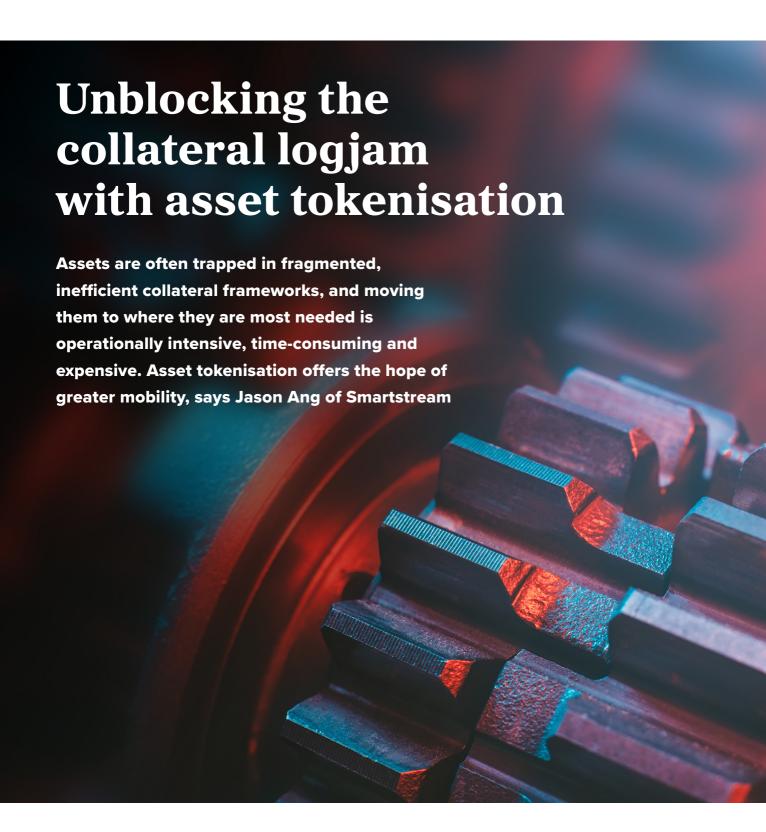


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Post-crisis changes to the financial system, such as central clearing and Uncleared Margin Rules (UMR), have heavily driven the use of collateral between counterparties to financial derivatives deals. While reforms have proved beneficial in mitigating counterparty credit risk, the need for collateral has grown significantly, creating a greater requirement for liquidity.

Liquidity risk represents a growing hazard for financial institutions, as recent stress events — for instance, the 2020 'dash for cash', the 2021 Archegos Capital Management collapse, or the 2022 UK gilts crisis — have shown. When markets move in sudden and unanticipated ways, institutions can find themselves forced to meet sizeable and unexpected margin calls — with the potential to affect their own financial stability and that of the industry more widely.

These are not the only headwinds firms face. Rising interest rates have driven up borrowing costs, meaning meeting margin calls using cash has become an expensive business. The introduction of T+1 settlement in the US, Canada, and other jurisdictions, and its advent in the UK, Switzerland, and EU in 2027, will create an even greater demand for liquidity.

In today's challenging landscape, optimisation strategies are now essential. The International Swaps and Derivatives Association (ISDA) released a whitepaper titled 'Collateral and Liquidity Efficiency in the Derivatives Market: Navigating Risk in a Fragile Ecosystem', and formulated recommendations on a variety of helpful optimisation approaches. These ranged from the utilisation of multilateral initial margin rebalancing to reduce margin requirements, and the greater use of repo and securities lending markets to meet collateral demands, through to the leveraging of cross-product margining opportunities in relation to centrally cleared positions and provisions for allowing for tokenised assets to be used.

Improved collateral governance, robust data management, and higher levels of automation can play a vital role too. Advanced technology, such as Smartstream's collateral solution, can enable institutions to meet financial and regulatory demands more costefficiently, thereby offering valuable assistance.

To further ease pressures, the pool of eligible collateral could be expanded, for example, by extending beyond high-quality liquid assets (HQLAs) to encompass other instruments such as money market funds (MMFs). The ability to dip into a wider pool of assets would make it easier for financial institutions to avoid liquidity issues and bring further advantages such as the lessening of concentration risk.

One of the greatest headaches that financial institutions face in this area is the inefficient nature of traditional collateral networks. At present, collateral tends to be held in a fragmented manner, with assets residing across a patchwork of custodians, central securities depositories (CSDs), and triparty agents. Whenever an asset needs to be moved, settlement must be carried out, a procedure which is operationally intensive and time-consuming.

The ability to move collateral held across different time zones is also limited by dependency on market operating hours. Market cut-off times can lead to collateral lying idle overnight, trapping assets and forcing institutions to turn to other, more costly financing options.

Moving collateral using existing processes can also incur considerable overheads. Clearly, financial institutions require the ability to move their assets rapidly and cost-effectively to where they are most needed. Distributed ledger technology (DLT) and the development of innovative new techniques, such as asset tokenisation, have a potentially transformative role to play in this respect.

Asset tokenisation involves representing ownership of a real-world asset (RWA) as a digital token on a blockchain. The process is now being deployed to create digital tokens that represent assets held by custodians on behalf of clients. The tokens can be transferred almost instantaneously, on a 24/7 basis, via a centralised DLT network in which the custodian participates, to wherever they are required. The assets themselves remain with the custodian and do not move. Smart contracts — digital agreements that are stored on a blockchain and which are executed when predetermined terms and conditions are met — automate critical processes such as margin calls.

Importantly, this technique enables a virtual collateral pool to be created, around which tokens can be moved, circumventing the complexities e.g. time-consuming settlement procedures and fixed market operating hours — which have made traditional networks so cumbersome. It enhances transparency — one source of truth is visible to all — and improves security, as well as introduces more efficient settlement and record keeping. If an unexpected demand for funding occurs, an institution can access its assets promptly, and it is not reliant on other networks being open, unlocking liquidity which would otherwise have remained untapped.

Although still in its infancy, the use of DLT and asset tokenisation is gaining traction, and a variety of initiatives have been launched.

Digital Asset, in partnership with a consortium of financial services firms, including Tradeweb, the DTCC, Citadel Securities, Circle, and Virtu Financial, recently performed the first live onchain financing transaction outside of market hours, highlighting the growing viability of the Canton Collateral Network, while DTCC has launched its Collateral App Chain.

The latter allows financial institutions to tokenise assets using any tokenisation capability, enabling the utilisation of assets issued on any network. Assets remain invested and earn returns but can be applied as collateral for new investment.

A report by ISDA with a coalition of leading global financial trade associations titled 'The Impact of DLT in Capital Markets: Ready for Adoption, Time to Act' illustrates how tokenisation and DLT are being used to reshape the current ecostructure. To fully realise the benefits of tokenisation, interoperability must be prioritised. The industry and regulators should align on common data models like the ISDA Common Domain Model (CDM).

Fragmented market infrastructure, trapped inventory, lengthy settlement cycles, and high overheads hamper optimal collateral management. New initiatives, which harness DLT and asset tokenisation, promise a quick, cost-effective, efficient means of moving collateral, and offer the ability to unlock ensnared assets. These efforts are in their early days, and take-up of the new services remains cautious, but they offer significant potential.

Smartstream believes these innovative technologies have the power to transform the industry — and consequently is already investing in this area. \blacksquare

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