



INSIGHT

DECENTRALIZED FINANCE AND EU LAW: THE REGULATION ON A PILOT REGIME FOR MARKET INFRASTRUCTURES BASED ON DISTRIBUTED LEDGER TECHNOLOGY

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ABSTRACT: The decentralized issuance of financial instruments is presently problematic under EU law. This situation will change with the entry into force of the Regulation on a pilot regime for market infrastructures based on distributed ledger technology. The Regulation provides for a regulatory sandbox – the pilot regime – that market operators can use to test distributed ledger technologies in the financial market industry in a way compatible with EU law. While this will improve legal certainty and increase protection for consumers, it will also introduce a completely new paradigm in financial market legislation: the decentralization of financial instruments. Moreover, the Regulation imposes considerable obligations on market operators, while also granting to the European Securities and Markets Authority and national competent authorities a relevant but difficult role in overseeing and monitoring the pilot regime's development. This *Insight* aims to provide an overview of the novel features introduced by the Regulation and reflect on whether the legislation will favour or frustrate innovation at EU level.

KEYWORDS: decentralized finance – digital finance – crypto-assets - distributed ledger technology – regulatory sandbox – European Securities and Markets Authority.

I. THE DIGITAL FINANCE PACKAGE OF THE EUROPEAN COMMISSION

The EU financial market is among the most important on a global scale. Especially since the withdrawal of the United Kingdom,¹ both the EU and the Member States are prioritizing protection of the integrity and enhancement of the ability of the EU financial market

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¹ M Heneghan and S Hall, 'The Emerging Geography of European Financial Centres: Fragmentation in the European Union and Concentration in the UK?' (2021) *European Urban and Regional Studies* 40, 41; L Quaglia, 'It Takes Two to Tango: The European Union and the International Governance of Securitization in Finance' (2021) *JComMarSt* 1364, 1365; S Van Kerckhoven, 'Post-Brexit Leadership in European Finance' (2021) *Politics and Governance* 59, 61; D Howarth and L Quaglia, 'Brexit and the Battle for Financial Services' (2018) *Journal of European Public Policy* 1118, 1118–1119; N Moloney, 'Financial Services under the Trade



to attract and retain capital.² To minimize the imbalances created by external shocks, such as economic crisis or other disruptive events like Brexit,³ it is essential that the EU financial market can fully exploit the opportunities technology offers,⁴ as technology in financial services (also known as FinTech) is changing profoundly how financial instruments are issued, traded and settled.⁵ FinTech has not only changed the functioning of financial instruments *per se*, but it also required the EU and national regulators to introduce an *ad hoc* legal framework.⁶ However, recent technological innovations, such as of digital platforms,⁷ artificial intelligence⁸ and distributed ledger technologies,⁹ require an enhanced regulatory response from EU institutions to protect consumers and increase system efficiency.¹⁰ Some of these initiatives are still being discussed by the European Parliament and the Council, while others are about to enter – or have just entered – into force.¹¹

Distributed ledger technologies (DLTs) are bringing immediate, substantial changes to financial markets, which explains why the Commission has been particularly concerned with DLTs and their applications in recent times.¹² A DLT can be used to store encrypted information, modifiable only by qualified operators.¹³ DLTs have many uses,

and Cooperation Agreement: Reflections on Unfinished Business for the EU and UK' (Brexiteer Institute Working Paper Series 3-2021).

² The European Securities and Markets Authority (ESMA) reports that the UK was the single EU Member State with the most sizeable security and bonds market in 2020 and 2021: European Securities and Markets Authority, *EU Securities Market 2020, ESMA Annual Statistical Report* www.esma.europa.eu; European Securities and Markets Authority, *EU Securities Market 2021, ESMA Annual Statistical Report* www.esma.europa.eu.

³ See generally F Fabbrini, *The Law and Politics of Brexit* (Oxford University Press 2017-2021).

⁴ Communication COM(2018)109 final from the Commission of 8 March 2018 on the FinTech action plan: for a more competitive and innovative European financial sector.

⁵ P Bains, N Sugimoto and C Wilson, 'BigTech in Financial Services: Regulatory Approaches and Architecture' (International Monetary Fund Fintech Notes 2022/002).

⁶ *Ibid.* 9.

⁷ See generally: F Bassan, *Digital Platforms and Global Law* (Elgar 2021); M Inglese, *Regulating the Collaborative Economy in the European Union Digital Single Market* (Springer 2019).

⁸ See generally M Hildebrandt, 'The Artificial Intelligence of European Union Law' (2020) *German Law Journal* 74; J Lee, 'Access to Finance for Artificial Intelligence Regulation in the Financial Services Industry' (2020) *European Business Organization Law Review* 731.

⁹ See generally: European Commission, *Fintech, Distributed-Ledger Technology and the Token Economy* www.ec.europa.eu.

¹⁰ Communication COM(2018) 109 final cit. 12: "Distributed ledger technologies and blockchain have great potential to drive simplicity and efficiency through the establishment of new infrastructure and processes. These technologies may become central to future financial services infrastructure".

¹¹ The European Parliament and the Council found a political agreement on the proposal on markets in crypto assets in June 2022. Other proposals, like the one on digital operational resilience in the financial sector, will be discussed in late 2022 and early 2023. The proposal on DLT market infrastructures was adopted by the Parliament and Council in early 2022 and is now in force.

¹² Communication COM(2018) 109 final cit. 17: "Refraining from updating policy and regulatory frameworks may place EU financial service providers at a disadvantage in an increasingly global market".

¹³ JJA Burke, *Financial Services in the Twenty-First Century: The Present System and Future Developments in Fintech and Financial Innovation* (Palgrave 2021) 131.

including the register and transfer of property, currency, goods and services.¹⁴ Being distributed is the main characteristic of this technology, which implies that everyone with the necessary authorization can review and amend the ledger, thus obviating the need for trusted intermediaries.¹⁵ For this reason, DLTs can be used to issue and distribute financial instruments without financial intermediaries.¹⁶ A legislative action to provide a regulatory framework was deeply needed. As EU law allows only centralized intermediaries to issue financial instruments, DLTs have raised the need for legislation to establish a suitable regulatory framework.¹⁷

The package of initiatives on digital finance proposed by the European Commission includes a communication,¹⁸ the proposal for a regulation on markets in crypto-assets (the “MiCA proposal”),¹⁹ the proposal for a regulation on a pilot regime for market infrastructures based on distributed ledger technology²⁰ and the proposal for a regulation on digital operational resilience for the financial sector.²¹ The legal instruments within this package are very likely to be adopted towards year-end 2022 or in early 2023. This *Insight* focuses primarily on the first of the legal instruments adopted, the Regulation on DLT market infrastructures,²² seeking to understand if it delivers on its promises to provide a framework for decentralized finance by establishing the pilot regime as the first EU example of a regulatory sandbox.

Among the different DLTs, the most famous is surely blockchain. Although the most recognized application of this technology is transferring value,²³ blockchain is a phenomenon of much broader reach that allows the issuers of tokens to securely enter into a contract, provide a service, or even organize and regulate token owners’ right to vote in

¹⁴ S Mesquita de Borba Maranhão, Z Li and S Hurwitz, ‘Distributed Ledger Technology Use Cases’ (2019) International Telecommunication Union www.itu.int.

¹⁵ JJA Burke, *Financial Services in the Twenty-First Century* cit. 137.

¹⁶ S Mesquita de Borba Maranhão, Z Li and S Hurwitz, ‘Distributed Ledger Technology Use Cases’ cit. 7.

¹⁷ DA Zetzsche, DW Arner and RP Buckley, ‘Decentralized Finance’ (2020) *Journal of Financial Regulation* 172, 178.

¹⁸ Communication COM(2020) 591 final from the Commission of 24 September 2020 on a Digital Finance Strategy for the EU.

¹⁹ Proposal for a Regulation of the European Parliament and of the Council on markets in crypto-assets, and amending Directive (EU) 2019/1937, COM(2020) 593 final (the “MiCA proposal”).

²⁰ Proposal for a Regulation of the European Parliament and of the Council on a pilot regime for market infrastructures based on distributed ledger technology, COM(2020) 594 final.

²¹ Proposal for a Regulation of the European Parliament and of the Council on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014 and (EU) No 909/2014, COM(2020) 595 final.

²² Regulation (EU) 858/2022 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology (the “DLT Regulation”).

²³ See generally B Capiello and G Carullo (eds), *Blockchain, Law and Governance* (Springer 2021); O Pollicino and G De Gregorio, *Blockchain and Public Law: Global Challenges in the Era of Decentralisation* (Elgar 2021); P De Filippi and A Wright, *Blockchain and the Law: The Rule of Code* (Harvard University Press 2018); M Finck, *Blockchain Regulation and Governance in Europe* (Cambridge University Press 2018).

the DLT ecosystem.²⁴ In the EU initiative on digital finance, tokenization is defined in very broad terms using the word “crypto-assets”, encompassing various uses.²⁵

The Regulation on DLT market infrastructures fits within the broader digital finance and crypto-assets initiative.²⁶ Under the proposed legal framework, crypto-assets are partitioned into at least three categories: unregulated crypto-assets, regulated crypto-assets, and crypto-assets regulated as financial instruments. Unregulated crypto-assets fall outside the scope of the MiCA proposal,²⁷ whereas regulated crypto-assets are within its scope.²⁸ The third category of crypto-assets fall under the application scope of the MiFI II Directive,²⁹ but cannot currently be issued in a decentralized manner.³⁰

When crypto-assets are used as financial instruments, for instance in the form of security tokens for investment purposes, they can be issued through DLT market infrastructures in a decentralized manner, conferring considerable advantages compared to traditional financial instruments (*infra* section III).

II. THE REGULATION ON DLT MARKET INFRASTRUCTURES: A RULE-BASED PILOT REGIME

Decentralized finance is a notable advancement in the digitalization of financial services over the last decade. However, as it stands, it seems not compatible with the current EU legal framework.³¹ As the DLT Regulation itself states, the Union financial services legislation was not designed with DLT and crypto-assets in mind.³² Accordingly, the objective of the DLT Regulation is to introduce a regulatory sandbox for the use of DLTs in financial markets.³³ The pilot regime will enable the development and use of DLT-based financial instruments by DLT market infrastructures.³⁴ It has a minimum duration of three years,³⁵ and will apply nine months after its entry into force.³⁶

²⁴ O Konashevych, ‘General Concept of Real Estate Tokenization on Blockchain’ (2020) *European Property Law Journal* 21, 27.

²⁵ Crypto assets are defined as “a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology” (art. 3(2) MiCA proposal cit.).

²⁶ Communication COM(2020) 591 final cit. 9.

²⁷ Art. 2(2)(a)–(e) MiCA proposal cit.

²⁸ Art. 2(1) MiCA proposal cit.

²⁹ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (the “MiFI II Directive”).

³⁰ Recital 2 DLT Regulation cit.

³¹ DA Zetzsche and J Woxholth, ‘The DLT Sandbox under the Pilot-Regulation’ (2022) *Capital Markets Law Journal* 212, 220; DA Zetzsche, DW Arner and RP Buckley, ‘Decentralized Finance’ cit.

³² Recital 4 DLT Regulation cit.

³³ Recital 5 DLT Regulation cit.

³⁴ Recital 6 DLT Regulation cit.

³⁵ Art. 14(2) DLT Regulation cit.

³⁶ Art. 19 DLT Regulation cit.

A regulatory sandbox is a *safe space* where regulators and financial intermediaries can assess the application of new rules for a fixed time period.³⁷ The concept of a regulatory sandbox in financial services is relatively new, the first version having been introduced by the United Kingdom's Financial Conduct Authority in 2016.³⁸ This model has been embraced rather uniquely at EU level, rooted in the rationale of the DLT pilot regime, which is to reduce the regulatory burden for financial intermediaries.

The DLT Regulation establishes a system of exemptions from the authorizations required by ordinary financial market intermediaries (see *infra* section III).³⁹ However, sandboxes in financial services are inspired by a principle-based approach, whereas the EU's DLT pilot regime seems premised on a rule-based approach.⁴⁰ This implies that the DLT Regulation, while establishing some exemptions, imposes an important body of regulatory obligations on financial intermediaries, the EU and national competent authorities (NCAs).⁴¹ If the rationale of the DLT pilot regime is to reduce the regulatory burden for financial intermediaries, a purely rule-based approach seems contrary to the principle-based nature of sandboxes. Conversely, if the rationale is to balance the public and private interests of financial service consumers with those of financial intermediaries, then a rule-based approach seems more appropriate. It remains to be assessed whether, in the long run, the pilot regime will continue to reflect this delicate balance.

The DLT Regulation is structured to sequentially address the following: market infrastructure types and definitions, what financial instruments can be issued under this regime, the obligations of DLT market infrastructures, and cooperation between the European Securities and Markets Authority (ESMA) and DLT market infrastructures. Its final articles set out the amendments introduced to the MiFi Regulation.⁴²

II.1. TYPES OF DLT MARKET INFRASTRUCTURES

The types of DLT market infrastructures allowed to participate in the pilot regime include DLT multilateral trading facilities, DLT settlement systems (DLT SSs) and DLT trading and settlement systems (DLT TSSs).⁴³

A DLT multilateral trading facility is "a multilateral trading facility that only admits to trading DLT financial instruments".⁴⁴ Accordingly, it is necessary to understand what a

³⁷ HJ Allen, 'Regulatory Sandboxes' (2019) GWashLRev 579.

³⁸ Financial Conduct Authority, *Regulatory Sandbox* www.fca.org.uk.

³⁹ Recitals 11 and 13 DLT Regulation cit.

⁴⁰ For an account of the UK approach in general, see C Decker, 'Goals-Based and Rules-Based Approaches to Regulation' (BEIS Research Paper 8-2018).

⁴¹ *Infra* sections III–V.

⁴² Regulation (EU) 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments (the "MiFi Regulation").

⁴³ Art. 2(5) DLT Regulation cit.

⁴⁴ Art. 2(6) DLT Regulation cit.

multilateral trading facility is in the context of the EU legal framework for financial services.⁴⁵

As a trading system, a multilateral trading facility enables the exchange of financial instruments between multiple parties. Orders are usually submitted to the system electronically and in large blocks. For this reason, settlement systems are required⁴⁶ to keep track and record the start and conclusion of the transaction between intermediaries in banking and financial markets.⁴⁷ Multilateral trading facilities are also defined in EU financial market legislation. Under MiFi II Directive, a multilateral trading facility is “a multilateral system, operated by an investment firm or a market operator, which brings together multiple third-party buying and selling interests in financial instruments”.⁴⁸ Meanwhile, a DLT SS settles transactions in DLT financial instruments against payment or delivery.⁴⁹ Finally, a DLT TSS⁵⁰ is essentially a financial intermediary allowing DLT financial instruments to be traded and/or settled.⁵¹

All these apparently obscure entities are fundamental actors in DLT financial market transactions. The DLT multilateral trading facility enables the exchange of financial instruments; the DLT SS keeps track of and records clients’ positions daily; and the DLT TSS combines the functions of a DLT multilateral trading facility and a DLT SS.

II.2. FINANCIAL INSTRUMENTS ADMITTED UNDER THE PILOT

Art. 3 of the DLT Regulation describes the typologies of DLT financial instruments admitted under the pilot regime. The admission requirements are both qualitative and quantitative. Art. 3 distinguishes three financial instruments: shares, bonds, and “units in collective investment undertakings”. Shares are included as long as the issuer has a market capitalization below EUR 500 million.⁵² Bonds and other forms of securitized debt should have an issue size of below EUR 1 billion, while derivatives are expressly excluded.⁵³ Units

⁴⁵ See art. 19 MiFi II Directive cit.

⁴⁶ Bank of Italy, *Securities Settlement Systems* www.bancaditalia.it.

⁴⁷ SSSs, whose functions are often performed by central securities depository, are sizeable entities and usually managed directly by government bodies. In Italy this function is performed by Monte Titoli S.p.A. (now known as Euronext). See Euronext, *CSD-R Regulation* www.euronext.com.

⁴⁸ Art. 4(22) MiFi II Directive cit.

⁴⁹ Art. 2(7) DLT Regulation cit.

⁵⁰ This type of DLT market infrastructure has been included by the Parliament and the Council following consultations with the blockchain and DLT industry. See, e.g., Digital Currencies Governance Group, *Position Paper on DLT Pilot Regime* www.dcg.eu.

⁵¹ Art. 2(10) DLT Regulation cit.

⁵² Art. 3(1)(a) DLT Regulation cit.

⁵³ Art. 3(1)(b) DLT Regulation cit.

in collective investment undertakings,⁵⁴ usually shares in investment funds, are covered only if the market value of the assets under management is below EUR 500 million.⁵⁵

The overall volume of transactions is another factor influencing the application of the pilot regime. Only financial instruments with an aggregate market value not exceeding EUR six billion at the moment of admission to trading are admitted.⁵⁶ If the aggregate market value subsequently reaches EUR 9 billion, the market infrastructure must activate the transition strategy in art. 7(7) of the DLT Regulation.⁵⁷ DLT market infrastructures must also submit monthly reports to competent authorities to demonstrate that all DLT financial instruments admitted to trading do not exceed the thresholds.⁵⁸

II.3. AMENDMENTS TO THE EU LEGAL FRAMEWORK ON FINANCIAL SERVICES

The DLT Regulation introduces three amendments to the EU legal framework on financial instruments, set out respectively in arts 16, 17 and 18.⁵⁹ Art. 16 amends the MiFI Regulation⁶⁰ to allow a trading venue to apply to its competent authority for permission to avail itself of transitional arrangements. Art. 17 then amends art. 76(5) of the Central Securities Depositories (CSD) Regulation⁶¹ by changing the settlement discipline measures: specifically, those “measures referred to in art. 7(1) to (13) shall apply from the date of application specified for each settlement discipline measure in the delegated act adopted by the Commission pursuant to art. 7(15)”. Accordingly, the delegated act on CSDs adopted by the Commission will have to be amended.⁶²

Art. 18 amends the MiFI II Directive: “‘financial instrument’ means those instruments specified in Section C of Annex I, including such instruments issued by means of distributed ledger technology”. This change, which adds DLT financial instruments to the list of EU admitted financial instruments, is also important as it restates the principle of technology neutrality.⁶³ DLT is constantly subject to changes and, as shown by the responses of market participants to the ESMA survey on the DLT pilot regime,⁶⁴ many issuers of

⁵⁴ Art. 25(4)(a)(iv) Directive 2014/65 cit.

⁵⁵ Art. 3(1)(c) DLT Regulation cit.

⁵⁶ Art. 3(2) DLT Regulation cit.

⁵⁷ Art. 3(3) DLT Regulation cit.

⁵⁸ Art. 3(5) DLT Regulation cit.

⁵⁹ See generally N Moloney, *EU Securities and Financial Markets Regulation* (Oxford University Press 2014).

⁶⁰ Regulation (EU) 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.

⁶¹ Regulation (EU) 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories.

⁶² Commission Delegated Regulation (EU) 2017/389 of 11 November 2016 supplementing Regulation (EU) 909/2014 of the European Parliament and of the Council as regards the parameters for the calculation of cash penalties for settlement fails and the operations of CSDs in host Member States.

⁶³ Recital 10 DLT Regulation cit.

⁶⁴ European Securities and Markets Authority, *Call for Evidence on the DLT Pilot Regime* www.esma.europa.eu.

financial instruments are still unsure about which DLTs to adopt.⁶⁵ Despite the prominence of blockchain, other DLTs could plausibly be used to issue financial instruments.

III. OBLIGATIONS FOR DLT MARKET INFRASTRUCTURES

The DLT Regulation exempts DLT market infrastructures from certain requirements applicable to traditional financial intermediaries,⁶⁶ establishes additional requirements⁶⁷ and sets criteria for specific permissions to operate.⁶⁸

III.1. OBLIGATIONS FOR DLT MULTILATERAL TRADING FACILITIES

Multilateral trading facilities comprise several third parties buying and selling interests in financial instruments; under EU law, they are usually subject to the combined discipline of the MiFI Regulation⁶⁹ and the MiFI II Directive.⁷⁰

a) Requirements and exemptions regarding DLT multilateral trading facilities

DLT multilateral trading facilities are exempted from certain requirements applicable to ordinary investment firms. On request from the operator of a DLT multilateral trading facility, the competent authority may permit, in addition to persons specified in art. 53(3) of Directive 2014/65/EU,⁷¹ the admission “of natural and legal persons to deal on own account as members or participants”, provided they fulfil the requirements expressed under art. 4(2)(a)–(g) DLT Regulation. This provision embraces decentralization by admitting expressly natural and legal persons to participate in the DLT regulated market. DLT multilateral trading facilities are also exempted from the obligation to report transactions to ESMA and national competent authorities according to art. 26 MiFI Regulation, provided that the competent authority is admitted as a “regulatory observer participant” to the DLT multilateral trading facility.⁷² This means in practice that the competent authority is admitted to the distributed ledger (e.g. the blockchain) and can access in real time all the data required to accomplish its supervisory role.

⁶⁵ For example, see the responses of Banca Sella Holding S.p.A, the Italian Banking Association and the Association of German Public Banks to the European Securities and Markets Authority: European Securities and Markets Authority, *Call for Evidence* cit.

⁶⁶ Arts 4–6 DLT Regulation cit.

⁶⁷ Art. 7 DLT Regulation cit.

⁶⁸ Arts 8–10 DLT Regulation cit.

⁶⁹ Regulation 600/2014 cit.

⁷⁰ Directive 2014/65 cit.

⁷¹ Art. 53 covers the rules on access to regulated markets.

⁷² Art. 4(3) DLT Regulation cit.

b) Specific authorization to operate a DLT multilateral trading facility

Every legal person authorized under the MiFI II Directive can also request authorization to operate a DLT multilateral trading facility.⁷³ However, several requirements applicable to traditional financial intermediaries are not applied to a DLT multilateral trading facility applicant.⁷⁴ Art. 8 DLT Regulation details the required content of the application for authorization, the exemptions⁷⁵ and the supervisory role that the national competent authority⁷⁶ and ESMA⁷⁷ should exercise. In particular, the national competent authority should reply within 90 days from receipt of the application⁷⁸ and can refuse to grant a specific permission where there are significant risks to investor protection, market integrity or financial stability; where specific permission is being sought for the purpose of circumventing legal or regulatory requirements; or where the DLT multilateral trading facility operator will not be able to comply with applicable provisions of Union law or, outside its scope, provisions of national law.⁷⁹ A specific permission is valid for up to six years from the date of issuance.⁸⁰

III.2. OBLIGATIONS FOR DLT SSS

SSs are usually provided by CSDs authorized under Regulation (EU) No 909/2014.⁸¹ In recognition of their contribution to creating a DLT regulated market, DLT SSSs can access the exemptions granted by the DLT Regulation.⁸²

a) Requirements and exemptions for DLT SSSs

A DLT SS is exempted from a series of obligations that would otherwise be connected to settlement and deposit activities, such as the requirement to maintain a book-entry form recording the transactions of securities in the DLT market infrastructure.⁸³ That particular exemption reflects that requirements designed for a centralized structure are incompatible with the use of DLTs in the market,⁸⁴ taking into account other compensatory measures.⁸⁵ DLT SSSs can also be exempted from taking measures to prevent and address

⁷³ Art. 8(1) DLT Regulation cit.

⁷⁴ Art. 8(2)–(3) DLT Regulation cit.

⁷⁵ Art. 8(4) DLT Regulation cit.

⁷⁶ Art. 8(6) DLT Regulation cit.

⁷⁷ Art. 8(7) DLT Regulation cit.

⁷⁸ Art. 8(9) DLT Regulation cit.

⁷⁹ Art. 8(10)(a)–(c) DLT Regulation cit.

⁸⁰ Art. 8(11) DLT Regulation cit. See also Bank of Italy, *Securities Settlement Systems* cit.

⁸¹ Art. 10 CSD Regulation cit. For a short account on CSDs, see Bank of Italy, *Central Securities Depository* www.bancaditalia.it.

⁸² Art. 5 DLT Regulation cit.

⁸³ Art. 3 CSD Regulation cit.

⁸⁴ Art. 5(2)(a) DLT Regulation cit.

⁸⁵ Art. 5(2)(b) DLT Regulation cit.

settlement fails as defined in the CSD Regulation,⁸⁶ as well as from requesting authorization where they intend to outsource a core service to a third party, provided that the application of the CSD Regulation is incompatible with the envisaged DLT use.⁸⁷ A DLT SS can also be exempted from providing, in the traditional form, information on participation in the SS and on transparency and communication with other market participants.⁸⁸ Finally, DLT SSs are exempted from cash settlement rules under the CSD Regulation,⁸⁹ thus allowing the use of crypto-assets to settle transactions.⁹⁰

b) Specific authorization to operate a DLT SS

Similarly to the process for DLT multilateral trading facilities, CSDs intending to operate a DLT SS must apply for specific authorization.⁹¹ The application must contain the information set out in art. 9(4)(a)–(g) DLT Regulation and the competent authority must give a reasoned reply to the application within 90 days from its receipt.⁹² Both ESMA and the national competent authority are involved in supervising a DLT SS and are required to produce a speculative non-binding opinion on its proposed features.⁹³

III.3. OBLIGATIONS FOR DLT TSSS

A DLT TSS is operated by an investment firm that simultaneously applies for permission to establish a DLT multilateral trading facility and a DLT SS. Accordingly, the requirements and permissions in sub-sections III.1 and III.2 above are applied in combination with this type of DLT market infrastructure.

III.4. HORIZONTAL ADDITIONAL REQUIREMENTS FOR DLT MARKET INFRASTRUCTURES

The Regulation imposes an additional set of requirements and obligations that apply horizontally to all the different operators of DLT market infrastructures. First, DLT market infrastructures must establish a clear and detailed business plan and written rules governing their operations.⁹⁴ This documentation must include “legal terms defining the rights, obligations, responsibilities, and liabilities of operators of DLT market infrastructures, as well as those of the members, participants, issuers, and clients using their DLT market infrastructure”.⁹⁵

Operators of DLT market infrastructures must also detail the rules governing the specific technology that they embrace for the functioning of the regulated market, including

⁸⁶ Arts 6 and 7 CSD Regulation cit.

⁸⁷ Art. 5(4) DLT Regulation cit.

⁸⁸ Arts 33–35 CSD Regulation cit.

⁸⁹ Art. 40 CSD Regulation cit. and art. 5(7) DLT Regulation cit.

⁹⁰ Art. 5(8) DLT Regulation cit.

⁹¹ Art. 9 DLT Regulation cit.

⁹² Art. 9(9) DLT Regulation cit.

⁹³ Art. 9(7) DLT Regulation cit.

⁹⁴ Art. 7(1) DLT Regulation cit.

⁹⁵ Art. 7(1), second Alinea DLT Regulation.

“rules on accessing the distributed ledger, on the participation of the validating nodes, on addressing potential conflicts of interests, and on risk management”.⁹⁶ Furthermore, they need to provide information on the management and maintenance of their website and of the adequacy of the DLT they use, together with information on the transparency, availability, reliability and security of their services and activities, including the reliability of smart contracts used on the DLT market infrastructure.⁹⁷

Where funds, collateral or DLT financial instruments are lost, the DLT market operator will be liable up to the value of those assets. The operator can free itself from responsibility only by proving that the loss resulted from an external event beyond its reasonable control, whose consequences were unavoidable despite all reasonable efforts to the contrary.⁹⁸ This introduces an important principle of responsibility that could considerably burden operators interested in entering this market.

Overall, the obligations introduced for DLT market operators represent a considerable barrier for both prospective operators and companies working in the DLT industry that wish to participate in the market.

IV. THE ROLE OF ESMA AND NATIONAL COMPETENT AUTHORITIES

The pilot regime on DLT market infrastructures gives national and European financial market authorities a key role in assisting the gradual transition from the traditional financial industry – which will continue to exist and to thrive – towards a more decentralized financial system.⁹⁹ The pilot regime translates into a series of obligations for market operators to communicate to national competent authorities any change to their business plan, any undue access to their database, any systemic risk or any technical or operational difficulty.¹⁰⁰ The national competent authority can also demand the operator of the DLT market infrastructure to provide any relevant information and demand corrective measures.¹⁰¹ Furthermore, market operators must submit to the national authority a bi-annual report.¹⁰² Member States are required to inform ESMA of which national competent authorities are responsible for scrutinizing the applications, authorizations, and exemptions under the DLT Regulation.¹⁰³ ESMA itself is responsible for coordinating the efforts of national competent authorities and regularly reporting on the applications, permissions and exemptions granted under the DLT Regulation.¹⁰⁴

⁹⁶ Art. 7(2) DLT Regulation cit.

⁹⁷ Art. 7(3) DLT Regulation cit.

⁹⁸ Art. 7(5) DLT Regulation cit.

⁹⁹ Arts 11–15 DLT Regulation cit.

¹⁰⁰ Art. 11(1)(a)(d) DLT Regulation cit.

¹⁰¹ Art. 11(2) DLT Regulation cit.

¹⁰² Art. 11(4) DLT Regulation cit.

¹⁰³ Arts 12 and 13 DLT Regulation cit.

¹⁰⁴ Art. 11(5) DLT Regulation cit.

ESMA also has a specific role in reviewing and reporting on the development of the pilot regime in the coming years.¹⁰⁵ In particular, within three years of the application of the DLT Regulation, ESMA will report to the Commission on, *inter alia*, the functioning of DLT market infrastructures throughout the Union, the number of these infrastructures, and the types of exemption requested by and granted to them.¹⁰⁶ Based on the ESMA report, the Commission will, within three months, report to the European Parliament and the Council on whether the pilot should be extended for a further three years, amended or made permanent.¹⁰⁷ In its report, the Commission “may propose any appropriate amendment to Union financial services legislation or any harmonization of national laws that would facilitate the use of DLT in the financial sector, as well as any measures needed for the transition of DLT market infrastructures away from the pilot regime provided for in this Regulation”.¹⁰⁸

V. CONCLUSIONS

The DLT Regulation affects in different ways the roles of players in the financial market industry. It establishes the first example of an EU regulatory sandbox (the pilot regime), although with a unique rule-based approach. It also authorizes some decentralization in the issuance of financial instruments, cautiously opening the door to many decentralized financial intermediaries. Moreover, the DLT Regulation considerably increases the regulatory domain of both ESMA and national competent authorities, assigning these authorities a very important and difficult role in monitoring the pilot regime. It is yet to be assessed whether these bodies can develop the skills required for this mission in the scarce time available.

As the DLT Regulation leaves largely untouched the regulatory barriers imposed by the MiFI II Directive and MiFI Regulation, those investment firms that have already successfully complied with existing requirements likely hold a competitive advantage: from a regulatory standpoint, these firms seem more prepared to establish DLT market infrastructures, provided that they possess the requisite technologies. By contrast, blockchain firms native to the DLT ecosystem that own such technologies do not usually have the size or compliance experience to apply for permission to operate as a DLT multilateral trading facility or DLT SS. Thus, the best way forward for the industry may be the creation of partnerships between established investment firms and DLT native firms, which would favour the use and adoption of DLTs in financial services.

Decentralizing the issuance, deposit and settlement of financial instruments is a ground-breaking change in the financial services industry and can considerably increase the number of natural and legal persons involved in their trading. However, the approach

¹⁰⁵ Art. 14 DLT Regulation cit.

¹⁰⁶ Art. 14(1)(a)–(o) DLT Regulation cit.

¹⁰⁷ Art. 14(2)(a)–(d) DLT Regulation cit.

¹⁰⁸ Art. 14(2) second Alinea DLT Regulation cit.

of EU institutions towards disruptive innovations (including not only DLTs but also artificial intelligence, neural networks, and supercomputers) does not pursue minimum harmonization but rather the establishment of a higher standard of protection for market participants and consumers. This reflects the increasing prestige and importance enjoyed by the EU as an international regulatory actor. But a similar standard of protection can also be perceived as an obstacle by innovation purists, who consider any strict regulatory standard as a barrier to the innovative potential of technology. It remains to be seen how the industry will react to the DLT Regulation and if the pilot regime will successfully embed in the financial sector the innovations introduced over recent years by new actors in decentralized finance, or if the new system will mainly benefit the established investment firms already experienced in compliance with the stricter regulatory requirements.

