CDM repo workshops

Following the meeting of the European Repo and Collateral Council in November 2019, it was agreed to explore the development of ISDA's Common Domain Model (CDM) for repos and bonds. In collaboration with ISDA and Regnosys, ICMA held three workshops in January, February and March respectively, modelling open repos, and as an initial use case, repo interest payments, followed by the execution of a repo transaction comprising transfer of collateral and cash of both legs.

What is the CDM?

The CDM is essentially a model for trade processing that is machine readable and executable. It was initially developed for derivatives and can be used by all businesses and processes within a firm, and across the entire industry, to ensure consistency in the way lifecycle events are represented in different systems. The aim of the workshops was to demonstrate the benefits of a consistent data model in machine-readable format, using a hands-on format which showed a real-time implementation.

CDM as an enabler of solutions and interface

Based on consistent definitions and digital representations, the key benefits of the CDM include: (i) enhanced interoperability & straight-through-processing (STP) between market infrastructures, including trading venues, order/execution management systems, CSDs, CCPs, and trade repositories; (ii) greater internal efficiencies for firms' various processes and IT applications: eg quoting, trade execution, trade confirmation, reconciliations, settlement, risk management, regulatory reporting; (iii) consistency of regulatory reporting and better regulatory oversight; and (iv) a common foundation for developing innovative solutions (whether based on DLT, cloud or conventional technologies). The CDM can therefore be described as an enabler of solutions rather than a solution itself.

With regard to existing standards and messaging protocols, the CDM can be considered an interface between ISO20022, Financial Product Mark-up Language (FpML), or Financial Information Exchange (FIX), for example. It doesn't replace any existing standards but is essentially a connection between different standards and messaging protocols.

Modelling open repos, repo interest payments, cash and collateral

The functionality of CDM was demonstrated in interactive sessions to model an open repo transaction as well as the execution of a plain vanilla repo transaction, drawing on participants' input. In practical terms, this involved the following steps:

(i) Describing the structure and operation of an open repo such as repo rate, re-rate event, termination, but also a simple DvP scenario ie the transfer of cash and securities of both repo legs.

(ii) Outlining the sequence of steps, for example of repo interest payments, *manufactured* coupon payments, transfer of cash and collateral.

(iii) Identifying commonalities between derivative and repo transactions (such as termination of an open repo which is similar to a call option in a derivatives contract) but also gaps (such as collateral substitution which is specific to repos, price notations eg haircuts, or references to the GMRA for product definitions).

(iv) Modelling features such as the termination attributes and a re-rate of an open repo, or settlement of cash and securities based on existing components in the CDM, and "simulating" other features currently not included such as cash flows related to securities.

(v) Translating these elements into code in the CDM.

(vi) Running a real-time demo, showcasing the output the CDM generates and how the data is validated based on embedded rules.

Further information and supporting materials from the CDM Repo Workshops can be found on ICMA's CDM webpage.

Next steps

To extend the CDM fully to repos and bonds, it will be necessary to conduct a gap analysis between the existing components in the CDM that can be re-used, and those that will have to be newly developed and adapted to the specificities of repo and bonds markets. Test data samples or data schemas will be critical to understand the different permutations of data representations in member firms' internal systems. ICMA member firms that are willing to commit time and resources, for example by sharing test data samples, or to contribute to workshops, are welcome to get in touch.

Contact: Gabriel Callsen
gabriel.callsen@icmagroup.org