

GDF & ISDA US TMMF Working Group Readout April 16th
Tokenized Money Market Funds (TMMFs) - Legal Finality, Documentation, and Capital Treatment

1. Overview and Context

- a. The working group convened to continue advancing the framework for the use of tokenized money market funds as collateral within derivatives and related markets. The discussion was structured around two primary pillars: (i) settlement finality and required updates to the ISDA documentation, particularly the Credit Support Annex (CSA) and (ii) capital treatment of MMFs under evolving regulatory regimes.
- b. While the group acknowledged that substantial conceptual progress has already been made, particularly through ISDA’s prior publications ([Navigating Bankruptcy in Digital Asset Markets: Netting and Collateral Enforceability](#) in 2023) and ([Tokenized Guidance Note](#) in 2024), the tone of the discussion clearly reflected a transition from high-level design to implementation challenges. Across all topics, the conversation repeatedly converged on the same conclusion: the key obstacles are no longer theoretical or legal in nature, but instead lie in aligning documentation, operational processes, and regulatory treatment with the realities of tokenized infrastructure.

2. Settlement Finality

- a. The most substantive and technically nuanced discussion centered on settlement finality. Participants broadly agreed that the foundational legal frameworks governing collateral transfers, particularly under U.S. law, are already sufficiently robust to accommodate tokenized assets. In particular, the application of safe harbor provisions (covering issues such as preference risk and fraudulent conveyance) remains unchanged regardless of whether collateral is tokenized, as these protections are transaction-based rather than dependent on the form of the asset.
- b. The Uniform Commercial Code (UCC), especially Articles 8 and 9, provides a workable legal structure for defining ownership and transfer of securities or security entitlements, including in tokenized form. As such, there was no meaningful disagreement that tokenized money market funds can, in principle, fit within existing legal categories.
- c. The discussion made clear that legal sufficiency does not equate to operational certainty. The core unresolved issue is not whether a transfer is legally valid, but rather when a transfer should be considered final for the purposes of discharging obligations under a CSA.
 - i. Competing Notions of Finality
 1. Participants highlighted that “finality” has multiple interpretations depending on perspective.
 - a. From a **contractual standpoint**, finality occurs when the transferor has satisfied its obligations under the CSA.

- b. From a **technological standpoint**, finality may depend on blockchain confirmations or the absence of reorganization risk.
 - c. From an **operational standpoint**, finality may require the asset to appear in the recipient's wallet.
 - d. From a **legal/registrar standpoint**, finality occurs only when the transfer agent updates the official books and records.
 - 2. These definitions do not necessarily align, and the lack of alignment introduces ambiguity into whether and when obligations have been fulfilled. As one participant summarized, the central question is how to ensure that when a party believes it has transferred collateral, the receiving party is indeed in a position to use and rely on that asset.
- ii. Allocation of Risk Between Transferor and Transferee
 - 1. A key tension emerged around how risk should be allocated during the transfer process. From the transferor's perspective, there is a strong argument that its obligation should be considered discharged once it has taken all required steps to initiate the transfer (for example, broadcasting a transaction to the blockchain). At that point, the transferor no longer has control over the outcome.
 - 2. However, from the recipient's perspective, this is insufficient. The recipient typically requires a higher degree of certainty, often expressed in terms of a minimum number of blockchain confirmations, to ensure that the transfer is irreversible and that the asset can be safely reused.
 - 3. This creates a problematic "intermediate state" in which:
 - a. The transferor has done everything required from its side, but
 - b. The recipient is not yet willing to recognize the transfer as complete
 - 4. In contractual terms, this could leave the transferor exposed to a technical default despite having no remaining actions it can take. This issue was explicitly identified as one of the most challenging aspects of designing a workable framework.
- iii. Blockchain Finality vs. Legal Finality
 - 1. The discussion further explored the inherent mismatch between blockchain-based systems and legal frameworks. Blockchain finality is often probabilistic rather than absolute, particularly on public networks. Even after several confirmations, there remains a non-zero probability of chain reorganization, which could reverse a transaction.
 - 2. This raises a fundamental issue: legal systems require **deterministic ownership**, whereas blockchain systems provide **probabilistic assurance**.
 - 3. A concrete example discussed involved a transaction that is considered final after a certain number of confirmations (e.g., two blocks), but is later reversed due to a deeper chain reorganization. In such a scenario, the legal documentation may recognize the transfer as complete, while the underlying technology has effectively undone it.

4. Participants emphasized that this type of edge case cannot be ignored, as it has direct implications for legal certainty and risk management.
- iv. Role of the Transfer Agent as “Golden Source”
 1. There was strong consensus that, for tokenized money market funds, which are typically structured as registered securities, the transfer agent plays a central role in establishing finality. The transfer agent’s books and records ultimately determine legal ownership, and therefore represent the “golden source” of truth.
 2. The implications of this depend on the system architecture:
 - a. In a **digital twin model**, where the blockchain mirrors but does not replace official records, there may be delays between on-chain activity and updates to the transfer agent’s ledger.
 - b. In a **digitally native model**, where the blockchain itself constitutes the official record, updates can occur in real time, effectively collapsing the distinction between technological and legal finality.
 3. Even in digitally native systems, however, questions remain regarding how much reliance can be placed on blockchain state alone, particularly in the presence of probabilistic finality.
 - v. Operational Implications
 1. The discussion made clear that resolving settlement finality will require not only legal and contractual clarity, but also new operational processes. For example:
 - a. Transfer agents may need mechanisms to reverse or reissue assets in the event of blockchain inconsistencies
 - b. Systems must handle discrepancies between blockchain records and official ledgers
 - c. Parties must agree on how to treat confirmation thresholds and reorganization risk
 2. In short, settlement finality is not a problem that can be solved purely through documentation or technology; it requires coordinated changes across legal, operational, and technical domains.

3. ISDA Documentation

- a. The group explicitly linked the settlement finality issue to the structure of ISDA documentation, particularly the CSA. It was widely agreed that the resolution of finality questions will ultimately depend on how transfer obligations are defined contractually.
- b. The key challenge is ensuring that the CSA’s definition of “transfer” accurately reflects the realities of tokenized systems, such that the receiving party can be confident it has received the asset before the transferor’s obligation is considered discharged.
 - i. Scope of Required Changes
 1. ISDA has already identified multiple sections of the CSA that may require revision, including provisions relating to interpretation, transfers, representations, definitions, and conditions precedent.
 2. Particular emphasis was placed on:

- a. The definition of “transfer”
 - b. Conditions precedent to satisfaction of obligations
 3. These provisions are likely to be the primary mechanism through which finality is operationalized.
- ii. Current Framework and Limitations
 1. The existing ISDA tokenized collateral framework, developed in 2023 and supplemented in 2024, was intentionally designed to be high-level and flexible. It allows counterparties to define finality on a bilateral basis, rather than imposing a single standard.
 2. While this flexibility was appropriate at an early stage of market development, participants indicated that the market is now seeking greater standardization. At the same time, there is a recognition that overly prescriptive rules could limit adoption or fail to accommodate different technological models.
- iii. Likely Direction of Travel
 1. The emerging consensus is that documentation may be moved toward a framework that offers **multiple configurable options**, allowing counterparties to select parameters such as:
 - a. Required confirmation thresholds
 - b. Reliance on transfer agent updates
 - c. Treatment of different blockchain architectures
 2. This approach would preserve flexibility while providing a clearer structure for implementation.

4. Capital Treatment

- a. The second major topic addressed was the regulatory capital treatment of money market funds, particularly in light of Basel III endgame proposals.
- b. The discussion highlighted a potentially significant issue: while tokenization itself is not expected to change the regulatory classification of an asset, the way in which money market funds are treated within bank balance sheets could result in disproportionately high capital requirements.
 - i. Trading Book vs. Banking Book
 1. Participants distinguished between two primary scenarios:
 - a. If money market funds are held in the **trading book**, capital requirements are driven by market risk metrics (e.g., Value-at-Risk or Expected Shortfall). Given the low volatility of such funds, the resulting capital charges are expected to be minimal.
 - b. If money market funds are held in the **banking book**, they are typically treated as equity exposures to investment funds. Under current rules, this can result in a **minimum risk weight of 20%**, regardless of the underlying risk profile.
 2. This creates a situation in which a low-risk, highly stable asset could attract a relatively high capital charge.
 - ii. Impact on Different Institutions
 1. The issue is particularly relevant for:

- a. **Bank treasury functions**, where assets may be held for liquidity or asset-liability management purposes
 - b. **Smaller banks**, which may not maintain a trading book and therefore default to banking book treatment
 2. In contrast, asset managers and hedge funds are less directly affected, as they are not subject to the same capital requirements.
- iii. Strategic Implications
 1. Participants suggested that this issue may require **regulatory advocacy**, particularly to ensure that capital treatment more accurately reflects the underlying risk characteristics of money market funds.
 2. At the same time, it was noted that market behavior may mitigate the issue in practice. For example:
 - a. Banks may prefer to reuse or repo out received assets rather than holding them on balance sheet
 - b. Tokenization may enable more efficient turnover, reducing the need to hold inventory
 3. Importantly, the group emphasized that this is **not a tokenization-specific issue**, but rather a broader question of how money market funds are treated under existing capital rules.

5. Market Structure and Adoption Considerations

- a. The discussion also provided insight into how tokenized money market funds are likely to be used in practice.
- b. At present, the primary holders of such assets are expected to be asset managers and hedge funds, which would post them as collateral to banks. Banks, in turn, are likely to seek to reuse these assets through repo or other mechanisms, rather than holding them outright.
- c. Tokenization is viewed as enabling this reuse by overcoming the operational constraints associated with traditional money market funds, which are not easily transferable or repo-eligible.

6. Next Steps and Forward Agenda

- a. The meeting concluded with a clear set of next steps. An off-cycle working group session will be held to focus specifically on documentation, with particular emphasis on CSA model provisions.
- b. Participants were encouraged to:
 - i. Review the identified CSA sections
 - ii. Provide feedback and proposed language
 - iii. Contribute views on capital treatment and operational models
- c. In parallel, [The Value Exchange is conducting a survey](#) to gather broader market input regarding Tokenized MMFs as collateral. Working group members are encouraged to participate.