DENTONS

Financial Market Infrastructures (FMI) Sandboxes

Looking Ahead

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Sandboxes as regulatory tools for innovation

As our previous articles have highlighted, the Financial Services and Markets Act 2023 (the **Act**) introduces significant and far-reaching reforms to the UK's financial services landscape. At the forefront of the Act's ambitions is a drive to "harness the opportunities of innovative technologies in financial services",[1] which will further the government's wider objectives of making the UK financial services sector "more open, more competitive and more technologically advanced…".[2] From a common law perspective, the Law Commission for England and Wales recently released a report on new recommendations for reform and development of the law on digital assets in the UK.[3] It concluded that, although UK common law is generally flexible and able to accommodate digital assets, further developments are encouraged where possible, to accommodate the promotion of new technologies.

One initiative in the Act is particularly geared to promoting innovative technologies in financial services – HM Treasury now has a power to introduce financial markets infrastructure (**FMI**) sandboxes to facilitate the testing of new technologies by disapplying or modifying certain legislation and regulations. This represents an interesting new direction for regulation as an enabler for innovation, as well as providing opportunities for the UK to be at the forefront of the FinTech revolution.

This article provides an overview of:

- the evolution of and rationale behind regulatory sandboxes;
- the legislative provisions introduced by the Act in respect of FMI sandboxes;
- the consultation on the digital securities sandbox;
- the FCA's existing general regulatory sandbox; and
- the key comparisons that can be drawn between the UK's FMI sandbox regime under the Act and the EU's distributed ledger technology (**DLT**) pilot regime (the **Pilot Regime**) which is set out in the European Commission's Regulation (EU) 2022/858 (the **Regulation**).

Regulatory Sandboxes

Regulatory sandboxes are a reasonably new, but increasingly used, innovation in regulatory sectors

[1] Speech by the Economic Secretary to the Treasury (https://www.gov.uk/government/speeches/economic-secretary-to-the-treasury-at-thecityuks-annual-conference).

[2] Mansion House speech by Chancellor in July 2021 (https://www.gov.uk/government/speeches/mansion-house-speech-2021-rishi-sunak).

[3] Digital assets: final report (https://s3-eu-west-2.amazonaws.com/cloud-platform-e218f50a4812967ba1215eaecede923f/uploads/sites/30/2023/06/Final-digital-assets-report-FOR-WEBSITE-2.pdf).

including energy and financial services. Use of these sandboxes marks a fundamental shift in how regulation is used and is a response to the criticism that regulation can act as a barrier to innovation, particularly when entirely new types of technology emerge. One of the key issues facing these emerging, and sometimes disruptive, technologies is that of regulatory drag, where features of the technology did not exist when the regulatory environment was established and, consequently, defy traditional regulatory or legislative definitions that shape the ambit of permitted behaviours. Sandboxes can help to test how these technologies might develop, if the regulatory barriers are removed or adjusted, and are designed to be more responsive to developments than systems that rely on primary legislation.

The central tenet behind sandboxes is that regulation should not be focused only on controlling behaviour or managing risks. Regulation should also enable and encourage new technologies or business models, recognising that "failures" may, or maybe will, follow. Whilst failures are not encouraged, they are allowed for and accommodated under the watchful eye of an encouraging supervisor. This is an important development not only for new technology or service providers, but it is also a significant change in role, and potentially mindset, for the regulators, who are themselves now innovators (to the extent that they design new sandboxes) and active facilitators of innovation. Sandboxes are now seen as an important policy tool and are emerging as a key feature in the drive for international competitiveness. They offer a legal jurisdiction an attractive environment for innovative technologies and business models and are emerging as a key differentiator between different jurisdictions.

In addition to some powerful tools to facilitate internationally attractive sandboxes, the Act recognises the importance of this change in the regulator's role in facilitating innovation through the inclusion of the new innovation secondary objective for the Bank of England, which is one of the key stakeholders in the new FMI sandbox regime.[4]

Some of the key features of successful sandboxes include:

- offering the widest possible membership to firms;
- offering the widest possible testing environment, which means being able to disapply or modify the operation of a wide range of possible regulatory barriers (whilst ensuring that the system itself remains stable and operates effectively);
- providing regulators with flexibility to react to development;
- recognising that activities inside a sandbox are normally linked to economic activities outside the sandbox and do not require a complete quarantine of measures inside the sandbox; and
- effective arrangements for exiting the sandbox and transitioning into mainstream economic/regulated activities. Sandboxes are of limited value if the process for implementing long-term changes based on the lessons of the sandbox are long and complicated.

In addition to the practical aspects of testing new technologies and practices, sandboxes provide an important messaging function – they show that the jurisdiction is open to innovation. This is particularly important in relation to FinTech where jurisdictions are keen to accommodate and encourage FinTech firms in their FS systems, not least because FinTech firms are seen as being a significant contributor to long-term competitiveness.

Whilst the UK is recognised as being at the forefront of the use of sandboxes in financial services, in large part because of the Financial Conduct Authority's (**FCA**) pioneering work on its general regulatory sandbox, many other jurisdictions are now seeking to use sandboxes as a way of encouraging innovation and attracting innovators into their jurisdictions – for example, the EU has introduced its DLT Pilot Regime,[5] and firms will now need to consider which

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[4] The Financial Services and Markets Act 2023: reform of the financial services regulators' objectives (https://www.dentons.com/en/insights/newsletters/2023/july/13/the-financial-services-and-markets-act-2023/the-financial-services-and-markets-act-2023-reform-of-the-financial-services-regulators-objectives).

[5] For example, the US Consumer Financial Protection Bureau Office of Innovation's Disclosure Sandbox (https://www.consumerfinance.gov/about-us/blog/cfpb-office-innovation-proposes-disclosure-sandbox-companies-test-new-ways-inform-consumers/) and, in Italy, Decree No. 100/2021 issued by the Ministry of Economy and Finance, in compliance with Decree Law 34/2019, sets out the rules for a regulatory sandbox of FinTech activities under the supervision of the competent authorities. Indeed, under the Italian regime, the supervisory authorities aim to support the introduction of innovative models in the banking, financial and insurance industry, while guaranteeing adequate levels of consumer protection, competition and financial stability.

jurisdiction represents the best opportunity for testing their proposition with a view to long-term operationalisation.

FMI sandboxes: key provisions in the Act

The Act's provisions concerning FMI sandboxes came into force on 29 August 2023 and are set out in sections 13 to 17 of, and schedule 4 to, the Act. Pursuant to these provisions, HM Treasury has the power to establish one or more FMI sandboxes, with the aim of enabling participating firms to test and adopt new technologies and practices to the infrastructure services that underpin markets. Participating firms will benefit from temporary modifications to legislation where that legislation does not currently accommodate such activities or is ambiguous as to whether or not it can be accommodated.

FMI sandboxes are designed to remove regulatory and legislative barriers to adoption of new technologies and practices by temporarily modifying the application of these regulations and legislative provisions to the use of such new technologies and practices. Participants would still have to meet the high regulatory standards expected of existing FMIs and deliver the same regulatory outcomes. However, the sandboxes will give participants the opportunity to use new technologies or structures to provide FMI services in a controlled manner and with appropriate regulatory oversight. The lessons learned through the use of these sandboxes will enable HM Treasury and the regulators to understand if and how FMI regulation and relevant legislation needs to be amended permanently to accommodate the new technologies or structures.

Which entities can participate in the FMI sandboxes?

FMI entities that may participate in the sandboxes are defined in section 13(11) of the Act as:

- a recognised investment exchange that is not an overseas investment exchange;
- a recognised central securities depository;
- the operator of a multilateral trading facility;
- the operator of an organised trading facility; or
- such other persons as may be specified in regulations as eligible to participate in the FMI sandbox arrangements concerned – this is an important future-proofing provision, which will allow the use of sandboxes going forward if the structure and definition of FMI firms needs to change as innovations are made.

How will the FMI sandboxes operate?

Pursuant to section 13(4) of the Act, the legislation establishing an FMI sandbox must specify:

- the FMI activities to which the FMI sandbox arrangements relate;
- the description of FMI entities eligible to participate in the FMI sandbox arrangements; and
- the limited period for which the FMI sandbox arrangements apply.

The legislation will also specify the appropriate regulator for the purposes of regulating the sandbox, which can be either the Bank of England or the FCA, or both of them.

Each FMI sandbox will be established for a limited period, which can be determined by reference to a particular date, time frame or some other trigger in connection with its cessation. An FMI sandbox may be replaced by another FMI sandbox of the same or similar effect[6] or may have the effect at the same time as one or more other FMI sandboxes.[7]

HM Treasury has clarified that the powers it has been granted under the Act are intended to enable different types of FMI sandboxes to be established, so as to allow different technologies and practices to be tested by different entities.[8]

HM Treasury's reporting obligations

Pursuant to section 14 of the Act, where HM Treasury has implemented an FMI sandbox arrangement, it is obligated to prepare and publish a report on the FMI sandbox arrangement[9] and consult the appropriate regulator in preparing such report.[10]

In particular, the report must include the following:

[6] Section 13(9)(a) of the Act.
[7] Section 13(9)(b) of the Act.
[8] Paragraph 1.15 of the Consultation.
[9] Section 14(2) of the Act.
[10] Section 14(5) of the Act.

- a description of the FMI sandbox arrangements;
- an assessment of the efficiency or effectiveness of these arrangements; and
- whether, and if so how, HM Treasury proposes exercising its power to permanently implement the arrangements under section 15 of the Act.[11]

Once finalised, HM Treasury is obliged to lay a copy of the report before Parliament.[12]

HM Treasury's power to amend and enact regulation

A very important element of the FMI sandbox arrangements is that pursuant to section 15(1) of the Act, after testing the efficiency or effectiveness of the FMI sandbox arrangements implemented under an FMI sandbox, HM Treasury can determine that the arrangements of the same or similar effect should be made permanent. Sections 15(4) and (5) provide HM Treasury with far reaching "Henry VIII" powers to amend, repeal or revoke a relevant enactment or any provision of primary legislation. The use of these sometimes-contentious powers to facilitate the transition from sandboxes to mainstream operations feels like a significant new development in support of facilitating innovation and in trying to make the implementation process faster than the traditional policy delivery route of primary legislation.

However, Section 16(2) of the Act does clarify that, before any FMI sandbox arrangements are permanently implemented, HM Treasury must consult the appropriate regulators and such persons as HM Treasury consider appropriate. HM Treasury has further noted that these powers may be exercised before the end of a sandbox, to ensure there is no gap between that sandbox ending and the UK legislative framework being permanently modified (thereby avoiding a "cliff edge" for participating entities).[13]

Digital Securities Sandbox: Consultation and response

Quickly following Royal Assent for the Act, on 11 July 2023, HM Treasury launched a six-week consultation on the first FMI sandbox: the Digital Securities Sandbox (DSS) (the Consultation). The Consultation set out HM Treasury's proposed approach to delivering the DSS and sought feedback on some of the design features.

The Consultation describes sandboxes as a "safe space in which to experiment, learn and, in some circumstances, test new technology."[14] It notes that the DSS will "enable firms to set up and operate FMIs using innovative digital asset technology, performing the activities of a central securities depository and operating a trading venue, under a legislative and regulatory framework that has been temporarily modified to accommodate digital asset technology."[15]

The Consultation identifies the three main aims of the DSS to:

- test how existing UK legislation needs to change to accommodate digital asset technology and associated new practices, which would be achieved through temporary legislative modifications made within the DSS,
- enable the financial sector to test and adopt digital asset technology in FMIs, which would be undertaken in a phased approach; and
- test the use of FMI sandboxes as a policymaking concept, with the DSS being followed by further FMI sandboxes if the concept is successful.[16]

The Consultation noted the expectation that the DSS will last up to five years, with the possibility of HM Treasury extending this timeframe.[17] HM Treasury anticipated that this will give participants enough time to trial new technological approaches, using a framework of temporary modified legislation.[18] Interestingly, the consultation also noted that the government does not intend to impose a limit on how long HM Treasury can extend the DSS, highlighting the willingness to create an environment which fosters the development of new technologies and experimentation.

The Consultation ended on 22 August 2023 and on 22 November HM Treasury issued its response (the Response). The Response notes that "the fundamental design of the DSS was well received", in particular the fact that innovation was to be encouraged without compromising regulatory

[11] Section 14(4) of the Act.
[12] Section 14(7) of the Act.
[13] Paragraph 1.17 of the Consultation
[14] Paragraph 1.12 of the Consultation..
[15] Paragraph 1.18 of the Consultation.
[16] Paragraph 2.3 of the Consultation.
[17] Paragraph 2.69 of the Consultation.
[18] Paragraph 2.70 of the Consultation.

outcomes.[19] The Response also notes that, after considering the responses to the consultation questions, it "intends largely to retain the approach originally outlined in the consultation".[20] One interesting observation in the Response is that "the FMI Sandbox powers in FSMA 2023 could potentially be a helpful mechanism in future for assessing appropriate regulatory innovation in relation to cryptoassets".

The Response sets out the following key design features:

- All relevant assets that are currently in scope of the regulatory perimeter, aside from derivatives, are capable of being included in the DSS. No derivatives-based legislation is being amended under the DSS regulation, but this should not be a bar to the creation of derivatives that refer to assets within the DSS.[21]
- The DSS will cover notary, settlement and maintenance activities as well as operating a trading venue and will be flexible enough to allow an entrant to operate as both a digital securities depository and a trading venue. It will be broad enough to accommodate different types of business structure/arrangements of different activities. The Bank of England should be able to amend its rules in a way that will accommodate different proposals around the functions of a DSS.[22]
- Digital securities should be treated the same as non-digital securities, and an entity that operates within the DSS can carry out regulated activities outside the DSS, so long as it enjoys the relevant permissions.[23]
- There are no quantitative limits in legislation, and questions of volumes will be left to the regulators to address in guidance and rules.
- An entrant to the DSS will need to be established in the UK and supervised by UK regulators, but there are no limitations on foreign firms interacting with a DSS sandbox entrant.[24]
- As part of the application process, the sandbox entrant will be expected to set out in detail what regulatory barriers prevent them from innovating without using the DSS.[25]
- Firms that safeguard and administer securities in the DSS will need to comply with CASS.[26]
- The expectation is that the DSS will operate for five years.
- There is no hardwired requirement mandating the use of English and Welsh law, subject to the requirement above regarding establishment in the UK and being assessed against UK regulatory requirements.[27]

The FCA's General Regulatory Sandbox

Since 2016, the FCA has operated the General Regulatory Sandbox (GRS), which has been a resounding success and is widely regarded as being at the forefront of international efforts to provide a testbed for innovative ideas. According to the latest statistics available by the FCA:

- since the GRS was launched it has received more than 600 applications and a total of 173 firms have been accepted to test;[28]
- 92% of firms that have used the GRS go on to become successfully authorised; and
- 80% of firms that were tested in the GRS are still in operation.[29]

It is worth noting that the GRS is a non-statutory scheme and is limited to the extent that it cannot modify or disapply any legislative provisions. It relies on the FCA amending its rules to the extent permitted by the pursuit of its objectives.

The GRS allows businesses to pilot the commercial and regulatory feasibility of their innovative products with real consumers in a controlled, supervised space. It is open to applications from all sectors of the financial services market and gives firms the opportunity to:

- test products and services in a controlled environment;
- explore whether a business model is attractive to consumers, or how a particular technology works in the market;

[19] Paragraph 1.3 of the Response.
[20] Paragraph 2.3 of the Response.
[21] Paragraphs 3.6 and 3.7 of the Response.
[22] Paragraphs 3.21 and 3.22 of the Response.
[23] Paragraph 3.36 of the Response.
[24] Paragraph 3.50 of the Response.
[25] Paragraph 3.61 of the Response.
[26] Paragraph 4.15 of the Response.
[27] Paragraph 5.11 of the Response
[28] Regulatory Sandbox accepted firms: https://www.fca.org.uk/firms/innovation/regulatory-sandbox/accepted-firms
[29] Innovation & Regulation: partners in the success of Financial Services https://www.fca.org.uk/news/speeches/innovation-regulation-partners-success-financial-services#revisions

- reduce time to market at potentially lower costs; and
- identify consumer protection safeguards that can be built into new products and services.[30]

Who can apply and when?

The FCA notes that the GRS is open for application for:

- authorised firms;
- unauthorised firms that require authorisation; or
- technology businesses that are looking to deliver innovation in the UK financial services market to UK consumers or firms.[31]

In August 2021, the GRS moved from a cohort, applications window approach to an always open model, whereby firms could submit their applications throughout the year and access the FCA's testing services at the point in their development cycle that works best for them.

Distinctions with FMI sandboxes under the Act

There are a couple of key distinctions between the GRS and the FMI sandboxes. In particular:

- **Scope:** Whilst the GRS is open to all firms, due to the complexity of certain services and associated regulatory requirements, the GRS does not facilitate tests for operating a multilateral or organised trading facility. On the other hand, the FMI sandbox is more suitable for such activities. HM Treasury noted in the Consultation that, whilst the GRS has been up and running for several years, the DSS differs in that it is specifically targeted at FMIs.[32]
- **Power to modify legislation permanently:** As stated by HM Treasury in the Consultation, the FMI sandboxes will allow UK legislation to be modified and permanently changed, which is not the case under the GRS.[33]

EU DLT pilot regime

There are a number of points of similarity between the DLT Pilot Regime and the FMI sandbox arrangements but, as discussed below, there are also several dissimilarities which are worth noting and will be important to firms when they consider where they might want to establish their business.

Objectives of the DLT Pilot Regime

Similar to the FMI sandboxes, the DLT Pilot Regime provides a sandbox environment allowing for regulatory flexibility for authorised and unauthorised entities to seek permission to test solutions using DLTs. In this sandbox environment, DLT market infrastructures will be temporarily exempt from some of the specific requirements of the EU financial services legislation and can undergo testing whilst maintaining investor protection, market integrity, financial stability and transparency.[34]

The European Commission is anticipating that the experience gained with the DLT Pilot Regime will identify practical proposals for a regulatory framework so that it can make adjustments to EU financial services legislation in relation to the "issuance, safekeeping and asset servicing, trading and settlement of DLT financial instruments."[35]

Reporting obligations

Like FMI sandboxes under the Act, the DLT Pilot Regime is subject to a number of reporting obligations. Operators of DLT market infrastructures should submit regular reports to their competent authorities. The Regulation requires the European Securities and Markets Authority (**ESMA**) to organise discussions on those reports to enable all competent authorities across the EU to gain experience from the impact of DLTs and to understand whether there are any amendments to EU financial services legislation that could be necessary to allow for the use of DLTs on a greater scale. ESMA shall also publish annual reports to provide market participants with a better understanding of the functioning and development of the markets and to provide clarification on the application of the DLT Pilot Regime.[36] The first of these reports is due on 24 March 2024.

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[30] FCA Regulatory Sandbox: https://www.fca.org.uk/firms/innovation/regulatory-sandbox#section-regulatory-sandbox-tests

[31] FCA Regulatory Sandbox: https://www.fca.org.uk/firms/innovation/regulatory-sandbox#section-regulatory-sandbox-tests

[32] Paragraph 2.3 of the Consultation.

[33] Paragraph 2.3 of the Consultation.

[34] Paragraph 6 of the European Commission's Regulation (EU) 2022/858.

[35] Paragraph 6 of the European Commission's Regulation (EU) 2022/858.

[36] Paragraph 52 of the European Commission's Regulation (EU) 2022/858.

Separately, three years from the Date of Implementation, ESMA must present a report to the European Commission which should assess:

- the cost and benefits of extending the DLT Pilot Regime for a further period;
- whether to extend the DLT Pilot Regime to other types of financial instrument; and
- whether the DLT Pilot Regime should be made permanent, by proposing appropriate amendments to EU financial services legislation or terminating the DLT Pilot Regime.[37]

Access to the DLT Pilot Regime

Access to the DLT Pilot Regime is not limited to incumbent authorised financial institutions but is also open to new entrants.

An entity which is not authorised can apply for authorisation under Regulation (EU) No. 909/2014 and simultaneously seek specific permissions under the Regulation. Such entities will only be able to operate DLT market infrastructures in accordance with the Regulation and their authorisation will be revoked once their specific permission expires, unless the entities submit a complete request for authorisation[38]. There are three types of DLT market infrastructures that may operate under the DLT Pilot Regime:

- DLT multilateral trading facilities;
- DLT settlement system; and
- DLT trading and settlement system.[39]

Distinctions with FMI sandboxes under the Act

Whilst the DLT Pilot Regime and the FMI sandboxes have similar objectives, there are several key distinctions:

- **Permanence:** The DLT Pilot Regime itself is not a mechanism to implement permanent changes to EU financial services legislation. The exemptions granted under the Regulation are temporary in nature and, whilst the ESMA can make recommendations to the European Commission to make a DLT Pilot Regime permanent by proposing appropriate amendments to EU financial services legislation, the Regulation does not provide a clear procedure for this.[40] With the FMI sandboxes under the Act, the powers granted to HM Treasury include those, by way of statutory instrument, to amend, repeal or revoke an enactment or any provisions of primary legislation permanently, and to accommodate the new technologies or structures, which should make it easier to turn the sandbox arrangement into a permanent new regulatory regime.
- **Certainty:** It is intended that the specific permissions and exemptions under the Regulation will be granted for a period of six years from the date on which the specific permission was granted.[41] As mentioned above, given that there is no guarantee that permanent changes will be made to the EU financial services legislation, there is uncertainty as to what will happen to the participants of the DLT Pilot Regime at its conclusion. Whilst the Consultation indicates that the DSS will last up to five years, HM Treasury has the power to extend this timeframe and the Consultation specifically notes that the government does not intend to impose a limit on how long HM Treasury can extend the DSS.
- **Accessibility:** As outlined above, participation in the DLT Pilot Regime is limited to multilateral trading facilities, settlement systems, and trading and settlement systems. This is notably narrower in scope compared to the FMI sandboxes which also include recognised investment exchanges, operators of organised trading facilities and such other persons eligible to participate in the FMI sandbox arrangements.

Dealing with an evolutionary concept in a revolutionary way

As seen with the FCA's GRS and the EU's DLT Pilot Regime, whilst the adoption of regulatory sandboxes is not in itself a novel idea, the FMI sandboxes attempt to take the concept to another level. The provisions in the Act go further than both the GRS and the DLT Pilot Regime, permitting a broader range of participants and allowing a broader range of legislation to be disapplied or modified.

The most "revolutionary" element of the FMI sandbox provisions under the Act is how the use of Henry VIII

[37] Paragraph 53 of the European Commission's Regulation (EU) 2022/858.
[38] Paragraph 11 of the European Commission's Regulation (EU) 2022/858.
[39] Paragraph 12 of the European Commission's Regulation (EU) 2022/858.
[40] Paragraph 5 of the European Commission's Regulation (EU) 2022/858.
[41] Paragraph 48 of the European Commission's Regulation (EU) 2022/858.

powers has evolved to be a key forward-looking delivery element allowing HM Treasury to permanently amend existing legislation and enact new legislation to make the provisions being tested permanent. Whilst it is too early to predict whether the FMI sandboxes and the DSS will be a success, as noted in this article, HM Treasury has been granted considerable amounts of flexibility to learn from the process and adapt its strategy. An interesting question is whether, and how, the FMI sandbox model could evolve to be able to test emerging AI-based technologies.

What is clear is that the FMI sandbox arrangements are designed to secure the widest possible flexibility in using sandboxes. They exhibit many of the characteristics of successful sandboxes and are designed to build on these features. These provisions should ensure that the UK remains at the forefront of developing sandboxes for use by FMI firms. It is an exciting opportunity for all FMI firms and one we will be happy to discuss.