MOODY'S
INVESTORS SERVICE

SECTOR IN-DEPTH
10 August 2023

Send Your Feedback

Contacts

Brandon O'Halloran +1.212.553.4838
AVP-Analyst/DeFi & Digital Assets
brandon.o'halloran@moodys.com

Vincent Gusdorf, CFA +33.1.5330.1056
Senior Vice President-DeFi & Digital Assets Analysis
vincent.gusdorf@moodys.com

Charleyne Biondi +33.1.5330.3450
Analyst-DeFi & Digital Assets
charleyne.biondi@moodys.com

Fabian Astic +1.212.553.6814
MD-Global Head of DeFi & Digital Assets
fabian.astic@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Decentralized Finance and Digital Assets – Europe

Swiss digital bonds benefit from favorable existing and adapted federal laws

Summary

In the past several years, Switzerland (Aaa stable) has created a federal legal framework for digital assets, including distributed ledger technology (DLT)[1] and related applications such as security tokens, stablecoins, central bank digital currencies (CBDCs) and digital bonds. The framework, which modernizes existing laws, is among the world's most comprehensive. This regulatory clarity and legal certainty has attracted blockchain businesses to the country. The new rules support development of an ecosystem of DLT-based applications and systems, facilitating the issuance of digital bonds.

DLT Act defines ledger-based securities, clarifies asset segregation. The DLT Act, which came into force in 2021, has three main effects: it introduces a new type of security – a ledger-based security – thereby establishing a legal basis for the trading and custody of rights through electronic registers; it provides insolvency protection by clarifying the segregation of crypto-based assets as well as access to data and personal information in the event of bankruptcy; and it establishes a new license category for DLT trading systems.

Swiss guidance provides clarity on security tokens and stablecoins. In 2018, after receiving many inquiries about initial coin offerings (ICOs), the Swiss Financial Market Supervisory Authority (FINMA) developed guidance for crypto assets by applying relevant financial market legislation based on a token's function and purpose. In the wake of the ICO boom, FINMA also received a sharp rise in regulatory supervisory inquiries about stablecoin projects, and provided supplemental guidance on stablecoins in 2019.

Licenses and innovative platforms enable digital bond growth. FINMA has adopted a collaborative approach to working with market participants seeking a DLT trading facility license. Having an accessible and collaborative regulatory body creates a transparent and robust legal environment suitable for digital asset development. After undergoing a multiyear licensing procedure, SIX Digital Exchange (SDX), a FINMA-licensed digital stock exchange and central securities depository run on DLT owned by SIX Group, has had several digital bonds issued through the platform utilizing the legal concept of uncertificated securities. The platform is also involved in a wholesale CBDC (wCBDC) project with the Swiss National Bank, along with the BIS Innovation Hub Swiss Centre, and multiple commercial banks. Wholesale CBDC projects could promote the preservation of central bank money as the priority asset to pay and settle securities on blockchains, innovate payment systems, and make interbank transfers more seamless, benefiting the digital bond market.

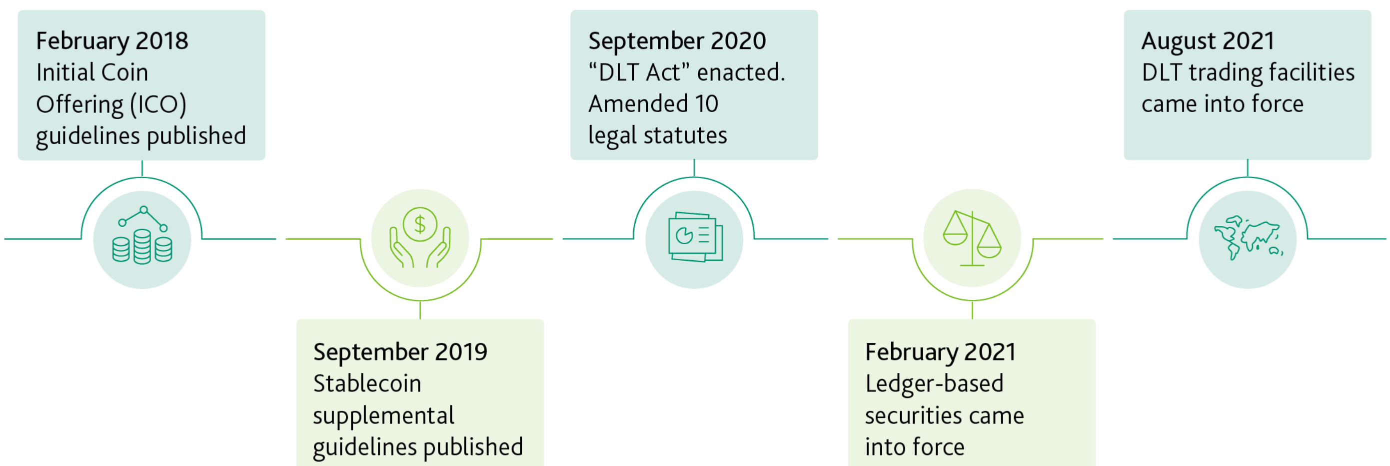
Swiss DLT framework overview

Switzerland’s DLT regulations have formed an advanced legal framework that provides market participants with guidelines on token categories and stablecoins, securities definitions, and licensing procedures. In its regulation of digital assets, Switzerland is ahead of even some larger developed economies, such as the US, which has not yet formed a federal legal framework, instead utilizing enforcement actions and the court systems while legislation is under development.

Switzerland's approach to digital assets and crypto services is comparatively collaborative. In contrast to other, larger jurisdictions in which multiple government agencies are involved in regulation of digital assets, FINMA is the main regulatory body in Switzerland. Market participants can collaborate on potential projects or licensing arrangements with FINMA in a streamlined manner.

Switzerland's digital asset legal framework has developed particularly over the past five years (see Exhibit 1). In September 2020, amendments incorporating digital ledger technology formally updated existing civil, bankruptcy, financial market and anti-money laundering (AML) laws. The “Swiss Federal Act on the Adaptation of Federal Law to Developments in Distributed Electronic Register Technology,” or “DLT Act,” is the blanket act which amended 10 legal statutes.[2] Before the DLT Act, in February 2018 and September 2019, FINMA released guidance to the market on ICOs and stablecoin projects, respectively.

Exhibit 1
Switzerland's digital asset regulations enable digital bond issuance
Swiss DLT legal framework timeline



Source: FINMA

A few other jurisdictions have developed similarly comprehensive legal frameworks, such as Luxembourg, Liechtenstein, Germany and France, which are also actively facilitating digital bond issuances. Switzerland is an example of a jurisdiction that was early in adapting to the dematerialization of securities, provided guidance on security tokens, is collaborative with market participants, and has formed a robust digital finance ecosystem that is attractive to crypto service providers and businesses.

DLT Act defines ledger-based securities, clarifies asset segregation

The DLT Act, which came into force in 2021, has three main effects: it introduces a new, ledger-based type of security which serves the same functions as certificated paper securities or centrally registered book-entry securities but is maintained on a blockchain-enabled ledger-based registry. The new security type establishes the legal basis for the trading of rights through electronic registers. The new law also provides insolvency protection, by clarifying the segregation of crypto-based assets and access to data and personal information in the event of bankruptcy. Lastly, the law establishes a license category for DLT trading systems.[3] The DLT trading facility license expands the potential participant base in digital asset trading platforms to nonfinancial institutions and retail customers. This modernization supports the development of an ecosystem of DLT-based applications.

The Financial Market Infrastructure Act (FinMIA), amended as part of the DLT Act, added ledger-based securities to the definition of securities. A ledger-based security, defined in the Swiss Code of Obligations, is a right that is asserted and transferred only via a ledger-based register. The right is entered into a securities ledger under a registration agreement. The security's conditions are technology-neutral, meaning technical specifications of the security are not required because the securities ledger and transfer procedures impose the requirements. All rights that can be certificated in securities can be structured as ledger-based securities, and DLT records have the same effect as a traditional centralized database, as long as the securities ledger meets the following designated requirements:[4]

» The security provides creditors power of disposal over the assets by means of technical processes specific to registry and transfer;

» Its integrity is protected through technical and organizational measures to prevent unauthorized modifications;

» The content of the rights, the functioning of the register and the register agreement are recorded in the register or in the accompanying data;

» Creditors may access relevant information and register entries without third parties.

In addition to creating ledger-based securities, the DLT Act includes amendments to the Debt Enforcement and Bankruptcy Act and Banking Act, which segregated crypto assets from other assets. Segregation occurs if the crypto assets are continuously available to creditors and can be attributed either individually for individual accounts or pro rata for pooled accounts, with the custodian holding exclusive power of disposal. This development allows banks and other financial institutions to keep crypto assets off-balance sheet without impacting capital requirements.[5] With the rules on segregation of crypto assets in case of bankruptcy clarified, banks have more incentive to form new crypto asset custody services.

Swiss guidance provides clarity on security tokens and stablecoins

In February 2018, following a rise in regulatory inquiries on initial coin offering (ICO)[6] projects — six of the top 15 largest ICOs between 2016 and June 2018 were incorporated in Switzerland (HDAC, Tezos, Sirin Labs, Bancor, Polkadot, the DAO)[7] — FINMA released guidance that categorized tokens based on their underlying economic function and transferability.[8] The guidelines provide market participants with clarity on applicable federal regulations and were the starting point in forming the federal supervisory framework for digital assets.

FINMA developed its guidance using the principle of substance over form, applying relevant financial market legislation depending on a token's function and purpose (see Exhibit 2). Any tokens considered to be securities need to comply with securities laws, including AML regulations. Payment tokens, although not considered to be securities, still require AML compliance.

Exhibit 2
FINMA's guidance clarifies relevant laws for crypto tokens
Swiss crypto token categorization and applicable laws

Payment tokens
Synonymous with cryptocurrencies*; used as a means of payment for goods or services.

Payment Initial Coin Offerings (ICOs)
When the token functions as a means of payment and can already be transferred, compliance with anti-money laundering regulations is required; however, the tokens will not be treated as securities.

Utility tokens
Intended to be used for digital access to an application or service through DLT-based infrastructure.

Utility ICOs
Will not qualify as securities if the sole purpose is to grant digital access rights to an application or service. If a utility token functions as an investment, it will be treated as a security.

Asset tokens
Assets such as a debt or equity claim on the issuer, analogous to equities, bonds, or derivatives. Tokens that enable physical assets to trade on a blockchain are included in this category.

Asset ICOs
Are regarded as securities, meaning there are securities law requirements for trading such tokens, as well as civil law requirements under the Swiss Code of Obligations.

*A cryptocurrency is a digital currency secured with cryptography and generally issued on a blockchain. A cryptocurrency can use its own blockchain and therefore be called a coin, or that of a third party, in which case it is a token.
Source: Moody's Investors Service

In the wake of the ICO boom, FINMA also received a sharp rise in regulatory supervisory inquiries about stablecoin projects. The Libra Association requested a regulatory authority assessment of the now-defunct Libra stablecoin project (renamed to Diem). In September 2019, FINMA published supplemental guidance to the ICO guidelines on stablecoins in response to this request, demonstrating the regulator's ability to collaborate with market participants.[9]

As with token categorizations and ICO regulations, stablecoins are reviewed on a case-by-case basis, using the same approach of focusing on economic function and purpose (substance over form). Swiss regulatory requirements differ depending on the type of asset the stablecoin is linked to (such as currencies, commodities, real estate, or securities) as well as the legal rights of its holders. Although ICO and stablecoin projects have since diminished, Switzerland is well positioned in case such financing modes regain momentum.

In March 2020, Sygnum, a regulated Swiss digital asset bank, launched the Sygnum Digital CHF (DCHF), which is a stablecoin pegged to the Swiss Franc. For every settlement token (stablecoin) minted in its customer accounts, Sygnum holds the equivalent amount of Swiss francs as collateral in the Swiss National Bank.[10] Stablecoin regulations allow Swiss banks to issue stablecoins denominated in the Swiss franc.

The factors that contributed to the surge in ICOs in Switzerland, beginning in 2015 with the launch of Ethereum, continue to encourage growth in the country's digital asset market. In June 2023, Zug, Switzerland was ranked as the number one crypto hub in the world based primarily on the town's regulatory clarity and crypto-friendly banks, along with a strong job market and active events calendar.[11]

Through the ICO and supplemental stablecoin guidance, FINMA was early in clarifying regulatory frameworks associated with each type of token and providing indicative feedback based on the type of asset each stablecoin references. FINMA also demonstrated its willingness to collaborate with market participants through its guidance, and later through the DLT Act modernization.

Licenses and innovative platforms enable digital bond growth

The DLT Act, through amendments to the Financial Market Infrastructure Act (FinMIA), created the DLT trading facility license. This expanded the potential user base by allowing nonfinancial institutions and retail customers to trade, custody, clear and settle digital assets on licensed trading platforms. The amendment allows these services to be conducted through one license.

Interested parties can present a project to FINMA before submitting an application. A FINMA staff member is made responsible for the licensing procedure. However, before a license is granted as a DLT trading facility, an audit is required from a FINMA-approved firm. A notice of acceptance and a questionnaire covering the audit services also needs to be completed.

A DLT trading facility license is required if at least one of the following conditions is met:

» Admitted participants on the trading platform include individuals and legal entities that are participating under their own name for their own account (retail customers);

» DLT securities are held in central custody based on uniform rules and procedures that are established within the registration agreement;

» Transactions are cleared and settled based on uniform rules and procedures.

Essentially, the custody, clearing and settling of digital assets on a DLT trading facility platform must follow clear rules and procedures that are maintained in the ledger-based securities' registration agreement. Moreover, the DLT trading facility must be structured as a legal entity under Swiss law and have its registered office and head office in Switzerland.

FINMA has adopted a collaborative approach to working with potential market participants seeking a DLT trading facility license. An accessible regulatory body, which can collaborate with potential market participants, creates a transparent and robust legal environment that is suitable for digital asset development.

However, with no public announcements of issued licenses to date, uptake of DLT trading facilities appears to be minimal. Firms have instead opted for licenses that include the ability to trade, custody, clear and settle conventional securities in addition to digital assets, or are not seeking a broader participant base outside of financial institutions, which the DLT license allows. Although a DLT licensing regime is available, market actors may choose other ways to offer digital asset services.

In September 2021, SIX Digital Exchange (SDX), an integrated trading, settlement and custody infrastructure, received traditional licenses pursuant to FinMIA to operate as a stock exchange and central securities depository (CSD) run on DLT.[12] SDX can accommodate both uncertificated securities according to Art. 973c of the Code of Obligations as well as ledger-based securities according to Art. 973d of the Code of Obligations,[13] which form the basis for the creation of intermediated securities according to Art. 6 c./d. of the Federal Intermediated Securities Act (FISA).[14] The integration of ledger-based securities into federal law enabled the digital aspect of these licenses, by clarifying that an (uncertificated) ledger-based security has the same effect as a traditional security, as long as the ledger-based security's registry meets the required conditions.

The SDX platform is supported by the robust Swiss regulatory framework, which has enabled the issuance of digital bonds. Since receiving its licenses in 2021, SDX has facilitated the issuance of natively digital bonds in each of the following years (see Exhibit 3). The bonds were issued by SIX Group, which owns SDX,[15] UBS,[16] and the City of Lugano,[17] and may use both the SDX infrastructure as well as SIX's Swiss Exchange's traditional infrastructure. The dual listing feature maximizes market outreach by enabling investors to invest and trade bonds through SDX's or SIX's member banks. The SDX platform is subject to stringent regulations requiring it to meet the same quality standards as traditional infrastructures.

Exhibit 3
SIX Digital Exchange is a leading platform for regulated digital bonds
Digital bonds issued through SDX

November 2021
SIX Group, CHF 150M
- First bond issuance with a pure digital part in a fully regulated environment.
- Part A (CHF 100M), the digital part, listed, traded and held centrally in SDX.
- Part A ISIN: CH1142754337
- Part B (CHF 50M), the traditional part, listed, traded, and held centrally in SIX.
- Part B ISIN: CH1142754345

November 2022
UBS (Aa3 negative), CHF 375M
- First example of a pure digital native bond with a dual listing.
- Maximized market reach through connectivity between SDX's blockchain-based platform and SIX's conventional infrastructure.
- The digital bonds have the same instrument structure, legal status and rating as a traditional UBS senior unsecured note.

ISIN: CH1228837865

January 2023
City of Lugano (Aa3 stable), CHF 100M
- First municipal digital bond issued on a regulated financial market infrastructure.
- First digitally native asset accepted as eligible collateral for repos by the Swiss National Bank.
- Dual-listed bond on SDX and SIX.
- ISIN: CH1232107172

Source: SDX

In March 2023, the Swiss National Bank (SNB) announced its intention to "future-proof" the Swiss domestic payment ecosystem. The announcement conveyed the central bank's plan of exploring DLT capabilities to make cashless transactions faster and more efficient. One of the three announced models focuses on integrated settlement using a Swiss franc wholesale CBDC (wCBDC). A CBDC is a digital liability of a central bank that can be used for payments. Retail CBDCs are available to the general public, whereas wCBDCs are only available to eligible participants, usually banks. As part of the project, real wCBDC will be issued on the SDX platform for a limited time.[18,19]

The SNB, along with the BIS Innovation Hub Swiss Centre, SDX and multiple commercial and central banks, conducted both national and international experimental projects – namely Project Helvetia Phase I,[20] Project Helvetia Phase II,[21] Project Jura,[22] and Project Mariana[23] – on how wCBDC can facilitate the settlement of digital assets. In the multiphase investigation, the projects examined how central banks can offer settlement in central bank money provided there is significant adoption of the new generation of DLT financial market infrastructures.

Wholesale CBDC projects could promote the preservation of central bank money as the priority asset to settle securities, innovate payment systems, and make interbank settlement more seamless. An off-the-shelf cash settlement mechanism, by way of a wCBDC arrangement, enables improved interbank participation by commercial banks.

Although the Swiss regulatory framework allows for innovative digital bond issuances, obstacles to further growth remain. As of today, the lack of wCBDCs, on-chain fiat representation, and traditional infrastructure interoperability make processing payments on blockchains difficult. Issuers' and investors' level of familiarity with digital bonds and the underlying technology also affects the digital bond market's growth trajectory.

Endnotes

1 DLT is a collection of systems recording transactions in multiple places almost simultaneously. Blockchain is a type of DLT.

2 The DLT Act included amendments to the Swiss Code of Obligations, the Federal Intermediated Securities Act, the Federal Act on International Private Law, the Financial Services Act (FinSA), the National Bank Act (NBA), the Banking Act (BA), the Financial Institutions Act (FinIA), the Anti-Money Laundering Act (AMLA), the Financial Market Infrastructure Act (FMIA) and the Debt Enforcement and Bankruptcy Act (DEBA).

3 State Secretariat for International Finance (SIF), "Federal Council brings DLT Act fully into force and issues ordinance"

4 Swiss Blockchain Federation, "Circular 2021/01 Ledger-based Securities"

5 Loyens Loeff Law & Tax, "Federal Council published a draft DLT-law after public consultation"

6 An initial coin offering (ICO) is a crowdfunding event used to raise money for a new cryptocurrency asset, company or venture. They are similar to initial public offerings (IPOs).

7 "PWC report on Initial Coin Offerings"

8 "FINMA publishes ICO guidelines"

9 "FINMA publishes 'stable coin' guidelines"

10 "Sygnum Bank launches digital CHF token"

11 "Zug: Where Ethereum Was Born and Crypto Goes to Grow Up"

12 SIX Group, "Six Digital Exchange gets regulatory approval from FINMA"

13 Fedlex, "Federal Act on the Amendment of the Swiss Civil Code, Art. 973c/973d"

14 Fedlex, "Creation, Extinction and Conversion of Intermediated Securities, Art. 6 Creation"

15 SIX Group, "SIX launches its SIX Digital Exchange by successfully issuing the world's first digital bond in a fully regulated environment"

16 UBS, "UBS AG launches the world's first digital bond that is publicly traded and settled on both blockchain-based and traditional exchanges"

17 SDX, "Benvenuta Lugano! The city of Lugano issues its first native digital bond on SDX with ZKB as sole lead manager"

18 Swiss National Bank, "Swiss Payments Vision - an ecosystem for future-proof payments"

19 finews.tv "Thomas Moser: <<We intend to issue a pilot CBDC by year-end>>"

20 BIS, "Project Helvetia Phase I: Settling tokenised assets in central bank money"

21 BIS, "Project Helvetia Phase II: Settling tokenised assets in wholesale CBDC"

22 BIS, "Project Jura: cross-border settlement using wholesale CBDC"

23 SNB, "Swiss National Bank, Banque de France, Monetary Authority of Singapore and BIS Innovation Hub to explore cross-border trading and settlement of wholesale CBDCs using DeFi protocols"

REPORT NUMBER 1370605

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE