HSLU Hochschule Luzern

IFZ Crypto Assets Study 2026

An Overview of the Swiss and Liechtenstein
Crypto Assets Ecosystem

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1. Introduction

1. Introduction

Purpose, Scope, and Analytical Perspectives

The sixth edition of the **Crypto Assets Study** provides an updated, data-driven assessment of the crypto asset investment ecosystem in Switzerland and the Principality of Liechtenstein as of June 2026.

Purpose and geographical scope

- The study examines observable developments in crypto asset markets, providers, products, services, and infrastructure.
- Switzerland and Liechtenstein are analyzed jointly where appropriate, while remaining distinct markets and jurisdictions.
- The established analytical scope is retained to support comparison with previous editions.

Analytical perspectives

The report considers:

1. the structure of the crypto asset investment ecosystem;
2. the structure of providers of related products and services;
3. indirect and direct market activity;
4. crypto assets within diversified portfolios; and
5. the potential tokenization of Swiss mortgages.

Objective

The objective is to provide a consistent assessment of how the regional crypto asset investment ecosystem is structured and how it has developed over time.

1. Introduction

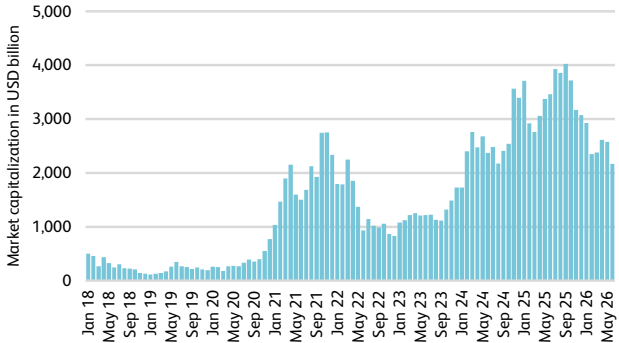
Market Context

Market development

- After strong growth through 2024 and much of 2025, global crypto asset market capitalization declined toward the end of 2025 and in the first half of 2026.
- At the end of June 2026, total market capitalization stood at USD 2,167 billion, remaining 46 % below its prior end-of-month peak in September 2025.

Relevance for the study

- In 2026, 18 % of respondents in Switzerland held crypto assets, up from 16 % in 2025 and equivalent to around 140,000 additional market participants (Dietrich et al., 2026).
- Moreover, 15 % of respondents would likely use crypto advisory services offered by their bank, while provider trust is more important than fees. This underlines the growing relevance of the providers, products, services, and infrastructure examined in this study (Dietrich et al., 2026).



Monthly total market capitalization of publicly traded crypto assets. Source: CoinGecko (online-a).

1. Introduction

Definition of Crypto Assets

The definition of the subject matter remains unchanged from previous editions and delineates the scope of the study:

Crypto assets are digital representations, such as claims, values, or rights, issued on a distributed ledger, such as a blockchain protocol, in the form of tokens.

The definition covers tokenized representations recorded using distributed ledger technology (DLT), irrespective of:

- whether the underlying network is public or private;
- whether its operation is centralized or decentralized;
- whether the token is native to the network or represents an off-chain asset, claim, or right; and
- what function the token performs, including, but not limited to, investment, payment, utility, governance, or ownership functions.

Crypto assets may also differ in their protocol architecture, consensus and permissioning model, supply mechanism, transfer restrictions, and regulatory classification.[1] The broad definition therefore encompasses cryptocurrencies, stablecoins, tokenized securities, and other tokenized assets, whether digitally native or linked to real-world assets.

[1] For a more detailed framework for classifying crypto assets, see Ankenbrand, Bieri, Ferrazzini, and Hoehener (2025).

1. Introduction

Methodological Approach and Data Basis

The study combines provider-level screening with quantitative analyses of products, markets, investor participation, and portfolio characteristics.

Provider and ecosystem analysis

- Relevant entities are identified using regulatory and commercial registers, proprietary databases, and public corporate information.
- Public web information and large language model support are used to assess substantive crypto asset- and DLT-related activities.
- Classifications are subject to plausibility and consistency checks, with low-confidence cases reviewed manually.

Market and investment analysis

- Commercially licensed product and market data, exchange data, and other observable indicators are used to assess market developments.
- Direct observations are used where available; transparent proxies are applied where specific data are unavailable.
- Observation periods and geographical coverage vary according to data availability.

Main quantitative sources

BX Swiss, CoinGecko, finanzen.net, Moneyhouse, Morningstar Direct, Semrush, and SIX Swiss Exchange (SIX).

Interpretation

The results should be understood as an informed approximation of observable market structures and developments rather than as a complete measurement of all crypto asset-related activity. Chapter-specific methodologies and limitations are set out in the respective sections. Further qualifications are provided in the disclaimer on the final page.

The principal quantitative reporting snapshot is **30 June 2026**.

2. Providers of Crypto Asset-Related Products and Services

2. Providers of Crypto Asset-Related Products and Services

Introduction

This chapter presents an assessment of providers operating within the crypto asset investment ecosystem of **Switzerland** and **Liechtenstein** as of **30 June 2026**.

The analysis addresses three dimensions:

1. **Provider landscape**
   Identification of companies with observable and current business activities, products, services, or infrastructure solutions related to crypto asset investments.
2. **Regional distribution**
   Assessment of the geographical distribution of providers across Switzerland and Liechtenstein and the concentration of activity in individual locations.
3. **Ecosystem composition**
   Classification of providers according to all applicable activity categories, targeted customer segments, positions within the crypto asset investment value chain, and forms of DLT integration and intermediation.

Unit of analysis and interpretation

The analysis considers active providers consolidated at the corporate-group level rather than individual legal entities. Companies may be assigned to several activity categories where they offer multiple products or services. The results therefore describe the breadth and structure of the provider ecosystem, but not the relative economic size or business volume of individual companies.

2. Providers of Crypto Asset-Related Products and Services

Analytical Framework

The analytical framework builds on the ecosystem structure presented in previous editions of the **Crypto Assets Study** (see, e.g., Ankenbrand, Bieri, Ettlin, et al., 2025). As the crypto asset investment ecosystem broadly performs the same economic functions as traditional financial markets, the framework distinguishes between two dimensions: the position and function within the investment value chain and the form of DLT integration and intermediation, as visualized in the illustration on page 9.

Investment value chain

The vertical dimension follows the main positions and functions through which crypto asset exposure is created, accessed, traded, and held:

- **Issuance:** creation of crypto assets or financial instruments based on them;
- **Investors:** retail and institutional demand;
- **Investment services:** offering and management of exposures;
- **Trading infrastructure:** execution of purchases and sales; and
- **Post-trading infrastructure:** custody, transfer, and settlement.

Technological integration

The horizontal dimension distinguishes three forms of technological implementation:

- **Off-chain:** traditional financial infrastructure without direct DLT interaction by investors;
- **Centralized on-chain:** DLT-based products and services operated by intermediaries that retain control over processes; and
- **Decentralized on-chain:** smart-contract-based infrastructure in which users transact through self-custodial wallets.

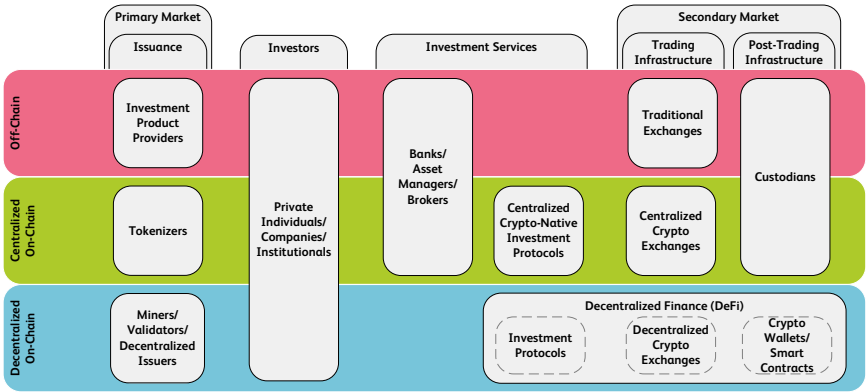
The same provider may operate across several technological layers or perform multiple functions within the value chain.

Infrastructure services

Infrastructure providers support multiple parts of the value chain by supplying solutions for areas such as tokenization, compliance, and system integration. Because these services cut across the different categories, they are not shown separately in the illustration on page 9.

2. Providers of Crypto Asset-Related Products and Services

Mapping the Crypto Asset Investment Ecosystem



Structure of the crypto asset investment ecosystem by function along the investment value chain and form of DLT integration and intermediation. Source: Authors' illustration.

2. Providers of Crypto Asset-Related Products and Services

Methodology: Sample Construction and DLT Relevance

The analysis combines official registers of the Swiss Financial Market Supervisory Authority (FINMA) (online) and the Financial Market Authority Liechtenstein (FMA) (online), Swiss and Liechtenstein commercial-register data, current public web information, and a proprietary, continuously maintained database of FinTech companies.

Compilation of the initial candidate sample

The initial candidate sample comprised:

- banks included in the relevant FINMA and FMA Liechtenstein registers;
- asset managers and managers of collective assets included in the relevant regulatory registers;
- FinTech companies included in relevant regulatory or commercial registers; and
- Swiss and Liechtenstein FinTech companies contained in a proprietary database.

The sources were combined and duplicate observations were removed, resulting in an initial sample of 1,485 companies.

Assessment of DLT and investment relevance

Each company was screened using OpenAI's GPT-5.4 model with web search (OpenAI, 2026):

- official websites and publicly available sources were examined;
- evidence of active crypto asset-, blockchain-, or DLT-related products, services, or projects was assessed;
- broader DLT-related activities were considered where they supported crypto asset investment products, services, or infrastructure; and
- only companies with a substantive level of current involvement in providing crypto asset- or DLT-related investment products, services, or infrastructure were classified as relevant; incidental or marginal involvement was deemed insufficient.

The 80 companies for which the AI-supported classification had low confidence were additionally reviewed and classified manually. Overall, the screening and manual review identified 450 relevant companies, corresponding to approximately 30 % of the initial sample.

2. Providers of Crypto Asset-Related Products and Services

Methodology: Final Sample and Comparability

The DLT-relevant companies were matched against Swiss and Liechtenstein commercial-register information (Moneyhouse, online) to verify their legal status and were then subjected to two additional consolidation steps:

1. **Confirmation of legal activity status**
   Commercial-register information was used to confirm that the companies remained legally active at the observation date.
2. **Consolidation of corporate groups**
   Subsidiaries were removed and only the highest-level relevant entity within each corporate group was retained. Where a group maintained legal entities in both Switzerland and Liechtenstein, only the entity corresponding to its headquarters location was included.

Following these steps, **399 companies**, or roughly 27 % of the initial sample, remained in the final core provider sample. The analysis therefore considers active providers consolidated at the corporate-group level rather than individual legal entities.

Comparability with previous editions

Three methodological changes affect comparability with earlier editions of the study series:

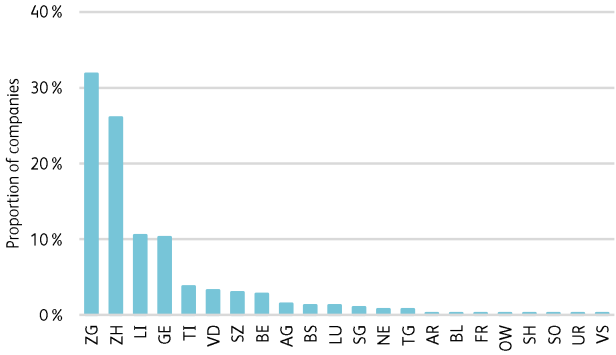
- The 2026 sample includes all registered managers of collective assets and therefore covers a larger initial population.
- Companies are assigned to all applicable activity categories, whereas previous editions classified each company only according to its primary activity. Consequently, category counts may exceed the 399 unique providers, and differences from earlier editions should not be interpreted directly as changes in market size or growth.
- A stricter relevance threshold is applied: only companies with a substantive level of crypto asset- or DLT-related activity are included, whereas more peripheral involvement could previously lead to inclusion.

2. Providers of Crypto Asset-Related Products and Services

Geographical Distribution of Company Headquarters

Findings

- At the cantonal level, the provider ecosystem is geographically concentrated: Zug accounts for 32 % of the total 399 companies, followed by Zurich with 26 %.
- Together, the cantons of Zug and Zurich host 58 % of all providers. Including Liechtenstein and the canton of Geneva, the four largest locations account for 79 % of the sample.
- The concentration is consistent with Zug's role as the center of the Swiss Crypto Valley, the established financial ecosystems of Zurich and Geneva, and Liechtenstein's specialized legal and regulatory environment for financial and blockchain-based services.
- The remaining providers are distributed across a broad range of cantons. No other individual location accounts for more than 4 %, indicating a pronounced geographical long tail.



Headquarters distribution of the companies by Swiss canton and Liechtenstein (n=399).
Source: Authors' calculations.

2. Providers of Crypto Asset-Related Products and Services

Customer Segments by Headquarters Country

Findings

- Providers serving both business and private clients (B2B and B2C) form the largest group, accounting for 51 % of the full sample.
- Providers focusing exclusively on business clients (B2B) represent 34 %, while exclusively B2C-oriented providers account for only 15 %.
- Liechtenstein providers are particularly strongly oriented toward both customer segments: 69 % of the 42 providers serve both B2B and B2C clients, compared with 49 % of the 357 providers headquartered in Switzerland.
- The prevalence of combined B2B and B2C models may partly reflect the broad accessibility of many crypto asset-related services, which can often serve both professional and private users across different technological layers and business models.

	B2B	B2B & B2C	B2C	*Total*
Liechtenstein	10 (3 %)	29 (7 %)	3 (1 %)	***42 (11%)***
Switzerland	126 (32 %)	176 (44 %)	55 (14 %)	***357 (89%)***
Total	***136 (34%)***	***205 (51%)***	***58 (15%)***	***399 (100%)***

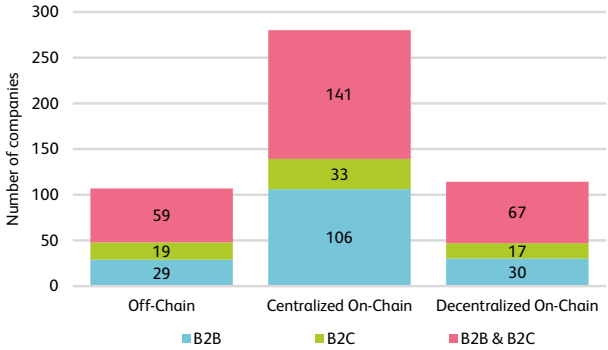
Number of companies by targeted customer segment and headquarters country (n=399; percentages in parentheses refer to the full sample). Source: Authors' calculations.

2. Providers of Crypto Asset-Related Products and Services

Customer Segments by Technological Integration

Findings

- By technological integration layer, 280 companies conduct centralized on-chain activities, compared with 114 in the decentralized on-chain layer and 107 in the off-chain layer. This dominance is consistent with providers combining DLT-based products and services with intermediary-controlled functions such as execution and custody. As companies may operate across several layers, these counts are not mutually exclusive.
- Providers in the B2B and B2C segment form the largest customer-segment group in every technological layer, comprising 141 centralized on-chain, 67 decentralized on-chain, and 59 off-chain providers.
- Providers targeting only private clients (B2C) constitute the smallest customer-segment group in all layers. Only 17 companies combine an exclusively B2C focus with decentralized on-chain activities.



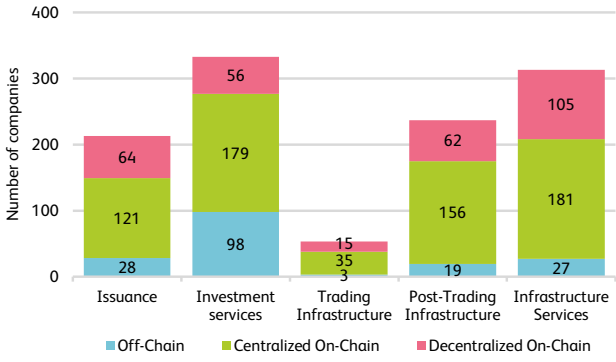
Companies by targeted customer segment and technological integration layer (n=399; companies may be assigned to multiple technological layers). Source: Authors' calculations.

2. Providers of Crypto Asset-Related Products and Services

Service Offerings by Technological Integration

Findings

- Investment services account for the largest number of provider–service–layer classifications (333), followed by infrastructure services (313) and post-trading infrastructure (237).
- Off-chain activity is concentrated in investment services (98), reflecting indirect exposure through traditional products and account structures.
- Centralized on-chain activities dominate every service category, indicating that DLT is primarily integrated into provider-controlled operating models. They are most prevalent in infrastructure services (181), investment services (179), and post-trading infrastructure (156).
- Decentralized on-chain activity is most prevalent in infrastructure services (105), consistent with the software- and protocol-based nature of decentralized applications.



Company classifications by service category and technological integration layer (n=399; companies may be assigned to multiple service offerings and layers). Source: Authors' calculations.

3. Overview of Market Activities

3. Overview of Market Activities

Introduction

This chapter provides a data-driven overview of observable market and investment activity in the crypto asset ecosystem, with a focus on Switzerland and Liechtenstein.

The recurring investment analyses follow the same dimensions and methodological approach as in previous editions of the **Crypto Assets Study** (see, e.g., Ankenbrand, Bieri, Ettlin, et al., 2025). Extending the underlying data series while retaining the established framework allows developments to be compared consistently over time.

The chapter is organized into three analytical blocks:

1. **Indirect investments**
   Exposure through financial instruments, such as exchange-traded products (ETPs), including exchange-traded funds (ETFs), without direct ownership of the underlying crypto assets.
2. **Direct investments**
   Purchases of crypto assets that provide direct exposure and, in principle, allow the assets to be transferred to a personal wallet.
3. **Stablecoins**
   Developments in stablecoins and related market infrastructure and regulatory activity.

Chapter logic

The analysis first examines indirect investment activity, placing the Switzerland and Liechtenstein product market in a global context before assessing domestic exchange activity and crypto-native derivatives markets. It then turns to direct spot-market activity on centralized and decentralized crypto exchanges and concludes with developments in stablecoins.

3. Overview of Market Activities

Objectives and Analytical Scope

The investment analysis addresses three overarching questions:

1. **Market development**
   How have the availability, AuM, and trading activity of crypto asset-related investment products developed in Switzerland and Liechtenstein and in the broader global market?
2. **Market composition**
   Which product types, underlying crypto assets, currencies, and trading venues account for observable investment activity?
3. **Market access**
   Through which traditional and crypto-native channels do investors obtain indirect or direct exposure to crypto assets?

The geographical scope depends on the availability of suitable data:

- analyses of traditional financial products primarily cover products available, domiciled, and/or traded in Switzerland and Liechtenstein, complemented by a global Morningstar universe to provide a benchmark for the development in assets under management (AuM);
- estimates of crypto-exchange activity focus on Switzerland, using country-level website-traffic data; and
- the stablecoin analysis covers global stablecoin developments, CHF-denominated stablecoins, and related market-infrastructure and regulatory developments in Switzerland.

Scope

The investment analysis measures observable product and trading activity. It does not identify individual investors or distinguish systematically between retail and institutional activity.

3. Overview of Market Activities

Analytical Structure

The investment analysis distinguishes between indirect and direct exposure based on whether the investment allows the investor to obtain direct on-chain control over a crypto asset.

Investment type	Market channel	Form of exposure	Form of holding/control
Indirect	Traditional financial-market channels	Open-end funds (including ETFs), other ETPs, and structured products	No direct ownership of underlying crypto asset
	Crypto derivatives exchanges	Futures and other exchange-specific derivatives	No direct ownership of underlying crypto asset
Direct	Centralized crypto exchanges	Spot purchases through an identifiable intermediary	Custodial holding; direct on-chain control upon withdrawal
	Decentralized crypto exchanges	Wallet-based spot transactions through smart contracts	Direct on-chain ownership

3. Overview of Market Activities

Indirect Investments

Indirect investment activity is assessed across traditional financial products and crypto derivatives exchanges using complementary data sources and methodologies, building on the approach applied in Ankenbrand, Bieri, Ettlin, et al. (2025).

Morningstar Direct
Morningstar data are used to examine:

- distinct ISINs and AuM;
- availability, domicile, trading location, and underlying crypto assets; and
- the corresponding global product universe as a benchmark for AuM and legal structures.

Swiss exchanges
BX Swiss and SIX data are used to examine:

- number and type of listed products;
- underlying crypto assets;
- market turnover and number of trades;
- average trade size; and
- trading currency.

Crypto derivatives exchanges
Activity is assessed using:

- global derivatives trading volumes;
- Swiss website-traffic shares;
- estimated trading volumes originating from Switzerland;
- estimated volume per capita; and
- comparison with spot-market activity.

For the Morningstar comparison, products assigned to the Morningstar Category Group “Digital Assets” are considered. Only one share class per fund is included, both surviving and liquidated products are retained, funds of funds are excluded, and legal restructurings are reflected over time. For the global Morningstar analysis, products are classified by legal structure into “funds (incl. ETFs)” and “other ETPs”. Swiss derivatives activity is estimated because exchanges generally do not report trading volumes by investor location.

3. Overview of Market Activities

Indirect Investments: Limitations and Interpretation

The analysis combines directly observed data on traditional financial products with estimated trading activity on crypto derivatives exchanges, subject to the following limitations:

- Morningstar Direct, BX Swiss, and SIX cover different segments of the indirect-investment market and apply different counting conventions.
- The Morningstar Category Group “Digital Assets” was newly introduced and is used to define the product universe in the present analysis. The resulting Morningstar product counts may therefore differ from those reported in earlier editions of the study series.
- Availability for sale, domicile, and trading location are overlapping classifications and should not be interpreted as mutually exclusive product categories.
- AuM refers to the total assets of the respective products and should not be interpreted as assets held by investors in the country in which a product is available, domiciled, or traded.
- The global Morningstar universe is used as a benchmark for the relative scale and structure of the Switzerland and Liechtenstein-related product universe.
- The number of trades and the related average trade-size analysis are available only for SIX.
- Swiss derivatives trading volumes are estimated using website traffic as a proxy for the geographical distribution of global trading activity and are therefore subject to measurement uncertainty.

Interpretation

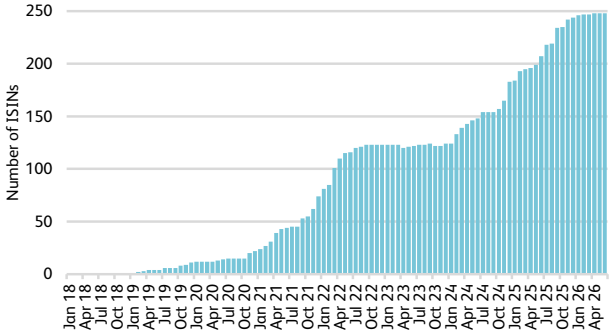
The results should be interpreted as indicators of the development, composition, and relative scale of indirect investment activity rather than as a complete measurement of investor holdings. Differences in legal product structures may provide additional evidence on the development of institutional access, but do not reveal the underlying investor composition.

3. Overview of Market Activities

Indirect Investments: Number of ISINs of Crypto Asset-Related ETPs and Open-End Funds in CH and LI

Findings

- The number of crypto asset-related ETPs and open-end funds increased substantially over the observation period, with particularly strong growth between mid-2020 and mid-2022 and again between early 2024 and late 2025.
- At the end of June 2026, 248 distinct ISINs were available for sale, domiciled, and/or traded in Switzerland (CH) and Liechtenstein (LI).
- This represents an increase of 41 ISINs, or approximately 20 %, compared with 207 ISINs in June 2025.
- Despite 31 identified liquidations, including 8 since July 2025, the product universe continued to expand, broadening the range of indirect crypto asset investment opportunities.



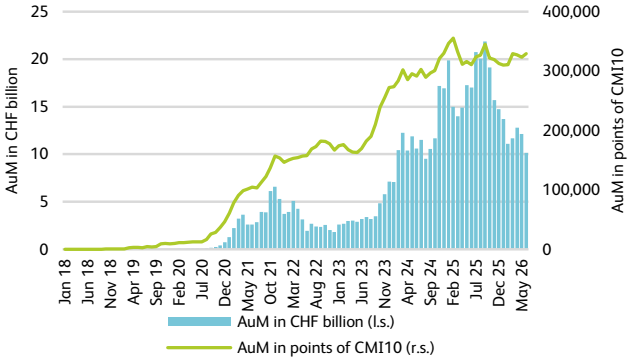
Monthly number of distinct ISINs of crypto asset-related ETPs and open-end funds available for sale, domiciled, and/or traded in Switzerland and Liechtenstein. Source: Authors' calculations based on Morningstar Direct.

3. Overview of Market Activities

Indirect Investments: AuM of Crypto Asset-Related ETPs and Open-End Funds in CH and LI

Findings

- AuM of crypto asset-related ETPs and open-end funds fluctuated over the observation period, reflecting changes in the product universe, investor flows, and crypto asset valuations.
- Measured in nominal Swiss francs, AuM rose particularly sharply during the market upswings. At the end of June 2026, AuM amounted to approximately CHF 10 billion, down 54 % from its peak in September 2025.
- Expressing AuM in units of the SIX Crypto Market Index 10 (CMI10) reduces the influence of changing crypto asset prices and provides a price-adjusted perspective on asset growth.
- The CMI10-adjusted series indicates that changes in AuM cannot be attributed solely to movements in crypto asset prices and may also reflect net new money inflows or outflows.



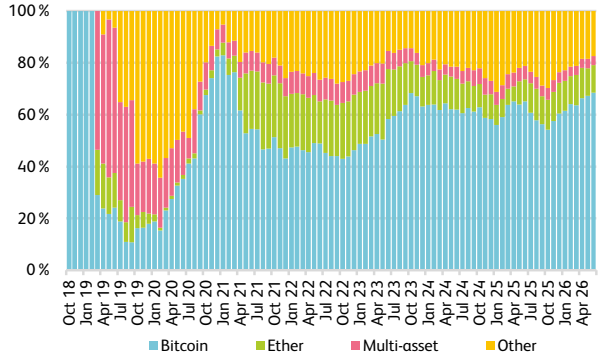
Monthly AuM of crypto asset-related ETPs and open-end funds available for sale, domiciled, and/or traded in Switzerland and Liechtenstein. Source: Authors' calculations based on Morningstar Direct and SIX.

3. Overview of Market Activities

Indirect Investments: AuM of Crypto Asset-Related ETPs and Open-End Funds by Underlying

Findings

- The composition of AuM shifted over time, reflecting changes in product availability, investor preferences, and relative asset performance.
- Bitcoin-based products accounted for the largest share of AuM throughout most of the observation period and became more dominant again from 2023 onwards.
- In June 2026, the AuM composition was 69 % Bitcoin, 11 % Ether, 4 % multi-asset, and 17 % other underlyings.[2]
- Bitcoin therefore remained the dominant underlying from an AuM perspective at the end of June 2026.



Monthly distribution of AuM of crypto asset-related ETPs and open-end funds available for sale, domiciled, and/or traded in Switzerland and Liechtenstein by underlying. Source: Authors' calculations based on Morningstar Direct.

[2] Shares do not sum to 100 % because of rounding.

3. Overview of Market Activities

Indirect Investments: Availability, Domicile, and Trading Location

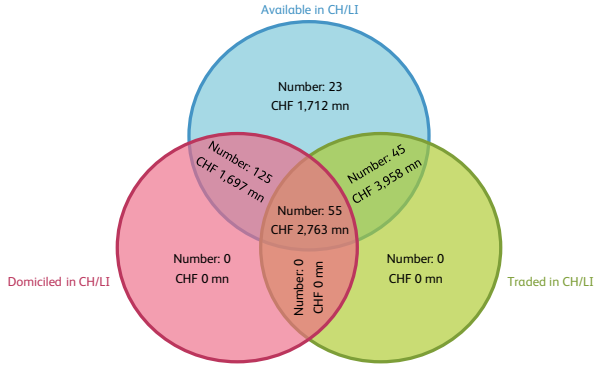
Morningstar classifies distinct ISINs according to whether the respective ETP or open-end fund (including ETFs) is:

- available for sale;
- domiciled; and/or
- traded in Switzerland or Liechtenstein.

Findings for June 2026

- All 248 distinct ISINs were available for sale; 180 were domiciled locally and 100 were traded on a Swiss exchange.
- Total AuM amounted to CHF 10.13 billion, of which CHF 4.46 billion was held in locally domiciled products and CHF 6.72 billion in products traded on a Swiss exchange.

The Morningstar universe is broader than the domestic exchange-listed segment. The following analysis therefore benchmarks it against the global market before turning to trading activity on BX Swiss and SIX.



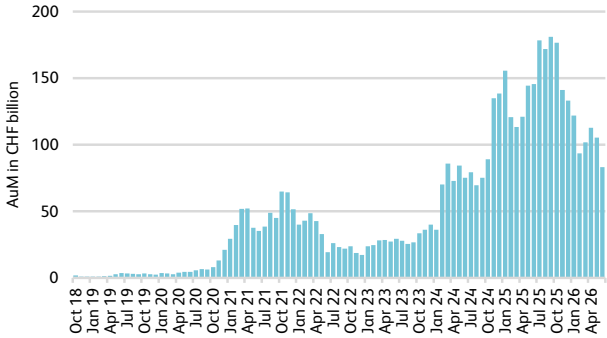
Distinct ISINs and AuM of crypto asset-related ETPs and open-end funds available for sale, domiciled, and/or traded in Switzerland and Liechtenstein, June 2026. Source: Authors' calculations based on Morningstar Direct.

3. Overview of Market Activities

Indirect Investments: Global AuM of Crypto Asset-Related ETPs and Open-End Funds

Findings

- Global AuM of crypto asset-related ETPs and open-end funds increased strongly during the market expansion of 2020 and 2021, declined thereafter, and rose substantially again from 2024 onwards.
- Global AuM reached a peak of approximately CHF 181 billion in September 2025 before declining by 54 % to approximately CHF 83 billion by June 2026.
- Compared with June 2025, global AuM declined by approximately 43 %, broadly in line with the 41 % decline in the Switzerland and Liechtenstein-related product universe over the same period.
- In June 2026, the global product universe was more than eight times larger by AuM than the CHF 10.13 billion universe of products available for sale, domiciled, and/or traded in Switzerland and Liechtenstein.



Monthly global AuM of crypto asset-related ETPs and open-end funds. Source: Authors' calculations based on Morningstar Direct.

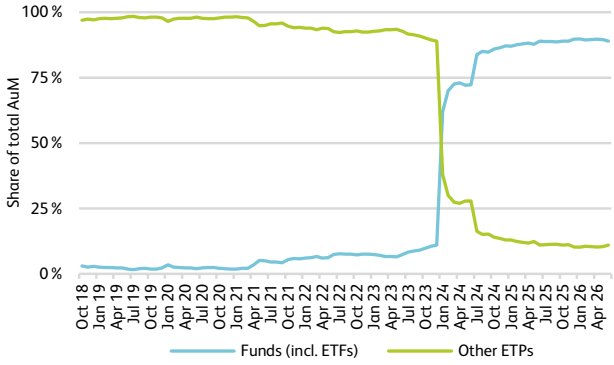
3. Overview of Market Activities

Indirect Investments: Global Composition of Product AuM

Aggregate AuM shows the scale of the global market, while the following breakdown examines its product structure, which may also provide indications of the underlying investor types and access through traditional financial-market channels.

Findings

- Other ETPs (i.e., non-fund ETPs) dominated global crypto asset-related product AuM until the end of 2023, accounting for more than 90 % of the total.
- From 2024 onwards, funds, including ETFs, gained rapidly in importance following the launch of U.S. spot crypto-asset ETFs, accounting for more than 70 % of AuM by mid-2024 and approaching 90 % thereafter.
- The shift toward funds, including ETFs, represents a marked change in the product structures through which crypto asset exposure is provided through traditional financial-market channels.
- The growing importance of these structures may indicate broader institutional accessibility and adoption, although product-level AuM does not reveal the underlying investor composition.



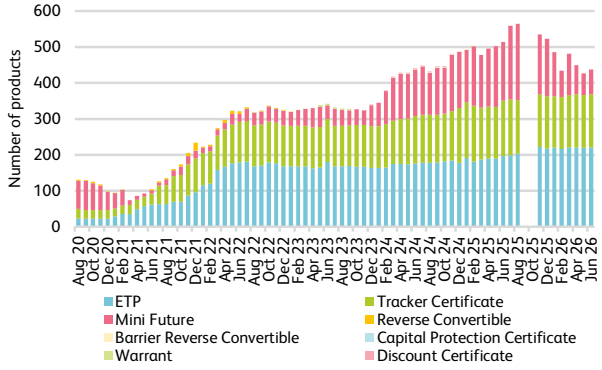
Monthly shares of funds (incl. ETFs) and other ETPs in global AuM of crypto asset-related ETPs and open-end funds. Source: Authors' calculations based on Morningstar Direct.

3. Overview of Market Activities

Indirect Investments: Number of Crypto Asset-Related Products on BX Swiss and SIX by Product Type

Findings

- The number of indirect financial products traded on BX Swiss and SIX increased strongly from 2021 onwards and expanded further through 2024 and 2025.
- ETPs and tracker certificates account for the largest share of available products throughout most of the observation period. Mini futures also became an important product category, while other product types remained comparatively small or declined over time.
- As of June 2026, there were 221 ETPs, 147 tracker certificates, and 69 mini futures listed on BX Swiss and SIX, corresponding to 437 products in total. This represents a year-on-year decline of approximately 15 % from 514 products in June 2025.
- Note that counts are not directly comparable with Morningstar: Morningstar reports distinct ISINs, while BX Swiss and SIX count listed instruments, so one ISIN may appear multiple times across currencies.



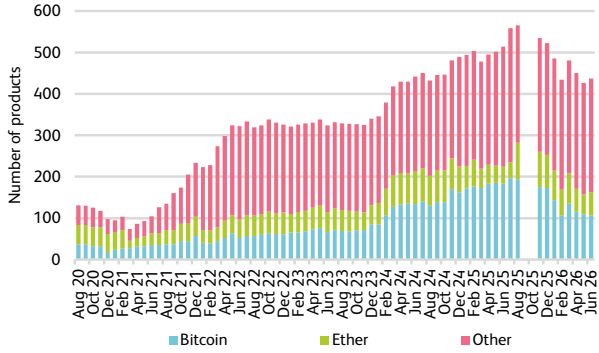
Monthly number of crypto asset-related products on BX Swiss and SIX by product type. No data are available for September and October 2025. Source: Authors' calculations based on BX Swiss and SIX.

3. Overview of Market Activities

Indirect Investments: Number of Crypto Asset-Related Products on BX Swiss and SIX by Underlying

Findings

- Other products, including products linked to crypto-asset indices, account for the largest share of the product universe throughout most of the observation period.
- Products on Bitcoin and Ether also increased markedly, but remained below the number of products linked to other underlyings.
- As of June 2026, there were 106 products on Bitcoin, 56 products on Ether, and 275 products linked to other underlyings, including crypto asset indices.
- The June 2026 composition shows that the listed product universe extended well beyond Bitcoin and Ether.



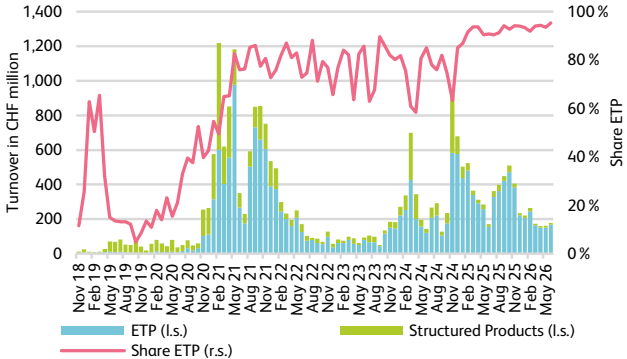
Monthly number of crypto asset-related products on BX Swiss and SIX by underlying. No data are available for September and October 2025. Source: Authors' calculations based on BX Swiss and SIX.

3. Overview of Market Activities

Indirect Investments: Market Turnover of Crypto Asset-Related Products on BX Swiss and SIX

Findings

- Trading activity on BX Swiss and SIX increased sharply during the crypto market expansion of 2020 and 2021, reaching its highest monthly turnover in early 2021. A second increase occurred toward the end of 2024, followed by lower turnover during 2025 and the first half of 2026.
- Total turnover amounted to CHF 1.16 billion in the first half of 2026. ETPs accounted for CHF 1.08 billion, or approximately 94 %, compared with CHF 74 million for structured products.[3]
- In June 2026, total turnover reached CHF 178 million. Around CHF 169 million, or approximately 95 %, was attributable to ETPs, while structured products contributed only CHF 8 million.



Monthly market turnover of crypto asset-related products on BX Swiss and SIX by product type and proportional share of ETPs. Source: Authors' calculations based on BX Swiss and SIX.

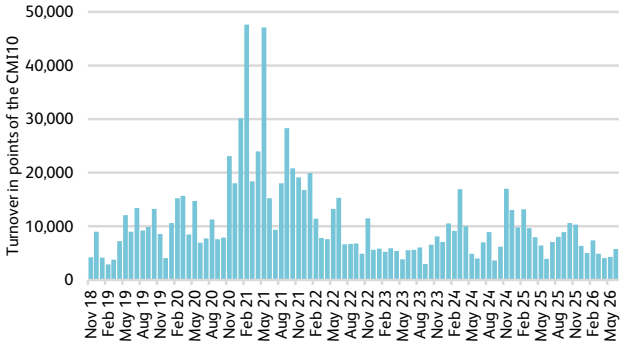
[3] Components do not sum exactly because of rounding.

3. Overview of Market Activities

Indirect Investments: Market Turnover Adjusted for Crypto Asset Prices on BX Swiss and SIX

Findings

- Market turnover expressed in units of the SIX Crypto Market Index 10 (CMI10) can reduce the influence of changing crypto asset prices on CHF turnover.
- Price-adjusted trading activity increased strongly in late 2020 and reached its highest levels in early 2021. It declined markedly in 2022 and remained subdued in 2023, with temporary increases in 2024 and early 2025 before declining again during the first half of 2026 and remaining well below the 2021 peak.
- Compared with nominal CHF turnover, the adjusted series indicates that part of the variation reflects changing crypto asset prices rather than underlying trading activity alone.



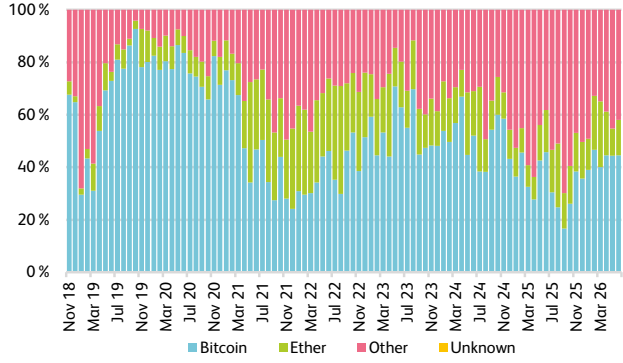
Monthly market turnover of crypto asset-related products on BX Swiss and SIX, expressed in units of the SIX Crypto Market Index 10. Source: Authors' calculations based on BX Swiss and SIX.

3. Overview of Market Activities

Indirect Investments: Market Turnover by Underlying on SIX

Findings

- In the early years of the observation period, Bitcoin accounted for the clear majority of market turnover.
- Over time, the composition of turnover became more diversified, with Ether and especially other underlyings gaining in importance.
- In June 2026, Bitcoin accounted for 45 % of turnover on SIX, Ether for 13 %, and other underlyings for 42 %.
- This composition therefore suggests that Bitcoin remained the single most important underlying, but no longer dominated turnover to the same extent as in the earlier observation period.
- The category “Other” reflects the growing role in market turnover of a broader range of crypto asset underlyings.



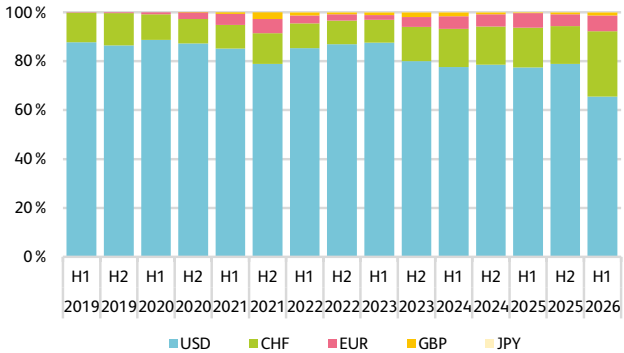
Monthly distribution of market turnover of crypto asset-related products on SIX by underlying.
Source: Authors’ calculations based on SIX.

3. Overview of Market Activities

Indirect Investments: Market Turnover by Trading Currency on SIX

Findings

- USD-denominated products accounted for the majority of market turnover throughout the observation period.
- In the first half of 2026, USD-denominated products corresponded to approximately 65 % of total turnover. Turnover in CHF-denominated products reached approximately 27 % of the total.
- The proportional share of CHF-denominated turnover increased markedly in the first half of 2026 and reached its highest level over the observation period. This may reflect shifts in product availability and investor preferences toward CHF-denominated instruments.
- EUR-denominated products accounted for around 6 % in the first half of 2026, while GBP and JPY remained minor trading currencies with shares of approximately 1 % and less than 1 %, respectively.



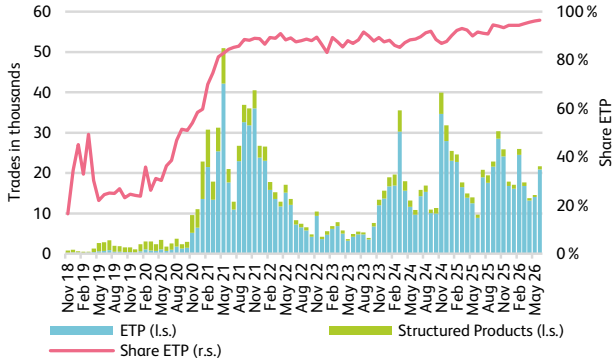
Half-yearly distribution of market turnover of crypto asset-related products on SIX by trading currency. Source: Authors' calculations based on SIX.

3. Overview of Market Activities

Indirect Investments: Number of Trades on SIX

Findings

- The number of trades increased sharply during 2020 and 2021, reaching its highest monthly levels in 2021. Trading activity declined during 2022 and 2023, before increasing again from late 2023 onwards.
- In the first half of 2026, approximately 111,000 trades were executed on SIX. ETPs accounted for around 106,000 trades, or approximately 95 % of the total. Structured products accounted for only around 5,000 trades during the same period.
- In June 2026, 21,689 trades were recorded, of which 20,923, or 96 %, involved ETPs and 766 involved structured products.
- On SIX, ETPs therefore dominate transaction frequency.



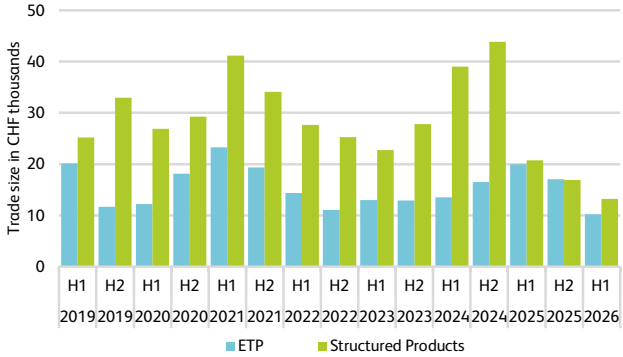
Monthly number of trades in crypto asset-related products on SIX by product type and proportional share of ETPs. Source: Authors' calculations based on SIX.

3. Overview of Market Activities

Indirect Investments: Average Trade Size on SIX

Findings

- Structured products generally exhibit larger average trade sizes than ETPs, suggesting differences in how the two product types are used.
- The average trade size of structured products reached particularly high levels in the first half of 2021 and the second half of 2024.
- The difference between the two product types narrowed substantially during 2025.
- In the first half of 2026, the average trade size declined to approximately CHF 10,200 for ETPs and CHF 13,200 for structured products.
- Structured-product trades therefore remained larger on average, but the difference was considerably smaller than during earlier peak periods.



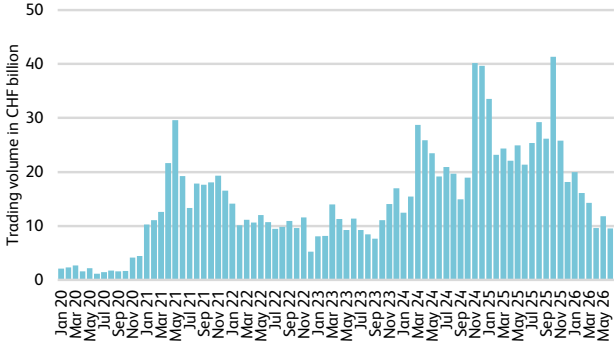
Half-yearly average trade size of crypto asset-related products on SIX by product type. Source: Authors' calculations based on SIX.

3. Overview of Market Activities

Indirect Investments: Estimated Swiss Trading Volume on Crypto Derivatives Exchanges

Findings

- Estimated crypto derivatives trading volumes originating from Switzerland[4] rose sharply from late 2020, peaked initially in 2021, and remained substantial in 2022 and 2023 despite declining from this peak.
- Trading volume increased again in 2024 and 2025, reaching its highest monthly level of over CHF 41 billion in October 2025 before declining sharply.
- Estimated volume amounted to approximately CHF 9.52 billion in June 2026, compared with CHF 21.38 billion in June 2025. This represents a year-on-year decline of approximately 55 %.



Estimated monthly derivatives trading volume originating from Switzerland on crypto derivatives exchanges. Source: Authors' calculations based on CoinGecko (online-b) and Semrush (online).

[4] For the estimation method, limitations, and interpretation, see page 38.

3. Overview of Market Activities

Direct Investments

Direct investments refer to spot purchases of crypto assets that, in principle, allow investors to obtain direct on-chain control by transferring the purchased assets to a personal wallet.

The analysis distinguishes between two trading channels:

1. **Centralized crypto exchanges**
   Identifiable platform operators provide order execution, account infrastructure, and frequently custody. Purchased crypto assets are typically held within the platform's custodial infrastructure but can generally be withdrawn to an external wallet.
2. **Decentralized crypto exchanges**
   Trades are executed through smart contracts using user-controlled wallets. Investors retain direct control over the assets involved in the transaction.

Both exchange types provide spot crypto asset exposure, but differ in their execution model, custody arrangement, degree of on-chain control, and reliance on intermediaries.

3. Overview of Market Activities

Direct Investments: Estimation Method, Limitations, and Interpretation

Following the approach applied in Ankenbrand, Bieri, Ettlin, et al. (2025), trading volumes originating from Switzerland are estimated by applying Switzerland's share of website traffic to each exchange's global spot trading volume. This estimation is required because centralized and decentralized crypto exchanges generally do not report trading volumes by investor location.

The resulting estimates are subject to several limitations:

- Website traffic is used as a proxy for the geographical distribution of global spot trading activity.
- The estimation assumes that Switzerland's share of an exchange's website traffic approximates its share of the exchange's global trading volume.
- Virtual private networks, mobile applications, institutional trading interfaces, and cross-border access may cause website traffic and actual trading activity to differ.
- The estimates cover the exchanges included in the underlying datasets but do not capture all possible direct trading channels.
- Trading volume measures market activity rather than the number of investors, the value of crypto asset holdings, or the duration for which assets are held.
- Applying the same estimation approach to centralized, decentralized, and crypto derivatives exchanges supports relative comparisons across exchange types, but does not eliminate uncertainty regarding absolute volumes.

Interpretation

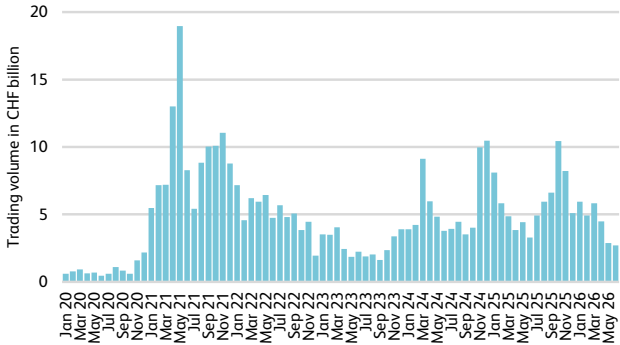
The estimates should primarily be interpreted as indicators of market development and relative trading activity across exchange types rather than as exact measures of trading activity originating from Switzerland.

3. Overview of Market Activities

Direct Investments: Estimated Swiss Trading Volume on Centralized Crypto Exchanges

Findings

- Estimated Swiss spot trading activity on centralized crypto exchanges increased sharply during 2020 and 2021, reaching its historical peak in May 2021 with roughly CHF 19 billion.
- Activity subsequently declined substantially and, despite temporary recoveries in 2024 and 2025, remained well below the 2021 peak in the first half of 2026.
- Estimated trading volume amounted to approximately CHF 2.70 billion in June 2026, compared with CHF 3.28 billion in June 2025, corresponding to a year-on-year decline of approximately 18 %.



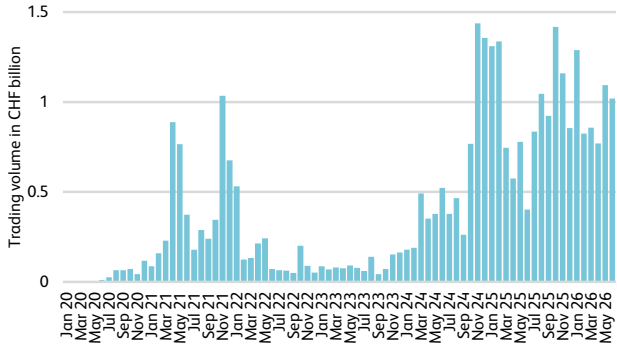
Estimated monthly spot trading volume originating from Switzerland on centralized crypto exchanges. Source: Authors' calculations based on CoinGecko (online-b) and Semrush (online).

3. Overview of Market Activities

Direct Investments: Estimated Swiss Trading Volume on Decentralized Crypto Exchanges

Findings

- Estimated Swiss spot trading activity on decentralized crypto exchanges remained comparatively small in 2020, increased substantially in 2021, and reached substantially higher levels again from 2024 onwards.
- Unlike trading activity on centralized crypto exchanges, trading activity on decentralized crypto exchanges reached its highest monthly level of CHF 1.44 billion comparatively late in November 2024.
- Estimated trading volume amounted to approximately CHF 1.02 billion in June 2026, compared with CHF 402 million in June 2025, corresponding to a year-on-year increase of approximately 153 %.
- The diverging development across exchange types may partly reflect differences in market maturity and use cases.



Estimated monthly spot trading volume originating from Switzerland on decentralized crypto exchanges. Source: Authors' calculations based on CoinGecko (online-b) and Semrush (online).

3. Overview of Market Activities

Crypto Exchanges: Cumulative Trading Volume in the First Half of 2026

Applying a common estimation methodology provides a basis for comparing relative activity across exchange types, although the absolute volumes remain subject to measurement uncertainty.

	Centralized exchanges	Decentralized exchanges	Crypto derivatives exchanges
Global volume	CHF 11,813 bn	CHF 851 bn	CHF 61,870 bn
Swiss website-traffic share	0.23 %	0.69 %	0.13 %
Estimated Swiss volume	CHF 26.8 bn	CHF 5.9 bn	CHF 81.3 bn
Estimated Swiss volume per capita	CHF 2,927	CHF 641	CHF 8,894

Estimated cumulative trading volumes originating from Switzerland in the first half of 2026. Population refers to the end of the first quarter of 2026. Source: Authors' calculations based on CoinGecko (online-b), Federal Statistical Office (online), and Semrush (online).

Findings

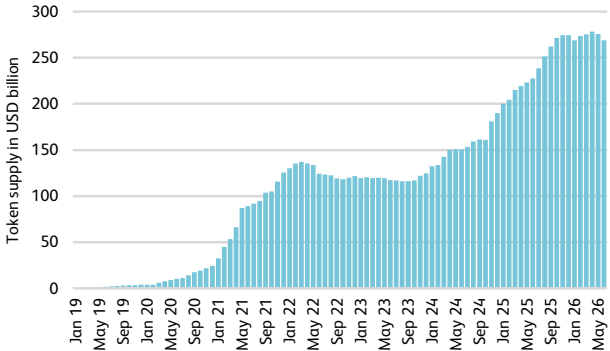
- Crypto derivatives exchanges generated the largest estimated Swiss trading volume at CHF 81.3 billion, despite having the lowest Switzerland-originating website-traffic share (0.13 %). This reflects the nominally larger scale of the global derivatives market.
- On a per capita basis, the estimated trading volume originating from Switzerland amounts to CHF 8,894 on crypto derivatives exchanges, CHF 2,927 on centralized crypto exchanges, and CHF 641 on decentralized crypto exchanges.

3. Overview of Market Activities

Stablecoins: Global Market Development

Findings

- Global stablecoin supply increased from approximately USD 1.6 billion in June 2019 to USD 269 billion in June 2026.
- Growth was particularly strong in 2020 and 2021 and from 2024 onwards. Between June 2025 and June 2026, total supply increased by approximately 18 %.
- By comparison, the combined supply of publicly tracked CHF-denominated stablecoins amounted to approximately CHF 75.7 million at the end of June 2026 (CoinGecko, online-c), representing only a small fraction of the total supply of USD-denominated stablecoins.
- Supply of CHF-denominated stablecoins was highly concentrated, with the two largest accounting for approximately 97 % of the selected CHF-denominated stablecoin supply in June 2026 (CoinGecko, online-c).



Monthly global stablecoin supply. Source: Visa & Allium Labs (online).

3. Overview of Market Activities

Stablecoins: Developments in Switzerland

Recent developments in Switzerland include private-sector stablecoin testing, central-bank settlement infrastructure, and proposed regulatory changes:

1. **CHF stablecoin sandbox**
   In April 2026, UBS, PostFinance, Sygnum, Raiffeisen, Zürcher Kantonalbank, BCV, and Swiss Stablecoin AG launched a controlled live environment to test practical CHF stablecoin use cases. The initiative is open to additional interested institutions (PostFinance, 2026).
2. **Wholesale central bank digital currency (CBDC) and tokenized settlement**
   Through Project Helvetia, the Swiss National Bank provides wholesale CBDC for settling tokenized assets on the SIX Digital Asset Platform. The pilot has been extended until at least June 2028. The project also examines a real-time gross settlement (RTGS) link used by BX Digital, whereby tokenized assets are settled on a DLT platform while the cash leg is settled in central bank money via the Swiss Interbank Clearing (SIC) system (SNB, 2025a).
3. **Proposed stablecoin and crypto licenses**
   The Federal Council has proposed licenses for “payment instrument institutions”, including issuers of qualifying stablecoins, and for “crypto-institutions” providing crypto asset services. The consultation closed in February 2026; the reform was not yet in force by June 2026 (Swiss Federal Council, 2025).

Together, these initiatives illustrate the parallel development of private-sector stablecoin experimentation, central-bank settlement infrastructure, and the regulatory framework for crypto payment services.

3. Overview of Market Activities

Summary

- The indirect-investment market continued to broaden, with 248 distinct ISINs for ETPs and open-end funds and approximately CHF 10.13 billion in AuM in the Switzerland and Liechtenstein-related product universe at the end of June 2026. Globally, funds accounted for nearly 90 % of combined fund and other ETP AuM, a development that may indicate broader institutional accessibility but does not reveal the underlying investor composition.
- Bitcoin remained the dominant underlying by AuM in the Switzerland and Liechtenstein-related Morningstar universe, accounting for 69 % in June 2026. ETPs also dominated exchange trading activity, representing approximately 94 % of turnover across BX Swiss and SIX and 95 % of trades on SIX in the first half of 2026. CHF-denominated products accounted for approximately 27 % of turnover on SIX over the same period.
- Estimated Swiss crypto-exchange activity differed substantially across trading channels, products, and services: in the first half of 2026, trading volume amounted to CHF 81.3 billion on derivatives exchanges, CHF 26.8 billion on centralized spot exchanges, and CHF 5.9 billion on decentralized exchanges. Recent developments diverged across exchange types.
- Global stablecoin supply reached approximately USD 269 billion in June 2026, while selected CHF-denominated stablecoins had a combined supply of less than CHF 100 million. Switzerland also recorded further developments in stablecoin experimentation, tokenized settlement infrastructure, and the associated regulatory framework.

4. Crypto Assets as an Investment

4. Crypto Assets as an Investment

Objective and Analytical Approach

Crypto assets have become accessible through both direct holdings and traditional investment products. This raises the question of whether a small crypto asset allocation would have improved the historical performance of an otherwise traditional investment portfolio.

This chapter updates the portfolio analysis presented in previous editions of the **Crypto Assets Study**. The observation period is extended to 30 June 2026, while the investment universe and portfolio definitions remain unchanged to preserve comparability over time.

The analysis proceeds in two steps:

1. **Portfolio comparison**
   Four predefined allocations are compared in terms of cumulative performance, annualized return, volatility, Sharpe ratio, and maximum drawdown.
2. **Risk decomposition**
   For the portfolio containing both Bitcoin (BTC) and gold, the capital allocated to each asset is compared with its contribution to total portfolio volatility.

Central question
How did small allocations to Bitcoin and gold relate to the historical return, downside risk, and internal risk structure of a traditional portfolio from the perspective of a Swiss investor?

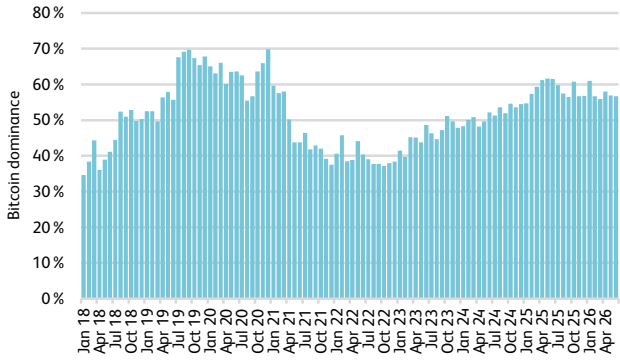
4. Crypto Assets as an Investment

Bitcoin as a Proxy for Crypto Asset Exposure

Bitcoin denominated in Swiss francs is used as the proxy for crypto asset exposure in the portfolio analysis.

This choice reflects:

- Bitcoin's consistently substantial share of total crypto asset market capitalization;
- its long and comparatively complete price history;
- its broad availability through direct and indirect investment channels; and
- its relevance for traditional and institutional investors.



Monthly share of Bitcoin in total crypto asset market capitalization. Source: CoinGecko (online-a).

4. Crypto Assets as an Investment

Investment Universe

The traditional reference portfolio is constructed from three principal asset classes held by Swiss pension funds, as reported by the Occupational Pension Supervisory Commission (2026): stocks, bonds, and real estate. Gold and Bitcoin are introduced separately as alternative allocations. The following market proxies are used:

Asset class	Proxy	Data source
Stocks	Swiss Performance Index® TR (SPI)	SIX
Bonds	Swiss Bond Index® TR (SBI)	SIX
Real estate	CH Real Estate® Funds Broad TR (SXI)	SIX
Gold	Spot price of gold denominated in CHF	finanzen.net
Crypto assets	Bitcoin price denominated in CHF	finanzen.net

The proxies provide liquid market-based representations of the respective asset classes and do not replicate the composition of actual pension-fund holdings.

All returns are measured from the perspective of a Swiss-franc investor. The yield of the ten-year Swiss Confederation bond (SNB, online-a) is used as the risk-free rate proxy for the calculation of Sharpe ratios.

4. Crypto Assets as an Investment

Portfolio Construction

The baseline portfolio consists of stocks, bonds, and real estate. Three alternative portfolios add a 3 % allocation to Bitcoin, gold, or both assets.

Portfolio	Stocks	Bonds	Real estate	Gold	Bitcoin
Excluding BTC & gold	35 %	40 %	25 %	0 %	0 %
Including BTC	34 %	39 %	24 %	0 %	3 %
Including gold	34 %	39 %	24 %	3 %	0 %
Including BTC & gold	33 %	38 %	23 %	3 %	3 %

- Each 3 % allocation to Bitcoin or gold is financed by reducing stocks, bonds, and real estate by 1 percentage point each; when both are included, each traditional asset-class weight is reduced by 2 percentage points.
- The portfolios are rebalanced annually to their respective target weights at the beginning of each calendar year. As a robustness check, monthly rebalancing was also assessed and did not materially change the key findings.
- Predefined allocations are used instead of optimized weights to facilitate transparent and consistent comparisons.

4. Crypto Assets as an Investment

Performance Evaluation Method

To assess the four predefined portfolios consistently, performance is evaluated using a common calculation framework and a set of complementary return and risk measures.

Calculation framework

- Observation period: 3 January 2018 to 30 June 2026
- Frequency: common business-day observations across all asset-class proxies
- Return type: daily simple returns
- Portfolio rebalancing: annually
- Annualization factor: 252 business days

Evaluation measures

- cumulative portfolio return;
- annualized return;
- annualized standard deviation;
- annualized Sharpe ratio; and
- maximum drawdown.

Cumulative returns show portfolio performance over the complete observation period. Drawdowns measure declines from the previous portfolio peak, while maximum drawdown corresponds to the largest such decline.

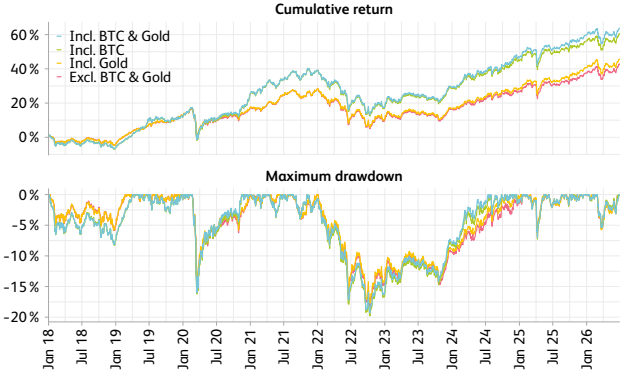
Period-specific results show how the effects of Bitcoin and gold varied across different market phases. The full-period results provide an aggregate assessment of return and risk-adjusted performance.

4. Crypto Assets as an Investment

Cumulative Return and Drawdowns

Findings

- All four portfolios generated positive cumulative returns, with the portfolio including both Bitcoin and gold achieving the highest overall performance.
- Despite differences in cumulative performance, maximum drawdowns remained broadly similar across the four portfolios.
- Portfolios including Bitcoin exhibited more pronounced fluctuations in cumulative performance, but ended the period above the traditional reference portfolio.
- As shown in the table on the following page, the portfolio including both Bitcoin and gold also achieved the highest full-period annualized return (6.0 %) and Sharpe ratio (0.83), although relative performance varied across individual periods.
- In the first half of 2026, portfolios including Bitcoin recorded lower risk-adjusted performance than the traditional and gold-inclusive allocations.



Cumulative return and drawdowns of the four predefined portfolios. Source: Authors' calculations based on finanzen.net and SIX.

4. Crypto Assets as an Investment

Return, Volatility, and Sharpe Ratio by Period

The period-specific results show how return, volatility, and risk-adjusted performance varied across the four portfolio allocations over time.

Portfolio	Metric	2018	2019	2020	2021	2022	2023	2024	2025	H1 2026	Full period
Excl. BTC & gold	Ann. return	-4.4 %	18.1 %	4.4 %	9.2 %	-14.3 %	6.4 %	8.8 %	8.9 %	8.3 %	4.4 %
	Ann. std. dev.	5.4 %	4.4 %	10.3 %	5.1 %	8.6 %	5.3 %	5.1 %	6.0 %	6.4 %	6.6 %
	Sharpe ratio	-0.81	4.16	0.46	1.86	-1.71	1.05	1.65	1.44	1.26	0.64
Incl. BTC	Ann. return	-6.4 %	20.2 %	12.2 %	11.0 %	-15.8 %	10.1 %	12.6 %	8.2 %	6.0 %	5.8 %
	Ann. std. dev.	5.7 %	5.8 %	11.6 %	6.3 %	8.9 %	5.6 %	5.8 %	6.0 %	6.4 %	7.2 %
	Sharpe ratio	-1.13	3.56	1.09	1.78	-1.83	1.68	2.09	1.33	0.91	0.78
Incl. gold	Ann. return	-4.2 %	18.1 %	4.7 %	8.9 %	-13.8 %	6.2 %	9.6 %	10.0 %	7.7 %	4.6 %
	Ann. std. dev.	5.3 %	4.3 %	10.1 %	5.0 %	8.3 %	5.2 %	5.0 %	5.9 %	6.5 %	6.4 %
	Sharpe ratio	-0.81	4.26	0.50	1.83	-1.72	1.06	1.83	1.65	1.17	0.69
Incl. BTC & gold	Ann. return	-6.3 %	20.1 %	12.4 %	10.7 %	-15.3 %	10.0 %	13.4 %	9.3 %	5.4 %	6.0 %
	Ann. std. dev.	5.6 %	5.7 %	11.4 %	6.2 %	8.6 %	5.4 %	5.8 %	5.9 %	6.5 %	7.1 %
	Sharpe ratio	-1.14	3.59	1.13	1.76	-1.83	1.70	2.24	1.54	0.81	0.83

Annualized portfolio performance by period. Source: Authors' calculations based on finanzen.net, SIX, and SNB.

4. Crypto Assets as an Investment

Volatility Contribution

The preceding analysis compares the total volatility of the four portfolios. It does not, however, reveal how much each asset contributes to that volatility.

The risk decomposition focuses on the portfolio containing both Bitcoin and gold and applies its fixed target weights to the full-period covariance matrix:

$$\boldsymbol{w} = \begin{pmatrix} 0.33 & 0.38 & 0.23 & 0.03 & 0.03 \end{pmatrix}^{\mathsf{T}},$$

where the elements represent stocks, bonds, real estate, gold, and Bitcoin, respectively.

Let $\boldsymbol{\Sigma}$ denote the sample covariance matrix of daily asset returns over the full observation period. Total portfolio volatility is calculated as

$$\sigma_p = \sqrt{\boldsymbol{w}^{\mathsf{T}} \boldsymbol{\Sigma} \boldsymbol{w}}.$$

The component contribution of asset i to portfolio volatility is

$$CC_i = w_i \frac{(\boldsymbol{\Sigma} \boldsymbol{w})_i}{\sigma_p},$$

and its proportional volatility contribution is

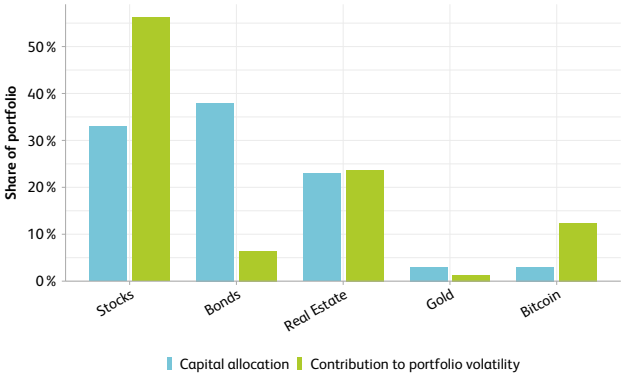
$$PC_i = \frac{CC_i}{\sigma_p}.$$

4. Crypto Assets as an Investment

Capital Allocation Versus Contribution to Portfolio Volatility

Findings

- Capital weights and contributions to portfolio volatility differ across asset classes.
- Stocks account for approximately 56 % of portfolio volatility despite a capital weight of only 33 %, while real estate contributes around 24 %, broadly in line with its 23 % capital weight.
- Bonds represent the largest capital allocation at 38 %, but contribute only around 6 % of portfolio volatility.
- Despite identical capital weights of 3 %, Bitcoin contributes approximately 12 % of portfolio volatility, compared with only around 1 % for gold.
- Bitcoin therefore represents a material risk driver despite its small capital allocation, highlighting that even a modest portfolio weight can have a disproportionate effect on overall portfolio risk.



Target capital allocation and proportional contribution to total portfolio volatility for the portfolio including Bitcoin and gold. Source: Authors' calculations based on finanzen.net and SIX.

4. Crypto Assets as an Investment

Summary

- Over the complete observation period, the portfolio including both Bitcoin and gold generated the highest cumulative return, the highest annualized return of 6.0 %, and the highest Sharpe ratio of 0.83.
- The four portfolios exhibited broadly similar drawdown patterns, with only limited differences in maximum drawdown within the predefined portfolio framework.
- The combined allocation achieved a higher annualized return and Sharpe ratio than either single-asset allocation. Within this historical portfolio setup, the results are therefore consistent with a complementary role for Bitcoin and gold.
- Bitcoin and gold play markedly different risk roles: despite identical 3 % capital weights, Bitcoin contributes approximately 12 % of portfolio volatility, compared with only around 1 % for gold under the full-period target-weight decomposition.
- **Note:** The analysis is historical and based on predefined portfolio allocations and simplified implementation assumptions. The results describe realized portfolio characteristics over the observation period and do not constitute an investment recommendation.

5. Mortgage Tokenization

5. Mortgage Tokenization

Introduction

Motivation

- Crypto asset markets are expanding from cryptocurrencies toward stablecoins, tokenized real-world assets, and balance-sheet instruments such as deposit tokens.
- Mortgages are particularly relevant in Switzerland due to the size of the market and their importance for domestically focused banks.
- The importance of mortgages on bank balance sheets makes funding, servicing efficiency, and risk management relevant for the Swiss banking sector.
- DLT enables contractual mortgage-linked exposures and associated payment flows to be represented through programmable tokens.

Research approach

- Conceptual and exploratory analysis of the design, feasibility, and implications of mortgage tokenization.
- Assessment of the Swiss ecosystem across social, economic, legal and regulatory, tax, and technological dimensions.
- Development of a simplified prototype illustrating the proposed structure and lifecycle.

Prototype

- For simplicity, the prototype represents the originator, processor, and token issuer as a single Swiss-domiciled special purpose vehicle (SPV). In a production structure, these roles could be allocated to separate legal entities.
- Borrower-side payments are settled in fiat through SIC; investor-side payments are settled in stablecoins through the smart contract.
- The mortgage is interest-only, with full principal repayment at maturity. Defaults, insolvency, enforcement, and contractual changes are out of scope.

5. Mortgage Tokenization

Social Dimension: Stakeholder Acceptance and Incentives

The social feasibility of mortgage tokenization depends on the incentives, expected benefits, and acceptance of the main stakeholder groups:

- **Issuers:** Bank-led structures are the most likely initial model because banks account for the large majority of outstanding Swiss mortgage lending. Insurers and pension funds account for only around 3 % and 2 % of outstanding domestic mortgages, respectively (SNB, 2025b).
- **Institutional readiness:** Among 28 surveyed Swiss financial institutions, 86 % reported having a formal blockchain strategy and 64 % considered blockchain to have high long-term potential in 2025 (University of St. Gallen et al., 2025). This indicates organizational interest, but not necessarily operational readiness to tokenize mortgages.
- **Issuer incentives:** A mortgage token could provide a shared and programmable record of token holder positions, contractual terms, and payment events. Potential benefits include reduced reconciliation, greater process transparency, and more efficient servicing and transfer of mortgage exposures (IOSCO, 2025; WEF, 2025).
- **Investors:** Tokenization could enable transferable investment units and, in other designs, standardization or smaller denominations. The present prototype does not fractionalize the mortgage. In an international survey, 57 % of institutional investors expressed interest in investing in tokenized assets, particularly for portfolio diversification purposes (Kher & Mickey, 2025).
- **Mortgage clients:** Borrowers receive limited direct benefits unless tokenization improves processing, reduces administrative costs, or increases competition among lenders. From the borrower perspective, mortgage terms, pricing, and servicing therefore remain more relevant than the underlying tokenization technology.
- **Openness to digital financial services:** Swiss survey evidence indicates that 65 % of the population regards digital transformation in finance as an opportunity (gfs.bern, 2026). This suggests a generally favorable environment for digitally enabled financial services, including potential applications such as mortgage tokenization.

5. Mortgage Tokenization

Social Dimension: Adoption Barriers and Potential

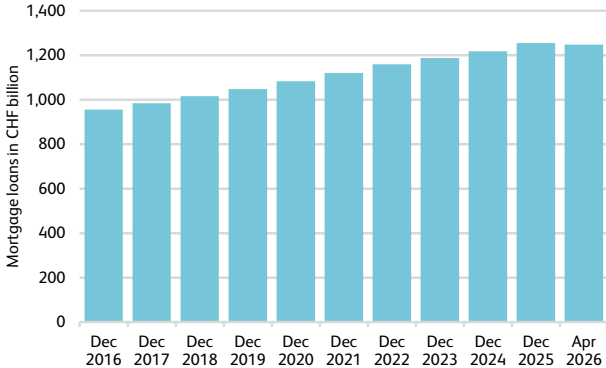
Despite its potential benefits, adoption depends on overcoming several demand-side, organizational, and market-structure barriers:

- **Limited observable client benefit:** Tokenization primarily changes the underlying financial-market infrastructure. Borrower acceptance is unlikely to increase merely because a mortgage is represented by a token; the solution must generate visible benefits without complicating the customer relationship.
- **Trust, security, and privacy:** Mortgage data are highly sensitive. Borrowers and investors must trust the issuer, processor, custody arrangements, and technological infrastructure. Swiss respondents associate financial digitalization with efficiency gains, but also with cybercrime and a potential loss of personal contact (gfs.bern, 2026).
- **Investor-side barriers:** A global survey identified insufficient investor awareness and demand (45 %), cybersecurity concerns (43 %), regulatory uncertainty (39 %), and insufficient interoperability (35 %) as leading barriers to integrating tokenized and traditional financial markets (State Street, 2024).
- **Liquidity expectations:** Fractionalization and technical transferability do not automatically create an active secondary market. Investor acceptance also requires sufficient issuance volume, standardized documentation, reliable valuation, market-making, and access to regulated trading and custody services (WEF, 2025).
- **Organizational change:** Banks must integrate the token into established origination, servicing, risk-management, accounting, and reporting processes. The parallel operation of traditional and token-based systems may initially increase rather than reduce complexity (IOSCO, 2025).
- **Potential adoption path:** Bank-led structures targeting professional investors represent a plausible starting point. Broader adoption would depend on demonstrated cost advantages, legal certainty, interoperability, and a user experience that largely conceals the underlying DLT infrastructure.

5. Mortgage Tokenization

Economic Dimension: Development of Swiss Bank Mortgage Lending

- The outstanding volume of domestic and foreign mortgage loans of banks in Switzerland increased from CHF 956 billion at the end of 2016 to CHF 1,254 billion at the end of 2025 and stood at approximately CHF 1,248 billion in April 2026.
- This corresponds to an increase of over CHF 290 billion, or 31 %, and an average annual growth rate of around 3 %.
- For domestically focused banks, loans accounted for 69 % of total assets, while mortgages represented 90 % of their loan portfolios at the end of 2025 (SNB, 2026).
- At the same time, their average net interest margin declined from 1.02 % in 2024 to 0.94 % in 2025 (SNB, 2026).
- The combination of market scale, balance-sheet concentration, and margin pressure strengthens the case for assessing potential efficiency, servicing, and funding benefits from mortgage tokenization.



Outstanding domestic and foreign mortgage loans of banks in Switzerland. Source: SNB (online-b).

5. Mortgage Tokenization

Economic Dimension: Value Creation, Incentives, and Limits

The economic case for mortgage tokenization depends on whether its potential benefits for the different stakeholders outweigh the associated costs and risks:

- **Issuer / processor:** A shared programmable ledger may reduce reconciliation and manual processing, while smart contracts can automate the execution and recording of recurring interest payments (Agur et al., 2025; CPMI, 2024).
- **Funding and investors:** Issuing the token could provide an additional funding and distribution channel, while transferability and, in other designs, smaller denominations may enable more granular investor exposures (Agur et al., 2025). Any balance-sheet or capital effects would depend on the legal, accounting, and regulatory treatment of the structure.
- **Borrower:** Benefits are mainly indirect and depend on whether efficiency gains are passed through as lower costs, faster servicing, or more flexible products. Stablecoin conversion and wallet management may create additional costs.
- **Risk and liquidity:** Tokenization does not eliminate mortgage credit or collateral risk. It also does not guarantee a liquid secondary market, which requires sufficient demand, standardization, interoperability, and supporting infrastructure (CPMI, 2024).
- **Risk distribution:** Tokenization may change how mortgage-linked exposures are distributed and recorded, but does not itself reduce the underlying credit, collateral, or market risks.
- **Economic viability:** Process savings must exceed the costs of legal structuring, DLT integration, custody, compliance, smart-contract assurance, and stablecoin settlement.

5. Mortgage Tokenization

Legal & Regulatory Dimension: Why Direct Tokenization of a Mortgage Is Not Feasible Under Swiss Law

By Silvan Thoma, PwC

A mortgage is a long-term loan for purchasing real estate, which is collateralized by a security interest in real estate. The security interest's main purpose is to collateralize the repayment and interest payment claims of the mortgage creditor. A register mortgage certificate is a non-physical certificate combining both the security interest in real estate and the claims of the mortgage creditor. The register mortgage certificate is thus the only mortgage type worth assessing for its suitability for tokenization.

Register mortgage certificates

- The process of establishing any security interest in real estate, including establishing a register mortgage certificate, requires a public deed and an entry in the land register. Swiss land registers are not run on a blockchain and thus the security interest in real estate cannot be established by minting tokens.
- A register mortgage certificate may be transferred from one creditor to another by written declaration followed by adjusting the entry in the land register. The mortgage debtor may only discharge its debt by payment to the mortgage creditor entered in the land register. Thus, the rights embodied in a register mortgage certificate cannot be transferred by trading a token.
- SIX Terravis and SIX SIS operate a register mortgage certificate system that facilitates the transfer of rights in such certificates. This system is available to admitted participants and their clients. The system requires SIX SIS to be registered as creditor in the land register. SIX SIS then holds the register mortgage certificate in fiduciary custody for one of its participants or one of their clients. The participants or their clients can instruct SIX SIS to transfer the rights in the certificate to another participant or client. After SIX SIS has executed and settled the transfer as instructed, it holds the register mortgage certificate in fiduciary custody for another participant or client.
- This register mortgage certificate system may be mirrored on a blockchain and the respective rights in register mortgage certificates may be reflected as tokens. However, the land register still serves as the decisive source from a property law perspective, and the token would represent a mere contractual claim against the fiduciary custodian holding the register mortgage certificate for the benefit of a client.

5. Mortgage Tokenization

Legal & Regulatory Dimension: The Workaround of an SPV Issuing a Mortgage-Backed Token

While a mortgage cannot be tokenized directly, mortgage-related rights can be mirrored in a token. The token could be issued by licensed entities, such as a bank or a securities firm. However, many institutions might prefer issuing tokens through a dedicated SPV to ring-fence the risks of the issuing activity. For the purposes of this study, we assume that the issuing entity is a Swiss-domiciled SPV, which also acts as the originator and processor of the mortgage.

SPVs issuing mortgage-backed tokens

- The SPV needs to hold rights to the claims under the loan agreement and to the security interest, either directly or indirectly. To hold the rights directly, the SPV (which is also the originator in this study) has to remain the mortgage creditor and remain registered in the land register as holder of the security interest. This requires adhering to the usual form requirements and land register processes. To hold the rights indirectly, the issuing SPV could be a participant or a client of a participant in a register mortgage certificate system which holds the certificate in fiduciary custody for the SPV.
- The SPV would issue tokens that mirror the rights of the mortgage. The token holder would have a claim against the issuing SPV only. The claims would consist of repayment and interest payment claims (less a fee component) that reflect the underlying mortgage. Since the token holder would not be entered in the land register, the token holder has no foreclosure rights if the mortgage debtor defaults. Rather, the terms of the token would have to set out that proceeds of a foreclosure would be passed on from the SPV to the token holder.
- To ensure that the claims against the SPV may be transferred from one token holder to another without a written assignment, the SPV must ensure that the blockchain used, the tokens, and the documentation meet the requirements of a ledger-based security under Swiss law.
- Moreover, to be able to create such a token, the mortgage agreement between the SPV (as the originator) and the mortgage debtor should include clauses that allow the securitization/tokenization of the mortgage, and, in case of register mortgage certificates held in a dedicated system, the mortgage agreement has to allow the transfer to a fiduciary custodian.

5. Mortgage Tokenization

Legal & Regulatory Dimension: Regulatory Considerations

In this study, we assume a simplified scenario where the issuing SPV is also the originator and processor. The analysis focuses on financial market regulation. Lex Koller authorization of a non-Swiss mortgage applicant may be an additional consideration, but is typically checked by originators voluntarily rather than as a regulatory obligation. Cross-border marketing and distribution of the tokens are not covered.

Swiss financial market regulation

- If the SPV as originator refinances itself at several banks that do not hold relevant participations in the SPV, it may require a banking license. This practical challenge might be addressed by issuing tokens to pre-finance the loans. However, such pre-financing would significantly alter the economics of the token and increase risks for token holders.
- Accepting funds from token holders that will have to be repaid could be classified as accepting banking deposits. The registration agreement governing the tokens should include specific information as set out in the banking regulation to prevent such a classification.
- The SPV as token issuer is not subject to AML duties if it does not facilitate token transfers. Rather, the wallet providers and the banks of the SPV, the token holder, and the mortgage debtor are subject to AML regulation. The origination activity of the SPV would, however, be subject to AML duties, while the processing activity is typically not.
- The token prototype in this study mirrors a single mortgage. The study does not involve fractionalizing the mortgage into smaller, identical claims. Thus the tokens issued are neither standardized nor suitable for mass trading. This means that the tokens are not securities. Thus, neither the prospectus requirement nor other securities laws or regulations apply.
- The token would likely not be classified as a financial instrument. It does not fall within the relevant categories except potentially derivatives. However, instruments comparable to loans or bonds typically do not qualify as derivatives even where their value depends on an underlying, such as a variable interest rate. If the token is not a derivative, it is not a financial instrument. Consequently, the duties of care under the Financial Services Act do not apply, no key information document is required, and facilitating token trading by the SPV would not trigger a license requirement for operating an organized trading facility.

5. Mortgage Tokenization

Tax Dimension: Tax Classification and Corporate Tax

By Martin Burri, PwC

The Swiss Federal Tax Administration (SFTA) distinguishes for corporate tax purposes between the following types of tokens:

- Payment Token
- Asset Token
  - Debt Token
  - Asset Token on a contractual basis
  - Asset Token with participation rights
- Utility Token

The tax treatment in Switzerland therefore depends on how the token is classified for tax purposes.

Implications for the mortgage token: Corporate tax

- Because the token will mirror the rights of the mortgage and will therefore have a par value, a repayment obligation, and an interest liability, it would most likely qualify as a Debt Token for corporate tax purposes.
- Assuming that the SPV will in total issue more than 20 tokens to non-bank lenders under variable conditions with a total loan amount of at least CHF 500,000, the token will likely qualify as a bond-like instrument. Consequently, the interest payments will be subject to Swiss withholding tax of 35 % (assuming that the SPV is tax domiciled in Switzerland). Swiss-resident corporate and individual investors are generally entitled to reclaim this withholding tax. Foreign investors may be able to reclaim the withholding tax fully or partially, if a double tax treaty is applicable.
- The token will be recognized as debt on the balance sheet of the SPV. The SPV generates interest income from the mortgage and has to pay interest to the token holders. The margin will be used, among other things, to cover investment management fees. The remaining profit will be subject to corporate income tax at the ordinary corporate income tax rates.

5. Mortgage Tokenization

Tax Dimension: Transfer Stamp Tax and Value-Added Tax

Implications for the mortgage token: Transfer stamp tax

- For transfer stamp tax purposes, the token will likely qualify as a taxable security and secondary market transactions would therefore be subject to transfer stamp tax, if a Swiss securities dealer is involved in the transaction, either as counterparty or an intermediary.

Implications for the mortgage token: Value-added tax

- The Swiss value-added tax (VAT) system also recognizes three types of tokens (similar to the corporate tax, but based on different criteria). For VAT purposes, the token will likely qualify as a security token.
- Depending on the underlying fact pattern, the issuance of a security token can be treated either as a transfer of a security token (VAT-exempt activity with a negative impact on the input VAT recovery (should the SPV be registered for VAT)) or as a non-remuneration (*Nicht-Entgelt*) with no VAT implication.
- The use of other tokens or coins by a buyer as consideration for the acquisition of the token issued by the SPV could trigger additional VAT implications.
- As a general comment, considering the nature of the SPV's planned activities and revenues, the SPV will likely not be performing any taxable activity and would not have any VAT liability derived from its turnover. As a consequence, input VAT on expenses incurred by the SPV (IT costs, licenses, back-office and management fees) will be a final cost for the SPV.
- In the absence of VAT registration, the SPV might be liable for reverse-charge VAT on taxable services acquired from foreign-based providers that are themselves not registered for VAT in Switzerland (if the SPV acquires such services for more than CHF 10,000 per year). The VAT levied under the reverse-charge mechanism would have to be remitted to the SFTA and would constitute a final cost for the SPV.
- Should other services be provided alongside, for example wallet services, specific VAT implications would have to be further analyzed.

5. Mortgage Tokenization

Technological Dimension: Robustness and Integration

A mortgage-token architecture would need to address the following requirements for robustness, security, and integration:

- **Smart-contract governance:** Long-lived mortgage tokens require tested code, clear responsibility for contract changes, and defined error-handling procedures. Coding defects may cause unintended transactions and can be difficult to rectify after deployment, particularly on public networks (CPMI, 2024; IOSCO, 2025).
- **Trusted external inputs:** Property valuations, legal status, payment confirmations, defaults, and enforcement events originate outside the DLT network. Authorized attestations or oracles are therefore required and introduce additional dependencies and manipulation risks (IOSCO, 2025).
- **Custody and key management:** Qualified custody, secure key storage, and backup and recovery procedures are required. Lost, stolen, or destroyed keys may compromise holdings or prevent transactions (BIS Innovation Hub & HKMA, 2021; IOSCO, 2025; OECD, 2025).
- **System integration:** DLT infrastructure must connect with mortgage origination, servicing, accounting, risk-management, reporting, and payment systems. If on-chain and traditional records are maintained in parallel, reconciliation may persist and expected efficiency gains may not materialize (IOSCO, 2025; OECD, 2025).
- **Resilience and cybersecurity:** Operational risks include attacks on nodes, transaction congestion, data leakage, smart-contract errors, and system availability problems. These risks require appropriate governance, monitoring, continuity, and recovery arrangements (CPMI, 2024; IOSCO, 2025).
- **Interoperability and migration:** Common interfaces and portable identifiers are needed to connect different platforms, service providers, and legacy systems. This reduces fragmentation and dependence on a single provider over the long mortgage lifecycle (CPMI, 2024; OECD, 2025).

The prototype does not attempt to resolve production-level requirements. Instead, it implements a deliberately simplified architecture to demonstrate the core roles, settlement flows, and lifecycle of a mortgage token.

5. Mortgage Tokenization

Mortgage Token Prototype: Process Assumptions (I/II)

The prototype presented in the following distinguishes three functional roles and two settlement rails required to connect the traditional mortgage process with the token-based investor side:

- The three functional roles are:
  - **Originator:** originates the mortgage and establishes the contractual and collateral arrangements with the borrower.
  - **Processor:** services the mortgage and coordinates the fiat- and stablecoin-based payment flows.
  - **Token issuer:** mints the mortgage token, transfers it to the investor, and manages its on-chain lifecycle.
- For simplicity, all three roles are performed by a **single Swiss-domiciled SPV** in the prototype. In a production structure, the roles could be separated; for example, origination and servicing could remain with a bank while token issuance is assigned to a separate entity.
- Two settlement rails are used:
  - **Borrower side:** loan disbursement, interest payments, and principal repayment are processed through conventional bank payment channels, with the fiat settlement leg represented through SIC in the prototype.
  - **Investor side:** the purchase price, interest payments, and principal repayment are settled in stablecoins through the mortgage-token smart contract.
- The processor connects the two settlement rails operationally by reconciling the borrower-side fiat payments with the corresponding smart-contract payments to the investor.
- The investor's token-based payment claim is against the token issuer, while the borrower continues to make payments through the conventional banking system.

5. Mortgage Tokenization

Mortgage Token Prototype: Process Assumptions (II/II)

Simplified process sequence:

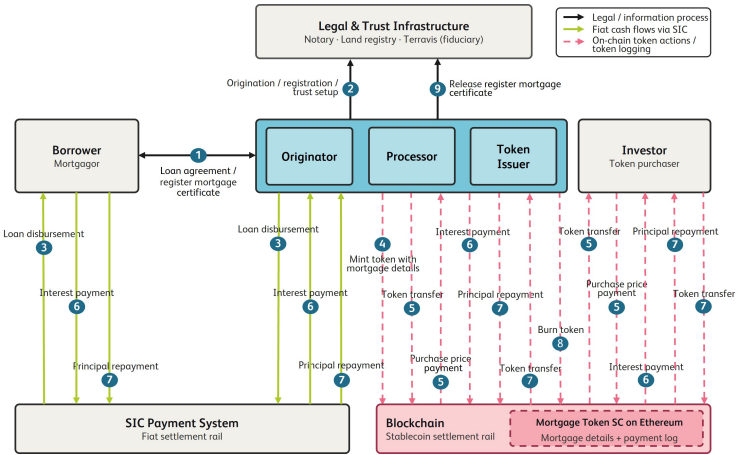
1. Execution of the loan agreement and establishment of the register mortgage certificate;
2. origination, registration, and establishment of the trust arrangement;
3. fiat disbursement of the loan through the banking system;
4. minting of the mortgage token;
5. stablecoin settlement of the purchase price and transfer of the token;
6. borrower-side fiat interest payment and corresponding stablecoin payment through the smart contract;
7. borrower-side fiat principal repayment and corresponding stablecoin redemption payment through the smart contract;
8. token burning; and
9. release of the register mortgage certificate.

Scope assumptions

- The mortgage is interest-only; the full principal is repaid at maturity.
- The token is transferred to the investor before the first interest payment becomes due.
- The terms and parties of the loan agreement and register mortgage certificate remain unchanged during the token's lifetime.
- The register mortgage certificate is held by SIX SIS in fiduciary custody through the Terravis system and released after full repayment.
- Payment defaults, insolvency, enforcement proceedings, loss of the stablecoin's peg, blockchain settlement failures, and operational fiat–stablecoin conversion are not considered.

5. Mortgage Tokenization

Mortgage Token Prototype: Process Diagram



Simplified process flow and settlement architecture of the mortgage token prototype. Source: Authors' illustration.

5. Mortgage Tokenization

Mortgage Token Prototype: Technology Stack

To translate the conceptual mortgage-token architecture into a working demonstrator, the proposed structure was implemented using an Ethereum-based token and settlement layer, standard development tools, and a lightweight user interface.

On-chain architecture

- **Smart contract:** *MortgageToken.sol*[5], implemented in Solidity 0.8.24 as a single ERC-721 contract in which each token represents one mortgage.
- **Network:** Ethereum Sepolia testnet for the demonstrator and a local Anvil blockchain for development and testing.
- **Stablecoin settlement:** An ERC-20 token settles the purchase price, interest payments, and principal repayment on-chain. The prototype uses test USD Coin (USDC) on Sepolia and a *MockStablecoin* locally.

Development and interaction layer

- **Development tooling:** Foundry, including Forge and Anvil, for compilation, testing, scripted deployment, and local blockchain simulation.
- **Frontend:** Python and Streamlit, connected through *web3.py*, to construct, sign, and broadcast transactions, read contract state, and decode emitted events.
- **Wallet interaction:** MetaMask is used for the investor's ERC-20 *approve* transactions. For prototype purposes, issuer transactions are signed directly in the frontend using a supplied private key.

[5] Code repository: https://github.com/HSLU-IFZ-Competence-Center-Investments/mortgage_token_prototype

5. Mortgage Tokenization

Summary

- The analysis demonstrates the technical feasibility of the proposed mortgage-token lifecycle at the prototype level. The demonstrator shows how the traditional mortgage process can be connected to an on-chain investor layer while leaving the underlying borrower relationship unchanged.
- The proposed architecture combines conventional fiat settlement on the borrower side with stablecoin-based settlement through a smart contract on the investor side, enabling token issuance, interest payments, principal repayment, and token redemption within a coherent lifecycle.
- The economic relevance of mortgage tokenization follows from the scale and balance-sheet importance of mortgage lending in Switzerland: domestic and foreign mortgage loans of banks in Switzerland amount to roughly CHF 1.25 trillion, while mortgages represent around 90 % of the loan portfolios of domestically focused banks.
- Potential benefits include programmable token and payment records, reduced reconciliation, automated servicing processes, additional funding and distribution channels, and other risk management instruments. Their economic value, however, depends on whether these gains exceed the costs of legal structuring, integration, custody, compliance, and technological infrastructure, as well as potential tax implications.
- Moving from prototype feasibility to a production-ready solution would require further work on governance, legal and regulatory implementation, custody, interoperability, external data inputs, cybersecurity, and secondary-market liquidity. The prototype deliberately abstracts from defaults, insolvency, enforcement, stablecoin depegging, and operational fiat–stablecoin conversion.

6. Conclusion

6. Conclusion

- **The crypto asset investment ecosystem in Switzerland and Liechtenstein contains approximately 400 providers.** The final sample comprises 399 active providers, with the cantons of Zug and Zurich accounting for 58 % of the total. More than half serve both business and private clients. Investment services are the most common activity, centralized on-chain models dominate, and decentralized activity is particularly prominent in infrastructure services.
- **Investment access continues to broaden.** The number of crypto asset investment products available for sale, domiciled, and/or traded in Switzerland and Liechtenstein continued to grow. Product growth has generally not been accompanied by a comparable increase in trading activity. Furthermore, the share of turnover in CHF-denominated products increased in the first half of 2026.
- **Within the analyzed portfolio framework, the results supported a complementary role for Bitcoin and gold.** The portfolio including both achieved the highest annualized return and Sharpe ratio over the full observation period. Despite identical 3 % capital weights, Bitcoin contributed around 12 % of portfolio volatility, compared with around 1 % for gold.
- **CHF-denominated stablecoins have not yet gained traction comparable to USD-denominated stablecoins.** Global stablecoin supply reached approximately USD 269 billion, while selected CHF-denominated stablecoins remained below CHF 100 million. Regulatory, technological, and market-related initiatives aim to promote wider adoption in Switzerland.
- **Tokenization has the potential to move from conceptual use cases toward financial-market implementation.** Digital securities and settlement infrastructure illustrate growing DLT integration. The mortgage-token prototype demonstrates technical feasibility, while legal, regulatory, operational, and business-case challenges remain.

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A study conducted by

HSLU Hochschule Luzern

Research partners

finnova. FINSTAR inventxLAB INNOVATION BY DESIGN Kanton Zug

SFTI SIX Zürcher Kantonalbank

FH Zentralschweiz

ISBN Number:
978-3-907379-74-5