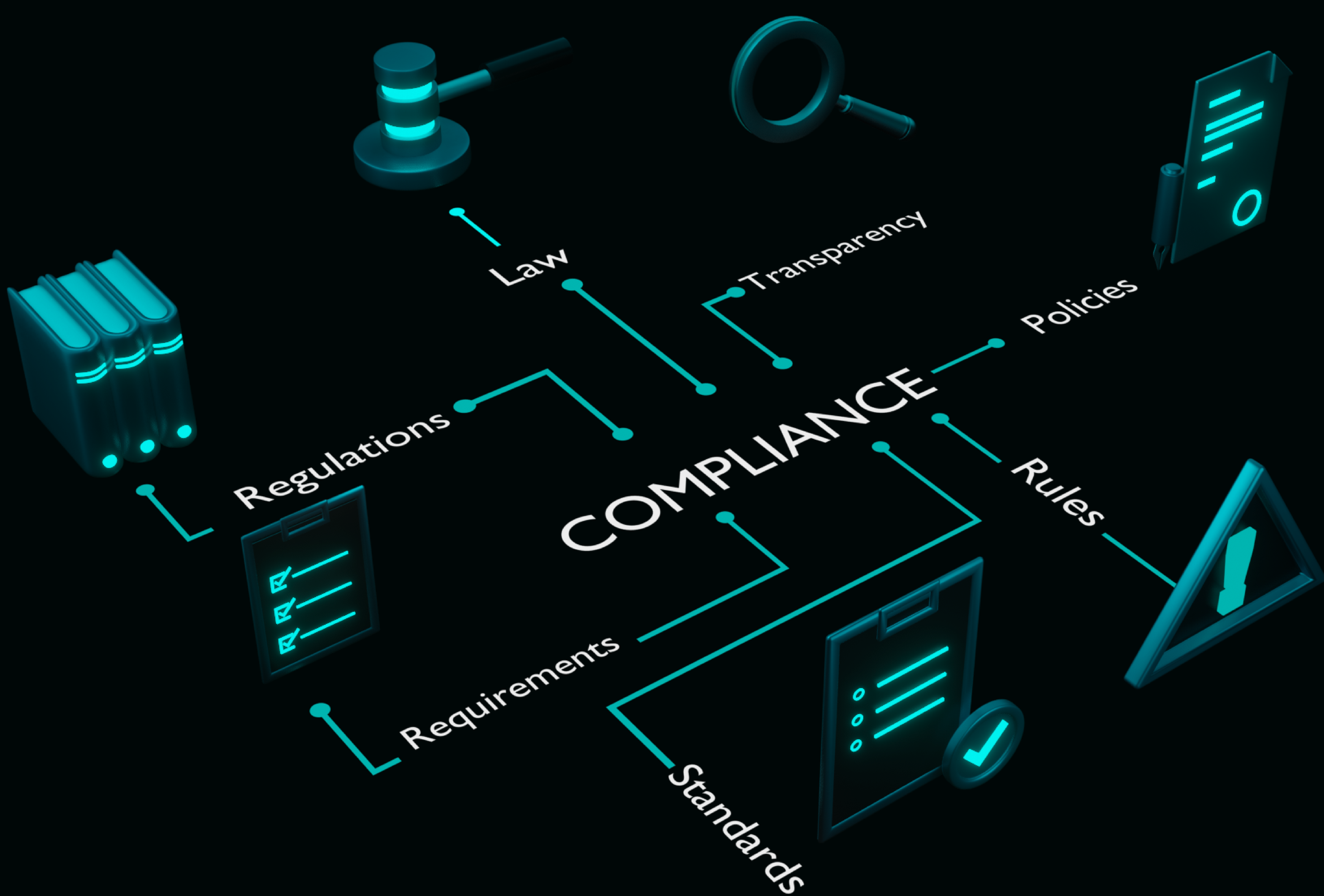
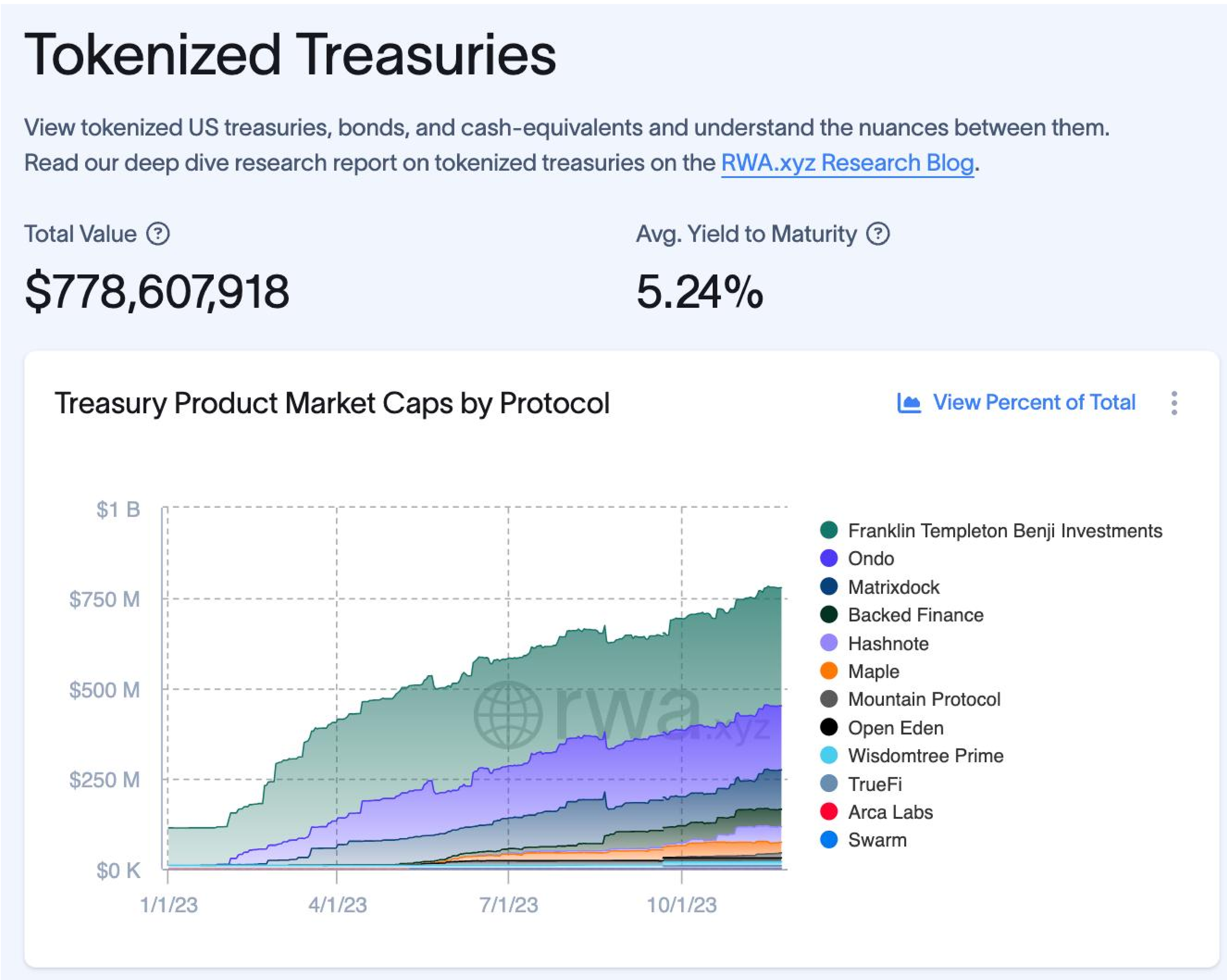
Legal and Regulatory Analysis of U.S. Tokenized Treasury Bills for Investors

January 2024



Commissioned by Cogito Network Inc.

Recently, tokenized RWAs have gained attention as a more stable long-term use-case of blockchain. Tokenized short-term treasury bills (t-bills) are especially attractive to onchain investors––digital asset firms, protocol treasuries, and crypto investment funds––seeking reliable yields surpassing those of DeFi stablecoins. Key value propositions of tokenized t-bills also lie in their transferability and interoperability, providing holders utilities such as trading across diverse platforms, using them as collateral for borrowing, and staking to earn additional yields. We have certainly seen a boom in t-bill tokenization, with the treasury product market capitalization totalling to >$750M, marking a 700% increase in this year alone (rwa.xyz).



However, t-bill tokenization certainly comes with its challenges, with uncertain regulation as a major obstacle for the space to overcome. As we've seen thus far in 2023 with many ongoing legal battles between major blockchain projects and the US SEC, the major developments in crypto regulatory landscapes, and global reactions to the fall of FTX, regulation is an ongoing issue that needs to be addressed for the long-term and continued adoption of blockchain technologies and on-chain asset tokenization. Just as the rest of the cryptocurrency industry is challenged by an uncertain and evolving legal landscape, regulatory uniformity across jurisdictions is lacking for t-bill tokenization.

Companies hoping to offer a tokenized t-bill product must first decide where to operate, and weigh the tradeoffs between various countries' regulations. Once they choose their jurisdiction, they must set their legal structure and register these entities under the appropriate country-specific regulations, trading off between breadth of international customer base or access to US investors which restricts further access to non-US investors. They must then overcome the challenge of holding assets and proving ownership of said assets, and maintain the token's value in all situations.

Offering tokenized t-bills in the US is especially challenging due to relatively stringent securities law, but certain regulatory exemptions do exist.

In this research piece, we deep dive into the different legal structures protocols tokenizing T-bills have leveraged to bring regulatory certainty to their products. Specifically, we examine Ondo, OpenEden, Swarm, Mountain, Maple, Backed.Fi, Superstate, WisdomTree, Franklin Templeton, Centrifuge, and Cogito, helping us create a generalized framework for understanding regulatory standings of projects in the space.

To develop an understanding of the challenges of tokenizing t-bills, the current regulatory landscape surrounding the space, and the jurisdictional differences that differentiate existing protocols, we explore a wide variety of case studies on existing and upcoming protocols operating in the space. We hope to provide a more comprehensive guide to investing in these particular assets for investors interested in the space, starting with a detailed synthesis of our findings and curiosities surrounding this vertical.

While tokenizing t-bills presents an innovative development in the continued exploration of digital assets, it also brings a range of technical, regulatory, and operational challenges that need to be carefully addressed. Tokenizing t-bills involves navigating complex legal frameworks and ensuring compliance with securities laws in various jurisdictions – clarifying the legal rights of token holders and the enforceability of these rights in different jurisdictions can be complex. This includes understanding how bankruptcy, insolvency, or default scenarios would affect token holders.

Virtual Asset Service Providers (VASPs) are entities that provide services related to digital assets, such as exchanges, wallet providers, and certain types of token issuers. Compliance with VASP regulations is critical for businesses in the digital asset space, and this compliance can look very different in different jurisdictions. However, there are a lot of similarities across robust KYC procedures, AML policies, and measures that are in place to combat the financing of terrorism. These requirements typically involve thorough customer identity verifications monitoring of transactions for suspicious activity, etc.

For example, we found that in many of the protocols we explored, they employed legal entities based in the Bahamas, Cayman Islands, and Switzerland, to name a few. To understand some of the underlying trends we see in regulatory status, here are a few outlines of prominent regulation existing in many of the jurisdictions:

After the FTX bankruptcy last fall placed scrutiny on the Securities Commission of The Bahamas, they published a new draft of the Digital Assets and Registered Exchanges (DARE) bill earlier this year in April. This draft updated the Act of 2020, expanding the scope of regulated business activity to include the advising and management of digital assets, and setting requirements for systems and controls. The bill launched a novel disclosure regime, requiring businesses undergoing the application process to disclose client agreements and extensive business/asset information.

In the Cayman Islands, the Virtual Asset (Service Providers) (VASP) Act requires virtual asset service providers, including issuers, custodians, trading platforms, and dealers, to be supervised by the Cayman Islands Monetary Authority. The Act emphasizes the need for service providers

To exercise due care, maintain effective security systems, and establish robust corporate governance and resilience systems. Additionally, there are requirements for systems, policies, processes, and procedures for financial crime prevention, detection, and disclosure, as well as for the protection and segregation of customer assets and data. The Act implements the Financial Action Task Force's guidance on a risk-based approach for VASPs and its recommended AML/CFT standards.

Bermuda's Digital Asset Business (DAB) Act created one of the first FinTech-specific regulatory regimes. The Act focuses on encouraging innovators while ensuring the protection of investors' interests and the financial ecosystem. Similar to the Cayman Islands, it mandates service providers to maintain effective systems for security, governance, financial crime prevention, and asset and data protection.

In Switzerland, the regulatory landscape for Virtual Asset Service Providers (VASPs) is governed by the Swiss Financial Market Supervisory Authority (FINMA). VASPs in Switzerland are required to apply for a license from FINMA, adhering to stringent Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) requirements. These include Enhanced Due Diligence (EDD) measures, rigorous Know Your Customer (KYC) checks, and ongoing monitoring of customer transactions. FINMA ensures that VASPs comply with the Financial Action Task Force (FATF) recommendations, which Switzerland is a signatory to. Additionally, the Swiss "Travel Rule" imposes requirements on VASPs to transmit personal identifying information of their customers during transactions.

For all of these jurisdictions, there is a significant focus on aligning with global standards such as those set by the Financial Action Task Force – these regulatory frameworks reflect a balance between fostering innovation in the virtual asset space and ensuring the safety of investors.

For operating in non-US jurisdictions, we see entities utilize a variety of legal structures to grant access to accredited investors or registered users through KYC and AML measures outlined by many of the above jurisdictions:

- Swarm is a German-based licensed compliance layer on top of an AMM DEX, allowing for tradeable tokenized real world assets for all non-US accredited investors.
- Cogito is based in the Cayman Islands. They employ a segregated portfolio company structure with distinct investment funds to protect investor owned funds, one of them being the Treasury Bill fund that is available to non-US persons.
- Mountain Protocol is Bermuda-based, and they operate under a Class M "Sandbox" Digital Asset Business License by Bermuda Monetary Authority. The license allows Mountain to, for a specified period, legally issue, sell, and redeem the USDM token to investors in nearly all countries outside the US, as long as they pass Mountain's account

- application and KYC/AML screenings. Bermuda is known for its transparent policies as seen in the case study. The USDM tokens are also redeemable for USDC 24/7 backed by securities held in Bankruptcy-remote accounts, which is a significant selling point.
- Backed is unique for its Switzerland-based legal structure, which results in its operation for only registered, KYC and AML-verified users. The company operates under the Swiss Distributed Ledger Technology Act (DLT), which ensures the company's reliability to investors through activity reports to the government and the separation of non-crypto and crypto assets. The token itself tracks a treasury bill ETF and is also redeemable for the token's USD value 24/7, collateralized by custodian banks.

- But what about investors in the United States? There are a couple of ways that protocols have found to offer tokens in the US (see case studies on Superstate, Ondo, and OpenEden to understand the different regulations US-offering tokens fall under), but more broadly, what reach does the US SEC have over non-US entities?

US Interference with non-US Entities

- The non-US-registered companies are not allowed to advertise, offer a website accessible in the US, or sell tokens to US residents. Thus, investors must approach protocols and investments on their own.
- If these protocols find an address holding their token that belongs to a US person or sold a token to a US person, they reserve the right to block the address and suspend/terminate the account.
  - For the token issuer, this situation could lead to regulatory scrutiny and potential legal action by the SEC.
  - For example, we saw this occur earlier this year when the US SEC alleged in their suit against Binance that US investors were not sufficiently blocked from the Binance website targeted at non-US customers, and that Binance had unlawfully advertised to US investors.
  - It is possible that if a US person gained access to tokens only offered outside the US on secondary exchanges or contravened investment regulations, that the US SEC could allege that the securities have violated US securities laws and pursue legal action.

Structural Safeguards: Bankruptcy Remote Entities & Segregated Portfolios

These structures aim to protect investors' assets from the risks of the parent company. In the case of bankruptcy remote entities, assets owned by tokenholders are placed in special purpose vehicles, separate accounts, or limited partnerships and are preserved in the event of parent company bankruptcy. We see examples of such structures in:

- Ondo, where Ondo I LP is a bankruptcy remote limited partnership holding all assets that back OUSG, which are owned completely by token holders and not rehypothecated

- OpenEden, where OpenEden Cayman Ltd is a bankruptcy remote SPV storing and investing in real world assets corresponding to the tokens
- Mountain, where US treasuries that back USDM are custodied in bankruptcy remote accounts custodied by Fidelity
- Maple, where deposited USDC in the Cash Management Pool are sent to a bankruptcy remote SPV run by sole borrower Room40 before being converted into USD for purchasing T-Bills

Segregated portfolios are also used to assure that the risks and financial performance of one portfolio does not affect another's of the same company. These structures provide an extra layer of risk mitigation, as seen in:

- Cogito, where Treasury SP functions as a segregated portfolio that forms part of Ergo Sum SPC. Assets are clearly segregated between the portfolios so that it is easy to establish (ie. in a bankruptcy scenario) which assets belong to which investors or token holders, who rank above shareholders and thus are entitled to the assets of the relevant segregated portfolio.
- Centrifuge, where distinct SPVs are used for each investment pool to separate the Asset Originator's business from the financing activities within the pool

Investor Rights

There are many ways for investors to ensure additional transparency and protection regarding the tokens that they are interested in purchasing or investing in. Purchasing a t-bill is essentially purchasing a digital representation of ownership / rights to U.S. Treasury Bills, representing an interest in the underlying equivalent yield associated with these government securities. That being said, looking for protocols and platforms that provide regular audits, attestation reports, traditional record keeping, or proof of reserves, depending on the protocol, is generally a positive indication of needed transparency that can generate greater confidence in clients.

The Future Regulatory State

With the boom of t-bill tokenization projects within the past year, regulatory bodies around the world are taking steps towards building a well-defined regulatory state. We outline notable recent actions and pending legislation from major regulatory bodies below:

- Project Guardian in Singapore, Japan, UK, and Switzerland (Oct 2023): This initiative, involving major financial authorities, aims to advance the regulation of real-world asset tokenization. They focus on legal and accounting treatment, identifying policy gaps, developing common standards for digital asset market design, and creating best practices applicable across jurisdictions. This collaboration underlines the importance of international regulatory coordination in the evolving digital asset space.

- Europe's MiCA Regulation and Germany's ZuFinG (June 2023): The European Markets in Crypto-Asset Regulation (MiCA) and Germany's Future Financing Act (ZuFinG) reflect a growing trend towards stringent regulations. These frameworks mandate enhanced consumer protection, with service providers required to safeguard consumer wallets and keys, separate client assets from their own, and assume liability for lost crypto assets
- Hong Kong's Tokenized Securities Circular (Nov 2023): The Securities and Futures Commission (SFC) in Hong Kong recently released two circulars, clarifying treatment of tokenized securities as traditional securities with a tokenization wrapper. This implies that existing legal and regulatory frameworks, like the Companies Ordinance and Securities and Futures Ordinance regimes, are applicable. There's a significant focus on consumer protection, similar to the MiCA, with mandates for licensed trading platforms to establish compensation arrangements for potential losses of security tokens.

The landscape is evolving through robust international cooperation initiatives and a strong push for more stringent consumer protection measures. Despite current regulatory uncertainty, we are certainly on the path towards a more integrated, efficient, and transparent tokenized t-bill market.

Background

Cogito's project involves tokenizing traditional assets like Treasury Bills through a blockchain-based protocol. The primary focus is on creating
a digital representation of these assets to facilitate easier and more efficient trading and investment processes.

Legal Structure

Cogito operates through Ergo Sum SPC, an exempted company in the Cayman Islands. Ergo Sum SPC is a segregated portfolio company, enabling it to manage multiple distinct investment funds, including Treasury SP. This structure allows for the statutory segregation of assets and liabilities between each portfolio. Treasury SP, as one of these segregated portfolios, functions with its own specific investment objectives, strategies, and restrictions. The liabilities of each portfolio, such as Treasury SP, are enforceable only against its assets, ensuring legal and financial independence from other portfolios and Ergo Sum SPC's general assets. This arrangement facilitates tailored investment approaches for each segregated portfolio under Ergo Sum SPC's umbrella, with the flexibility to issue multiple classes of tokens for each segregated portfolio. The TFUND Tokens are specific to Treasury SP, a segregated portfolio of Ergo Sum SPC. These tokens represent digital forms of investment in U.S. Treasury Bills.
Treasury SP appoints Soroban Fund Services (based in Hong Kong) as its fund administrator and Interactive Brokers LLC as its custodian.

Investor Rights and Abilities

Investors in Treasury SP through TFUND tokens have specific rights and obligations regarding investment, redemptions, and management fees:

- Minimum Initial Investment: The minimum initial investment for a subscriber is USD 100,000. This establishes a baseline for investor entry into the fund.
- Minimum Subsequent Subscription: For subsequent subscriptions, the minimum amount is set at USD 10,000, although the directors may accept smaller amounts in certain cases.
- Subscription Fees: No subscription fees are applicable to the subscription of TFUND tokens, making the process of acquiring these tokens more accessible and cost-effective for investors.
- Redemption of Tokens: Investors can redeem their TFUND tokens at the Net Asset Value per token as at the valuation point on the relevant Redemption Day. The process for redemption is outlined in the Cogito Protocol, ensuring a structured and transparent process.

- Redemption Fee: A redemption fee of 0.1% of the redemption proceeds is applicable for each TFUND token redeemed. This fee is deducted from the redemption proceeds and is used to cover transaction fees and other associated costs. The directors have the discretion to waive all or part of this fee in certain cases.
- Management Fee: A management fee is payable to the Investment Manager, typically at the end of each calendar month. The Investment Manager has the discretion to reduce or waive this fee, with any such reductions potentially being capitalized to issue further TFUND tokens to the beneficiary investor. No performance fee is applicable to the fund or the TFUND tokens.
- Restrictions on Redemptions: Requests for redemption of tokens with an aggregate Net Asset Value of less than USD 10,000 may be refused, indicating a threshold for redemption activities.

Regulatory Status

Cogito's offering, particularly the tokens associated with its segregated portfolios, are not available to US persons. The transfer of tokens to US individuals or entities is explicitly prohibited.

Investors interested in investing in Treasury SP through Cogito are required to undergo KYC and AML processes. The key aspects of these processes are:

- AML Compliance: The company, in accordance with the Anti-Money Laundering Regulations of the Cayman Islands, has appointed individuals to serve as Anti-Money Laundering Compliance Officer, Money Laundering Reporting Officer, and Deputy Money Laundering Reporting Officer. These appointments are in line with guidance issued by the Cayman Islands Monetary Authority (CIMA).
- Identity and Funds Verification: Prospective investors are required to provide relevant documents for verifying their identity, address, source of funds, and/or source of wealth. This includes both direct investors and beneficial owners or individuals who control an entity investor. The documents can be submitted either manually or through a form provided by the Directors and Administrator, and evidence for verification is uploaded onto the Cogito Protocol website.
- Whitelisting Process: After the verification procedure is completed to the satisfaction of the Company and the Administrator, the investor’s wallet connected to the Cogito Protocol will be whitelisted and allowed to trade TFUND tokens.

Sources: PPM

Protocol:
Cogito (TFUND)

Location:
Cayman Islands

License of Operation:
Cayman Islands Monetary Authority (CIMA) Regulation

High-level structure:
Registered portfolio of segregated registered mutual funds

Investor Access:
Non-US accedited with a minimum $100k investment entry

Token Representation:
Share in basket of US government bonds

Fees and Coverage:
0.1% Redemption Fees,
0.3% Management Fee on AUM,
Covers investments over $100k

Token Redemption:
Redemption for NAV per token as of redemption day

Secondary Market Offerings:
Permitted between whitelisted wallets

Token Issuer:
Ergo Sum SPC

Asset Custodian:
Interactive Brokers LLC

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
Soroban Fund Services

Traditional Record Keeper:
Soroban Fund Services

Attestations/Audits:
Yes

Background

We've seen from many major projects, such as MakerDAO, Circle, and Tether, that tying their treasury funds to Treasury bonds and other liquid assets is beneficial in terms of balancing risks and increasing profitability. As one of the only protocols that we're delving into that is offered in the US, the legal and regulatory roots of Ondo Finance are certainly an interesting case study from the perspective of government tokens on-chain. Currently, even leading stablecoins such as USDT and USDC don't give investors earned interest. Their platform supports US Money Market Funds (OMMF), US Treasuries (OUSG), and most recently, USD Yield (USDY), which is off limits to US investors. OMMF and OUSG are also available through Flux Finance, in which retail investors can opt for indirect yield access through stablecoin pools.

Legal Structure

Ondo Finance is just the first layer, primarily operating with a legal structure established in the United States. Let's take a closer look at some of the key components comprising their framework:

- Ondo I LP: A Delaware limited partnership where investors can contribute their capital and who will hold the fund assets. This is the entity that issues the token, and it follows a pretty standard fund structure:
  - Ondo Finance Inc: Parent Company
  - Ondo I GP: General Partner, responsible for managing the fund and instructing the service providers.
  - Ondo Capital Management LLC: Investment Manager
  - Ondo USDY LLC, a US specialty purpose vehicle

In contrast to other stablecoins currently on the market, OUSG is issued by Ondo I LP, a limited partnership that is bankruptcy-remote from the operating company. Because of this, the assets that back OUSG are holder-owned and not rehypothecated. OUSG aims for low-risk investment, focusing on stable and liquid short-term US Treasuries. The fund targets a yield of 4%+ and offers daily liquidity. It carries an AAA risk rating. The primary holding is BlackRock's iShares Short Treasury Bond ETF with over $19 billion in net assets.

The fund partners with third parties like Coinbase, who convert stablecoins into USD and transfer them to Clear Street. Then, Clear Street acts as a registered custodian that can provide primary brokerage services and hold the fund's assets, though they are technically owned by the token holder.

Investor Rights and Abilities

The subscription process for individuals and legal entities interested in Ondo products involves KYC/AML compliance, Ethereum wallet whitelisting, and fund token issuance upon investment. To be eligible to invest in their shares, users must be both an accredited investor and a qualified purchaser. The SEC defines accredited investors with qualifications such as income, net worth, and securities licensing, while qualified purchasers are characterized by an AUM test. These clients have access to purchasing securities not registered with the SEC, due to the increased risk associated with these funds.

Regulatory Status

Ondo offers tokens to users based in the US using the Qualified Purchaser Exemption, allowing Ondo to serve as an exemption to registering their products with the SEC. However, this means that Ondo operates almost completely unregulated. Though their docs claim extensive branching between their separate entities, and they place an emphasis on how they employ various structural protections to safeguard investor funds in the event of bankruptcy, the private market creates space for lack of standardized reporting and disclosure. We've yet to see documentation on asset audits since the launch of any of their funds, which may cast doubt for investors.

On-chain Treasury Bonds: https://xangle.io/en/research/detail/1509
Ondo and Flux Mechanisms: https://itsa-global.medium.com/defi-insight-investing-in-bonds-and-us-treasuries-with-ondo-finance-3c4c08ddc6c1 – talks about ondo and flux and defines their mechanisms in detail
SEC Ondo Classification: https://www.sec.gov/oiea/investor-alerts-and-bulletins/exercise-caution-crypto-asset-securities-investor-alert
Regulatory Risks: https://www.ledgerinsights.com/fed-tokenization-stability-risks-tradfi-defi/

Protocol:
Ondo (OUSG)

Location:
US (Delaware)

License of Operation:
Qualified Purchaser Exemption

High-level structure:
Traditional Fund Structure

Investor Access:
Accredited Investor/Qualified Purchaser

Token Representation:
Underlying bond value

Fees and Coverage:
Investments over $100k

Token Redemption:
Redemption through Ondo web interface for token's value in USDC

Secondary Market Offerings:
Undisclosed

Token Issuer:
Ondo I LP

Asset Custodian:
Ondo US LLC

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
Ondo Capital Management LLC

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Yes

Background

Swarm is a platform tokenizing tradeable real-world assets including T-bills and public stocks. The platform allows trading for both retail and institutional investors (such as banks, hedge funds, asset managers) and on-chain organizations (stablecoin issuers, treasury managers), after meeting KYC and AMLs standards. Swarm utilizes Automated Market Maker (AMM)-based decentralized exchanges (DEX) but adds a regulatory layer to ensure compliance with financial market standards.

Legal Structure

Swarm is essentially a compliance protocol layered on top of an AMM, the core functionalities of which are forked from the Balancer Protocol. That is, Swarm adds a permission layer to only allow qualified users to access liquidity for qualified digital assets, thus removing the need for a centralized entity to facilitate transactions.

However, trading on Swarm is not available for US persons. Its KYC/AML processes for individual persons are managed through Passport, which each user must set up through connecting a wallet, verifying an Ethereum address, validating an email address, and verifying their identity through third party vendors Sum and Substance (upload identification documents and complete a facial biometrics scan) or Yes.com (validating online bank account information).

Investor Rights and Abilities

For business accounts, KYB processes are initiated through an individual Swarm account, which can link multiple business accounts through connecting one blockchain wallet address each. Company and beneficiary data must be uploaded, including details of any significant shareholders with more than 25% control over the business.

Regulatory Status

Swarm Capital GmbH is a licensed, for-profit entity operating under the section 64y exception of the German Banking Act ("KWG) and is regulated by the Federal Financial Supervisory Authority (BaFin) in Germany. Under this license, Swarm is authorized to conduct businesses in:

- Commission Business / Principal Broking Services
- Investment Brokerage
- Placement Agent
- Crypto Custodian

Each security Swarm issue has an associated International Securities Identification Number (ISIN).

Swarm Docs: https://docs.swarm.com/

Protocol:
Swarm (TBONDS01)

Location:
Germany

License of Operation:
Section 64y Exception of German Banking Act from Federal Financial Supervisory Authority (BaFin)

High-level structure:
Parent company and associated company

Investor Access:
non-US investors who pass email, wallet, and either bank information or identification documents

Token Representation:
Underlying RWA

Fees and Coverage:
Pool swap fees (determined by creator of each pool) and protocol fees (25% of swap), 50% coverage if enough transactions by wallet

Token Redemption:
Redeemed for value of underlying asset at any time n USDC, fulfilled once requests reach 100k$ aggregate value

Secondary Market Offerings:
Undisclosed

Token Issuer:
Swarm Markets GmbH

Asset Custodian:
Swarm Capital GmbH

Bankruptcy-remote:
Undisclosed

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Undisclosed

Background

OpenEden's Vault is a Treasury Bill Token launched May 2023 that focuses on investor transparency and support of secondary markets. Vault is also another one of the few tokens offered in the US, made possible through its Virgin Islands-based legal structure and Regulation D Exemption.

Legal Structure

OpenEden uses a global variety of legal vehicles:

- OpenEden Labs Pte Ltd developed Vault and an unregulated financial technology company.
- Hill Lights International is the token issuer and a professional fund regulated under the British Virgin Island Financial Services Commission. The vehicle operates according to BVI's 2010 Securities and Investments Business Act, which requires token issuance to comply with BVI's regulations, a potential limiter for token sales worldwide if deemed a security.
- OpenEden Cayman Ltd is a bankruptcy-remote Special-purpose Vehicle (SPV) that stores and invests the real-world asset corresponding to the tokens. This allows the assets to remain in possession of the SPV even if the parent company declares bankruptcy.
- SwissQuote Bank: Their primary treasury bill broker and custodian which operates under the Swiss Financial Market Supervisory Authority.
- TJ Assurance Partners PAC: Performs monthly audits in Singapore according to Singapore's Financial Reporting Standards, granting investors clear and consistent real-world verification of token-represented RWAs.

Investor Rights and Abilities

Vault is an ERC-20 backed by US Treasury Bills that allows 24/7 interaction for investors. OpenEden also supports secondary market transferability between whitelisted wallets. Finblox, a high-yield exchange, acts as an intermediary through which users exchange Circle's USDC token for OpenEden's US Treasury Bill Token.

Regulatory Status

The token is allowed to operate in the US under their exemption from Regulation D, a law used by issuers to sell unregistered securities. Users of this regulation can expand their reach either by:

1. Selling to any number of accredited investors (limited to 35 non-accredited investors)
2. Selling no more than $10 million in (restricted) securities in a 12-month period

Restricted securities are unregistered sale securities with a restrictive mark indicating no public marketplace sale. Thus, the token is only sold to accredited US investors and institutions. As a result, OpenEden loses out on a large possible market in exchange for the ability to sell to US investors.

OpenEden User Agreement and Legal Docs: https://legal-us.openeden.com/user_agreement

OpenEden Vault: https://medium.com/@openeden/openeden-announces-tbill-vault-migration-from-beta-to-full-launch-a7d4ff92d6d6

Protocol:
OpenEden (Vault)

Location:
US

License of Operation:
Regulation D Exemption of US Securities Act of 1933

High-level structure:
Parents company with child fund and SPVs

Investor Access:
Any accredited US investors

Token Representation:
Underlying bond value

Fees and Coverage:
0.30% p.a. Management fee

Token Redemption:
Redeemable based on underlying treasury bill value

Secondary Market Offerings:
Permitted between whitelisted wallets

Parent Company:
OpenEden Labs Pte Ltd

Token Issuer:
Hill Lights International

Asset Custodian:
OpenEden Cayman Ltd

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Yes

Background

USDM is Mountain Protocol's yield-bearing stablecoin with a Bermuda-based legal structure which aims to give treasury bill access to non-US citizens. Mountain ensures a 1 USD or equivalent value in assets for each dollar value in tokens, held in bankruptcy-remote accounts to protect against the case of Mountain's parent company going bankrupt. Users may redeem these tokens for USDC or USD at any time. However, due to its lack of compliance under US law, Mountain cannot issue USDM in the US.

Legal Structure

Mountain operates under a Digital Asset Business License by Bermuda Monetary Authority. The Class M license allows Mountain to legally issue, sell, and redeem virtual assets and custodial wallets. MP views Bermuda as an ideal host due to its transparent policies and support as shown by the one-third of $500B reinsurance industry that operates under Bermuda law. Coinbase, Circle, and Cashapp are also licensed under Bermuda's DAB.

USDM is backed by US treasuries custodied by Fidelity through bankruptcy-remote accounts. These accounts preserve Mountain's reserves in the case of MP parent company's bankruptcy, thus effectively guaranteeing the 1:1 guarantee of USDM to USD (or equivalent assets). They publish a monthly attestation report from Nephos Group in the UK, which ensures both the validity of USDM reserves balance and collateralization, and the legality of USDM transactions.

MP works with partners:

- Harris and Trotter: Auditing
- EQ Capital: Investment Manager
- Carey Olsen: Offshore Representation (obtained DABL for Mountain)

Investor Rights and Abilities

At the tradeoff of operating legally, Mountain only supports registered users with the caveat that USDM is obtainable through secondary exchange. Primary users with approved accounts can redeem USDM tokens for USDC at any time, and secondary (unregistered) users must either apply for a Mountain account or obtain tokens through the secondary market. Secondary users may not redeem the token for its equivalent USDC or USD value at any time. To register, users must be located outside restricted countries (including the US, Venezuela, North Korea, and around half of the nations in the African continent).

Regulatory Status

Mountain is restricted for the US since it is not registered under the US Securities Act of 1933. Mountain is prohibited from marketing, USDM token exchange, and even access to the MP website for US citizens. US (and other restricted nations) persons can also not obtain the tokens secondary, and if Mountain finds an address that belongs to a US person or sold tokens to a US person, they reserve the right to suspend or terminate the registered account and block the associated wallet address. However, USDM can be interacted with by any non-restricted user.

Mountain Terms and Conditions: https://docs.mountainprotocol.com/legal/terms-and-conditions

USDM Token User Rights: https://docs.mountainprotocol.com/reference/product-structuring#rights-conferred-by-the-usdm-token

Protocol:
Mountain (USDM)

Location:
Bermuda

License of Operation:
Class M Digital Asset Business License from Bermuda Monetary Authority

High-level structure:
Bermuda Corporation

Investor Access:
Non-US investors who pass account registering

Token Representation:
Dollar value plus yield

Fees and Coverage:
No coverage

Token Redemption:
Redeemable for USDC

Secondary Market Offerings:
Permitted between registered non-US user accounts

Token Issuer:
Mountain Protocol

Asset Custodian:
Bankruptcy-remote accounts through Fidelity

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
EQ Capital

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Yes

Background

Backed b1B01 (IB01) is Backed's ERC-20 0-1-year treasury bond tracking token which matches the price of iShares' 1-year UCITS ETF. IB01 is redeemable for USD value, collateralized by custodian banks with security accounts valued greater than or equal to the current token circulation value. The token operates on Base, Coinbases L2 network, and is not permitted to be marketed or offered to US persons.

Legal Structure

Backed consists of multiple legal institutions based out of Switzerland. The Backed.Fi parent company (and the tokenizer) is Backed Finance AG, which is registered in Switzerland. Their child company Backed Assets GmbH (LLC), is registered in Zug, Switzerland. It operates under the Swiss Distributed Ledger Technology (DLT) Act of 2021, which both requires reports on the company's activity to the government and allows separation of crypto assets and other assets in the event of the RWA custodial parent company's default. Backed Assets GmbH is a Swiss Financial institution in accordance with the OECD's International Automatic Exchange of Information in Tax Matters (AEOIA). Their asset custodians are Maerki Baumann & Co AG and InCore Bank AG

Investor Rights and Abilities

Backed tokens can be sold to eligible professional investors who have either

1. 500k of assets in Swiss Franc(CHF) and acceptable knowledge and experience
2. 2M of bankable assets in CHF

and have successfully passed KYC and AML checks. Backed must confirm the tax jurisdiction of each user and their taxpayer identification number. Registered users who have successfully passed the process may redeem Backed tokens directly for the NAV of the token's representative value for USD subtracted by a fee. Tokens may only be resold in the secondary market by onboarded investors.

Regulatory Status

Backed is also a member of the self-regulatory organization VQF for complying with the Swiss Anti-Money Laundering Act. However, Backed is not registered under the US Securities Act of 1933 and thus is prohibited from transfer or advertisement of the tokens to US entities.

Backed Fi Legal Docs: https://www.backedassets.fi/legal-documentation
Backed Assets Registration: https://assets-global.website-files.com/622f4d1701727dc75198439a/645d41336cc2e469fbcce521_Registration%20Document_Backed%20Assets%20GmbH_20230509_signed.pdf

Backed Assets Securities Note: https://assets-global.website-files.com/622f4d1701727dc75198439a/645d4133bc959c12bf714ac2_Securities%20Note_Backed%20Assets%20GmbH_20230509_signed.pdfNote

Protocol:
Backed (b1B01)

Location:
Switzerland

License of Operation:
Distribuled Ledger Technology Act of 2021

High-level structure:
Regulated Swiss Parent company

Investor Access:
KYC/AML, Investors with 500k+ CHF in net assets/2M CHF in bankable assets

Token Representation:
Tracks iShares 1-year UCITS ETF

Fees and Coverage:
Redemption Fees not covered

Token Redemption:
Redeemable for USD value (collateralized by custodian banks) subtracted by redemption fee

Secondary Market Offerings:
Permitted between onboarded investors

Token Issuer:
Backed Assets GmbH

Asset Custodian:
Maerki Baumann & Co AG and InCore Bank AG

Bankruptcy-remote:
Undisclosed

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Yes

Background

WisdomTree Short-Term Treasury Digital Fund (WTSYX) is an open-ended treasury bond fund and another entity that uses blockchain as a secondary record keeper. The fund uses a real-world transfer agent who primarily tracks share ownership of shares, and the tokens recorded on Stellar are secondary guarantors of trust and transparency for the investor. The WisdomTree Treasury Fund tracks the Solactive 1-3 Year treasury bond index, and WisdomTree is permitted to operate in the US.

Legal Structure

WisdomTree consists of three main US-registered entities (a parent company, a fund, and a token issuer):

- WisdomTree Inc. is the parent company of the whole structure. WisdomTree Inc was established as a Delaware Statutory Trust on April 19, 2021 with multiple portfolios. The individual diversified funds operate under the Investment Company Act of 1940.
- WisdomTree Digital Management Inc is the Investment Manager of the funds
- Assets are held in a segregated custody account.
- WisdomTree Digital Movement Inc. is the token issuer and offers Stellar-based custodied wallets through the WisdomTree Prime Financial app
- WisdomTree Transfers Inc. is the fund's transfer agent who keeps the primary record of share ownership
- State Street Bank and Trust Company is the fund's custodian
- Voya Investment Management Co, LLC is the fund's sub-investment adviser

Investor Rights and Abilities

Investors who pass the $25 investment minimum and can pay the buy/sell brokerage commission may trade in shares of the fund. The WisdomTree Prime Financial app allows investors who desire a secondary record of their fund purchases to purchase, hold, sell, or transfer shares. The transfer agent receives applicable investor information to maintain the official record, while WisdomTree will also cover any fees associated with the on-chain recording of the transaction.

Regulatory Status

WTSYX is a product registered under the Investment Company Act of 1940 similar to a typical mutual fund. As a result, WisdomTree can fully operate under US regulation and is effective with US SEC, following the same rules and regulations as other SEC-registered investment products. WisdomTree is required under this regulation to disclose financial details to stakeholders for the goal of transparency on the fund's structure, operations, and goals. However, under Regulation S, WisdomTree cannot offer services to non-US persons, and thus, WisdomTree sacrificed a large potential customer base in exchange for US operability.

WTSYX: https://www.wisdomtree.com/investments/digital-funds/fixed-income/wtsyx

WisdomTree Funds: https://www.wisdomtree.com/investments/about-digital-funds

WisdomTree SEC Registration: https://www.sec.gov/Archives/edgar/data/1859001/000121465922011656/wtd4pea92722485apos.htm

Protocol:
WisdomTree (WTSYX)

Location:
US (Delaware)

License of Operation:
Investment Company Act of 1940

High-level structure:
Delaware Statutory Trust with multiple portfolios, blockchain as secondary record keeper

Investor Access:
25$ minimum and must pay brokerage commision

Token Representation:
Solactive 1-3 Year Treasury Bond Index

Fees and Coverage:
Any on-chain fees are covered by WisdomTree

Token Redemption:
Redeemable for USD

Secondary Market Offerings:
Undisclosed

Token Issuer:
WisdomTree Digital Movement Inc

Asset Custodian:
State Street Bank and Trust Company

Bankruptcy-remote:
Undisclosed

Investment Manager/Adviser:
WisdomTree Digital Management Inc

Traditional Record Keeper:
Yes

Attestations/Audits:
Undisclosed

Background

BENJI is a Polygon token that represents shares of the Franklin Templeton Onchain US Government Money Fund (FOBXX). The fund invests 99.5% in US treasury bonds which effectively qualifies BENJI as a T-bill token. It was the first US fund to use blockchain for public transaction recording in an attempt to increase security and transaction speed.

Legal Structure

Franklin Templeton consists of a parent company with numerous funds, including FOBXX:

- Franklin Resources Inc. is the Franklin Templeton organization's parent company. The parent company has many subsidiary mutual funds
- Franklin Templeton Trust is a US-registered Government Money Market Fund fund under Rule 2a-7 of the Investment Company Act of 1940.
- Franklin Distributors LLC operates the Benji Investments App

Investor Rights and Abilities

Users purchase the Benji token through the Benji Investments App, which offers users transparency on ownership, transactions, and token supply. Investor's identifying data, however, is maintained off-chain to preserve investor privacy. One token represents one share in the fund, which strives to maintain the 1 USD share price.

Regulatory Status

FOBXX operates under the Investment Company Act of 1940, which means the US regulates it as a traditional money market fund. As part of compliance with this regulation, the Fund requires users to pass KYC and AML checks before approval for interaction with the fund.

Franklin US Government Money Fund Prospectus: https://www.franklintempleton.com/tools-and-resources/lit-preview/29386/SINGLCLASS/franklin-on-chain-u-s-government-money-fund

Protocol:
Franklin Templeton (BENJI)

Location:
US

License of Operation:
Investment Company Act of 1940

High-level structure:
Parent Company with multiple traditional money market funds

Investor Access:
US domiciled accredited investors, minimum 100k deposit

Token Representation:
One share in Franklin Templeton Onchain US Government Money Fund (FOBXX) of Franklin Templeton Trust

Fees and Coverage:
No coverage

Token Redemption:
Redeemable for USD

Secondary Market Offerings:
Undisclosed

Token Issuer:
Franklin Distributors LLC

Asset Custodian:
Franklin Templeton Trust

Bankruptcy-remote:
Undisclosed

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Yes

Attestations/Audits:
Undisclosed

Background

Maple Finance's Cash Management Pool is backed by U.S. T-bill yields and reverse purchase agreements. The protocol allows on-chain allocators access off-chain low-risk yield purchases. Its key legal differentiation is its partnership with institutional crypto hedge fund Room40 who acts as the sole Borrower of the pool.

Legal Structure

Deposited funds in the pool are sent to a stand-alone special purpose vehicle run by Room40. Room40 converts USDC loan proceeds to USD, then will trade, custody, and clear through a regulated prime brokerage account for investing in the U.S. Treasury bills.

Room40 is responsible for managing the liquidity of the portfolio such that withdrawals can be processed within 24 hours. Liquidity management involves monitoring upcoming withdrawal requests, ongoing deposits, near-term loan maturities, and making repayments.

Investor Rights and Abilities

The minimum deposit size is $100,000 USDC. There is no maximum deposit size or lock-up periods for lenders of the Cash Management Pool. Withdrawals can only be processed on US banking days between 14:00 - 5:00 EST.

Management fees are fixed at 50 bps annualized. There are no upfront subscription fees, redemption fees, or other hidden charges. The fund has 15 minute KYC and AML processes.

Guarantee of withdrawals is contingent on proper market and USDC functioning. If there is not sufficient liquidity in the Pool to service withdrawals, lenders will be eligible to withdraw the pro rata share of the available liquidity, and the remaining funds request will be moved to the next withdrawal window.

Regulatory Status

The pool treasury is open to US domiciled accredited investors under the Regulation D Exemption. Accredited investors may include DAOs, offshore companies, web3 treasuries, and high net worth individuals. All investors must go through a three step KYC and AML onboarding processes, which involve completing a standard onboarding form, submitting KYC documentation, and signing a lender attestation.

Maple Cash Management Pool Docs: https://maplefinance.gitbook.io/maple/cash-management-pool/overview

Maple Open to US Investors: https://www.maple.finance/news/maple-cash-management-opens-to-us-investors/

Protocol:
Maple (USDC-SPL)

Location:
US

License of Operation:
Regulation D Exemption of US Securities Act of 1933

High-level structure:
US Company

Investor Access:
US domiciled accredited investors

Token Representation:
Shares in Maple's Cash Management Pool

Fees and Coverage:
Management fees 50bps

Token Redemption:
24 hr withdrawals

Secondary Market Offerings:
Undisclosed

Token Issuer:
Maple Finance

Asset Custodian:
Room40 Capital LLC

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Undisclosed

Background

Centrifuge is a DeFi protocol that allows the tokenization of real-world illiquid assets to secure liquid assets. The protocol is built on the Polkadot network, emphasizing interoperability. Centrifuge's native token, CFG, serves as a reward and governance token. Centrifuge’s decentralized application, Tinlake, enables users to access liquidity and borrow against collateralized assets. Tinlake pools, built on DeFi protocols like Maker and Aave, offerthe Junior (TIN) and Senior (DROP) which target different risk and reward profiles.

Legal Structure

The legal structure of Centrifuge, designed for tokenizing real-world assets (RWAs) and ensuring legal recourse for token holders, involves a comprehensive and intricate setup.

Central to Centrifuge's structure is the use of SPVs for each investment pool. The legal framework is designed to ensure that investors have protection and legal recourse to the RWA used as collateral in the pools. In Centrifuge's context, the SPV separates the Asset Originator's business from the financing activities within the pool.

Investor Rights and Abilities

- Asset Originator's Role: Asset Originators set up an SPV for each pool, originate the RWA, and perform underwriting. They mint a non-fungible token (NFT) for the asset to be used as collateral on-chain.
- Borrower's Interaction: Borrowers enter into financing agreements with the SPV and lock the NFT in the Centrifuge pool. They pay back the financing amount and the financing fee at the maturity date of the NFT.
- SPV's Functionality: The SPV, a pass-through entity, keeps all financings separate from the Asset Originator and administers the pool. It operates without the aim to generate profits and its operations are defined in the Operating Agreement. Investors purchase either Senior or Junior ERC20 tokens issued by a Centrifuge pool after undergoing a KYC/AML process. They review and sign a pool-specific subscription agreement, which outlines the structure, risks, terms, and conditions of the investment.
- Investment Terms: The agreements for Senior and Junior investments differ, with each specifying the particularities of investing in that tranche.
- Redemption Process: Investors can request redemption of their tokens, subject to certain conditions regarding investment priorities and minimum buffer requirements.

Protocol:
Centrifuge (CFG)

Location:
US (Delaware)

License of Operation:
Regulation D Exemption of US Securities Act of 1933

High-level structure:
Delaware limited liability company SPV for each pool

Investor Access:
Investors who pass KYC/AML Checks and sign pool-specific agreements on structure, risks, terms, and conditions

Token Representation:
Any RWA (NFT minted)

Fees and Coverage:
Financing Fee upon minting NFT

Token Redemption:
Redeemable for AUSD value minus fees

Secondary Market Offerings:
Undisclosed

Token Issuer:
Centrifuge Inc

Asset Custodian:
Undisclosed

Bankruptcy-remote:
Yes

Investment Manager/Adviser:
Undisclosed

Traditional Record Keeper:
Undisclosed

Attestations/Audits:
Undisclosed

- Legal Contract Templates: To achieve this setup, Centrifuge uses various legal contract templates, including the Operating Agreement for SPVs, and Senior and Junior Subscription Documents, which detail the terms and conditions of investments in different tranches.

In terms of Tinlake's business model, it connects investors with asset originators who can use real-world assets as collateral in liquidity pools. Investors provide funding to these pools, and in return, they can invest in two types of tokens: DROP and TIN. DROP tokens represent a lower-risk senior tranche with fixed, lower yields, while TIN tokens represent a higher-risk junior tranche with variable, potentially higher yields. The risk mitigation mechanism is such that TIN token investors are the first to take a loss if an asset is not repaid, providing a buffer for DROP investors.

Regulatory Status

Centrifuge operates such that each pool has an SPV that keeps the Asset Originator's business separate from the financing activity in the pool. For US-based offerings, the structure supports either a 506(b) or a 506(c) offering under Regulation D of the US Securities Act of 1933.

The use of Rules 506(b) and 506(c) under Regulation D by Centrifuge, while advantageous for fundraising and compliance, also presents potential risks for investors and clients:

These rules allow for less disclosure than traditional public offerings. Investors might not have access to the same level of information about the company's financials or operations, which can make it harder to make fully informed investment decisions. Furthermore, because investments in private placements are often less liquid compared to publicly traded securities, this means that investors might find it more challenging to sell their securities if they need to exit the investment.

Centrifuge Legal Docs: https://docs.centrifuge.io/learn/legal-offering/