Bank of England

Appendix A: Draft guidance on the Operations of the Digital Securities Sandbox

April 2024

Introduction

This document provides guidance for firms participating in the Digital Securities Sandbox (DSS), including both firms which enter the DSS to become a sandbox entrant and those which interact with the FMIs they operate but do not become sandbox entrants themselves. This document reflects the views of the Bank of England (the Bank) and the Financial Conduct Authority (FCA) (together the 'regulators') in outlining the operational policy of the DSS.

Firms should have regard to this document when applying to become, or interacting with, a sandbox entrant. Firms should note that this document is non-binding in nature and that it may be amended from time-to-time. This guidance document should be read in conjunction with the requirements under The Financial Services and Markets Act 2023 (Digital Securities Sandbox) Regulations 2023 (DSS Regulations) and the Bank's DSS rules instrument.

Note: a reference to a Digital Securities Depository (DSD) should be read to include any sandbox entrant which has permissions from the Bank to undertake the activities of a central securities depository (CSD) in the DSS. This includes firms that combine the activities of a CSD while also operating a trading venue, as so called 'hybrid entities'.

Structure of the DSS

The DSS is composed of different stages of permitted activity, reflecting the Bank's approach to managing financial stability risks. There will be a series of gates for sandbox entrants to move through to progress from one stage to the next, with the amount of permitted activity increasing with each stage. This glidepath will enable sandbox entrants eventually to graduate from the DSS to a possible new settlement regime if they meet the relevant standards.

The DSS is structured in five main stages and four 'gates' between those stages (see Table A for a summary).

The stages represent the different stages which a firm will pass through from first applying to become a sandbox entrant to operating in a possible new permanent regime outside of it.

- **Stage 1:** Initial application.
- **Stage 2:** Testing, applying for authorisation to operate a trading venue, and to be a DSD.[1]
- **Stage 3:** Go live.
- **Stage 4:** Scaling stage.
- **Stage 5:** Operation outside the DSS under a possible new permanent regime.

Although each firm will pass through the same stages, the applicable processes and requirements for a firm in each stage in the DSS will depend on its business model.

The activities in scope of the DSS allow for a firm to: (1) perform notary, maintenance and settlement activities as a DSD; (2) operate a trading venue; or (3) combine both into a hybrid entity.

As the framework governing the operation of a trading venue is not being modified for the purposes of the DSS, the FCA considers it unlikely that a firm only intending to operate a standalone trading venue would be accepted into the DSS as a sandbox entrant. This is explained further under 'Stage 1 and Gate 1: Application to become a sandbox entrant'.

Firms which operate a business model in Category 1 or Category 3 above will have the limits on their activity as a DSD increased as they progress through each stage subject to meeting the higher regulatory standards expected of DSDs at each gate, which reflect their risks to financial stability. The aim of these stages is to create a glidepath for firms seeking to operate as a DSD within the DSS, and potentially in future under any permanent new regime. This glidepath includes entry into the DSS as a DSD, operation within limits, scaling up operations as the DSD matures, and then, depending on whether and to what extent the modified framework is converted into a new permanent regime, proceeding to operate outside the DSS as a DSD.

To progress through the stages of the DSS, a firm will need to pass through a series of gates at which they will be required to demonstrate their ability to meet higher regulatory standards to supervisors. Each gate has different requirements that are a pre-requisite to moving onto the next stage. These are:

- **Gate 1:** Application to become a sandbox entrant.
- **Gate 2:** Approval to go live and begin operating in the DSS.
- **Gate 3:** Application to increase limits and scale up activity (DSD only).
- **Gate 4:** Approval for operating outside DSS under a possible new permanent regime.

[1] DSD refers to a sandbox entrant which is undertaking activities of a CSD in the DSS, either as a stand along entity or alongside operations of a trading venue or any other regulated activity.

The extent of a firm's approval to participate in the DSS will be outlined in its Sandbox Approval Notice (SAN) (see section on the Sandbox Approval Notice).

Table A: Stages and gates of the DSS

Stage	Purpose	Legal designation	Criteria/ applicable rules	Limits	Fees
Stage 1: Initial application	Identify firms eligible to join the sandbox.	None.	Eligibility criteria for Gate 1 (assessed via application form): • UK based entity (not branches). • Activities and assets in scope of the DSS. • There are regulatory barriers preventing activity outside the DSS.	Zero.	£10,000 paid on application to the Bank if intending to do DSD activities.
Gate 1					
Stage 2: Testing	No live business. Testing stage and engagement with regulators to operate a trading venue or to be a DSD.	Sandbox entrant. Sandbox Approval Notice (SAN) issued confirming status.	Continue to meet eligibility criteria.	Zero.	N/A

Gate 2					
Stage 3: Go live	Ability to carry out live business under initial limits.	DSD/ authorised operator of trading venue. SAN updated covering permissions and any conditions.	Entry into Stage 3 requires meeting Gate 2 Bank rules for DSDs (assessed via a Gate 2 application form which will be provided by the Bank). FCA authorisation requirements for operators of trading venues.	Initial limits for individual firms: • Gilts: £600 million. • Corporate bonds: £900 million. • Asset-backed securities: £600 million. • Money market instruments (eg, CP and CD): £300 million.	£40,000 paid following successful DSD designation to the Bank. FCA regime remains unchanged. Application fees for firms wanting to operate a trading venue: • Variation of Permission (VoP) fee of £25,000. • Authorisation fee of £50,000. £85,000 annual fee charged on cost-recovery basis and shared equally across DSDs. FCA existing fee regime continues to apply in relation to regular annual fees for operators of trading venues.

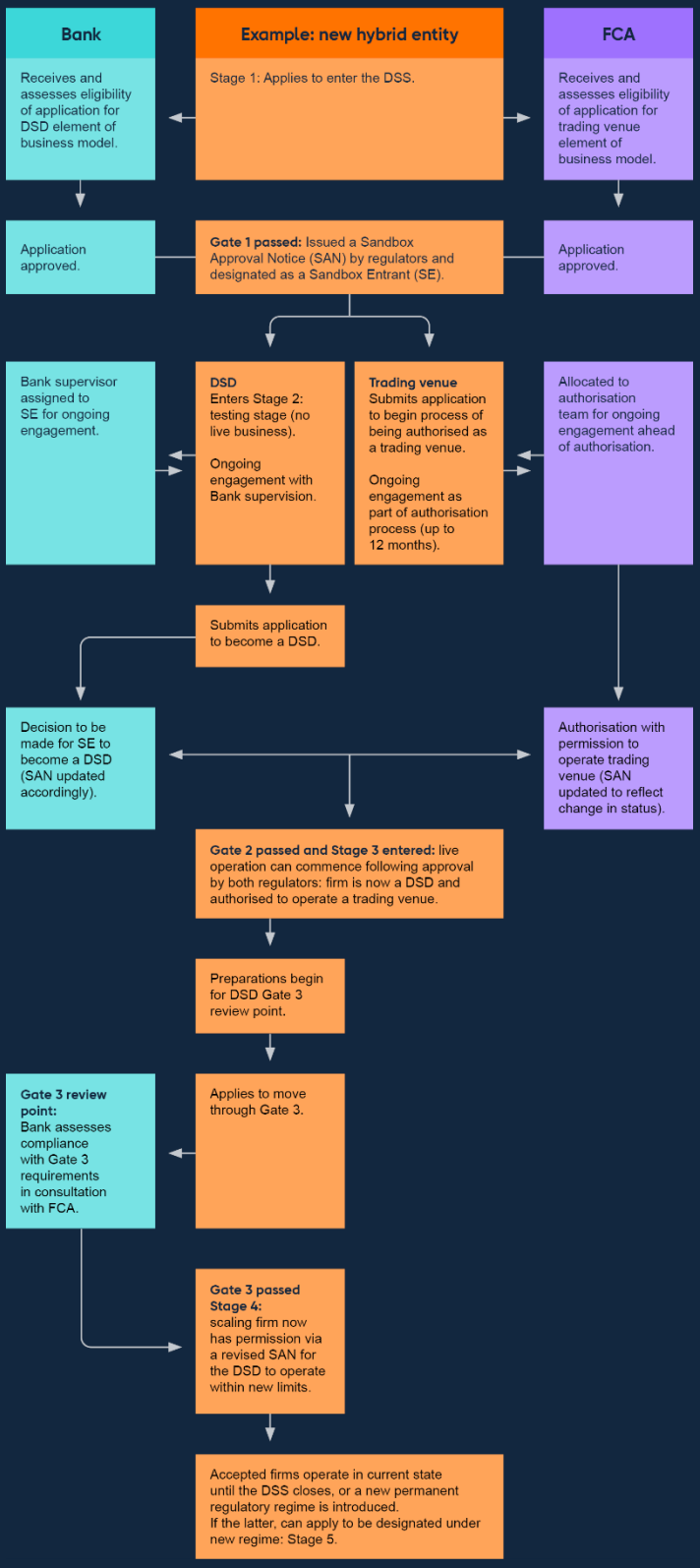
Gate 3					
Stage 4: Scaling	Scaling the business, with a glidepath to full authorisation for DSDs.	DSD/authorised operator of trading venue. SAN updated for any changes in permissions and/or conditions.	Entry into Stage 4 will require meeting Gate 3 Bank rules for DSDs. FCA requirements for operators of trading venues apply.	Firm-specific limits will be increased without breaching overall limits for the DSS.	Bank will consider approach to fees in Stage 4 in due course. FCA existing fee regime continues to apply.
Gate 4					
Stage 5: Operating outside DSS under new regime	Full authorisation to operate outside the DSS for DSDs.	CSD/new category of FMI.	Revised CSD regime reflecting sandbox learnings or alternative regime. Bank end-state rules indicate what the revised regime could look like to provide a glidepath.	Unlimited.	Revised Bank fee regime for CSDs/new types of legal entities.

The DSS journey for a hybrid entity

As set out above, sandbox entrants will be able to combine the activities of a DSD and the operation of a trading venue into one hybrid entity. Figure 1 below gives a stylised example of what a hybrid entity should expect as it progresses from its application to become a sandbox entrant at Gate 1 to obtaining authorisation to operate a trading venue and becoming a DSD at Gate 2.

A firm wishing to operate as a 'hybrid entity' must complete both the Bank and the FCA's processes to operate a DSD and trading venue respectively. Firms should consider these timings when making plans to progress through the DSS and discuss likely timelines with the regulators.

Figure 1: Pathway from entry to exit for a hybrid entity in the DSS



Sandbox Approval Notice (SAN)

At the point a firm passes Gate 1 and becomes a sandbox entrant, a SAN will be issued to them by the appropriate regulator. The SAN will act as a 'visa' for a sandbox entrant and outline the extent of the firm's approval to participate in the DSS, for example whether a firm can operate as a DSD-only or 'hybrid entity'. At this point, a firm will know what business model it can undertake in the DSS provided that it obtains the necessary permissions from the regulators at Gate 2.

On passing Gate 2, the process for the updating of the sandbox entrant's SAN depends on its business model.

A sandbox entrant seeking to undertake DSD activities will have its SAN updated by the Bank once it has passed Gate 2 to reflect the fact it has been given permission to undertake the activities of a CSD (ie, notary, settlement, maintenance).

A sandbox entrant seeking to operate a trading venue in the DSS will have its SAN updated once it holds the necessary permissions to do so. In practice, this can only happen at Gate 2 – the point at which the Bank gives permission to undertake DSD activities. The sandbox entrant will need to complete the FCA's authorisation process or have engaged with its FCA supervisors to determine that no Variation of Permission (VoP) or other permissions are required. It is important to note that from an FCA perspective the SAN will not grant the firm any permission to undertake regulated activity and therefore those wishing to understand the extent of a firm's permission to undertake regulated activity other than operating a DSD should continue to consult the Financial Services Register.

At a minimum, the SAN of a firm will include the following information:

- The FMI activities that can be undertaken by a sandbox entrant, specifically: operating a trading venue and/or undertaking one or a combination of the activities of a CSD (ie, notary, maintenance and settlement).
- Any ancillary FMI activities which the sandbox entrant is given approval to undertake under the modified framework.
- Any further approvals, modifications or variations of an approval.

Where relevant, the SAN of a firm may also contain any restrictions in place, including limits[2] allocated to the sandbox entrant.

[2] Limits will be in place to ensure that performing notary, settlement and maintenance functions in relation to digital securities, is consistent with regulatory objectives, particularly in relation to financial stability. Please refer to the relevant section of this document.

The regulators will publish the SANs of sandbox entrants on their respective websites. A sandbox entrant's permission to operate a trading venue will continue to be displayed on the Financial Services Register. The DSS Regulations also require a sandbox entrant to state publicly that it is approved to participate in the DSS.

Approach to updating or amending SAN

Where a sandbox entrant wishes to expand the scope of its DSS activities, it will need to request an update to its SAN and may also require separate engagement with the regulators to obtain the necessary permissions for its new activities. For example, a firm operating a hybrid entity which wished to expand its business model to include an additional class of financial instrument which is not approved in its SAN would need to both ensure its SAN was adequately updated and that its Part 4A permission covered that activity. That is because, as above, from an FCA perspective the SAN does not grant permission to undertake regulated activity.

In the case of a firm operating only as a DSD, the Bank is responsible for approving changes to the SAN but will engage with the FCA where appropriate.

The process by which the regulators may choose to modify a SAN at their own initiative is addressed in the 'Approach to supervision and enforcement in the DSS' section.

Although each regulator is responsible for the activity for which they are the appropriate regulator, the regulators will share the outcomes of these decisions with one another to ensure consistency in their approach to sandbox entrants in line with the agreed Memorandum of Understanding. In the case of a 'hybrid entity', the regulators will work together to update or amend the SAN.

The stages of the DSS

This section provides additional guidance on each stage of the DSS.

Stage 1 and Gate 1: Application to become a sandbox entrant

A firm that wishes to enter the DSS must apply to become a sandbox entrant via a joint application form accessible through both the Bank or the FCA's websites.

DSS eligibility

As specified by Regulation 3(2) of the DSS Regulations, the following types of FMI entity, where they are established in the UK, are eligible to apply to become a sandbox entrant:

1. A recognised investment exchange that is not an overseas investment exchange.
2. A recognised CSD.
3. A person who has a Part 4A permission[3] to operate a multilateral trading facility and is an investment firm.[4]
4. A person who has a Part 4A permission to operating an organised trading facility and is an investment firm.

In addition to the FMI entities listed above, under Regulation 3(3) of the DSS Regulations the regulators have determined that other persons established in the UK are also eligible to apply to become a sandbox entrant. However, those persons must obtain the required authorisation from the FCA and/or permission the Bank before passing Gate 2 and undertaking any regulated activity.

The DSS is open to existing financial institutions or new entrants to this market. The regulators are open to applications from firms of all sizes and at all stages of development.

However, they must be legal persons established in the UK and obtain the relevant authorisation or permissions before undertaking any regulated activity. If an applicant is not a legal person established in the UK, their application will be rejected. Consequently, branches of firms that are not established in the UK are not eligible to apply to become a sandbox entrant. However, the DSS Regulations do not introduce any limitation on the extent to which overseas firms can engage with a sandbox entrant, provided they comply with the existing regulatory requirements. A consortium of firms would need to establish a single UK entity.

Type of activities and financial instruments in the DSS

The applicant must also intend to operate a trading venue and/or undertake notary, settlement or maintenance activities in the DSS.[5]

The digital securities in scope of the DSS are all financial instrument types listed in the Regulated Activities Order (RAO), with the exception of derivatives.[6] This includes transferable securities (eg, equities and bonds), money market instruments, units in collective investment undertakings (fund units), and emissions allowances. Other assets not covered by the RAO – including unbacked cryptoassets such as Bitcoin – are not in scope of the DSS.

[3] Part 4A permission has the meaning given in section 55A(5) of FSMA 2000.
[4] Investment firm has the meaning given in section 424A(1) of FSMA 2000.
[5] The sandbox entrant will be the legal entity named on a successful application: members of a DSD or trading venue may participate in the FMI sandbox arrangements in connection with the DSS activities of a sandbox entrant without needing to make an application to the regulators.
[6] Namely, instruments specified in any of paragraphs 1 to 3 and 11 of Part 1 of schedule 2 of the RAO. However, there is no restriction on the creation of derivatives contracts that refer to assets held at a DSD and settle elsewhere.

As such, the financial instruments which the applicant proposes to admit to its FMI in the DSS must be those permitted by the DSS Regulations.

Additional information to be assessed by the regulators

Alongside considering whether an applicant is eligible to apply to the Sandbox, an applicant's application will also be assessed by the regulators against the following information accompanying the application:

- **Removing regulatory barriers:** the applicant must demonstrate that there are regulatory or legal barriers or obstacles to the use of developing technology such as DLT when undertaking the activities in scope of the DSS. The regulators' threshold will be whether these barriers or obstacles prevent the firm from operating their optimal business model outside of the DSS. This criterion therefore excludes applicants who are seeking to use the DSS to launch FMIs that could just as effectively operate within the unmodified framework. For example, a firm would need to demonstrate their proposed settlement system is likely to be incompatible with the unmodified requirement set out in Article 3 of the CSDR for transferable securities to be recorded in book-entry form.

  As stated earlier in this document, given that no requirements relating to the operation of a trading venue have been modified, the FCA considers it unlikely a firm only wishing to operate a standalone trading venue and settle transactions at a traditional CSD or a DSD operated by another sandbox entrant would be accepted into the DSS as a sandbox entrant. In the event that a firm disagrees with this assessment, the FCA would expect the firm to clearly set out in its application what modifications it would benefit from by being a sandbox entrant and this will be considered on a case-by-case basis.

- **Supervision and enforcement record:** the regulators will consider the supervisory record of applicants and any past enforcement action taken against them. If the regulators become aware of any adverse information, this information will be taken into account and can result in the rejection of the application.

If an application is unsuccessful, applicants can make a new application at a later date.

Before submitting a Gate 1 application, firms wishing to operate a trading venue in the DSS, but which do not have permission to do so, should seek a pre-application meeting with the FCA. This is in line with the current approach for firms seeking authorisation to operate a trading venue.

Stage 2: Testing and preparations to apply for authorisation to operate a trading venue or becoming a DSD (Gate 2)

Having passed Gate 1, in **Stage 2**, firms are approved as sandbox entrants but do not have any new permissions to undertake FMI activities. Sandbox entrants will be in a 'testing stage' where they are not yet given permission to conduct live DSS business. The purpose of this stage is to ensure firms can begin testing their systems, engage with supervisors, and prepare to meet the expected regulatory and supervisory outcomes at Gate 2.

Sandbox entrants that want to undertake notary, maintenance and/or settlement activities as a DSD need to complete a separate application form for the Bank (ie, the **Gate 2 Application form**) to demonstrate their ability to meet the Bank's 'Gate 2' requirements. If successful, the sandbox entrant will become a DSD and move into Stage 3 (please refer to the relevant sections below for additional detail on the application process).

Similarly, the FCA requires firms wishing to operate a trading venue to demonstrate that they hold the necessary permissions to meet the Gate 2 requirements and move into Stage 3. Depending on their existing status, this may require:

1. Applying for authorisation under FSMA to operate a trading venue. The application process for a Part 4A permission remains unchanged.
2. For authorised persons or exempt persons, engaging with their FCA supervisors, who in some circumstances may determine that such persons are already able to undertake their desired activity in the DSS. However, this will be considered on a case-by-case basis and in some cases a VoP or further permissions may be required.

The Bank's calibration of Gate 2 requirements for DSDs accounts for the state of these new firms using relatively untested technology in the operation of FMI functions under strict limits. Recognising this, the Bank's Gate 2 requirements for DSDs are designed to ensure firms can demonstrate a minimum level of preparedness to undertake live activity and to be able to wind down in an orderly way. Table B provides a high-level summary of the minimum standards in place at Gate 2, as well as a summary of the requirements that will not be implemented at that stage.

These standards are expressed formally and in full in the Gate 2 requirements (Appendix B). The Bank is also planning to make additional rules for Gate 3 at a later date.

For the Gate 2 application to be a DSD, the Bank's supervisory assessment will focus, among others, on the following areas:

- the wind down plan — in particular, ensuring there are sufficient resources and accountable persons to execute it;
- limits — making sure there are processes in place to monitor compliance with limits as well as processes to report and respond to breaches; and
- operational risk — ensuring firms can identify and minimise sources of operational risk, both internal and external, and identify aspects of their business most sensitive to operational disruptions.

Sandbox entrants seeking to be a DSD are expected to meet the standards set at Gate 2 in full and must provide evidence to that effect to Bank supervisors.

The Bank will assess DSD applications against the Gate 2 requirements. Following engagement with the Bank, one of three outcomes will result:

1. **Accepted**: if a sandbox entrant clearly demonstrates they meet Gate 2 requirements, they become a DSD and receive an updated SAN detailing their approval to undertake CSD activities and the appropriate limits that apply to them initially.
2. **Rejected**: where a sandbox entrant is not able to demonstrate compliance with Gate 2 requirements, their application is rejected and reasons are provided for the rejection, such that they may be able to apply again to show how they comply with the requirements subject to a grace period.
3. **Further information required to make an assessment:** where a sandbox entrant is able to demonstrate compliance with most Gate 2 requirements, but the Bank needs further information to allow the firm to become a DSD.

Upon becoming a DSD, sandbox entrants can undertake live activities in line with any approvals (or restrictions) as set out in their SAN and subject to any individual limits allocated to them.

A hybrid entity will require approval from both the FCA and the Bank (according to the processes described above) to commence live activity.

Table B: Examples of Bank requirements to be applied to firms at Gate 2 and end-state (non-exhaustive)		
Area	**Requirements applying to firms at Gate 2**	**End-state requirements not applied at Gate 2 [(a)]**
General provisions	To have robust governance arrangements, including a clear organisational structure with well-defined, transparent, and consistent lines of responsibility, effective processes to identify, manage, monitor and report risks. To maintain and operate effective written organisational and administrative arrangements to identify and manage any potential conflicts of interest.	To have adequate remuneration policies. To make governance arrangements and rules governing activities available to the public. To be subject to regular and independent audits, the results of which to be communicated to management body and made available to the Bank.
Senior management, management body and shareholders	Senior management of sufficiently good repute and experience to ensure sound and prudent management of the DSD. To clearly determine the role and responsibilities of the management body in accordance with UK law. To make minutes of meetings of management body available to the Bank on request.	To ensure at least one third of management body, but no less than two of its members are independent. Remuneration of independent and management body not to be linked to business performance of DSD. Target and policies for the representation of underrepresented gender of management body to be made public.

Capital requirements – Wind-down plan	To hold the higher of: (a) the amount of resources needed to cover all going concern risks and the cost of wind down or (b) resources equivalent to at least nine months' operating expenses for their DSS activities at all times, in order to cover the risks from these activities. Firms can use own methodology for calculating amount of capital needed to cover (a).	To meet Article 47 requirements in full, including meeting the associated Regulatory Technical Standards that set out in detail the approach to calculating the capital requirement.
Limits	To ensure the DSD remains within the limits and conditions on its FMI activities as specified in SAN. To report any breach of limits to the Bank as soon as is practicable after becoming aware of the breach.	Not applicable as limits only apply within the DSS.
Operational risks	To identify sources of operational risk, both internal and external, and minimise their impact through the deployment of appropriate controls including for all the securities settlement systems it operates. To maintain sufficiently robust IT and cyber resilience frameworks as well as incident reporting mechanisms to the Bank. To maintain business continuity policy and disaster recovery plan to ensure preservation of services, timely recovery of operations and	Business continuity policy and disaster recovery plan to include the setting-up of a second processing site with sufficient resources, capabilities and functionalities and appropriate staffing arrangements. To plan and carry out a programme of tests of the business continuity policy and disaster recovery plan arrangements.

	fulfilment of obligations in case of operational disruption, including disruption from use of or forms of recording of securities using DLT.	
Settlement finality	To ensure a securities settlement system operated by DSD offers adequate protection to participants. To ensure that each securities settlement system operated by DSD defines the moments of entry and of irrevocability of transfer orders in that securities settlement system.	The securities settlement systems operated by DSD to be designated under Regulation 4 of the Financial Markets and Insolvency (Settlement Finality) Regulations 1999.

(a) However, a firm must continue to comply with any equivalent or similar requirements to which it is subject under other regimes.

Sandbox entrants may choose to request exemptions from Bank rules (eg, if they identify technical regulatory barriers for their business model). However, firms should be aware that the Bank expects this to happen on an exceptional basis, and subject to its supervisors being convinced that idiosyncratic features of their business model prevent entities from meeting expected regulatory outcomes at Gate 2.

Stage 3: Operating within Go live limits

For key Sterling asset classes, DSDs will be allocated a ‘Go live’ limit (Table C). The Go live limit is a small portion of the overall capacity of the DSS. These Go live limits will be uniform across DSDs to ensure fairness. Table C sets out the initial limits for a DSD per fixed-income asset class when approved to undertake live activity. As equity capacity is calculated on a per-stock basis (for FTSE 350 companies), Go live limits on those stocks will need to be calibrated to the specific application, and therefore will be discussed when sandbox entrants apply to operate in that asset class.

Table C: Go live limit at Stage 3 for each individual firm for key sterling asset classes	
Asset	**Go live limit per firm**
Gilts	£600 million
Corporate bonds	£900 million
Asset-backed securities	£600 million
Short-term money market instruments, such as Commercial Paper and Certificates of Deposit (CP/CD)	£300 million (combined)
Other assets	A Go live limit may be imposed. Firms should discuss with the Bank.

The initial limits have been set to ensure all sandbox entrants have equal access and first movers do not crowd out later entrants to the DSS. This is consistent with the regulators' objective of facilitating innovation to promote a safe, sustainable and efficient financial system by accommodating a variety and of new and innovative business models. DSDs that wish to facilitate issuances above these limits must meet Gate 3 requirements at the review points (see section on Gate 3 review points). When a financial instrument matures, the DSD can reuse that limit for other issuances.

DSDs that wish to undertake activity in asset classes other than those specified in Table C above must approach the Bank with their proposed activity. The Bank will consider whether and what limits are prudent to set on the firm's activity.

The Bank will review its approach to limits within three years of the launch of the DSS to ensure the approach is consistent with the level of participation and activity in the DSS. This review will apply to all areas of our approach to limits.

No limits are expected to apply to the activity of trading venues including when operating a hybrid entity. As above, the FCA does not expect a trading venue-only model to be accepted into the DSS as a sandbox entrant.

Gate 3: Review Points and increased limits (DSD only)

After a certain period of time, the Bank will open a window for DSDs to apply to enter Stage 4 (the scaling stage). In this stage, DSDs which intend to apply for authorisation under a possible new permanent regime at the end of the DSS can apply for an uplift in limits allocated to them in any asset class for which limits have been set. This window will be the first 'review point' of the DSS and will likely open 15-18 months after the DSS opens for applications. These review points are created to allocate capacity fairly in the DSS. DSDs that miss this review point will need to wait for the second review point (see Figure 2).

To apply for the increased limits, DSDs should demonstrate that they meet the Gate 3 rules, which will be a higher set of risk management and governance standards than those imposed at Gate 2. At this stage, some of the 'end-state' rules that are not applied in Stage 3 will be applied (however, note that Gate 3 rules will remain proportionate as DSDs are still expected to be operating under limits). The details of these Gate 3 rules will be laid out ahead of the window by Bank supervisors and applied via a modification to the SAN.

DSDs applying for this window will receive one of three outcomes:

1. **Accepted**: DSDs that meet the Gate 3 rules will receive an amended SAN with higher limits.
2. **Accepted subject to improvements:** DSDs that narrowly miss out may receive a conditional approval which would allow them access to higher limits subject to targeted improvements to meet regulatory expectations in, for example, their risk management and/or governance standards.
3. **Rejected**: DSDs who clearly do not meet the Gate 3 requirements and are unlikely to meet them soon will be rejected and must operate within their existing limits until the next review point.

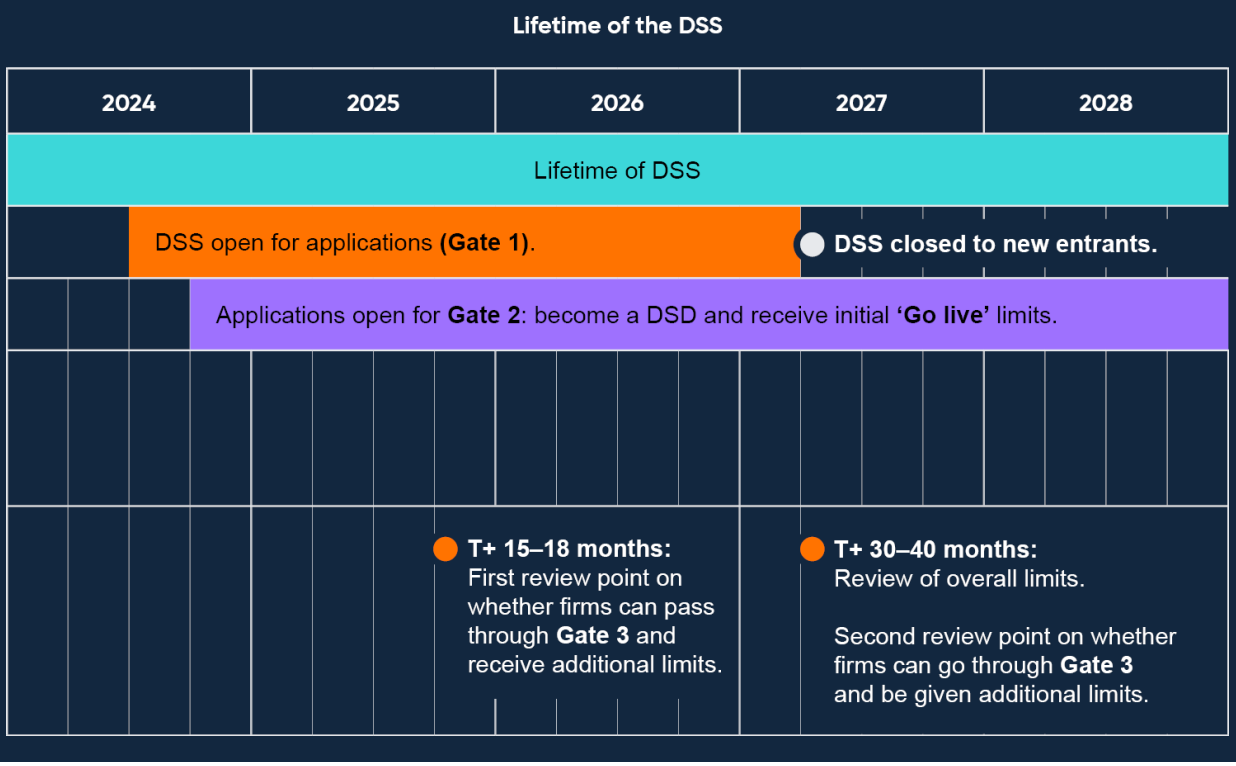
DSDs that are accepted (with or without conditions) will be allocated additional limits for activity by the Bank, in consultation with the FCA. The size of those limits will be subject to the overall capacity limits of the DSS for any given asset class, as well as the number of firms operating in that asset class, any changes in market conditions, and overall regulator appetite to increase limits for a specific DSD. The fewer DSDs there are, the higher the uplift in the firm-specific limit.

DSDs that are not able to apply for Gate 3 or have been rejected at the first review point can apply to enter the scaling stage at a second and final review point which is intended to take place 30–40 months after the launch of the DSS. All DSDs that go through Gate 3 will receive

the same uplift in limits over their Go live limits. The final window will also coincide with a review of the overall limits in the DSS. Based on the number of DSDs in the DSS in an asset class and the conclusions of that review, the individual limits for all DSDs in the scaling stage could be revised.

At this stage, the DSS will shut to new entrants. Existing sandbox entrants may still become a DSD, or operator of a trading venue where relevant; however, there will not be additional opportunities for DSDs to move to the scaling stage after the second review point. This is to allow sufficient time for DSDs to be ready to move towards authorisation to operate under a possible new permanent regime at the end of the DSS. DSDs in the scaling stage will be allocated any unused DSS capacity (see below). DSDs who do not reach the scaling stage but wish to undertake notary, maintenance and/or settlement activities outside of the DSS when it ends can consider applying directly for authorisation under a possible new permanent regime.

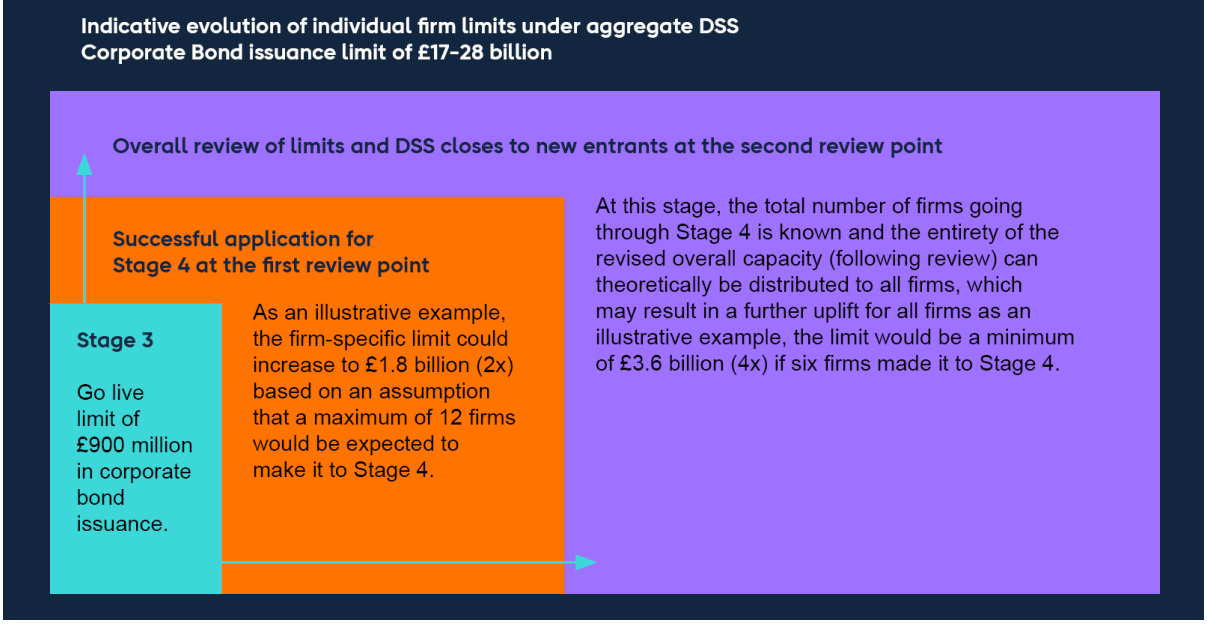
Figure 2: Intended DSS timeline



Stage 4: Scaling stage (DSD only)

Once a DSD is in the scaling stage, they would have demonstrated that they have met Gate 3 expectations. Therefore, they will (where necessary) be granted higher limits in the asset classes they are operating in. Figure 3 illustrates how this may work.

Figure 3: An illustrative example of firm-specific limits scaling
Worked example of how a firm's corporate bond issuance limits may evolve through the lifetime of the DSS



Note: The limits in this worked example are illustrative only based on specific assumptions around the number of firms entering the DSS. Those numbers may vary significantly depending on the number of firms that successfully apply to operate in any given market in the DSS, and on the level of the overall limit within the specified range. This worked example assumes that the overall limit issuance is set at £22.5 billion, the mid-point of the range.

As DSDs begin to reach their limits in the scaling stage, it is expected that they plan to start preparing to operate outside the DSS. As highlighted above, end-state rules should be used as a working assumption for the form which a possible new permanent regime may take. However, the Government and regulators will learn from the DSS and keep sandbox entrants informed of plans to provide for a smooth transition at the end of its term.

Stage 5: Authorisation in a possible new permanent settlement regime

As DSDs progress through the scaling stage, they will be held to standards closer to what will likely be expected under a possible new permanent regime and under which DSDs (including a hybrid entity) would be able to apply for authorisation to operate outside the DSS. His Majesty's Treasury's (HMT) has the power to make modifications trialled in the DSS permanent through regulations. This would require HMT to lay a statutory instrument, having first reported to Parliament on the DSS.

Exit from the DSS

The aim of the DSS is to support safe innovation in trading and settlement in traditional wholesale markets and the regulators will endeavour to make the transition to any new permanent regime as smooth as possible. Some sandbox entrants will be able to scale safely in the DSS and transition to operate outside of it as and when HMT makes permanent amendments to the legislative framework. However, the regulators anticipate that there may also be sandbox entrants that might not be able to transition to operate outside the DSS or otherwise need to exit the DSS through wind down. Sandbox entrants may choose not to continue their activity in the DSS for commercial reasons and will need to wind down in an orderly fashion to achieve that outcome.

A DSD will have to successfully pass Gate 3 to start to ready themselves for authorisation under any new permanent regime. At this point, the DSD will need to start working towards meeting the Bank's end-state rules in full. Any evidence gathered during this time could then be used as part of the authorisation process under any new permanent regime. Firms should note that the authorisation process itself, including the required quantity and quality of evidence, may also be reviewed as part of designing any new regime.

As mentioned previously, the regulators will also consider during the lifetime of the DSS whether it may be appropriate for any firm operating as a non-systemic DSD to exit into an alternative non-systemic settlement regime and provide their final views to HMT on whether a new legislative regime is required for such entities.

FSMA 2023 requires HMT to publish a report to Parliament on the FMI sandbox arrangements, which sets out its assessment of the DSS and whether and how permanent changes will be made. It will consult the Bank and the FCA in preparing the report. HMT have stated that they could make permanent amendments to legislation via a statutory instrument more than once so that sandbox entrants who are ready to operate outside the DSS are not held back. Once any new legislative framework is in place, a DSD will need to be authorised under that legislation in

order to operate outside of the DSS without limits. Authorisation could proceed at pace and will depend on a DSD's ability to meet all the new regulatory requirements in full and to provide the required evidence.

At the end of the DSS, sandbox entrants will be able to continue to rely on any FCA permissions they hold to operate a trading venue.

Wind down

Not all sandbox entrants will be able to scale successfully in the DSS and graduate to operate under a possible new permanent regime. Given the experimental nature of the DSS, a number of sandbox entrants might exit the DSS through wind down.

Sandbox entrants will be required to have comprehensive wind down plans in place that set out how to wind down their business in an orderly way in a range of scenarios. These plans will be reviewed carefully by supervisors and will need to be kept up to date by sandbox entrants for the duration of their participation in the DSS. Sandbox entrants will also be required to hold sufficient capital to execute their wind down plans. This should ensure that any disruption to users and broader market participants will be minimised.

The regulators anticipate that wind down plans are likely to take two forms:

- a transfer of outstanding securities to another DSD or CSD; and
- making use of regulatory capital to maintain basic functionality until those securities mature. We believe this will likely only be viable for securities with a short maturity.

Wind down can be triggered at any time during the lifecycle of the DSS. A voluntary wind down would be triggered by the sandbox entrant themselves. A forced wind down would be triggered by the regulators. The sandbox entrant is responsible for ensuring that wind down is orderly in both cases through maintaining and executing their wind down plan.

Voluntary wind down may be triggered by a sandbox entrant if it chooses to exit the DSS and wind down its business. This could be triggered for commercial reasons if the firm decides their technology or business model is not viable or it has not been able to secure the required funding to scale the business.

Wind down could also be triggered by the regulators if a sandbox entrant becomes insolvent, due to financial stability concerns or if rules have been breached. Forced wind down by regulators is not a decision that will be taken lightly. The regulators may also trigger a wind down if, from the information already gathered, a technology

or practice is deemed too risky to financial stability or market integrity, and the regulators consider there is nothing more that can be usefully gained by further testing and trading in the DSS.

The purpose of the DSS is not to provide a permanent scaled down regulatory regime where firms can have ongoing access to modified legislation. The regulators will also need to consider whether sandbox entrants have a realistic chance of operating outside the DSS and the length of time it will take them relative to the length of the DSS.

The regulators recognise the financial and technological investment that firms will be making in order to participate in the DSS as sandbox entrants. The regulators are also aware of the opportunity cost of such investments. Any decision to trigger a forced wind down will therefore be considered carefully and objectively by the regulators.

Settlement assets in the DSS

Currently, under Article 40 of UK CSDR, securities settlement at CSDs is required to be carried out in central bank money to ensure there is no credit and liquidity risks in the settlement asset. Where settlement in central bank money is not practical or available, CSDs can settle through accounts opened with commercial banks.

In the interest of clarity and recognising the fact that tokenised wholesale central bank money is not currently available, the Bank will allow for the use of commercial bank money with little or no credit or liquidity risk, or equivalent private forms of money, to be used as a payment asset within the DSS. This approach aligns with the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs), specifically Principle 9. While the Bank would assess this on a case-by-case basis, it is unlikely that e-money or stablecoins not regulated by the Bank would meet the required standard.[7]

Please note that this is intended as a temporary arrangement, and as DSDs scale and prepare for authorisation under a possible new permanent settlement regime, the Bank may require DSDs to provide for settlement in central bank money. Alongside omnibus accounts which could be used for this purpose, the Bank is undertaking a renewal of its Real-Time Gross Settlement service, which is utilised in wholesale settlement including for trading securities. The Bank would work with firms

[7] The Bank is considering the risks and benefits of further innovations in wholesale settlement, including the use of stablecoins for wholesale purposes, and will set out its views in due course. See **Regulatory regime for systemic payment systems using stablecoins and related service providers**.

to ensure that any transition to central bank money is smooth for sandbox entrants and their members.

Approach to supervision and enforcement in the DSS

The regulators tailor their supervisory approach to the risks posed by firms. The regulators also have access to existing powers under FSMA 2000 for the purpose of operating the DSS by consequence of the DSS Regulations.

Bank supervisors will assess DSDs against the relevant rules as part of the decision whether to allow them to go through Gates 2 and 3. DSDs should not assume that passing through gates is automatic as this will depend on their progress against applicable requirements and related supervisory engagement. Firms will need to provide evidence that they can meet all relevant rules of the next gate before passing through it. Supervisory assessment against the requirements will be relative to the size and risk of the business and may depend on the technology being used and the proposed business models. Regulatory requirements will grow as firms scale. Following a successful supervisory assessment against Gate 2 or Gate 3 rules, those rules will continue to apply until the firm is ready to progress to the next stage, including seeking authorisation under a new permanent regime.

An important difference between the Bank and FCA approach is that the operators of trading venues will need to meet the same standards as currently exist outside of the DSS. These are already designed to accommodate non-systemic firms. DSDs do not have to meet the same standards as are currently in place for CSDs. Instead, the Bank is putting in place proportionate standards for DSDs, which will change to reflect their progress in the DSS, and therefore their risks.

Users or participants of a DSD in the DSS should be aware that the Bank is taking this proportionate approach to rule making and supervision for these firms. DSDs will not be subject to the same regulatory standards as a CSD and the ones they are subject to will likely change over time as the DSD progresses through the DSS. Users may therefore wish to engage more closely with DSDs than they would do with a CSD authorised under CSDR in order to understand for themselves the level of service they should expect as users and the risks that they are exposed to. Firms should take into account the unique and temporary nature of the DSS and consider any risks that poses for them.

Approach to regulatory powers under the DSS Regulations

The DSS Regulations extend the scope of certain existing regulatory powers under FSMA 2000 such that the regulators have supervision and enforcement powers in respect of:

1. Sandbox entrants, including those which have only passed Gate 1 but are not an authorised person or approved by the Bank to undertake the activities of a CSD.
2. Other persons engaging in DSS activity, specifically: persons using the services provided by the sandbox entrant; persons providing services either directly or indirectly to the sandbox entrant or to its users; persons carrying on activities or providing services in connection with a digital security used in connection with the sandbox entrant's DSS activities.

The above categories can therefore include persons who are neither authorised nor exempt under FSMA 2000.

The FCA intends to take the same approach to supervision for these persons as it does for authorised or exempt persons. If enforcement action is needed the FCA will follow its general approach to enforcement, which for the FCA is set out in the Decision, Procedures and Penalties Manual (DEPP) and the Enforcement Guide (EG). Please note the FCA has recently published a consultation paper (CP 24/2)[8] on its approach to enforcement and changes to EG. The FCA has updated DEPP specifically for the DSS to account for additional powers which have been conferred through the DSS Regulations. These changes are included in Appendix C.[9] All other sections of the FCA Handbook, for example SUP, MAR and REC, will continue to apply where relevant to sandbox entrants and other persons engaging in DSS activity.

In relation to the Bank, the DSS Regulations require the Bank to prepare and publish a number of statements of policy with respect to its approach to enforcement and the use of its disciplinary powers. These enforcement powers mirror the powers the Bank has in respect of CSDs pursuant to Schedule 17A of FSMA 2000, and the Bank therefore intends to follow the existing approaches set out in its current relevant policies.

[8] **FCA CP24/2: Our Enforcement Guide and publicising enforcement investigations – a new approach**.

[9] Sections 211 and 396 of FSMA 2000 would normally require the FCA to consult before making changes to these parts of DEPP. Those sections are disapplied in respect of the DSS by the DSS Regulations; the draft changes to DEPP are included in this paper for information.

Furthermore, under the DSS Regulations, the regulators have powers specific to sandbox entrants, as described below. The use of these powers could indirectly affect users of a sandbox entrant's FMI or other participants.

As the Bank is the appropriate regulator for entities undertaking the activities of notary, settlement and maintenance, it is able to modify, suspend or terminate a sandbox entrant's SAN (including approved activities and conditions for those approvals) where the sandbox entrant breaches a requirement or if it appears necessary or expedient for the purposes of implementing and operating the FMI sandbox arrangements.

DSDs who appear to be failing to meet regulatory standards may have additional restrictions added to their SAN and be given time to rectify concerns. If concerns are not addressed within a reasonable period, the Bank may modify the SAN (along with the firm's DSD status) such that the firm can no longer conduct DSS activities and would be required to implement its wind-down plans, in some circumstances, the Bank may revoke the SAN entirely. The Bank has the power to direct DSDs to engage or cease engaging in a specified action, and to require participants to provide the regulators with certain information or documentation.

The Bank has access to the existing powers in relation to CSDs as part of the DSS. This includes the relevant powers the Bank has under FSMA 2000, including information gathering and investigation powers, powers of direction, powers to impose penalties, powers to issue censures and powers to apply for injunctions or impose restitution. The exercise of some of the Bank's powers under FSMA 2000 is referable to the Tribunal.

Where the FCA is the appropriate regulator for sandbox entrants for the activity of operating a trading venue, it will have similar powers to modify, suspend or cancel a SAN. The FCA also has access to its existing powers under FSMA 2000, including the information gathering and investigations powers in Part 11, the disciplinary measures in Part 14 and the injunctions and restitution powers in Part 25 of FSMA 2000. As mentioned above, these have been extended such that the FCA has powers over sandbox entrants and other persons engaged in DSS activities, and these extended powers will be exercised in line with current FCA approaches to supervision and enforcement. FSMA 2000 also allows firms to refer decisions that refuse, vary or revoke permission or recognition orders to the Tribunal in relation to firms regulated by the FCA. These provisions remain unchanged for the DSS.

The DSS Memorandum of Understanding sets out the regulators' joint approach to regulating the DSS and in particular sandbox entrants, and how the two regulators intend to co-operate.

Approach to the use of developing technology

Firms making use of developing technologies such as DLT may wish to employ innovative approaches such as distributed data, decentralised control of ledgers, cryptography, smart contracts and increased automation. Sandbox entrants must ensure that the use of new technologies does not compromise the high standards required of FMIs in terms of resilience and data protection. We have a 'same risk, same regulatory outcome' approach meaning that firms that wish to participate in the DSS using developing technologies need to demonstrate they can meet the regulatory outcomes regardless of the underlying technology used.

The regulators' approach is to be technology-neutral and supportive of innovation – for example, through the existing FCA Sandboxes and the Bank's DLT lab and ongoing hosting of the UK branch of the Bank for International Settlement's Innovation Hub. Firms that become sandbox entrants remain responsible for ensuring they meet operational resilience requirements, including for any services that they outsource to third parties.

Firms looking to operate as a DSD need to be aware of the Bank's regulatory outcomes of safety and stability, including adherence to the PFMIs where necessary. Firms using different technological approaches – for example, permissioned and permissionless blockchains – will need to consider similar risks but require different approaches to ensure that risks associated with them are adequately mitigated.

Prudential treatment of digital assets

The Basel Committee on Banking Supervision (BCBS) in December 2022 set out **standards regarding the prudential treatment of cryptoasset exposures**. Tokenised traditional assets, which meet in full a set of classification conditions (set out in the BCBS paper as Group 1a), would be subject to capital requirements based on the risk weights of underlying exposures as set out in the existing Basel Framework. The paper also covers leverage ratio, liquidity coverage ratio, and net stable funding ratio requirements in relation to cryptoasset exposures.

Last year, a number of amendments were made and published by the BCBS on the standards for consultation. Once the amendments are finalised, the Prudential Regulatory Authority (PRA) will implement the BCBS standards in the UK, following

the PRA's policymaking process. Generally, supervisory authorities take a technology-neutral approach to regulation but are also aware that risks may relate to the use of specific technologies, including where the underlying technological infrastructure poses additional risks. The BCBS approach to infrastructure risk is that any add-ons to capital requirements will initially be set at zero and will only be increased by the authorities based on any observed weakness in the infrastructure used by those tokenised traditional assets.

This work is being taken forward by the PRA and is separate from the DSS.