



Derivatives Service Bureau

Principles Underlying the Fee Model for the Unique
Product Identifier (UPI) Service - based on Industry
Feedback to Two Consultation Papers

Final Report

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1 Executive Summary

The Association of National Numbering Agencies (“ANNA”) founded the Derivatives Service Bureau (DSB) for the allocation and maintenance of International Securities Identification Numbers (ISINs), Classification of Financial Instrument (CFI) codes and Financial Instrument Short Names (FISNs) for OTC derivatives.

The Financial Stability Board (FSB) announced on May 2, 2019 the designation of the DSB as the sole service provider for the future Unique Product Identifier (UPI) system¹, performing the function of issuer of UPIs as well as operator of the UPI reference data library. The DSB is working towards providing UPIs for OTC derivatives in the second half of 2022, which will help enable users, such as banks, strengthen risk data aggregation capabilities and internal risk reporting practices and assist regulatory authorities to aggregate data on OTC derivatives transactions to help assess systemic risk as outlined in the 2014 [FSB feasibility study on approaches to aggregate OTC derivatives data](#)².

In October 2020, the [Regulatory Oversight Committee \(ROC\) expanded its mandate](#)³ to become the International Governance Body of the UPI system and [the FSB transferred to the ROC all governance and oversight responsibilities](#)⁴ in relation to the UPI. Since then, the ROC has taken forward the FSB’s work to set up appropriately rigorous oversight arrangements.

In August 2021, the DSB and the ROC finalised a Memorandum of Understanding (MOU), on the implementation of governance arrangements for the globally harmonised UPI. The DSB, as the designated UPI service provider, has worked in close cooperation with the ROC to reach a common understanding of the expected division of responsibilities for overseeing the UPI system. A copy of the [MoU is available on the DSB website](#)⁵, and information about the [ROC-DSB Notification Protocol is also available on the DSB website](#)⁶.

The DSB has sought to design, deploy, and operate an efficient UPI service that leverages the capabilities of the existing services (e.g., CFI and OTC ISIN provision) to the extent practicable. As such the UPI fee model proposals set out in the two preceding consultation papers were intended to build on the existing framework whilst also recognising that the UPI service will have specific and distinct needs.

Market feedback in the course of the UPI consultation process and via each of the two industry representation groups has determined the target operating model required for the UPI service launch, which in turn has had a direct impact on the overall build and operational costs of the UPI service. The consultation process therefore aimed to get user views on key service provision elements, which together with Industry Representation Group⁷ feedback in relation to the un-costed elements, such as underlying reference data mapping provider(s)⁸, has determined the estimate UPI cost to be used for determination of user fees.

¹ <https://www.fsb.org/2019/05/fsb-designates-dsb-as-unique-product-identifier-upi-service-provider/>

² https://www.fsb.org/wp-content/uploads/r_140919.pdf

³ https://www.leiroc.org/publications/gls/roc_20201001-2.pdf

⁴ <https://www.fsb.org/wp-content/uploads/P250920.pdf>

⁵ <https://www.anna-dsb.com/download/roc-dsb-mou/>

⁶ [ROC-DSB Notifications protocol - DSB \(anna-dsb.com\)](#)

⁷ Please refer to section 5.2.1 of this paper

⁸ Please refer to section 4.6 of this paper

The UPI Fee Model Consultation papers on the principles that impact the UPI fee structure were published on 11th January 2021 and 10th May 2021 respectively. The consultation details were shared with approximately 2,600 individuals (including at trade associations) as well as widely circulated in the trade press and highlighted at industry events with market stakeholders across Asia, Europe and the US. The DSB also sent several reminders to all interested parties outlining the goal of the consultation and the deadline for responses.

Additionally, the DSB has also published draft technical rules of engagement documentation – for both forms of programmatic connectivity⁹, and draft product documentation¹⁰ for industry review and feedback. In doing so, the DSB has sought to obtain feedback from as broad a spectrum of participants as possible - both in terms of geographic diversity as well as from a range of differing market structure participants. Readers seeking to remain abreast of DSB notifications on the topic of the UPI, or other matters, can [subscribe by clicking here](#), via the DSB website¹¹ or by emailing otc.data@anna-dsb.com.

The DSB received a number of queries in response to its awareness generation campaign, which include a broad mix of regional institutions located in Asia, as well as more globally active institutions. To the extent practicable the DSB has responded directly to incoming queries (via both calls and emails), and has compiled a [UPI FAQ document](#) that is available on its website¹² and a dedicated UPI [webpage](#)¹³ so that market participants can easily access information on the UPI. In addition, the DSB has published all responses received to both fee model consultations on its website, as is standard practice for all DSB industry consultations.

The DSB continues to seek direct feedback from market participants as it progresses with the next stage of consultation on the legal agreement and associated policies for users of the UPI service, and remains conscious that awareness of the DSB's role in UPI generation is growing but relatively nascent at this time. This is evidenced by the fact that the DSB received a total of four responses representing six institutions to the second consultation, with almost 500 participants representing 175 institutions in 22 countries registered to attend regulator led events held after the launch of the second UPI fee model consultation.

As a reminder, the second consultation paper sought to build on industry feedback received in response to the prior consultation paper. Both rounds of consultations set out key assumptions which included expectations of UPI adoption timelines, UPI creation estimates, expectations of alignment with other international data standards that are applicable to OTC derivatives, implementation efficiency drivers, and ongoing work by the DSB Product Committee and DSB Technology Advisory Committee – in addition to seeking industry views on a range of queries about the target service model, cost allocation framework, and more. This paper aims to present a summary of the proposals included in the consultations, insight into industry feedback on each item, as well as next steps to be taken forward.

⁹ <https://www.anna-dsb.com/technical-information/>

¹⁰ <https://www.anna-dsb.com/upi-product-definitions/>

¹¹ <https://www.anna-dsb.com/subscribe-to-notifications/>

¹² <https://www.anna-dsb.com/download/upi-faq/>

¹³ <https://www.anna-dsb.com/upi/>

Respondents to the second consultation represent a diverse cross-section of industry perspectives, given the responses from trade associations, representing key UPI creator and consumer categories, an overview of which is provided below.

Respondent Category	# of Respondents
Data Vendor	1
Execution Platform	3
Trade Association - Buy-side	1
Trade Association - Sell-side	1
Grand Total	6

It should also be noted that following two rounds of industry consultation, the DSB is proceeding on the basis of the items documented in section 5.3 of this paper. Briefly, the assumptions are:

(i) that the DSB will leverage the DSB’s existing service to reduce both the UPI user fee burden by minimizing implementation and run costs for the DSB, and minimize user’s own technology burden so institutions already connected to the DSB can overlay their UPI related workflows in a manner that is more integrated with their other OTC derivative reference data needs¹⁴.

(ii) align the UPI with other internationally recognised data standards to allow both the DSB and DSB users to maintain a clear data hierarchy when utilizing each of the CFI, UPI, OTC ISIN, and FISN more easily and consistently¹⁵.

(iii) that the definition of UPI product templates will be the purview of the DSB PC, in addition to the definition of the OTC ISIN. Market practitioners will therefore continue to be provided with product documentation and supporting insight to ensure data quality and consistency (where necessary) into how product definitions are created, reviewed, in accordance with the recommendations of the DSB PC¹⁶.

(iv) that the UPI creation estimates provided in the paper – for both the initial UPI creation rate, and the longer-term flow rate - are to be used as a basis to provide feedback on the principles set out in the consultation section of this document¹⁷.

Last but not least, this paper also provides a reminder of UPI governance arrangements and the UPI purpose in sections 5.1 and 5.2. In summary, the key governance criteria were specified by the FSB and are outlined in the [FSB Governance arrangements for the UPI](#)¹⁸. The governance criteria have been referenced within this paper where related to the UPI fee model principles, and note that governance arrangements should be in the public interest, lean, change only as needed, include a consultative change process, ensure the economic sustainability of the UPI System over time, ensure open access, target fair cost allocation to stakeholders, ensure that the UPI standard and the use of any UPI Code should be free of licensing restrictions, have policies that reasonably detect and

¹⁴ Please refer to section 5.3.1 of this paper

¹⁵ Please refer to section 5.3.2 of this paper

¹⁶ Please refer to section 5.3.3 of this paper

¹⁷ Please refer to section 5.3.4 of this paper

¹⁸ Please refer to section 5.2.2 of this paper and <https://www.fsb.org/2019/10/governance-arrangements-for-the-upi/>

effectively manage any potential conflict of interest, be fit for purpose, take into consideration other governance frameworks, and ensure the operational viability and continuity of UPI Service Provider operations.

2 DSB's UPI Implementation Timeline

The DSB has sought to provide information about key [implementation milestones](#)¹⁹ in the period through to July 2022 – the target date for DSB UPI go-live. Further information to be made available [on the DSB website](#)²⁰ in due course.

As part of its Governance arrangements for the UPI, the FSB outlined high-level expectations for global UPI implementation planning. It was recognised that jurisdictional implementation is likely to be staggered, occurring at varying speeds because of the independent decision-making processes and prioritisation of initiatives.

Allowing for legal changes to be made and for TRs and reporting entities to adapt, the FSB recommendation is that jurisdictions undertake the necessary actions relevant to their situation to implement the UPI technical guidance no later than the third quarter of 2022.

Based on the FSB recommendation, the DSB is targeting launch of UPI User Acceptance Testing (UAT) in April 2022 with launch of the UPI production environment following three months later, in July 2022. This approach provides six months of industry readiness in advance of anticipated regulatory adoption timelines.

In preparation for UPI adoption and implementation by supervisory authorities, the DSB continues to work with ROC, and industry stakeholders to refine the requirements and framework for the UPI.

3 UPI Adoption Expectations

This section serves as a reminder of regulatory adoption expectations. The DSB has revised the data presented in the previous consultation papers to reflect the most current information, as the subject remains of interest to most industry participants.

Regulatory insight from thirteen G20 jurisdictions - including those that dominate the capital markets landscape across North America, Europe, Africa, and Asia - indicates that rules to support UPI reporting are expected to be in place by late 2022 to 2023, with final adoption timelines subject to availability of the UPI service by the DSB, and market consultation. Regulators, in the main, note their expectation that all asset classes will be reportable via a “big bang” approach.

Several regulators have noted that they are either actively consulting with, or intend to consult with, the market on the specific timing of implementation; as well as whether UPI adoption should be phased by size of the reporting institution - such that larger institutions are in the first phase. In

¹⁹ <https://www.anna-dsb.com/upi-implementation-timeline/>

²⁰ <https://www.anna-dsb.com/upi/>

addition, some jurisdictions are in the processes of finalising their trade reporting infrastructure, while others have noted their intention to proceed with introduction of the UPI in a manner that aligns with other regional regulators.

Timeliness of reporting largely converges around T+1 expectations, with the spectrum spanning from as soon as technologically practicable following trade execution, to T+2. In addition, it is expected that several jurisdictions rely on dual-sided reporting, such that both parties in the transaction would /may need access to the UPI reference data record generated by the DSB (either directly from the DSB or via a data or technology vendor).

The DSB continues to engage with authorities on regulatory adoption expectations to ensure DSB UPI implementation planning is aligned with the needs and priorities of stakeholders.

4 Consultation Considerations

4.1 User Estimates

Summary: The DSB had previously revised the estimated number of paid users as a result of industry feedback on a query about the target service model, specifically about the timing of free-to-use downloadable delta files, which have been requested at an earlier point in time. The anticipated number of organizations expected to use the DSB's UPI service is expected to lie in the range between those previously forecast, and a lower range that more closely mirrors existing user interaction patterns.

The lower threshold of user estimates therefore shows:

- 511 organizations representing 3.4k legal entities will pay to connect programmatically to create and/or search for UPI records
 - 2,437 organizations representing 16.3k legal entities will pay to connect manually to create UPI records
 - 17,200 organizations representing 115k legal entities will connect free of cost to search for and/or download UPI records
- i.e. approximately 20,200 entity groups representing 135,000 organizations that currently report data to trade repositories

The upper bound of user estimates as in line with the proposal set out in the earlier prior consultation paper, and with which industry appears to be comfortable:

- 12,000 organizations representing 80.5k legal entities will pay to connect programmatically
- 8,000 organizations representing 53k legal entities will pay to connect manually
- 20,000 organizations representing 133.5k legal entities will connect free of cost

Summary of Responses:

The second consultation paper set out a revised lower threshold of estimated users of the UPI service, alongside the associated rationale. Respondents were asked if they concurred with the data points presented and where they disagreed to propose specific alternate proposals supported by information in the public domain.

Where respondents provided feedback to the question of estimated number of users expected to pay the DSB for access to the UPI (67% of all respondents), all respondents concurred with the DSB's proposal.

The rebalancing of fee-paying user projections proposed in the second consultation paper aimed to more closely mirror the current ratio of users types for the existing OTC ISIN service as a reduced number of users were expected to need to pay to access UPI data in a timely manner²¹.

The revised model sought to evolve projections from centering around a worst-case scenario, to a user feedback driven more realistic scenario, while acknowledging that regulatory guidance continues to evolve.

As a reminder, in light of the DSB's current EU and UK focused service offering, DSB expects to onboard a significant number of new users to accommodate the transition from a European to a global service. In addition, with confirmation that for institutions reporting in the EU, ESMA's "...preliminary view is that the UPI could be considered as an alternative to the ISIN required in the transaction and reference data reports only in the event that the scope of MiFIR reporting was extended beyond ToTV instruments traded via an SI as recommended in section 5.2 of this Final Report. Importantly, ESMA considers that the choice of the ID to be used should not be left to the reporting entities. In order to ensure full alignment with the EMIR reporting requirements that are currently under review, the conditions under which UPI should be used instead of ISIN should be further determined by ESMA. However, ESMA acknowledges that these views are subject to the final implementation of the UPI."²²

A similar scenario may occur in the UK, with on-venue (ToTV and uToTV²³) OTC derivative trades expected to be reported with an OTC ISIN, and off-venue OTC derivative trades expected to be reported using a UPI, however this is subject to ongoing market consultation²⁴.

As a reminder, the assumptions presented in this section have an impact on the estimated number of organizations that will need to consume the UPI – either directly from the DSB, or via a third party as part of downstream data distribution initiatives by industry – and thus on the operational, technological, and on-boarding approach adopted by the DSB.

Next Steps:

In the absence of industry feedback to the contrary, the DSB proposes to move forward with the lower range estimates presented in the User Estimates Summary to support its planning and resourcing model, and use these to drive headline planning of the UPI service (cost base, on-boarding approach,

²¹ For more information please refer to section 4.4 of this report.

²² https://www.esma.europa.eu/sites/default/files/library/esma74-362-1013_final_report_mifir_review_-_data_reporting.pdf (Published 31 March 2021)

²³ Traded on a Trading Venue (ToTV) and underlying Traded on a Trading Venue (uToTV) as defined by MiFID and MiFIR

²⁴ <https://www.gov.uk/government/consultations/uk-wholesale-markets-review-a-consultation>

etc.). The DSB also aims to keep a watching brief on UPI user numbers, and provide an update as part of the cost related review to be undertaken two years after launch of the service.

4.2 Forecast Workflow Support for Users

Summary: The DSB anticipates that users will require support for three types of workflows, subject to their regulatory needs.

Some users will only require the ability to create, search for and/or download the UPI code and associated data elements, whilst a second category may only require the ability to create, search for and/or download the OTC ISIN code and associated data elements, and a third set of (likely global) participants are likely to have reporting needs that require either the UPI code and associated data elements or the OTC ISIN and associated data elements, subject to their reporting jurisdiction.

Feedback from industry confirmed the DSB's expectation, via both the consultation process and an additional user survey conducted in late March 2021. The DSB will therefore proceed with the provision of services on the basis set out above.

Summary of Responses:

As industry concurred with the DSB's proposal in the first consultation paper, no further questions were posed in the second consultation paper, and thus the consultation paper cited insight into industry's feedback on the topic.

Next Steps:

The DSB anticipates making available workflows to support the following types of users of the DSB's services:

- a) UPI only + associated data elements – for organizations that only require access to the UPI code and the UPI reference data record (in the remainder of the paper referred to as “UPI record”) containing all input and derived data elements associated with the UPI
- b) OTC ISIN only + associated data elements – for organizations that only require access to the OTC ISIN, CFI and FISN and the OTC ISIN reference data record (the current DSB service) (in the remainder of the paper referred to as “OTC ISIN record”) containing all input and derived data elements associated with the OTC ISIN
- c) UPI + OTC ISIN + associated data elements – for organizations that require access to the full suite of UPI, (code and reference data record) CFI, FISN, and OTC ISIN (code and reference data record) in light of their global footprint and the commensurate diversity of reporting needs, that would obtain all the input and derived data elements that define each of the UPI, CFI and OTC ISIN

Given the strict data hierarchy that is expected to prevail across the CFI, UPI and OTC ISIN, the DSB proposed that every OTC ISIN record would contain the UPI code as part of the OTC ISIN reference

data record itself, where the user requests the CFI, UPI and OTC ISIN as part of a single message. Similarly, the UPI reference data record is proposed to contain a FISN and a CFI code. Information about the availability of free to use files are set out in section 4.4 below.

In relation to the strict data hierarchy, UPI code creation will stem from an OTC ISIN only workflow. The DSB is aware of a concern that in this scenario the user utilising the OTC ISIN only workflow may not be contributing to the cost recovery of the UPI Service, despite having triggered creation of a UPI. The DSB is considering this matter further and will present some alternate options and recommendations to Regulators and the DSB's Industry Representation Groups in due course for consideration.

It should also be noted that following feedback to the first UPI fee model consultation, the DSB will seek to facilitate as seamless a service expansion as possible for current OTC ISIN users seeking to also avail themselves of the UPI service, with legal and onboarding matters to be addressed in the upcoming legal consultation in November 2021²⁵.

4.3 User Access

Summary: The DSB intends that users will be able to access the UPI service using one or more of the following mechanisms:

Fee Paying:

- i. Power User - Full Programmatic Access - Programmatically connect to create, search for and download data
- ii. Search-only API User - Limited Programmatic Access - Programmatically connect to search at a lower volume threshold than permitted for a Power User
- iii. Standard User - Manual Access - Manually connect to create, search for and download data
- iv. Infrequent User - Manual Access - Manually connect to create, search for and download data, at a lower volume threshold than permitted for a Standard User

Non-Fee Paying:

- v. Registered User - Manually connect to search for and download data
- vi. Registered User - Manually or programmatically connect to download data from the file download service

Summary of Responses:

The second consultation sought feedback on the proposal to facilitate access to the UPI service and the UPI reference data library on a programmatic basis, via a web front end, and via a file download service, with records available in a machine-readable format i.e. consistent with the approach currently utilized for the OTC ISIN service.

²⁵ UPI Legal Terms and Conditions Consultation timeline - <https://www.anna-dsb.com/upi-legal-terms-and-conditions-consultation/>

67% of respondents responded to this question, and all concurred with the proposal. There were no responses indicating or stating that respondents had concerns with the proposition put forward by the DSB.

Next Steps:

The DSB intends that UPI users have access to the full suite of access mechanisms that are currently available to DSB users through the existing service as well as those that are expected to be introduced in 2022 following [industry feedback in 2020](#)²⁶. In addition, the DSB remains committed to open access to all. As such, access to the DSB archive for consumption of UPIs and associated reference data will be freely available to all organizations and users.

Specifically, those seeking to access the DSB will be (at minimum) able to use one of the following mechanisms:

Fee Paying:

- i. Power User - Full Programmatic Access - Programmatically connect to create, search for and download data
- ii. Search-only API User - Limited Programmatic Access - Programmatically connect to search at a lower volume threshold than permitted for a Power User
- iii. Standard User - Manual Access - Manually connect to create, search for and download data
- iv. Infrequent User - Manual Access - Manually connect to create, search for and download data, at a lower volume threshold than permitted for a Standard User

Non-Fee Paying:

- v. Registered User - Manually connect to search for and download data

Furthermore, both Fee Paying and Non-Fee Paying users can manually transfer and programmatically connect to download the data files available from the File Download Service.

Additionally, it should be noted that -

(a) the DSB is engaged in ongoing discussion with the governing regulators to facilitate the introduction of a “Regulatory User” role to enable regulators to have access to the DSB’s UPI service; and

(b) the DSB will continue to work on the principle that any new user types introduced for the OTC ISIN/CFI service will also be introduced for the UPI service over time, so that users can remain in alignment – an approach will build on the core sentiments expressed in the course of industry consultation.

²⁶ <https://www.anna-dsb.com/download/dsb-2021-consultation-final-report/>

4.4 Registered User File Download Timing

Summary: The DSB is proposing to make the OTC ISIN record including the UPI code freely available at T+0 23:55hrs UTC and the full UPI record on T+1 23:55hrs UTC with the primary goals of ensuring financial sustainability and providing a fair service for all jurisdictions.

Summary of Responses:

Given the lower anticipated UPI volumes (compared to the existing OTC ISIN service) as provided in section [5.3.4 UPI Creation Estimates](#), the DSB foresees a risk that a larger proportion of the UPI user base (compared to the OTC ISIN service) may rely exclusively on the DSB's free service, which includes the daily generated machine-readable download files. In this circumstance, the cost for each fee-paying user would be higher than otherwise, and the DSB initially proposed access to the daily data files with a two day time-delay.

In the first consultation 83% of respondents disagreed or strongly disagreed with the DSB's proposal to provide free to use files on a T+2 basis (citing a variety of reasons) and noted that free-to-use files should be provided on the same basis as that currently available for the OTC ISIN instead.

In the second consultation the DSB proposed to make the OTC ISIN record including the UPI code freely available at T+0 23:55hrs UTC and the full UPI record on T+1 23:55hrs UTC. This proposal is aimed to ensure financial sustainability and to provide a fair service for all jurisdictions- by having the file available at a universally fixed time.

All organizations that responded to the second consultation had a view with 83% agreeing with the DSB's proposal. Of the 17% who were not in agreement, they stated they didn't share the same assumption that providing the full UPI data file on T+0 rather than on T+1 would have an impact on the Financial Sustainability of the UPI service and therefore the principle of fairness to all.

Additionally, they believed that incremental costs incurred for providing the UPI service should be allocated to existing fee-paying stakeholders (e.g. sell-side and data vendors) as these market participants have strong commercial interest to promote new and innovative (OTC) derivative contracts (e.g. ESG related products).

From respondents who agreed there were concerns whether the T+1 solution would work for all users across different time zones.

Next steps:

The DSB will provide free-to-use UPI files on a T+1 23:55hrs UTC basis and provide the UPI code in the free-to-use OTC ISIN files on a T+0 23:55hrs UTC basis. The free-to-use UPI files will be delta files containing new UPI created since the last UPI file was published.

The DSB approach has attempted to balance respondents' preference for free-to-use-files available as soon as possible, with the financial sustainability of the UPI service, and the fairness (in terms of timing of availability) for all global jurisdictions. The approach attempts to limit the possibility of users in some jurisdictions being able to leverage free-to-use-files for their reporting requirements, whilst users in other jurisdictions behind UTC are potentially penalised by needing to pay for the data to

satisfy similar reporting requirements, simply because of the time-zone they are required to report from.

In response to the concern that incremental costs of the UPI Service should be allocated to existing fee-paying stakeholders and not to those marginal users that just need to see the Reference Data Library (RDL) and not to create UPIs, the impact of the fee model may have to be assessed not necessarily on the level of the fees but on the structure of the fee model. The conclusion so far regarding the appropriate fee model structure was to provide the free file at T+1 23:55hrs UTC, to ensure that there is an appropriate share of paying users which aligns with the governance criteria, see section [5.2.2 UPI Governance Criteria](#), that the cost of the service is allocated among stakeholders fairly. As the free data becomes available earlier than T+1 23:55hrs UTC, the pool of paying users shrink vis-à-vis the pool of the non-paying users. A challenge regarding the ratio of fee-paying/free users is that market participants that are professional in nature but that broadly trade standardized products and who should also be able to contribute to cost-recovery, would inadvertently be included in the fat tail of the marginal users.

However, both fee-paying and free users would be able to access UPI data for individual UPIs via the free UPI GUI on a real time basis. Additionally, as mentioned in Section 4.2, the strict data hierarchy will result in UPI code creation from an OTC ISIN only workflow. The DSB is aware of a concern that in this scenario, the user utilising the OTC ISIN only workflow may not be contributing to the cost recovery of the UPI Service, despite having triggered creation of a UPI. The DSB is considering this matter further and will present some alternate options and recommendations to Regulators and the DSB's Industry Representation Groups in due course for consideration.

The DSB aims to keep a watching brief on UPI user numbers and is committed to a review of the impact of the Fee Model structure to ensure the cost of the service is allocated among stakeholders fairly. A review is envisioned to take place approximately two years after the launch of the service when other cost impacting matters are to be reviewed via a further consultation.

The DSB will discuss with the Technology Advisory Committee (TAC) whether the approach was satisfactory for users and jurisdictions of the UPI service as well as monitor any user feedback.

4.5 User Fee Structure

Summary: The UPI fee model will be based on cost recovery, as aligned with the governance criteria, and is proposed to adopt a substantially similar fee model structure to that of the existing OTC ISIN service.

The proposed fee model is expected to be applied to four fee-paying user types, which are divided into the UPI total estimated cost, with the fee level varying according to user access type and user numbers.

Summary of responses:

Respondents concurred with the proposal that the UPI fee model would be based on cost recovery with a similar fee model structure to that of the existing OTC ISIN service.

Respondents also noted that there should be a review of the fee structure once the new user base for the UPI is known as it is difficult to assess fully until the actual user numbers and user type breakdowns for those numbers are known.

Also noted was a preference to have assurances that costs are being robustly monitored by a neutral third party.

Next steps:

The workflows and associated user types outlined in [section 4.3](#) correspond to the three user types currently utilised by the DSB's existing OTC ISIN service (Power User, Standard User and Infrequent User), as well as a fourth Search Only API User' access level, which is planned to be introduced for the OTC ISIN service in January 2022. 'User' in this context refers to a fee-paying organization. The projected volumes for demand of the 'Search Only API User' user type are not yet available and therefore are not included in the below estimates.

The fee model structure for the UPI service will be substantially similar in principle to that currently utilised by the DSB's OTC ISIN service and will differentiate between the four user types, with four corresponding fee levels.

User fees will be calculated annually in advance and would be published exclusive of VAT (to be applied where applicable) with the payment to be processed in accordance with the proposal in [section 4.9](#).

As stated in the following Section 4.6 on the UPI Cost Basis, in 2022 the annualized level of operating expenditure (Opex) is expected to be pro-rated given that the UPI service Go Live is part way through the year. Additionally, the number of users who will onboard in 2022 will be lower than the expected peak volume, once all jurisdictions have issued mandates relating to the UPI. The DSB are working through the implications of these complexities, and will provide an update to industry participants on fee determination in March 2022.

In creating the proposed UPI service user fee model structure, the ratio of user types from the DSB's existing OTC ISIN service fee model has been used as a proxy. The ratio (as percentages) for each fee-paying user type is projected to be as follows:

- Power User fee: 60%
- Standard User fee: 10%
- Search Only API fee: 0% (until user demand can be established)
- Infrequent User Fee: 30%

As mentioned above, the projected volumes for demand of the new 'Search Only API User' access type are not yet available, hence this user type is not included in these percentage splits.

UPI user fees will be charged on a cost recovery basis, as outlined in [section 4.6](#), with fee model variables used to determine the user fee per user type. Based on the existing DSB fee model structure, the variables to calculate the user fees comprise the Estimated Total UPI Cost and number of users per fee paying user type. Based on this model, the higher the number of users, the lower the fee per user.

In order to determine the annual fees, the first element is to set the Infrequent User fee as a fixed amount. The rationale for a fixed fee that it is high enough not to disadvantage those Standard or Power Users but low enough to be acceptable to infrequent and small volume UPI creators.

Following determination of the Infrequent User fee, the Power and Standard User fees are calculated using a ratio which includes user numbers by type (see calculation below).

As with the existing OTC ISIN service fee model, the Standard Users fee is set to reflect the fact that such users are substantially cheaper for the DSB to support as the lack of a programmatic interface results in lower data throughput as well as lower infrastructure requirements.

The ‘Search Only API User’ fee is set at 50% of the Standard User fee, to reflect the relative level of access provided.

The Power User fee is proposed to be three times greater than the Standard User fee which is consistent with the existing service provision, based on the respective functionality and connectivity.

The calculation for illustrative purposes is represented as follows:

$$\text{Standard User Fee} = \frac{\text{Total UPI cost} - (\# \text{ of Infrequent Users} * \text{€135})}{(\# \text{ of Standard Users} + \{3 * \# \text{ of Power Users}\} + \{\# \text{ of Search-only API Users}/2\})}$$

In an example using 3,000 fee-paying organizations (‘users’) where the Estimated Total UPI Cost for 2023 is €9,833k, and the Infrequent User fee is set at €135, the calculation is performed as follows:

$$\text{Standard User Fee} = \frac{\text{€9,833k} - (900 * \text{€135})}{(300 + \{3 * 1800\} + \{0/2\})}$$

Resulting in an illustrative Standard User Fee = €1,704k per annum.

The illustrative Search Only API User fee is 50% x Standard User Fee, resulting in = €852k per annum.

The illustrative Power User fee is 3 x Standard User Fee, resulting in = €5,111k per annum.

The below table summarises the indicative fees for 3,000 and 300 fee-paying user entities based on current Estimated Total UPI cost for 2023 of €9,833k (3,000 users) and €6,819k (300 users).

These fees are illustrative only for the expected first full year of operation (2023), with final fees being contingent on user numbers and Estimated Total UPI cost:

Entities	3,000	300
Total UPI Cost (including 25% FSM)	€ 9,832,760	€ 6,818,888
Power User Fee	€ 5,111	€ 35,818
Standard User Fee	€ 1,704	€ 11,939
Search Only API Fee	€ 852	€ 5,970
Infrequent User Fee	€ 135	€ 150

Section 4.6 UPI Cost Basis provides a breakdown of the costs making up the Estimated Total UPI cost.

The Estimated Total UPI Cost increases in line with a higher number of organizations onboarded, due to the higher operating expenditure (Opex) to support the service provision.

In order to ensure that the fee model is fit-for-purpose, the DSB is committed to conducting a further industry consultation approximately two years after the service go-live which will allow for user interactions to be factored into the approach to be taken forward. This will include a review of the ratio of fees between Standard and Power Users, in line with responses received to the second UPI Fee Model Consultation.

The DSB acknowledges the request for greater assurance of and insight of control policies to be applied by the DSB with respect to the UPI service. The DSB plans to establish several policies and make these available on the DSB website, for example, DSB Conflict of Interests Policy, DSB Travel & Expenses policy.

The Third Party Assurance (TPA) audit, which is conducted by an Independent Service Auditor as part of the DSB's governance process, comprises identification of control objectives related to the services provided to users and the design and operating effectiveness of control procedures to provide reasonable assurance that the control objectives are achieved. The TPA Audit Report can assist users with information on the policies, procedures and controls in place, as well as understand the adequacy and operating effectiveness of those controls. A TPA audit will be conducted annually for the UPI Service, once operational, as is the case for the current DSB OTC ISIN Service, with the [TPA Audit Report](#) available on request for current and prospective users of the DSB²⁷.

The Regulatory Oversight Committee (ROC) and the DSB recently finalised a [Memorandum of Understanding \(MOU\)](#)²⁸ on the implementation of the governance arrangements for the UPI. The MOU states that the ROC will oversee the UPI Service in accordance with the ROC Charter, Financial Stability Board Governance arrangements for the UPI, the Technical Guidance on Harmonisation of UPI of the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO). The Annex to the MOU also includes DSB's commitments to the UPI system, such as for example *"helping to ensure that costs are reasonable and economically sustainable over time [...] while also observing the application of the cost-recovery principle," "ensuring that fees on the UPI Service provision are charged on a cost recovery principle [...], allocated fairly across users and across UPI and other DSB services, and that the fee allocation is not affected by any conflict of interest" and "ensuring that DSB's overall business plan reasonably provides for economic sustainability over time"*. The oversight, along with the concrete implementation of the above into specific controls is designed to give users assurance that appropriate controls are in place.

²⁷ <https://www.anna-dsb.com/third-party-assurance-audit/>

²⁸ <https://www.anna-dsb.com/download/roc-dsb-mou>

4.6 UPI Cost Basis

Summary: Current estimates of the UPI service costs are broken down as Estimate Capital Expenditure (Capex) – Known Build Costs for the period 2020-H1 2022, Estimate Time-Limited Costs and Estimate Operating Expenditure (Opex) based on the current reasonable estimate of 3,000 fee-paying users. Costs include the application of a Financial Sustainability Margin, to help to ensure the economic sustainability of the service, and a contingency fund to address unplanned costs during the implementation and first two years of the service.

The contingency is 20% of Capex and Opex costs and cannot be used without the consent of the DSB Board. Where contingency is unused for the allocated period, this will be treated in the same manner as any other operational savings or excess revenue, the amount will be returned to users through defraying the Estimated Total DSB UPI Cost for the contract year following the audited statutory accounts.

Summary of responses:

Respondents concurred with the need for a contingency fund, and the proposal to make the approach for the UPI service consistent with that for the OTC ISIN service.

Respondents also noted that they wished to be provided with additional insight into the mechanism to be utilized for the return of funds to the users, in the event that all or part of the funds were not utilized. Some respondents specifically noted their desire to understand whether any unutilized contingency funds would be returned to the users via a fee offset.

Next steps

The DSB will provide the UPI service on a cost recovery basis. This means that the revenues must be sufficient to ensure that the DSB has the financial viability to meet its continuing obligation to provide these services.

The DSB requires a funding model that helps to ensure the economic sustainability of the UPI System over time, as per the UPI governance criteria²⁹, which includes efficiency, reliability and prudent financial management. As such, consistent with existing DSB practice, a 'Financial Sustainability Margin' (FSM) of 20% is added to the total Capex and Opex costs before the annual user fees are calculated on a cost recovery basis. The purpose of the FSM is, in order of prioritization, to cover the costs of the current and forthcoming business plan in order to meet both regulatory and ongoing user expectations, ensure adequate financial reserves, reinvest in the business and provide a reduction in costs for users where possible.

The key cost drivers for the Estimated Total UPI Cost are provided below. These remain subject to change pending ongoing business and technical design, with consultation the DSB PC and TAC groups as well as with the CDIDE³⁰ where necessary. For example, some costs that are yet to be confirmed

²⁹ See footnote 8

³⁰ Please refer to section 5.2.1 of this paper for information about the roles of these stakeholder groups

are vendor costs relating to a self-service payment and invoicing solution, FIX and REST API certification solution, and the sourcing and integration of underlier reference data.

The Estimated Total UPI Cost include a 20% contingency fund to cover unplanned expenditure during the implementation of the service, in keeping with industry practice for projects of this scale and complexity. The contingency is proposed to apply only in the first two years of operation whilst utilization patterns and the cost base is stabilizing, and will be discontinued thereafter.

The contingency provides the flexibility to respond to developments without needing to increase user fees in the course of any given subscription period or seek additional external funding. With a number of regulators still in the consultation phase of the UPI adoption process, this flexibility to respond to market and regulator demand – particularly with respect to user onboarding - in a consistent and reliable manner will be key to the DSB’s ability to deliver a successful UPI service. Furthermore, the contingency fund can only be used with approval from the DSB Board.

Related to the comments from respondents about the potential return of unused contingency to users, contingency funds are treated like any other category of cost within the annual budget. Any excess revenue or operational savings within the UPI service will go to defraying the Estimated Total UPI Cost for the contract year following the audited statutory accounts. This is the same approach as used with the existing service provision which is shown in the Fee Model Variables as part of the Estimated Total DSB Cost on the [DSB website](#)³¹ and reflected in the existing user policies. As such, any unused UPI contingency will also feed into the cost adjustment mechanism. The details of the cost adjustment mechanism will be captured in the Legal Terms and Conditions Consultation for the UPI service taking place in November 2021.

The following tables show, based on an estimate of 3,000 fee-paying users, the cost breakdown, of the following -

1. Estimated Capital Expenditure (Capex) – Known Build Costs for the period 2020-H1 2022,
2. Estimated Time-Limited Costs (amortization of Capex and Financing costs) and,
3. Estimated annualized Operating Expenditure (Opex).

The Time-Limited Costs and Opex are combined to establish the annual Estimated Total UPI Cost. The figures provided include the Financial Sustainability Margin of 20%.

Note that as indicated in the Time-Limited Cost table below:

- Amortization of Capex is recovered over the first 4 complete years (2023 - 2026);
- Financing Costs are also recovered over the first 4 complete years (2023 – 2026).

³¹ <https://www.anna-dsb.com/fee-model-variables/>

Table 1: Estimated Capital Expenditure (Capex) – Known Build Costs for the period 2020 – H1 2022 (including details on how the budget has changed since the DSB UPI Fee Model Consultation Paper 2 in May 2021):

Note: Since the publication of the original cost estimates in May 2021, the DSB has continued to refine its estimates. Table 1 shows a reconciliation between the May estimates and the latest estimates (as of August 2021). A key change since May is the allocation of contingency funds to specific cost categories. This change has had no impact on total costs. A second change is a reduction in the remaining contingency by €198K. This change has resulted in a reduction in anticipated total costs by the same amount.

Capex – Known Build Costs	Description	Amount (May '21)	Amount (Aug '21)	Delta	Explanation of Delta
Technology and Operations	Operation of the UPI Service through the DSB platform including technical and asset-class support	€5,370k	€5,989k	€619k	Cost reclassification from Contingency*
Management**	Senior management team including MD, Managed Service Provider management team and CFO	€1,105k	€1,168k	€63k	Cost reclassification from Contingency*
Administration	Administrative costs and overheads such as office space, and administrative support functions	€403k	€444k	€41k	Cost reclassification from Contingency*
External Consultants	External oversight and legal, professional and communication	€377k	€393k	€16k	Cost reclassification from Contingency*
Third-party data***	Provision of third-party reference data and integration costs	TBC	TBC	N/A	N/A
Contingency****	20% contingency to cover unplanned costs during the implementation of the service	€1,814k	€879k	-€935k	Net reduction from May contingency (-€198k) Cost reclassification to other cost line items (-€739k)
Total Estimated Capex		€9,069k + 3 rd party data***	€8,872k + 3 rd party data***	€-198k	Net reduction in contingency (-€198k)

Notes:

* The latest figures utilize the cost classification methodology used for the existing OTC ISIN service provision in order to enable easier cost comparison between the two services and to simplify administration processes for the DSB where shared costs need to be apportioned across the two services.

** The Managed Service Provider is the organization engaged by the DSB to build and run the UPI service.

*** The DSB is currently finalising an RFI process in relation to third-party reference data to support regulatory request for multiple underlying identifiers (<https://www.anna-dsb.com/2021/03/29/the-dsb-opens-rfi-on-reference-data-provider/>). The DSB will be working with the Industry Representation groups to agree what third-party data to consume as well as the technical design and integration of the data. Further information on UPI costs and user fees will be published by end of March 2022.

**** Contingency cannot be used without the approval of the DSB Board.

Table 2: Estimated Time-Limited Costs (including details on how the budget has changed since the DSB UPI Fee Model Consultation Paper 2):

Category (Time Limited)	Description	Amount (May '21)	Amount (Aug '21)	Delta	Explanation of Delta
Capex – Known Build Costs	Amortization of Capex over the first 4 complete years (2023 - 2026) including 20% contingency (to cover unplanned costs during the implementation of the service)	€2,267k (annualized)	€2,218k (annualized)	-€49k (annualized)	To reflect reduction Total Estimate Capex as broken out in Table 1 above
Financing costs ⁺	Costs of financing the Capex (Build Costs), to be repaid over 4 years ⁺⁺ (2023 – 2026)	€2,128k (€665k annualized, including FSM)	€2,128k (€665k annualized, including FSM)	No change	No change

Notes:

⁺ The source of funding for the UPI Service Capex (Build Costs) is equity investment from DSB shareholders. The compensation for the capital at risk is to be via a compound annual percentage rate of 16% to reflect the risks of the investment being akin to venture capital. The DSB plans to obtain an independent, third-party view on the appropriateness of the 16% rate. Financing costs will be returned to shareholders in the form of an equity distribution. Key investment risks include:

- No regulatory mandate in place to guarantee revenue to recover costs.
- No certainty of user numbers to underwrite the costs of building a scalable service provision.
- No guarantee of the DSB being the sole provider of the UPI before costs are fully recovered.

⁺⁺ The total Financing costs (€2,128k) are split evenly over the 4 year repayment period (€532k p.a., or €665k p.a including Financial Stability Margin). This is an approximation as the level of interest accrued will depend on the actual cost incurred per month until the initial Capex expenditure is repaid.

Since the publication of the original cost estimates in May 2021, the DSB has continued to analyse the anticipated operating expenditure for the UPI service. Table 3 shows a reconciliation between the May estimates and the latest estimates. The main change is the incorporation of additional costs and associated contingency to handle the anticipated number of users (see section 4.1 *User Estimates*).

This relates to the support of residual manual processing and exception handling, and uplift in vendor costs for Customer Relationship Management and Identity & Access Management solutions.

Additionally, the latest estimates utilize the cost classification methodology used for the existing OTC ISIN service provision to enable easier cost comparison between the two services and to simplify administration processes for the DSB where shared costs need to be apportioned across the two services.

For 2022, the annualized Opex is expected to be pro-rated given that the UPI service Go Live is part way through the year, and that the number of users who will onboard in 2022 will be lower than the expected peak volume, once all jurisdictions have issued mandates relating to the UPI.

Table 3: Estimated Operating Expenditure (Opex) (including details on how the budget has changed since the DSB UPI Fee Model Consultation Paper 2 in May 2021):

Opex – Known Run Costs (annualised)	Description	Amount (May '21)	Amount (Aug '21)	Delta	Explanation of Delta
Technology and Operations	Operation of the UPI Service through the DSB platform including technical and asset-class support	€2,440k	€4,493k	€2,053k	(1) Uplift in costs to manage estimated user numbers# (€2,316k) (2) Cost reclassification (-€263k)
Management	Senior management team including MD, Managed Service Provider## management team and CFO	€33k	€369k	€336k	Cost reclassification
Administration	Administrative costs and overheads such as office space, and administrative support functions	€202k	€642k	€440k	(1) Uplift in office costs to house uplift in resourcing to manage increased user numbers (€165k) (2) Cost reclassification (€275k)
External Consultants	External oversight and legal, professional and communication	€645k	€288k	-€358k	Cost reclassification
Third-party data###	Provision of third-party reference data	TBC	TBC	N/A	N/A
Contingency####	20% contingency to cover unplanned costs to support the service once rolled out	€664k	€1,158k	€494k	Contingency adjustment to preserve 20% policy
Total Estimated Opex (annualised)		€3,984k + 3 rd party data###	€6,950k + 3 rd party data###	€2,966k	(1) Budget changes as itemised in this column (€2,977k) (2) Other adjustment (€-11k)#####

Notes:

Increase in Opex to allow for support of residual manual processing and exception handling, and uplift in vendor costs for Customer Relationship Management and Identity & Access Management solutions.

The Managed Service Provider is the organization engaged by the DSB to build and run the UPI service.

The DSB is currently finalising an RFI process in relation to third-party reference data (<https://www.anna-dsb.com/2021/03/29/the-dsb-opens-rfi-on-reference-data-provider/>). The DSB will be working with the

Industry Representation groups to agree what third-party data to consume as well as the technical design and integration of the data. Further information on UPI costs and user fees will be published by end of March 2022.

Contingency cannot be used without the approval of the DSB Board. Due to the on-going uncertainty in operating costs, the contingency figure continues to be set at 20% of anticipated costs. This figure will be refined as the DSB receives more information, especially on user numbers across all jurisdictions.

Reduction of €11K is to account for Errors and Omissions (including rounding errors) in the operating estimates provided in May 2021.

Summary:

The Estimated Total UPI Cost for 2023 (the expected first full year of operation) includes amortized estimate UPI capital expenditure, annual estimate UPI operating expenditure, annualised financing costs and Financial Stability Margin.

Estimated Total UPI Cost for 2023:

Budget component (including FSM)	Amount
Amortized estimate UPI capital expenditure	€2,218k
Annual estimate UPI operating expenditure	€6,950k
Annualised estimate financing costs	€665k
Estimate Total UPI Cost for 2023	€9,833k

4.7 UPI – OTC ISIN cost allocation policy

Summary: The DSB's costs for the services it provides will be recovered from the user base of the respective services.

Given the high volume of forecast demand for the UPI service as outlined in section 4.1, a dedicated onboarding platform and operating model for the UPI service has been scoped and costed to allow the DSB to provide a scalable UPI service provision. The costs outlined in the previous section all relate solely to the UPI service.

Once the UPI service is live and the level of demand is confirmed, there will be the opportunity to conduct analysis on the expected scope for synergies and shared costs between the UPI service and the OTC ISIN service, and what an appropriate cost allocation policy would be.

Specifically, 100% of the synergies available by leveraging the existing DSB platform will be allocated to UPI users in 2022 and 2023, after which there will be determination of the expected synergies to be shared between both OTC ISIN users and UPI users. The shared costs will be apportioned via an allocation policy that the DSB will propose and consult with stakeholders in 2023.

Summary of Responses:

The majority (83%) of respondents agreed with the DSB's proposal that 100% of the synergies available by leveraging the existing DSB platform will be allocated to UPI users in 2022 and 2023, after which there will be determination of the expected synergies to be shared between both OTC ISIN users and UPI users. There was also agreement that shared costs will be apportioned via an allocation policy that the DSB will propose and consult with stakeholders in 2023, with periodic updates requested by respondents once more information becomes available.

Whilst concurring with the proposal made, certain respondents believe that users of the OTC ISIN/CFI service who also need to access the UPI service (i.e. become users of the combined CFI, UPI, OTC ISIN service) should not have to meet UPI costs at the same level as institutions that utilize only the UPI-only service.

Next steps

Given the high volume of forecast demand globally for the UPI service as outlined in [section 4.1](#), a dedicated self-service onboarding platform and operating model has been scoped and costed to allow the DSB to provide a scalable service provision.

The service is designed to significantly reduce manual processes, allowing it to handle increasingly large numbers of users without needing to add corresponding numbers of staff to resource the support processes. The costs outlined in [section 4.6](#) relate solely to the UPI service.

Once the UPI service is live and user numbers have stabilised, there will be analysis conducted on the expected scope for synergies and shared costs between the UPI service and the OTC ISIN service, and what an appropriate cost allocation policy would be. Furthermore, a review of fees charged to users who subscribe to multiple DSB services will be conducted. These topics will be subject to a further consultation process in 2023.

In the intervening period, the DSB will publish its quarterly updates on user numbers, and provide transparency annually on the Estimated Total UPI Cost for the following year.

The DSB proposed to phase in a gradual increase in costs allocated to the UPI user base from 2022 to 2024 as described below:

2022 Q3-Q4

- UPI users only pay the DSB's incremental operating expenditure cost uplift
- No allocation of UPI build costs in 2022 (working capital is provided by DSB shareholders)
- No allocation of DSB shared costs to UPI users

2023

- UPI users only pay the DSB's incremental operating expenditure cost uplift
- Plus the amortisation of UPI capex as per DSB capital expenditure rules³²
- No allocation of DSB shared costs to UPI users

2024

- UPI users only pay the DSB's incremental operating expenditure cost uplift
- Plus the amortisation of UPI capex as per DSB capital expenditure rules
- Plus a portion of shared costs (shared cost allocation policy to be determined based on Industry Consultation to occur in 2023).

Depending on the scope and timing of regulatory reporting rules, there may be a requirement for the extension of the UPI self-service platform to include OTC ISIN users, in order to provide increased scale. Migrating existing OTC ISIN users onto the self-service platform would also provide greater consistency of user experience across the OTC ISIN and UPI services. Analysis is being conducted by the DSB on the potential roadmap and budget required for these service enhancements.

In the nearer term, the DSB is also considering an approach to facilitate the UPI onboarding for those existing OTC ISIN users who wish to subscribe to the UPI service from 2022. Further information will be made available to the market closer to the launch of the service.

³² The DSB is proposing a 4 year amortisation period for the UPI capex as explained in 4.10 Capital Expenditure Amortisation Approach. This means the amortisation will occur in the years 2023-2026.

4.8 Duration of UPI User Agreement

Summary: In order to provide clarity on the commitments and responsibilities of UPI users and the DSB to each other, the DSB expects all fee-paying user types to sign a common User Agreement (UA). Based on feedback from the DSB's existing user base, the DSB believes the most appropriate period for the UPI UA is the Gregorian calendar year.

The DSB currently anticipates launching its production UPI service in July 2022. Given the intra-year start to the service, the DSB proposed (in the first consultation) that the duration of the UPI UA for 2022 to be shorter than the standard 12 months, in order to align all subsequent UA renewal periods with the Gregorian calendar year. This is expected to result in a proportional reduction in the initial fee to compensate for the shorter duration.

Next steps:

The UPI user agreement period with the Gregorian calendar. Given the intra-year start to the service, the duration of the first User Agreement (UA) will be shorter than the standard 12 months, in order to align all subsequent UAs with the Gregorian calendar year. This is expected to result in a proportional reduction in the initial fee to compensate for the shorter duration. Users who wish to continue to utilise UPI services at the end of the initial UA period will roll into a renewal period of a full Gregorian calendar year.

The DSB acknowledges the preference to have a single user agreement across the suite of OTC ISIN and UPI services, with users able to subscribe to whichever elements they need, and be billed accordingly. The Legal Terms & Conditions Consultation in Q4 2021 will address a broad range of topics related to the User Agreement, including aspects of the self-service approach to onboarding to the UPI service.

4.9 Invoicing Approach

Summary: The DSB proposal remains that fees should be paid in advance (i.e. at the start of the year during which the service will be utilized), as with the existing service provision.

Whilst acknowledging the preference for free data and payment in arrears, the DSB proposes that a payment in advance structure is necessary for effectively supporting the financial sustainability of the UPI service.

Furthermore, the DSB is considering a pre-payment requirement above a certain fee-level threshold.

Summary of Responses:

Respondents understand that the DSB plans to invoice UPI users a single fixed amount on, or shortly in advance of, the User Agreement (UA) period to cover the entire UA period. They stated a preference for the contractual dates of each of the OTC ISIN service and UPI service to align to a common timeline.

Respondents requested a single user agreement across the suite of OTC ISIN and UPI services, with users able to subscribe to whichever elements they need, and be billed accordingly.

Next steps:

Whilst acknowledging the understandable preferences for free data, and payment in arrears, the DSB proposal remains that fees should be paid in advance and should be allocated among stakeholders fairly, as currently implemented for the OTC ISIN service.

Of most materiality in terms of the rationale for payment in advance, the DSB will have incurred costs for the full design, build, and implementation of the UPI service, including the upscaling of a significant number of processes to onboard and manage the anticipated number of entities and individuals projected to use the service. Payment in arrears could impede the DSB's financial sustainability, including the ability to invest in other user approved requirements.

Additionally, an underlying principle of the OTC ISIN Fee Model has been Payment in Advance, which has several key advantages for financial sustainability, over payment in arrears.

This advanced yearly commitment offers the DSB more clarity in aligning fee levels with cost recovery whilst ensuring the economic sustainability of the UPI service with establishment of financial reserves, and for users, it provides improved ability to forecast their costs for utilising UPI services.

The DSB is further considering a requirement for pre-payment where fees fall below a minimum threshold. This could involve pre-payment in full before the service is activated. The intention would be to introduce greater efficiencies into the onboarding and renewals process, given that the DSB currently incurs a material level of operational cost chasing unpaid invoices. This topic will be addressed in the Legal Terms & Conditions Consultation in Q4 2021.

The DSB confirms that it intends that contractual dates of each of the OTC ISIN service and UPI service will align.

4.10 Capital Expenditure Amortisation Approach

Summary: The DSB's proposal for treatment of the repayment of capital expenditure (Capex) is to remain consistent with standard industry practice for projects of this size and nature, which is a repayment period of four years. This approach is consistent with the DSB's existing practice for existing services.

Summary of Responses:

Respondents concurred with the alignment of the capital expenditure amortization approach for the UPI service with that currently in use for the OTC ISIN service.

Additional information was requested about the breakdown of capex costs and about how repayment is calculated over the 4 year period, in order to better understand the impact on user fees.

Next steps:

The DSB will treat the cost of the initial build and any subsequent investment in system enhancements as capital expenditure and will amortize these costs over a number of years, as per generally accepted accounting principles.

Specifically, the DSB will amortize the capital expenditures over 4 years, starting from the first full year when the service benefits from the capital expenditure. This approach is consistent with the DSB's existing capital expenditure policy.

Section 4.6 includes a detailed breakdown of Capex and Opex costs, and quantifies the amortized capital expenditure.

4.11 Any other comments

No additional comments were received by the DSB.

5 Appendices

5.1 Appendix 1 - UPI Overview

5.1.1 Purpose of the UPI

Group of 20 national leaders (G20) agreed at the 2009 Pittsburgh Summit that all OTC derivatives transactions should be reported to trade repositories (TRs) as part of a package of reforms to the OTC derivatives markets. The key driver for establishing the UPI, [ISO/WD 4914](https://www.iso.org/standard/80506.html)³³ – which is under development, Unique Transaction Identifiers (UTI), [ISO 23897](https://www.iso.org/standard/77308.html)³⁴, Critical Data Elements (CDE) which will be included in [ISO 20022](https://www.iso20022.org/)³⁵, and Legal Entity Identifier (LEI), [ISO 17442](https://www.iso.org/standard/78829.html)³⁶, was to increase transparency in financial markets, mitigate systemic risk, and protect against market abuse following the financial crisis that began in 2007–08. The development of standards for these data elements was in response to a request from the G20 to achieve these objectives.

The Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) published their finalised UPI technical guidance³⁷ in September 2017. Under the guidance, a unique UPI code would be assigned to each distinct OTC derivatives product and be mapped to reference data elements with specific values that describe the product. The collection of reference data elements and their values for each product would reside in a UPI reference data library administered by the UPI service provider.

UPIs are being introduced as a mechanism to identify OTC derivatives products to strengthen banks' risk data aggregation capabilities and internal risk reporting practices and assist G20 regulators to aggregate global OTC derivatives data by either product or UPI reference data element, together with the CDE and UTI. This will provide users, such as banks, with their risk analysis and assist regulators with an improved, consistent view and common understanding of systemic OTC derivative risks.

In the first instance, the role of the UPI is to uniquely identify the product involved in an OTC derivatives transaction and to identify the product in reports that an authority requires, or may require in the future, to be reported to a TR. The UPI will work in conjunction with UTIs and CDEs, which are also expected to be reportable to regulatory authorities.

Working alongside the UPI and CDE, the UTI is intended to uniquely identify individual OTC derivatives transactions and when required by authorities to be reported to TRs. The UTI will enable aggregation and analysis of these transactions by users, such as banks, and so authorities can use reported information to fulfil their legal obligations and prudential requirements. Further details about the UTI can be found in the UTI technical guidance document³⁸ published in February 2017.

CPMI and IOSCO also published a guidance document on the harmonisation of critical OTC derivatives data elements other than those in the UPI and UTI. The CDE technical guidance document³⁹, published in April 2018, provides information about the definition, format and allowable values of CDEs, other

³³ <https://www.iso.org/standard/80506.html>

³⁴ <https://www.iso.org/standard/77308.html>

³⁵ <https://www.iso20022.org/>

³⁶ <https://www.iso.org/standard/78829.html>

³⁷ <http://www.bis.org/cpmi/publ/d169.htm>

³⁸ <https://www.bis.org/cpmi/publ/d158.pdf>

³⁹ <https://www.bis.org/cpmi/publ/d175.pdf>

than UTI and UPI, reported to TRs that are important to facilitate consistent global aggregation by authorities.

Although the UPI has been developed with this core purpose, it is recognised the UPI could also serve other purposes, such as other forms of regulatory reporting and market transparency specific to particular jurisdictions or pre- and post-trade processes, with primary use of the UPI contemplated for strengthening banks' risk aggregation capabilities and practices and for the reporting of OTC derivatives transactions to a TR or for regulatory use. It is anticipated that broader use cases for the UPI system – especially in relation to internal business functions – could increase its adoption and usefulness.

5.2 Appendix 2 - Governance Arrangements

5.2.1 UPI Governance Components

The FSB, an international body that monitors and makes recommendations about the global financial system, has been responsible for defining the governance arrangements for the UPI. To that end, the FSB designated the DSB as the sole service provider for the future UPI system. The term 'UPI system' refers to the UPI code, the UPI reference data library, and the process of assigning a UPI to a set of reference data elements. Accordingly, the DSB will perform the functions of issuance of UPI and maintenance of their associated reference data consistent with the CPMI-IOSCO UPI technical guidance. This is a key step in completing the governance framework for the UPI.

In October 2019, the FSB published the Governance arrangements for the UPI⁴⁰, outlining its conclusions, implementation plan and next steps to establish the International Governance Body (IGB). In co-ordination with CPMI and IOSCO, the FSB identified the Regulatory Oversight Committee⁴¹ (ROC) of the Global Legal Entity Identifier System as best positioned to become the future IGB for the UPI, UTI and CDE in addition to its existing oversight of LEI, provided it made the necessary adjustments to its existing governance to be fit for purpose for these additional identifiers. In September 2020, the FSB announced the transfer of all governance and oversight responsibilities⁴² in relation to the harmonised derivatives identifiers and data elements to the ROC as of October 1, 2020. On the same date, ROC announced and published its revised Charter⁴³.

Furthermore, the FSB has determined that the UPI Code and the UPI Reference Data Elements should be set as international data standards and has identified ISO as the International Standardisation Body for the development of the UPI standard.⁴⁴

In addition to oversight functions, the governance arrangements also include the need for ongoing coordination between the IGB, the UPI service provider and industry stakeholders. On this basis, the DSB Product Committee⁴⁵ and Technology Advisory Committee⁴⁶ will function as industry

⁴⁰ <https://www.fsb.org/2019/10/governance-arrangements-for-the-upi/>

⁴¹ https://www.leiroc.org/publications/gls/roc_20201001-2.pdf

⁴² <https://www.fsb.org/2020/09/lei-roc-to-become-governance-body-for-otc-derivatives-identifiers/>

⁴³ https://www.leiroc.org/publications/gls/roc_20201001-1.pdf

⁴⁴ It shall be note that the FSB has no authority over the ISO, so that development of the UPI standard is subject to the usual ISO process (<https://committee.iso.org/sites/tc68/home/news/content-left-area/news-and-updates/unique-product-identifier-upi-ba.html>)

⁴⁵ <https://www.anna-dsb.com/product-committee/>

⁴⁶ <https://www.anna-dsb.com/technology-advisory-committee/>

representation groups comprising reporting entities, derivatives infrastructure providers and market data providers.

The UPI service and reference data library operated by the DSB is founded on interactions with five major parties, as set out in the diagram below. Taking each in turn, these comprise the:

- **IGB:** an international regulatory oversight body that should provide overall oversight and coordinate between the UPI Service Provider(s), the International Standardisation Body, and other elements of the UPI Governance Arrangements, as well as to coordinate among the various stakeholders, and other international standard-setting bodies (including the CPMI, IOSCO and FSB).⁴⁷

The ROC is a group of 67 public authorities with full membership and 18 observers from more than 50 countries.⁴⁸ The ROC was set up to oversee the Legal Entity Identifier (LEI) and recently announced an expanded mandate to become the IGB of the globally harmonised UTI, the UPI and the CDE. As IGB of the UTI, UPI and CDE, the ROC becomes the overseer of the designated UPI service provider, The Derivatives Service Bureau (DSB).

The Committee on Derivative Identifiers and Data Elements (CDIDE) is a sub-committee of the ROC with the purpose of supporting the ROC on the ROC's oversight of the implementation of the UPI service and the UPI Reference Data Library by the DSB. CDIDE co-chairs may participate in each of the DSB Product Committee and DSB Technology Advisory Committee (see below) which committees are the Industry Representation Groups described below.

- **Authorities (as members of the ROC) and standard-setting bodies:** will continue to work on implementation, in coordination with the IGB. Authorities of each jurisdiction where the UPI will be reportable (as members of the ROC), and standard setting bodies such as the CPMI and IOSCO also may choose to participate in the Industry Representation Groups described below.
- **Industry Representation Group (IRG):** with representatives of, inter alia, reporting entities, derivatives infrastructure providers, and/or market data providers, to consult with other parts of the Governance Arrangements, including the IGB and the UPI Service Provider. The functions of an IRG are expected to be carried out by two existing DSB advisory committees, whose charters have been expanded to encompass the UPI initiative.

Within the DSB, the two existing advisory committees of the DSB Board of Directors are the Product Committee⁴⁹ (PC), and the Technology Advisory Committee⁵⁰ (TAC). Both committees comprise a broad range of representatives of entity types and geographical representation.

The DSB PC is an industry group that supports the DSB Board through continuing the work of the ISO study group tasked with defining the ISIN for OTC derivatives. The PC oversees the definitions of a broad range of OTC derivatives and how they translate into data requirements for allocation of these identifiers. They also support the development and inclusion of descriptive taxonomies used to identify OTC derivatives.

⁴⁷ The IGB provides oversight over the UPI Service providers and other elements of the UPI Governance Arrangements, as well coordinate with various stakeholders and other international standard-setting bodies (including CPMI, IOSCO, FSB and ISO).

⁴⁸ <https://www.leiroc.org/about/membersandobservers/index.htm>

⁴⁹ [See footnote 13](#)

⁵⁰ [See footnote 14](#)

The DSB TAC is an industry group that supports the DSB Board on technology issues to ensure that the DSB's technology strategy is aligned with the needs of the markets it serves. The TAC oversees proposed technology changes related to the DSB's services which includes any technical changes identified during the stakeholder consultation process as well as consideration of the workflows and integration needs of the UPI service provision.

- **International Standardisation Body:** The ISO has been nominated as the International Standardisation Body for the UPI. ISO's work on development of the UPI standard began in June 2020 with the aim of publishing a final ISO standard in early 2022. The standard will include the format and computation of the UPI code, as well as the minimum data elements driven by the UPI Technical Guidance.

ISO provides the framework allowing for a unique UPI Code to be assigned to each distinct OTC derivative product that is reportable to trade repositories. The standard defines the UPI code structure and the minimum set of reference data elements that will describe the product. Reference data element values as well as possible reference data elements in addition to the ISO standard will be determined by the DSB Product Committee working in conjunction with the ISB.

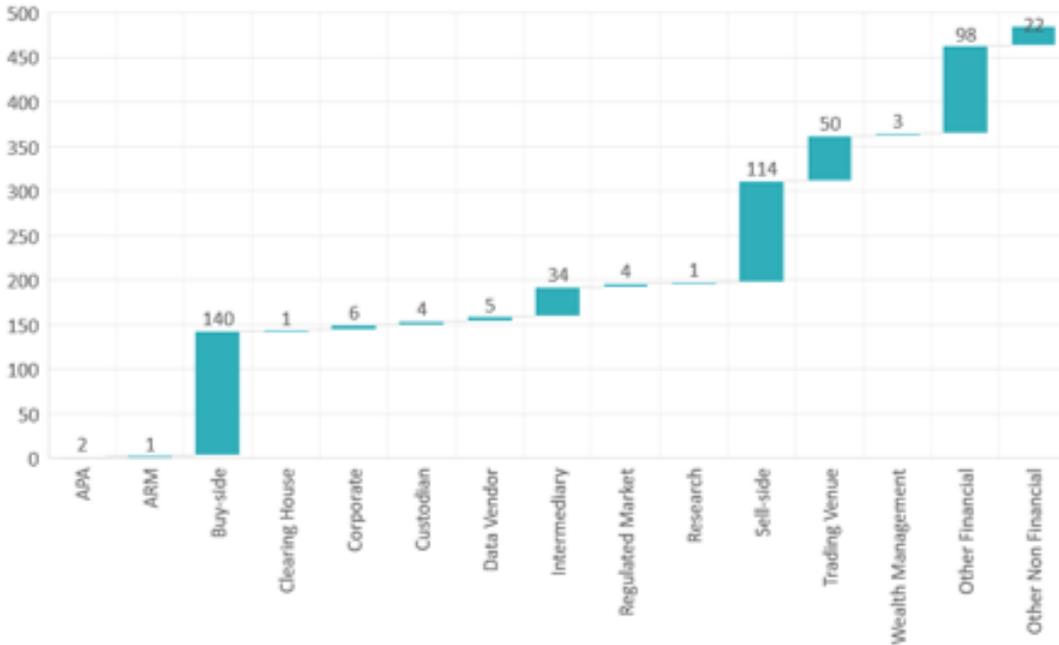
- **UPI Users:** UPI users comprise organizations that will connect to the DSB to create, search for, or download files – on either a fee paying or non-fee-paying basis. Based on the DSB's experience with the OTC ISIN service, in the three-year period since the service was launched, the DSB expects to continue to see a marked difference between the number and types of firms that will create OTC derivatives reference data records in the DSB (be they for OTC ISIN, UPI, CFI or FISN purposes), and those that consume the data.

A review of current activity levels shows that at an aggregate level, the sell-side has created 75% of all OTC derivative records in the DSB, with execution platforms, the larger buy-side and some data vendors responsible for creating the remainder. In total, 124 entities pay the DSB to create data and/or search for records, with 60% of this group accessing the DSB in a programmatic manner.

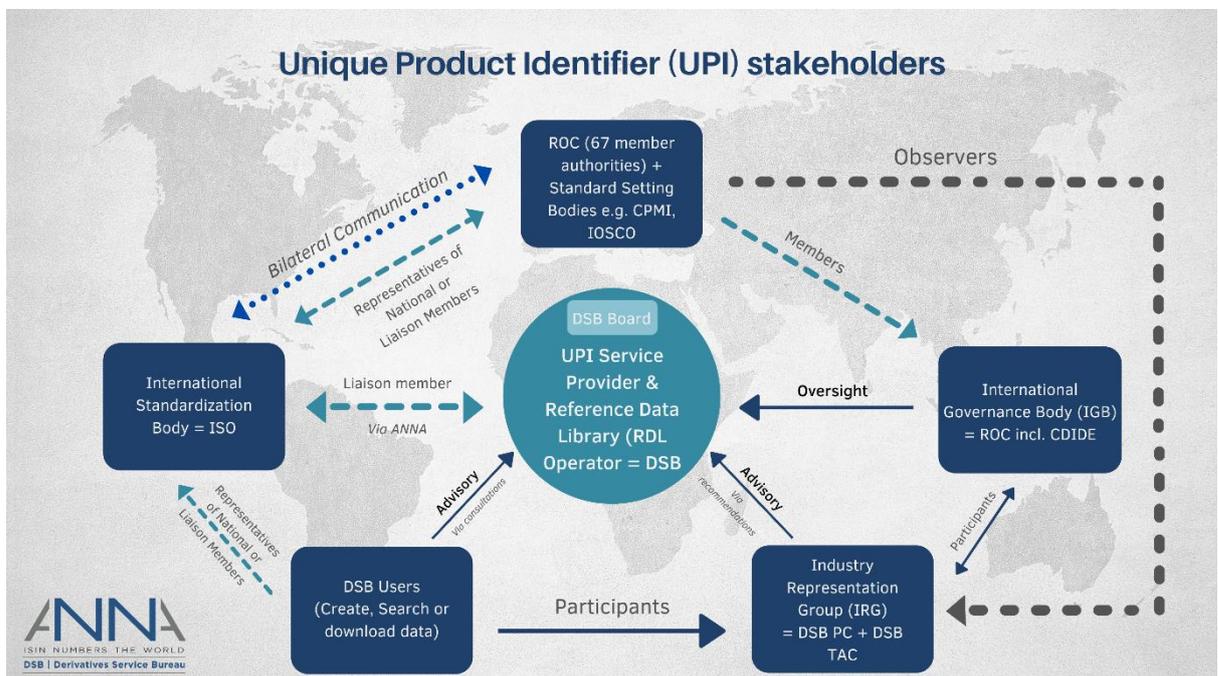
When looking at the full list of organizations that access the DSB today across both fee paying and free of cost users, 470 organizations, almost 70% do so free of cost to download free to use data files. A further 25% access the DSB to create records, search for records, and download data files, with 3% exclusively creating data, and a further 3% exclusively searching for data.

In addition, the data of DSB existing users to date shows that in contrast to the creation of data which is driven by the sell-side and execution platforms, consumers of the OTC derivative reference data generated at the DSB represent a substantively broader composition as set out in the following diagram. It is a reasonable expectation that while the specific numbers of each type of organisation that accesses the DSB for UPI data will vary from current practice, the overall composition of each organisation type is likely to continue given the divergent reasons that users cite in discussions with the DSB.

Number of Institutions Accessing the DSB for OTC ISIN, CFI and FISN data



- UPI Service Provider(s):** This entity or these entities should provide for timely issuance of UPI Codes and maintenance of their associated reference data consistent with the UPI Technical Guidance.
- Operator of the UPI Reference Data Library (RDL):** an entity that should record all existing UPI Codes and their associated UPI Reference Data. Most respondents to the FSB’s UPI governance consultations did not favour a split between the UPI Service Provider and the Operator of the UPI RDL. On this basis, the DSB is both the UPI Service Provider and the UPI Reference Data Library operator.



5.2.2 UPI Governance Criteria

In relation to the governance arrangements, key criteria have been specified by the FSB to guide the choices made. These governance criteria, detailed throughout the FSB governance arrangements consultation process and outlined in the FSB Governance arrangements for the UPI⁵¹, are provided below.

The governance criteria have been referenced within this paper where related to the UPI fee model principles.

- **Public interest**

Governance should be driven by the public and regulatory interest.

- **Lean**

The UPI Governance Arrangements should not be unnecessarily complex or costly.

- **Change only as needed**

Revisions to the UPI Governance Arrangements, the UPI Technical Guidance and UPI System should be managed on a need-only basis and consider benefits and costs of such revisions to minimise impacts on various stakeholders.

- **Consultative change process**

Changes to the UPI Governance Arrangements, UPI Technical Guidance, and UPI System (except for the day-to-day process of updating the data held in the UPI Reference Data Library) should allow for direct or indirect involvement of stakeholders and should be made after public consultation where appropriate.

- **Economic sustainability**

The UPI Governance Arrangements should be consistent with the need to help ensure the economic sustainability of the UPI System over time.

- **Open access**

Access to, and use of, UPI Codes and the UPI Data Standard should be unrestricted. Authorities should have access to, and use of, the UPI Reference Data Library that is similarly unrestricted. Entities with reporting obligations and TRs should have access to, and use of, the UPI Reference Data Library in a manner that is sufficient to at least allow them to associate a specific OTC derivative product to its UPI Code in a timely manner and facilitate the discharge of reporting obligations for OTC derivatives transactions.

- **Cost**

Any fees charged by the UPI Service Provider(s) should be based on cost recovery and should be allocated among stakeholders fairly. For Authorities, use of the UPI System should be free.

- **Intellectual property**

The UPI Data Standard should not be subject to any intellectual property restriction. Consistent with this, the use of any UPI Code should be free of licensing restrictions. As to the UPI Reference Data

⁵¹ <https://www.fsb.org/2019/10/governance-arrangements-for-the-upi/>

Library, intellectual property restrictions should be applied in a manner consistent with the rules applicable in a given jurisdiction.

- **Conflicts of interest**

The UPI Service Provider(s) should have policies and procedures that are reasonably designed to detect and effectively manage any potential conflict of interest. Access to the UPI should not be tied or bundled with any other services offered by a UPI Service Provider.

- **Fit for purpose**

UPI Governance Arrangements should be able to perform the relevant functions identified in a timely and efficient manner and should have reasonable access to the necessary resources and information to do this. UPI Governance Arrangements should maintain the fitness of the UPI System and UPI Technical Guidance for the needs of Authorities.

- **Consideration of other Governance Frameworks**

Governance Frameworks for the UPI should take into consideration other Governance Frameworks that impact other data elements, such as the LEI, the UTI, and other critical data elements for OTC derivatives.

- **Operational viability and continuity of UPI Service Provider operations**

Governance of the UPI System should be such that any UPI Service Provider should be required to have adequate resources, legal authorities, and reasonable policies and procedures in place designated or adequate to ensure operational viability, system security, and business and system continuity and succession, so as to enable it to operate securely and effectively as a UPI Service Provider.

5.3 Appendix 4 – Assumptions

The DSB assumptions set out below underpin the core approach for the UPI service implementation, and thus impact user fees, which are used for cost recovery⁵². Estimated costs will be included in the next consultation, including a breakdown of the key cost components subject to the feedback received in this paper.

This section includes DSB expectations about jurisdictions' existing or proposed regulatory adoption of rules implementing UPI as a product identifier, the estimated number of UPIs to be created (based on the data elements specified in the UPI Technical Guidance document and available to the DSB via an existing service, the OTC ISIN service provision), DSB expectations regarding alignment of the UPI with other international standards, and the existing service model that the DSB seeks to leverage in application of the Lean governance criteria, described in section 5.2.2 *UPI Governance Criteria*, in order to minimize delivery and implementation costs accrued by clients.

With respect to the fee model related considerations set out in this paper, the DSB recognises the need for revaluation following initial adoption of the UPI service to ensure that that the UPI model

⁵² Cost recovery, which incorporates the DSB's financial sustainability margin, includes both recurring costs such as technology & operations, management, administration and external consultants as well as time-limited costs such as amortisation of the build costs.

remains fit for purpose. As such, the DSB intends to consult on the key aspects underlying the fee model 2 years after launch of the UPI service.

5.3.1 Leveraging the DSB's Existing Service Provision

Leveraging the DSB's existing service provision seeks to provide two primary benefits – the first is a reduction of the UPI user fee burden by minimizing implementation and run costs for the DSB, and the second is a reduction of the user's own technology burden so that the several hundred institutions already connected to the DSB can overlay their UPI related workflows in a manner that is more integrated with their other OTC derivative reference data needs.

The DSB is the golden source of the OTC ISIN, CFI and FISN for OTC derivative instruments, for institutions located in or trading with counterparties in the European Union (EU) and the United Kingdom (UK).

The allocation of ISINs, CFI and FISNs for OTC derivatives as well as the provision of access to the OTC ISIN archive and associated reference data, comprise the numbering agency function of the DSB. This function is overseen by ANNA as the Registration Authority for ISIN and FISN standards under contract with the ISO requiring strict adherence to principles over business and technical operations. This includes limiting user fees to cost recovery and requiring reasonable and non-discriminatory (RAND) access to data.

Implementation of OTC ISIN, FISN and CFI codes for OTC derivatives has been achieved through ongoing, collaborative work with market participants, regulators and other standards bodies. The DSB utilises a consultative change process, also specified within the UPI governance criteria described in section 5.2.2 *UPI Governance Criteria*, to allow for stakeholder input to shape the evolution of the service.

In addition to the application of the cost recovery and RAND (unrestricted data and open access) principles, the DSB also ensures equal treatment of all users through utilisation of a common agreement, and the levy of user fees through annual contracts that require payment in advance. These principles aim to secure the financial sustainability of the DSB as well as provide parity and efficiency in delivery of service.

The current level of OTC ISIN, CFI and FISN generated by the DSB is designed to enable users to satisfy obligations under the European Regulations MiFID⁵³ II and MiFIR⁵⁴, with the capability of an identification hierarchy to be introduced as required by industry, such as UPI. This hierarchical framework, with specific consideration of the UPI, was developed as part of the DSB core design following the recommendations from an ISO study group when defining the OTC ISIN. In addition, the CFI codes for OTC derivatives generated by the DSB assist industry's regulatory reporting needs, demonstrating the value of consistently generated identifiers and classification codes that can be efficiently consumed by all users of DSB data.

The DSB currently facilitates access for a broad spectrum of users, including credit institutions, small brokerages, private wealth management firms, boutique asset managers, large, multi-segment and/or

⁵³ Markets in Financial Instruments Directive (MiFID)

⁵⁴ Markets in Financial Instruments (MiFIR)

multi-market trading venues, derivatives houses from across the buy and sell-sides and universal-bank style sell-side institutions with multiple business segments within a single group holding structure.

This consultation requesting feedback to help shape the DSB's service development has been made publicly available on the [DSB website](#)⁵⁵ and promoted globally via press release, as well as sent to the DSB's existing user community, comprising more than 4,100 individuals across 470 organizations. In addition, it has been shared with the regulatory community for onward distribution to each jurisdiction's market participants that will be required to submit UPIs as part of their regulatory reporting requirements. The DSB has also worked with major trade associations and participants in each of its industry forums to raise awareness of the consultation, its purpose and intended timelines.

Within the DSB existing service provision, access is provided to users on the following basis:

- **Power User:** programmatic connectivity for high volume creation and search services (paid usage)⁵⁶
- **Standard User:** manual creation and search services for lower volume users, using [a web-front end](#) (paid usage)
- **Infrequent User:** manual creation and limited search services using [a web-front end](#) – targeted towards very low volume users, with a limit on the number of search results returned and an unlimited number of searches⁵⁷ (paid usage)
- **Registered User:** manual search services using [a web-front end](#), with a limit on the number of search results returned and an unlimited number of searches (free to use)

Irrespective of user type, all DSB users can search for OTC derivative data in near real-time by logging on to the DSB's web front end, conducting a manual search, and downloading the specific record of interest in machine readable format. Market participants are also able to obtain the OTC derivative identifier from their counterparty, or from their trade execution platform and use the identifier as part of their trading workflows.

In addition, to the user services listed above, all DSB users of the CFI, FISN and OTC ISIN service are able to download machine readable records and have free of cost access to (London) end of day files containing a list of all new OTC ISIN records created or updated that day.

Following DSB user feedback in response to the OTC ISIN service industry consultation conducted in 2020⁵⁸, the DSB will also be introducing an additional user services in 2021, the search-only Application Programming Interface (API) user to enable lower volume users requiring systematic access for search-only on a paid basis.

The DSB's TAC set up a TAC Strategy Sub-Committee (TAC SSC) which reviews workflow and infrastructure related elements of the DSB's UPI implementation. The TAC SSC (which is comprised of

⁵⁵ <https://www.anna-dsb.com/upi-fee-model-consultation-2021/>

⁵⁶ The DSB's charges policies for its existing service illustrates how the existing service recovers costs across the differing user categories: https://www.anna-dsb.com/download/dsb-charges-policy_v5_2021_final/. The actual fee values are shown here: <https://www.anna-dsb.com/fees-rules-2021/>

⁵⁷ Following user consultation the DSB has implemented a model where up to 5 results are returned in response to a search by Registered Users and Infrequent Users when using the DSB's web-interface, and the full compendium of search results are returned to other types of DSB users. Note that all DSB users are able to access the full suite of DSB data by downloading the free to use files and subsequently utilizing the data in the users' own systems.

⁵⁸ <https://www.anna-dsb.com/download/2021-industry-consultation-paper/>

both DSB and external stakeholders) has produced an interim report that made recommendations to the broader TAC on a range of UPI technology integration related topics, to enable broader discussion of the subject.

The interim report and associated proposals and assumptions will be discussed at a series of TAC SSC meetings in 2021, to enable the TAC SSC membership to review progress with respect to the findings of the interim report, the assumptions, recommendations, and questions that were raised in the document. The findings of the TAC SSC will be presented to the broader TAC and the final recommendations and any associated cost implications will be taken forward for review by the DSB Board for final review and decision making.

The DSB serves 70% of its users at no charge, and the remainder on a cost recovery basis, with user numbers having direct input into the primary fee variables. All DSB users can contribute directly to the service evolution via both an annual consultation process and two industry driven user forums – the PC and TAC.

DSB users can obtain the required OTC derivative identifier via several channels and use the record as part of their trade workflow, with more sophisticated users obtaining data via several means and others focusing on a single channel as best suited to the organization's commercial, strategic and tactical needs.

Some ways in which users will obtain the OTC derivative CFI, UPI and/or OTC ISIN include:

- from their counterparty
- from the execution platform on which the trade was done
- connect directly to the DSB (via an API, the web-front end, or download data)
- from an intermediary – either a data or technology vendor

Experience with the OTC ISIN thus far indicates that many users have over time sought to connect directly to the DSB to supplement their reference data workflows for a variety of reasons, which include but are not limited to timeliness, efficiency, cost, etc.

Given the synergies between the DSB's existing service and the forthcoming UPI service, leveraging the existing staff, systems and processes as far as practicable, allows for strong application of the Lean governance criteria, described in section 5.2.2 *UPI Governance Criteria*.

5.3.2 Alignment of the UPI with other internationally recognised data standards

The aim of seeking alignment is to allow both the DSB and DSB users to maintain a clear data hierarchy when utilizing each of the CFI, UPI, OTC ISIN, and FISN more easily and consistently.

The DSB is responsible for serving the needs of OTC derivatives market participants through the allocation and distribution of OTC ISINs, the CFI code, and the FISN – all globally recognised and adopted ISO standards. Each standard has an individual purpose and complements each of the other standards. They are each respectively used for identifying, classifying, and describing financial instruments.

The UPI, currently being developed as an ISO standard (ISO/WD 4914), will sit within the suite of ISO standards provided by the DSB as a product level identifier, reflecting a subset of the data elements

required for OTC ISIN. This means the UPI is anticipated to sit between the CFI and OTC ISIN representing an identification framework for OTC derivatives.

The UPI must therefore be fully consistent with the principles set out in the UPI Technical Guidance, which sets out technical requirements for a UPI Code and related reference data, and any further guidance provided by the ROC.

A key assumption is therefore that the data elements contained in each of the CFI, UPI, and OTC ISIN will remain aligned. The PC will work with the ROC to resolve any concerns with respect to alignment of the CFI, UPI and OTC ISIN. An overview of the expected alignment of each is set out below.

Note (a) that the CFI and ISIN exist for both OTC derivatives and other types of financial instruments, whilst the UPI applies only to OTC derivatives at this time, and (b) that the OTC ISIN is the most granular of the three standards in terms of the number and type of data elements that describe the identifier. The data elements describing the UPI can be considered to be mid-way between the granularity of the CFI and the OTC ISIN, with the UPI accompanied by CDE for some regulatory reporting purposes.

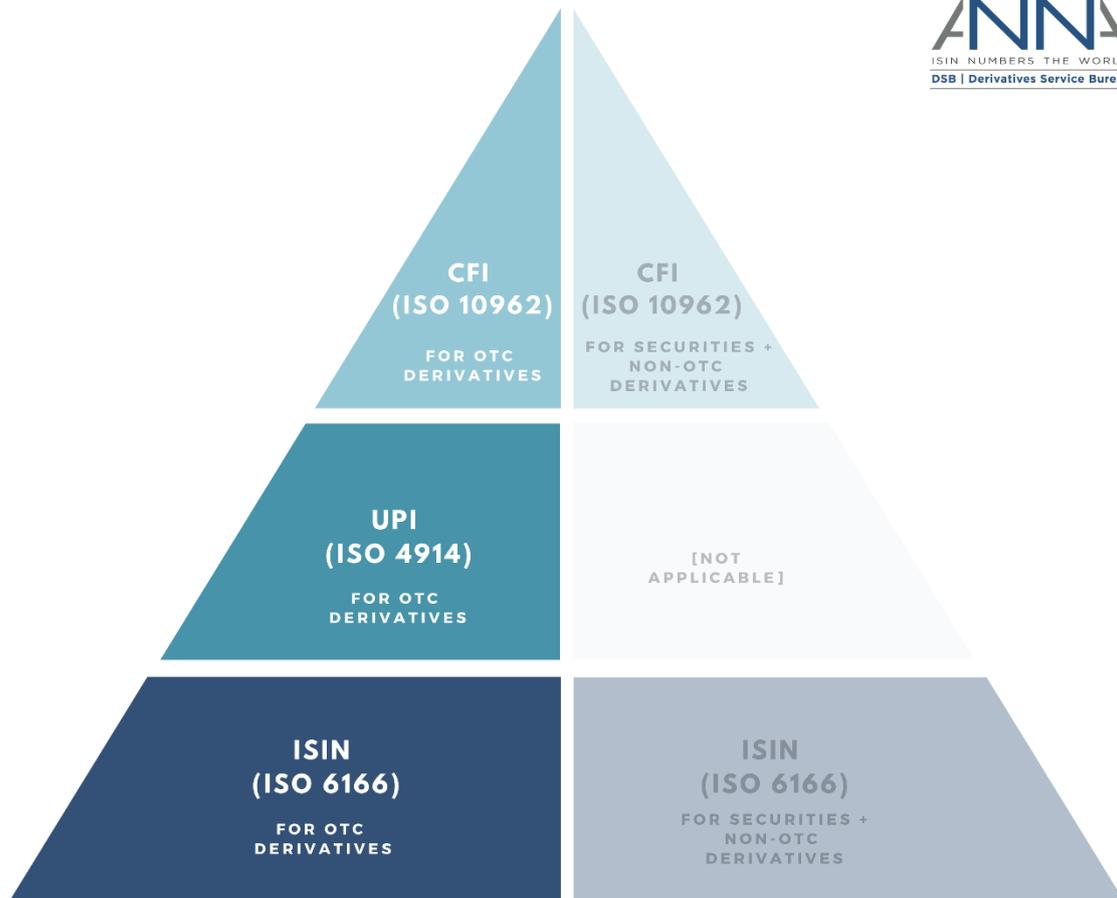


Chart 1: CFI – UPI – OTC ISIN Alignment

It is expected that all OTC derivatives that are reportable to regulators could have one or more of the CFI, UPI and OTC ISIN. The DSB’s product scope ensures that all traded OTC derivative instruments can

have any combination of CFI, UPI and OTC ISINs required by the industry. Users will determine the specific identifiers that are created and therefore available for search and download.

More details on the definition of each of the CFI, UPI and OTC ISIN and the relationship between them, including a worked example setting out the differences between each can be found here⁵⁹ and here⁶⁰.

5.3.3 Product definitions for the UPI

This assumption aims to build on the DSB's existing practice and provide UPI users with insight into how product definitions are created, reviewed, and finalised by the DSB's Product Committee (PC).

The DSB PC comprising a diverse spectrum of industry practitioners and regulators commenced a review of the alignment between the data elements contained in the OTC ISIN and the UPI as set out in the Technical Guidance Document published by CPMI-IOSCO. The aim of the preliminary review was to evaluate the data needs of the UPI and determine to what extent these were already held by the DSB when users were requesting an OTC ISIN and/or CFI code.

The PC has subsequently been engaged in communications first with the FSB and now the ROC as part of its ongoing UPI related work and will undertake a detailed review of the full suite of UPI product definitions (for both input and derived values) so that implementation aspects can be finalised. The PC is also examining any additional data sources that might be required to ensure global applicability of the identifier such as a sufficiently broad set of indices (across a range of asset classes, etc.). As with the TAC, any final recommendations will be made to the DSB Board for final review and decision making.

5.3.4 UPI Creation Estimates

This assumption aims to provide users with insight into the estimates of both the initial UPI creation rate, and the longer-term flow rate so that readers are able to use these as a basis to provide feedback on the principles set out in section 4 of this document.

The DSB estimates the number of UPIs required, as part of a series of inputs to determine the functional and non-functional requirements of the UPI service. Estimates are based on the minimum criteria set out in the UPI Technical Guidance document referenced earlier, in conjunction with the data elements used to define the OTC ISIN.

DSB estimates are based on an extract that uses the OTC ISIN records held by the DSB, with a sample of 27 products included, representing approximately 88% of the total number of OTC ISINs in the DSB database. The product templates⁶¹ selected for this process focused on the 25 products with the most OTC ISINs however, to demonstrate breadth of coverage, the sample was extended to include at least 4 entries for each asset class.

The data provided in this section should be treated as a general guideline as utilisation of OTC ISIN on which the estimates below are based is a key but single indicator of UPI creation volumes. Eventual

⁵⁹ <https://www.anna-dsb.com/2020/04/27/so-whats-in-the-cfi-upi-and-otc-isin/>

⁶⁰ <https://www.anna-dsb.com/upi-ga/>

⁶¹ A product template is the definition of the OTC derivative identifier and contains the list of input and derived fields agreed by the DSB PC as being the most appropriate and consistent description of the instrument or product being identified.

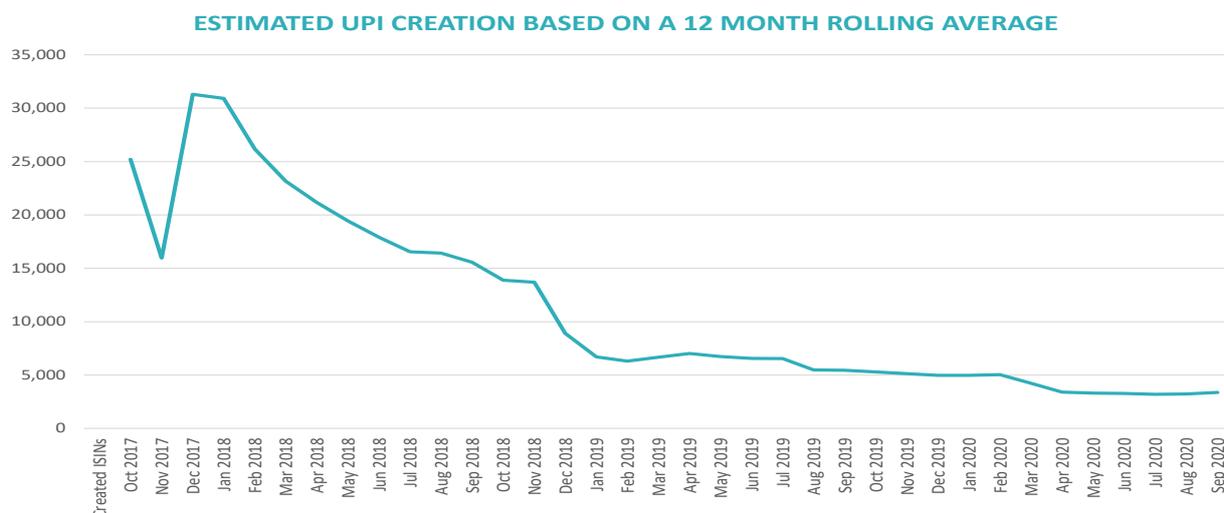
creation of the UPI will be determined by users' specific regulatory reporting requirements, and the precise UPI product templates that are agreed.

The following methodology was used to estimate the possible number of new UPIs each month:

- i. Define an assumed UPI attribute definition for each OTC ISIN template. For example: the FX Swap UPI is made up of Product Name, CFI Code, Notional Currency and Other Notional Currency.
- ii. Find the first creation date of any OTC ISIN with only those attributes. All other occurrences of that combination of attributes are ignored⁶². All additional OTC ISIN attributes (e.g. Expiry Date, Price Multiplier) are ignored.
- iii. Add each returned record to the total for that template/month.

It should be noted that Non-Standard and Basket templates were not included in the sample because the UPI equivalence for these products has yet to be determined – for example, OTC ISINs for products with a basket of underliers are based on individual basket entries, whereas UPIs may be based on a classification of the underlying – which would lead to a significantly reduced population. It is expected that as the specific UPI product definitions of each of these types of products are finalized, the DSB will be better positioned to evaluate the precise impact on UPI creation activities. It is worth noting at this time, such products do not constitute a substantive majority of instrument identifiers.

The chart below highlights the 12-month rolling average based on the methodology set out above. The date range starts at the point at which OTC ISIN generation commenced and shows the subsequent three-year period. As mentioned above, the OTC ISIN is being used as a working proxy in this instance as the instrument templates currently available to users covers the full range of OTC derivatives CFI codes used by the market.



DSB estimates are based on an extract that uses the OTC ISIN records held by the DSB, with a sample of 27 products included, representing approximately 88% of the total number of OTC ISINs in the DSB database. The templates selected for this process focused on the 25 products with the most OTC ISINs

⁶² Such occurrences arise because of the higher granularity of OTC ISIN compared to the UPI due to the additional data elements that define the OTC ISIN including, but not limited to, the tenor and expiry date.

however, to demonstrate breadth of coverage, the sample was extended to include at least 4 entries for each asset class.

The data provided in this section should be treated as a general guideline as utilisation of OTC ISIN on which the estimates below are based is a key but single indicator of UPI creation volumes. Eventual creation of the UPI will be determined by users' specific regulatory reporting requirements, and as such not all OTC ISINs may result in an equivalent UPI being created, and similarly not all UPIs may result in the creation of an associated OTC ISIN. Estimates in this section are for the period from 2 Oct 2017 (when the OTC ISIN service was launched) up to and including 30 September 2020.

Instrument	OTC ISINs Created	Estimated UPIs Created	UPI as % of OTC ISIN
Commodities			
Commodities.Forward.Forward	217,492	642	0.30%
Commodities.Option.Option	68,284	1,534	2.25%
Commodities.Swap.Swap	96,292	1,135	1.18%
Commodities.Multi_Exotic_Swap.Swap	20,584	690	3.35%
Credit			
Credit.Corporate.Swap	417,592	17,089	4.09%
Credit.Index.Swap	31,821	11,168	35.10%
Credit.Sovereign.Swap	32,098	1,689	5.26%
Credit.Total_Return_Swap.Swap	21,278	5,126	24.09%
Equity			
Equity.Portfolio_Swap.Swap	745,316	49,162	6.60%
Equity.Portfolio_Swap_Single_Name.Swap	1,084,430	34,833	3.21%
Equity.Price_Return_Basic_Performance_Single_Index.Swap	1,170,023	11,620	0.99%
Equity.Price_Return_Basic_Performance_Single_Name.Swap	12,481,763	93,705	0.75%
Equity.Single_Index.Option	1,009,643	2,325	0.23%
Equity.Single_Name.Option	1,916,011	28,830	1.50%
FX			
Foreign_Exchange.Barrier_Option.Option	294,840	1,798	0.61%
Foreign_Exchange.Forward.Forward	4,009,620	5,157	0.13%
Foreign_Exchange.FX_Swap.Swap	6,930,027	995	0.01%
Foreign_Exchange.NDF.Forward	700,208	1,371	0.20%
Foreign_Exchange.NDO.Option	327,944	1,241	0.38%
Foreign_Exchange.Vanilla_Option.Option	1,289,203	1,637	0.13%
Rates			
Rates.Basis.Swap	1,440,422	2,963	0.21%
Rates.Cross_Currency_Basis.Swap	684,919	4,567	0.67%
Rates.Cross_Currency_Fixed_Float.Swap	233,638	3,350	1.43%
Rates.Fixed_Float.Swap	4,680,244	4,586	0.10%
Rates.Fixed_Float_OIS.Swap	1,161,524	2,875	0.25%

Instrument	OTC ISINs Created	Estimated UPIs Created	UPI as % of OTC ISIN
Rates.FRA_Index.Forward	395,601	1,330	0.34%
Rates.Inflation_Swap.Swap	293,466	1,173	0.40%
TOTAL	41,754,283	292,591	0.70%