[7] Proposals for the DLT Pilot Regime and MiCA Regulation constituted part of the Digital Finance Package adopted by the European Commission on 24 September 2020.

[8] Except for the first, these 'advantages' along with their critical analysis can be found in: Tomczak, 2020, pp. 94…99 and to some level in IMF, 2023, p. 9.

[9] As is noted in the literature "Furthermore, it can be more difficult to supervise participants on a public blockchain because they can be global or unknown, and this challenge can pose risks such as financial crime, or there may be a lack of recourse to end users or no way to fix market errors should any failure or fraud occur." (Bains, 2022, p. 8).

[10] For example, N. Acheson, in the context of Bitcoin, indicates, inter alia, seizure resistance (Acheson, 2021) and IMF indicates also 'financial inclusion' (IMF, 2023, p. 9).

[11] Bitcoin should not be classified as a DLT financial instrument, and it was only invoked to show more clearly what this part of the article will be about.

[12] See Article 1 (Subject matter and scope) and Article 2 (Definitions) of the DLT Pilot Regime. The latter provides definitions of, i.a., DLT market infrastructure (Article 2(5)), DLT multilateral trading facility (Article 2(6)), DLT settlement system (Article 2(7)) and DLT trading and settlement system (Article 2(8)).

[13] Article 2(11) of the DLT Pilot Regime defines a 'DLT financial instrument' as a financial instrument that is issued, recorded, transferred and stored using distributed ledger technology.

[14] In reference to specific permissions to operate DLT market infrastructures see Article 8, 9 and 10 of the DLT Pilot Regime, which refer to specific permission to operate, in turn, DLT MTF, DLT SS and DLT TSS.

[15] In the literature it is properly highlighted that: "The ability of tokenised systems to interoperate with account-based systems will be key to their success." (Bech et al., 2020, p. 79).

[16] See Article 4(2…3) of the DLT Pilot Regime in reference to DLT MTFs, Article 5(2…9) in reference to DLT SSs and Article 6(1) in reference to DLT TSSs.

[17] In reference to compensatory measures see, for example, Article 4 paragraph 1, second subparagraph, point (c) of the DLT Pilot Regime.

[18] For example trading venues, central securities depositories and central counterparties (see Recital 7 of the DLT Pilot Regime).

[19] See e.g. Article 2(10), Article 6 and Article 10 of the DLT Pilot Regime.

[20] The obligation of intermediation results from the MIFID2 Directive. At present, traditional multilateral trading facilities are allowed to admit as members or participants only investment firms, credit institutions and other persons who have a sufficient level of trading ability and competence and who maintain adequate organisational arrangements and resources (see Recital 26 of the DLT Pilot Regime).

[21] Liquidate this 'potential regulatory obstacle' (Recital 26 of the DLT Pilot Regime).

[22] See Article 4(2) and Article 6(1) of the DLT Pilot Regime. How requirements for direct access to DLT market infrastructure can be met was, to some level, clarified in: ESMA, 2022b, pp. 12…14.

[23] See, for example, Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU OJ L 156, 19/6/2018, which introduced to the Directive (EU) 2015/849, i.a., the definition of 'virtual currencies'.

[24] See Article 14(1)(k) of the DLT Pilot Regime.

[25] Usually private DLTs are more centralised than the public ones (Bains, 2022, p. 8). However, the DLT Pilot Regime does not distinguish between private and public DLTs. The ESMA clarifies that such distinction, as well as the distinction between permissionless DLT and permissioned DLT, were not introduced since the terminology regarding DLT is still evolving (ESMA, 2022b, p. 13).

[26] See Article 8(4)(b) in reference to DLT MTF, Article 9(4)(b) in reference to DLT SS and Article 10(4)(b) in reference to DLT TSS, and each of these articles refers to 7(2) of the DLT Pilot Regime, which specifies the mentioned description.

[27] See Article 11(1)(d) of the DLT Pilot Regime.

[28] See Article 8(12)(a) in reference to DLT MTF, Article 9(12)(a) in reference to DLT SS and Art. 10(12)(a) in reference to DLT TSS of the DLT Pilot Regime.

[29] Irreversibility may also depend on the consensus mechanism used. For more details, see: Bains, 2022, pp. 4, 6 and 10…11.

[30] See Article 39 of Regulation (EU) No 909/2014 on improving securities settlement in the European Union and on central securities depositories (CSDR).

[31] See Article 5(7) of the DLT Pilot Regime, which applies to DLT TSS on the basis of Article 6(1) of the DLT Pilot Regime.

[32] *Ibidem*.

[33] Article 5(12) of the DLT Pilot Regime states that the ESMA shall prepare guidelines on the compensatory measures referred to in this Article.

[34] But see the whole Recital 14 of the DLT Pilot Regime. Also, in the literature it is noted that "DLTs may shorten settlement cycles by streamlining reconciliation processes and reducing the number of intermediaries" (Bains, 2022, p. 15).

[35] The authors specify that "the settlement cycle is the period between execution of a trade and final settlement" (Bech et al., 2020, p. 68). See also Article 39(5…6) of the Regulation (EU) No 909/2014 (CSDR).

[36] It is also mentioned that in decentralised environments, netting is getting more complex (Chapman et al., 2017, pp. 5…6).

[37] See Recital 34 of the DLT Pilot Regime.

[38] Recital 34 of the DLT Pilot Regime notes that "Settlement in central bank money could be considered as not practical and available if settlement in central bank money on a distributed ledger is not available."

[39] Recital 34 of the DLT Pilot Regime.

[40] See Recital 34 of the DLT Pilot Regime and Article 5(8) of the DLT Pilot Regime. E-money tokens are a legal category of crypto-assets introduced by the MiCA Regulation. For more on e-money tokens, see for example: Tomczak, 2022, pp. 374…377 or Tomczak, 2023a, p. 41.

[41] Lower transactions costs regarding crypto-assets are usually presented in the context of cross-border payments, not necessarily in the context of securities trade and settlements (IMF, 2023, pp. 1, 9…10).

[42] However, DLT may involve different types of intermediaries, i.e. validators. As is aptly addressed in the literature, they may also contribute to transactions costs (IMF, 2023, p. 9).

[43] In the indicated Recital, it is suggested that the prohibition against such combination stems from policy choices related to risk specialisation and unbundling for the purposes of encouraging competition.

[44] An outright ban of crypto-assets was proposed by some directors of the IMF (IMF, 2023, p. 2).

[45] M. Bech and others espouse "increased automation through the use of smart contracts" (Bech et al., 2020, p. 79). In this respect see also: IMF, 2023, p. 10.

[46] M. Bech and others aptly assert that "Risks rarely disappear, but new technologies may transform them and the way they are managed" (Bech et al., 2020, p. 75).

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