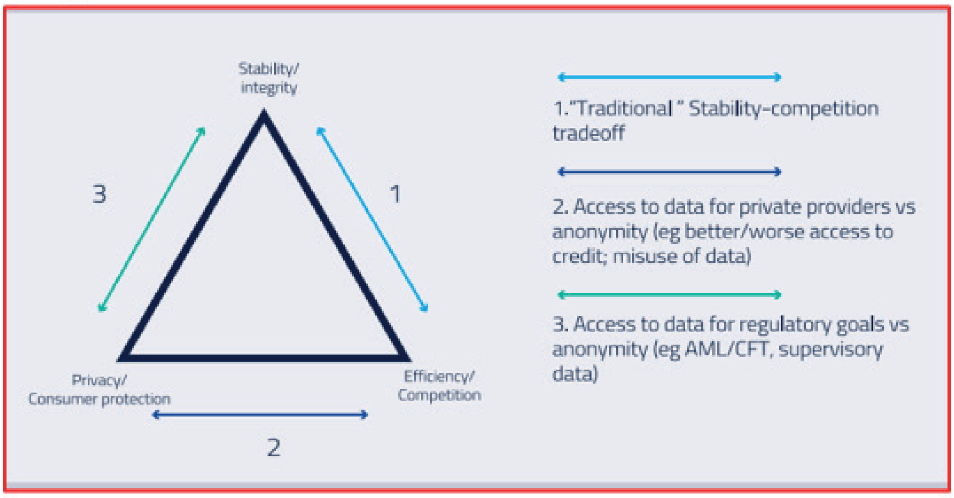
Slide 2

Value and number of investments in fintech worldwide (2010-2024.Q2)



Slide 3

The Policy trilemma and Fintech



Source: Feyen et al. 2021

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