

REAL ESTATE TOKENIZATION

Let's first go through a quick reminder about token.

Tokens are non-native, as they operate **on top of a pre-existing blockchain, and are backed by the protocol (the blockchain runs even without the token)** that acts as a medium for the creation and execution of decentralized apps and smart contracts. And tokens generally are used to facilitate transactions.

In our case, we used the Ethereum blockchain, and created a smart contract to create a **security token**. More precisely **an ownership token, giving some rights** to its owner.

Therefore, our **token will represent a physical asset ownership**, that is a given **real estate property** (e.g. an apartment, house, flat, building etc.)

They represent the value of the real asset and can be used to buy and sell the asset to improve liquidity and trading of real estate assets on a digital platform. But also allow, through smart contract and programmability of blockchain, to automatically distribute the revenues created by such asset between all the shareholders.

This is therefore a **Fractional Ownership Asset Tokens**

Lets dive into our token, through a use case example, to understand it better.

- Let's start with our **owner, Nikos**, he wants to sell part of his real estate but keep main ownership. He comes to us and we prepare a contract and the tokens. He then sell, lets say 40% of his real estate to the 4 child he has. In the form of tokens. Bechir, Matteo and lets say Amit and Cinzia, each posses 10 token, 10% of the ownership. And Nikos keeps 60%. 60 tokens.
- Now we wants to make some money. So the owner, Nikos, will pre-define the rent in the contract. And the number of days the flat is free.

- Then, let's say **Bechir is the tenant**. He simply will pay the rent to the owner, according to the price and the days he stayed in, and this directly to the smart contract. Let's say 100 ETH
- Then the ETH paid by **Bechir the tenant**, is simply distributed by our contract to the shareholder of the flat, proportionally to their share. Proportionally to the number of tokens we own. **Nikos** will receive in his wallet 60 ETH. Bechir, Cinzia, Amit and Matteo will receive 10 ETH each. Minus the fee that we choose not to consider in this simplification....

Now let's see why such a contract, and more broadly why tokenizing real estate, can be really helpful.

- First. Real estate is known as an illiquid market, and in the same time as one of the biggest markets in terms of market cap. therefore, tokenizing it will help increase the liquidity and the exchanges on this market.
- Therefore also allowing an easier access and exposition to this market for retail and small investors. Also allowing anyone to invest any amount to become a partial property owner and benefit from the profits generated. That is what we called Democratization.
- Another point is decentralization. Decentralization in the renting process and in the bureaucracy, remove obstacles such as notary fees and bank fees. But above all, blockchain also removes the limitations related to location.
- Then, obviously we also have the automation of the processes that is offering huge potential in terms of payment, distribution, and ownership. But also for property and rent management.

- Then we also have the blockchain actual focus on scalability and interoperability, using standard such as ERC20, that will further increase the potential development of this market !
- And finally, those token real estate company already exist and are already highly regulated. They offer all those advantages and even increase the security and makes the process more transparent.

Now let's try to understand what we could add to our contract and token.

- Tax could be automatically deducted from incoming rent payments if we simply add the government in the loop. With fixed tax rate of adjustable ones.
- Government or owner could also be allowed to ban some renters or some investors and block their funds or remove them from a list of validated owners
- We could also make this payment system automated, or even include other stakeholders such as electricity and water supplier, to directly pay them from the contract.
- Voting system in the contract to allows investors to take decision, set rents.
- We kept token integer but could imagine allowing selling or buying of fractional tokens.
- We went for proportional redistribution of profit. According to the tokens owned. But can imagine more complex models where the main owner (51%) could receive more for example
- We did that for 1 asset (1 apartment), but still can imagine a bigger application (more than 1 asset), or a full hotel, where each property is managed by the same contract through an array in our code, as we did for investors.

- Who as access to the property when not rented
- We could also allow once the contract is issued some modifications functions for particular stakeholders