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Elena Schmid · Michael Truebestein ·
Matthias Daniel Aepli

Tokenization in Real Estate

Opportunities and
Challenges

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Management Summary

This book is an inductive exploratory study on the still novel topic of tokenization in real estate. Tokenization in real estate can refer to both the digital representation of a real estate asset and the digital representation of ownership of a real estate asset, often in combination with fractionalization. It is enabled through blockchain technology. This research aims to understand the concept, underlying technologies, opportunities, and challenges of tokenization in real estate.

Real estate is traditionally considered to be illiquid, difficult to access, lacking in transparency, time-consuming, and costly in its transaction and investment processes and has large capital requirements. Tokenization promises to overcome many of these common shortcomings. Its main advantages include increased liquidity, creating new sources of capital, and democratizing the asset class as entry barriers are lowered. Furthermore, decentralization, data transparency, and security are associated with the implementation of blockchain technology, while smart contracts can facilitate the automation of tasks.

In practice, there are a series of challenges hindering the full realization of these benefits. The Swiss regulatory framework does currently not allow for the direct tokenization and fractionalization of a real estate asset. Issuers must instead establish an intermediate structure to hold the asset, which can then be tokenized and fractionalized. This tears at the described benefits and might not be in line with the proposed notion of a decentralized real estate investment opportunity. A further aspect limiting development is the potential lack of demand for the resulting investment opportunities. It is unclear whether this stems from the novelty of the concept resulting in a lack of understanding and therefore trust, whether the missing secondary market exchange is causing hesitation or whether there truly is limited demand for tokenized and fractionalized real estate investment opportunities.

As part of this paper, three case studies were carried out on the three use cases of successfully tokenized real estate assets which can currently be found in Switzerland. This primary research demonstrated how tokenization in real estate differs from its theoretical exemplary idea. It, furthermore, illustrated how there are a variety of ways to set up the tokenization of a real estate asset, both from a technical and from a structural and legal perspective. Hereby, the analysis did not reveal one best

practice to follow. The case studies were complemented with expert interviews. The interviewees reinforced many of the results of the secondary research. They further described how they entered the real estate token market early on, highlighting past and current challenges. All in all, they were confident that their achievements sent a strong message to the market and concluded that it is not a question of if a broader implementation of blockchain and tokenization will be seen but when.

Overall, the future role and scope of blockchain technology and tokenization are not yet clear. They might simply represent a new technological basis for the market to work on or they might shape the market to a larger extent. A wider implementation will require overcoming a series of challenges, however, the potential that blockchain and tokenization hold is significant. Also, markets and regulations are evolving favourably, and participants are convinced of the future of the concept. So, while blockchain and tokenization might not be the solution to all problems they are likely here to stay. To guide a wider adoption where the theoretical benefits can be realized as fully as possible, specific recommendations were formed as a result of this study. Hereby, five recommendations for the overall market environment and five recommendations to participants active within this market are suggested.

Keywords Real estate · Tokenization · Fractionalization · Blockchain

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List of Abbreviations

AI	Artificial Intelligence
AML	Anti-Money Laundering
AMLA	Anti-Money Laundering Act (CH)
API	Application Programming Interface
B52	Bahnhofstrasse 52
BMT	BrickMark Token
CBDC	Central Bank Digital Currency
CFT	Combating the Financing of Terrorism
CRE	Commercial Real Estate
CSSF	Commission de Surveillance du Secteur Financier (Luxembourg)
DAC	Decentralized Autonomous Corporation
DAO	Decentralized Autonomous Organization
dApps	Decentralized Applications
DAS	Decentralized Autonomous Space
DLT	Distributed Ledger Technology
DPO	Digital Product Offering
DPoS	Delegated Proof-of-Stake
EIB	European Investment Bank
EO	Executive Order
EPRA	European Public Real Estate Association
ETH	Ether
FCA	Financial Conduct Authority (UK)
FINMA	Financial Market Supervisory Authority (CH)
FMA	Financial Market Authority (Liechtenstein)
ICO	Initial Coin Offering
IoT	Internet of Things
IPO	Initial Public Offering
KIID	Key Investor Information Document
KYC	Know your Customer
MAS	Monetary Authority of Singapore
MiCA	Markets in Crypto-Assets (EU)

NFT	Non-Fungible Token
ODX	Osaka Digital Exchange
OTC	Over-the-Counter
PBFT	Practical Byzantine Fault Tolerance
PoS	Proof-of-Stake
PoW	Proof-of-Work
REIT	Real Estate Investment Trust
ROM	Register of Members
SDX	SIX Digital Exchange
SEC	Securities and Exchange Commission (US)
SPV	Special Purpose Vehicle
TVTG	Tokens and Trustworthy Technologies Law (Liechtenstein)
VARA	Virtual Assets Regulatory Authority (Dubai)
XCHF	CryptoFranc

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