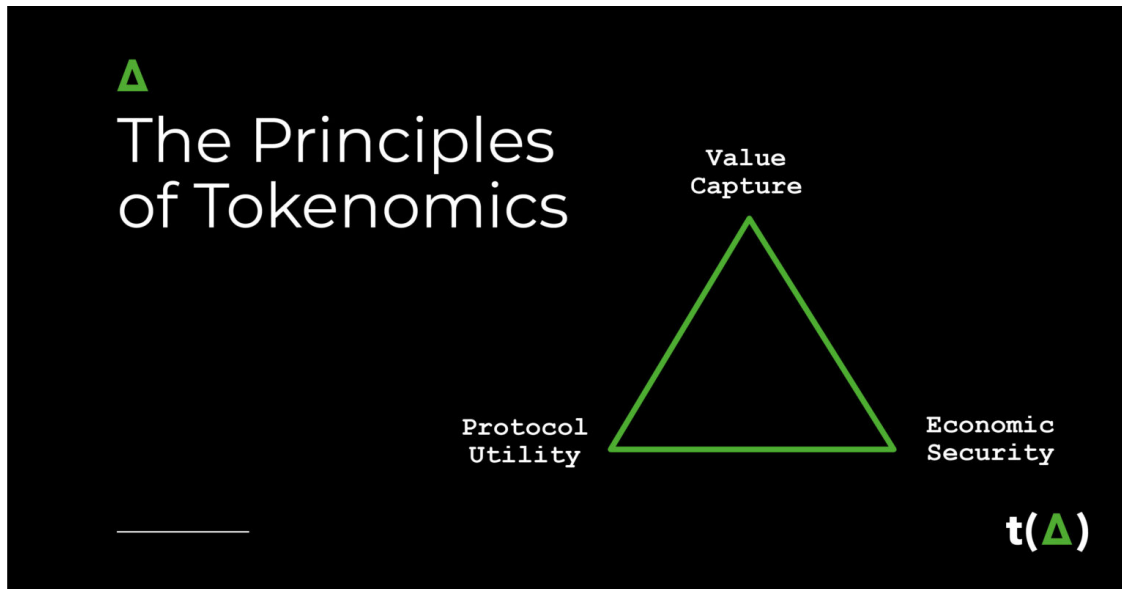


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Tokenomics 101: The Principles Of Tokenomics

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Tokenomics describe the relationship between a token's use and its price. Done right, tokenomics can align the interests of protocol participants, leading to a valuable token, and securing the protocol from economic exploits.

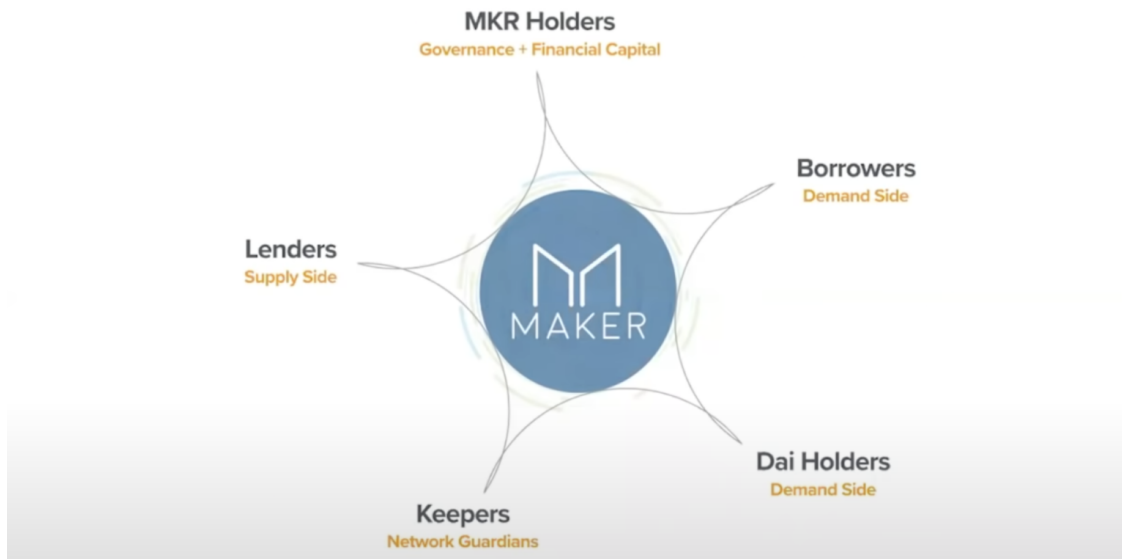
Designing a protocol requires keeping track of many moving parts - to this end, it is helpful to have a framework.

Enter demand-side tokenomics.

The demand-side tokenomics framework can be distilled in three principles: protocol utility, value capture, and economic security.

There are tradeoffs between each of them, so the goal of tokenomics, according to the framework is to maximize the aggregate of these three.

Protocol utility



A protocol's utility is its usefulness of a protocol to all participants.

There can be multiple groups of participants in a protocol. To maximize utility, these groups' interests should be synchronized.

This can be done by matching demands of each group.

For example, MakerDAO matches the wider market's demand for stablecoins with debtors' demand for leverage.

Value Capture



The second principle of tokenomics is *value capture* (<https://eatsleepcrypto.com/tokenomic-value-capture/>).

Many protocols create value - utility, but fail to capture any of the created value to a token. For example, Uniswap has \$1.2 trillion in all-time trade volume, but UNI sees none of it.

Uniswap only recently turned on the fee switch for tiny fractions of the value it creates, and it plans never to distribute fees.

Consequently, use of the Uniswap protocol is completely uncorrelated with the value of its token, and because they didn't capture value initially, Uniswap *can't* capture value from the utility it creates.

By not capturing value initially, Uniswap set the baseline value capture of AMMs at zero, so all of its competitors were forced to capture *negative* value, issuing inflationary shitcoins to subsidize liquidity.

Proper value capture comes from the strategic inclusion of *tokenomic mechanisms* - ways a token is used in a protocol. Value captured through tokenomic mechanisms (e.g. staking, collateralization, buyback-and-burn) varies.

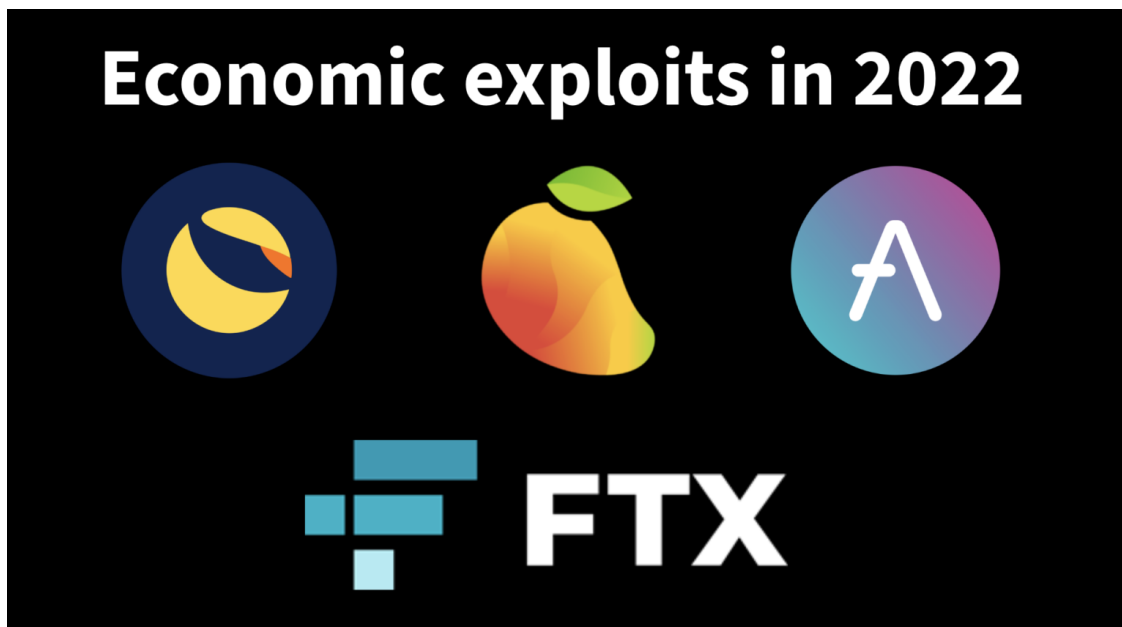
The value captured by a protocol can be modeled, and mechanisms compared based on value capture and economic security.

Economic Security

Economic security is the third principle of tokenomics.

Economic security is distinct from technical security - technical security is a lack of bugs in the code; economic security is a lack of vulnerabilities in the incentives.

Vulnerabilities in the incentives enabled three major exploits in 2022 - the collapse of Terra, the Mango Markets exploit, and the Aave liquidity exploit were all *economic*, rather than *technical* security issues.



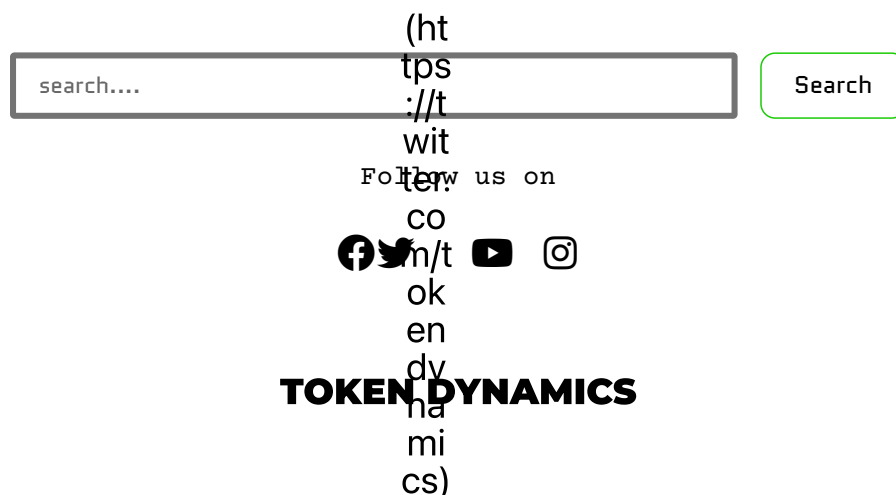
Conclusion

There are tradeoffs between each of these principle, and successful protocols maximize the *aggregate* of the three.

Tokenomics is challenging to get right, especially because of the associated technical complexity of writing smart contracts.

It's helpful to have a framework when designing the tokenomics of your protocol. We created the demand-side tokenomics framework with this in mind.

If you're designing a protocol and would like help, reach out to us (/contact/) to schedule a call so we can see how we can help.



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