1. Do you believe that the data elements within each asset class described above are appropriate? Why or why not? If there are additional subcategories that you believe should be included for one or more asset classes, please describe them and discuss why you believe they should be included.

CCIL Response: The CCIL-TR hosts data in respect of OTC Derivatives in three asset classes namely:

a) Credit Derivatives: Plain vanilla single name Credit derivatives.

b) Rate Derivatives: Plain vanilla Swaps (Interest Rate Swaps), Cross Currency Swaps and Forwards (Forward Rate Agreement).

c) Forex Derivatives: Plain vanilla Swaps, Forwards and Options.

The data elements ascribed in the document are appropriate and sufficient in respect of OTC products reported to the CCIL-TR.

For the sake of harmonization, certain products which are classified differently under different jurisdictions may be classified under a single Asset class (e.g. Cross Currency Swap (CCS), we understand, are classified as Forex in some and as Rate Asset class in other jurisdictions). Similarly, the derivative products may also be recognized uniformly (e.g. Forward is not categorized as derivative under certain jurisdictions and is classified as derivative under Forex in some jurisdictions).

2. Do you believe generally that the value “Other” is required in certain data elements? If so, which ones and why?

CCIL Response: The value “Other” may be required in certain data elements, in cases where it is not possible to clearly identify the attributes upfront or they cannot be clearly classified under one asset class.

3. For an OTC derivative product based on a custom basket of securities or assets, please provide your view of the optimal means of representing that OTC derivative product.
Do you believe that it is practical to include all of the underlying securities or assets and their risk weights in the UPI reference data? If not, how do you believe that the elements of the custom basket and their risk weights should be reported to a TRs?

**CCIL Response:** We believe this discussion is referenced to credit and equity derivatives. In the case of credit derivatives, only single name credit derivatives are reported to CCIL-TR and hence we do not have any comments to offer. Equity derivatives are not traded in the OTC space and hence not reported to CCIL-TR.

4. How should underlying assets and reference entities be represented in the UPI data library? Would LEIs be suitable, at least for corporate reference entities? Why or why not? Are there suitable identifiers for indices? If not, is it feasible to use an existing identifier such as an ISIN code for them?

**CCIL Response:** For corporate reference entities, both ISIN and LEIs could be suitable, LEI would be useful when identification is at an entity level, whereas ISIN would relate to the specific issuance. However for many of the underlyings like the benchmark, indices, where identification is not possible through either the LEIs or ISINs, creating an identification such as ISIN for the benchmark/index itself can be explored.

5. Do you envisage any obstacles to include the source of the identifier for the underlier as part of the reference data element for the underliers? Please explain and justify.

**CCIL Response:** We do not envisage any obstacles to include the source. We believe that as the source would be a published source, there should be no objection to its use.

6. Could there be issues related to including proprietary benchmarks and indices in publicly available reference data or publicly disseminated UPIs? Please elaborate on any issues such as licensing that may exist.
CCIL Response: As stated above, we do not foresee any governance issues given that benchmark and indices are generally published.

7. What are the arguments for and against the use of a dummy UPI code, an intelligent UPI code, or having both types of code coexisting?

CCIL Response: Where possible, an intelligent UPI code should be used, as it would enable the product to be clearly inferred from the attributes of the product. However, where there exists some amount of ambiguity on the product classification, a dummy code could be constructed using the data library.

8. Do you agree that a well-articulated UPI reference data library could support interoperability between dummy UPI codes and intelligent UPI codes? Why or why not? What steps could be taken with the UPI reference data to facilitate supporting both types of UPI codes?

CCIL Response: Yes we do agree that the UPI reference data library would support interoperability between dummy UPI codes and intelligent UPI codes. Once a dummy UPI code is created, it should be incorporated in the data library, so that it can be reused in the future for products with similar data elements.

9. What are the minimum and maximum lengths (in terms of number of characters) that you believe the industry could accommodate for a UPI code system? How does this vary between dummy and intelligent codes? What do you believe is the optimal number of characters, and why?

CCIL Response: The length of the UPI should neither be too large nor too short, it could vary from about 15-30 characters, depending upon the data elements required to identify specific products. Also, both the intelligent and the dummy code could be of uniform length. The UPI code should be such that it clearly indicates the product in question and its attributes, either through intelligent codes or through dummy codes supported by UPI reference data library.
10. For intelligent codes, how should the information be encoded? Are there existing models for this? How much adaptation would existing models require in order to meet the needs described in this consultation

**CCIL Response:** The intelligent code should be formulated in a manner that it is easily inferred and thereby encoded. For instance, using the first character of each data element as set out in the Consultative Paper, a simplistic way of representing an IRS with a maturity of 1 year, delivery type cash, with underlying being MIBOR would be: ‘RSCSCFM6’ (Rate, Swap, Constant, Single Currency, Cash, Fixed-Float,Mibor, Tenor) Currently, we only distinguish between different asset classes and do not have a product level classification in place.

11. Do you believe that UPI codes should have an inherent means of validation? For example, should UPI codes include a check digit? Why or why not? Does this vary between dummy and intelligent codes and/or depend on the encoding method used in an intelligent code?

**CCIL Response:** Yes, the UPI should have inherent means of validation. This would mitigate chances of manual errors. The validation process is required for both the dummy and the intelligent codes, though the methodology could vary across dummy and intelligent codes.

12. Another means of having a simple, partial validation for a UPI code would be for all UPI codes to be of uniform length: thus, any code that was not of the required length could be recognised as prima facie invalid. Do you believe that all UPI codes should be of uniform length? Why or why not? Or would optimal UPI codes of one asset class likely be longer or shorter than optimal UPI codes for other asset classes? If so, do you believe that extra dummy characters should be inserted into the shorter codes to make them of the uniform length? Why or why not?
CCIL Response: UPI codes should be of uniform length. This will ease the aggregation process and also help in validating the code itself and not leave any ambiguity. Dummy characters could be added to make the UPI code of uniform length and the system development for this would be relatively easier.

13. For an intelligent UPI code, how should underlying asset(s) or reference entity(ies) be represented within the UPI code? Would it be preferable for the part of the UPI code that represents the underlying asset(s) or reference entity(ies) be dummy while the rest of the code is intelligent? Why or why not?

CCIL Response: The reference to the underlying asset(s) or reference entity(ies) in UPI could be through dummy codes. While creating the UPI, market conventions in use for identifying the existing asset classes should be used for the underlying asset(s) and the reference entity(ies) where possible, else a dummy code could be created supported by reference to the data library.

14. Should the UPI code system avoid using Roman letters? Why or why not? Are there particular jurisdictions whose computer systems cannot accommodate Roman letters?

CCIL Response: Though Roman letters could be used, letters which could be mistaken for numerals could be avoided. Also there could be a clear notation distinguishing the letter and the numeral. In our jurisdiction, Roman Letters can easily be accommodated.

15. Would it be preferable for the UPI code system to use only Roman letters, only Arabic numerals, or a combination of both? Why? If Roman letters are included in the UPI code system, should they avoid being case-sensitive? If the UPI code system uses both Roman letters and Arabic numerals, should the system not allow particular characters that could be mistaken for each other (e.g., lower-case ‘l’ and the number ‘1’, the digit ‘0’ and the letter ‘O’, etc.).
CCIL Response: The UPI code system could use a combination of both Roman letters and Arabic numerals. However to avoid any errors, particular characters that can be mistaken should be avoided. Further, the UPI code system should not be case sensitive.