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Maximize Crypto Rewards

ETP Crypto Staking at 21Shares

21shares

Introduction

- Generating yield is a perennial challenge for investors.
- Traditional finance offers a familiar array of yield-generating instruments, which have historically provided varying returns based on their risk/return profiles.
- Crypto offers new possibilities to utilize digital assets to generate yield, one of them being staking.
- Staking is a process whereby investors in a cryptocurrency post some of their crypto assets as collateral in return for the opportunity to confirm transactions. If they do a good job confirming transactions, the investors receive additional rewards in native tokens to compensate them for their work. This process is known as “staking”.
- The process performs a similar function as mining on the Bitcoin network.
- This paper will outline the basics of crypto staking: how it works, its potential benefits for ETP investors, risks, and 21Shares’ approach to staking.

Summary

- Crypto staking provides value for investors by using an ETP’s assets to generate a passive revenue stream that may provide additional returns.
- By accessing staking via a professionally-managed ETP, investors can enjoy simple and safe access to staking.

What is Staking?

- By staking, investors contribute to the validation process, keep the network secure and are compensated by earning a return on their staked assets.
- Blockchain technology allows individuals to transact directly with each other without the need for an intermediary such as a bank or other financial institution.
- Direct transactions between individuals require a way to confirm that a transaction is legitimate and accurate. For example, if one person makes a payment to another, there needs to be a way to check that the person paying has enough money in his or her account to make the payment.
- In traditional finance, a bank often stands between two people exchanging money. The bank makes sure the money is available and the transaction is legitimate.
- A blockchain network has different validation methods to replace the role of the bank. Staking is a key support mechanism for validating transactions.
- To stake, investors commit (“stake”) their crypto assets to a blockchain network. These crypto assets are then used to validate network transactions.
- Staked assets represent the holdings required by the network to enable the validation and confirmation of new transactions. These holdings are denominated in the native currency of the network.
- As compensation for committing their assets, investors receive a return which is known as a staking reward (in addition to potential market returns). The amount of staking rewards differs for each network.
- Networks that use staking to confirm transactions use much less energy than alternative methods and are therefore more eco-friendly.

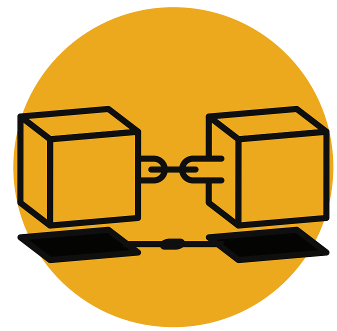
Alice engages in crypto staking
She benefits from:
- Potential capital appreciation
- Ongoing revenue stream (think of a dividend paying stock)

Bob simply holds crypto
He benefits from:
- Potential capital appreciation only

ETP Crypto Staking 101

21Shares makes crypto staking easy and reliable.

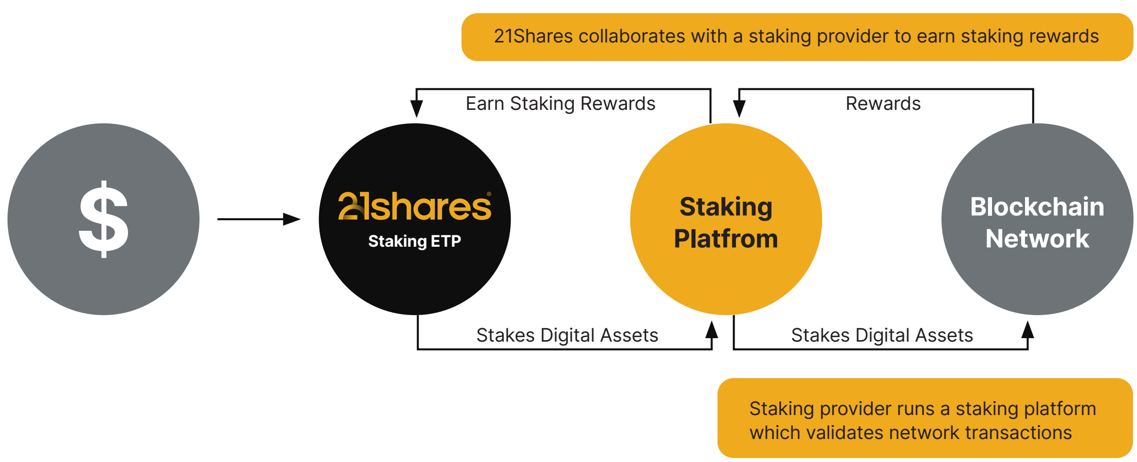
Certain 21Shares ETPs offer additional return through staking rewards earned by validating transactions on the underlying blockchain networks.



Investors in 21Shares ETPs enjoy guaranteed daily liquidity and are not limited by staking lock-up periods and do not need to manage their staked assets on-chain.

How does 21Shares ETP Crypto Staking work?

1. 21Shares commits or "stakes" the underlying assets of certain ETPs on a secure platform operated by a professional staking provider like Coinbase Cloud or Blockdaemon. These assets never leave the segregated accounts in cold storage at 21Shares' custodians.
2. The staking provider stakes the assets on behalf of the ETP.
3. The staked assets are used to secure the network and generate returns.
4. Staking rewards are reinvested into the ETP, adding to the ETP's performance.
5. The staked assets can be withdrawn at any time, but there is usually a waiting period before assets are returned. This period can range from 0 days to as long as 6 months (though typically it is one month or less). 21Shares has developed proprietary algorithms to manage the liquidity needs of an ETP taking into account these lock-up periods.



Benefits of ETP Crypto Staking

- Earn passive income.
- Get the benefits of staking with the ease and security of an ETP.
- Contribute to the security of the underlying blockchain network.

The table below uses constituents in 21Shares Staking Basket Index ETP to illustrate key characteristics of staking:

Crypto	Annualized staking yield*	Lock-up period (days)
Binance Coin (BNB)	1.88%	7
Cardano (ADA)	2.99%	0
Cosmos (ATOM)	21.15%	21
Polygon (MATIC)	4.91%	1-2
Polkadot (DOT)	14.12%	28
Solana (SOL)	7.17%	2-3
Tezos (XTZ)	5.79%	0

**Represents APY (annual percentage yield) as of 7.11.2023 (source: stakingrewards.com). Illustrative as rates are continually changing.*

ETP Crypto Staking Risks and Limitations

As with any financial strategy, there are risks and limitations associated with staking crypto.

Utilization Rate Limitation

- Since most blockchain networks impose a waiting period before staked assets are eligible to be returned (see above), it is important to hold a portion of them unstaked so they can be returned to redeeming investors. This is to ensure that an ETP can meet daily redemptions (the ability of an investor to sell shares on any business day).
- The percentage of each cryptocurrency that is staked will vary, with the most important factor being the cryptocurrency's lock-up/unbonding period. Generally an ETP will stake 60-90% of the underlying cryptocurrencies, although this percentage can vary substantially.

Slashing Risk

- An error in confirming a transaction can result in a penalty called "slashing," which means some of the staking rewards are lost.
- Despite staking platforms' efforts to avoid errors and incurring slashing penalties, such issues can occur because of operational aspects of the staking process.
- 21Shares ETPs reduce the risk of slashing by employing professional staking platforms whose sole purpose is to stake assets and be able to cope with those operational challenges.

Staking Platform Risk

- An investor can either stake assets on a blockchain network directly (which requires significant operational setup and oversight) or rely on a platform to provide this service.
- Relying on a platform allows investors to benefit from the platform's expertise and can be an efficient way to access the benefits of staking.
- 21Shares ETPs use established staking providers. 21Shares currently works with Coinbase Cloud and Blockdaemon.

Crypto Staking VS. Crypto Lending

What is the difference between staking and lending?

- Staking and lending both involve using cryptocurrency to earn yields, but they are completely different ways of earning income. Staking is a crypto-native concept, while lending is a familiar concept in traditional finance.
- Staking is where users agree to pledge cryptocurrency to a blockchain network in order to facilitate the validation of transactions. Staking helps secure the network and, in turn, compensates those who stake with rewards.
- On the other hand, lending is where users agree to loan their cryptocurrency in return for interest payments, which compensate lenders for giving up the use of their assets for a period of time, as well as for the risk that they might not get paid back.
- Both concepts allow users to earn passive income, but the purpose, risks and rewards are quite different.

	Staking	Lending
Purpose	Help secure the network by validating the transactions	Provide liquidity to borrowers
Mechanics	Lock up or “stake” crypto assets	Lend crypto assets to an institutional lending partner on a fully-collateralized basis (100% or greater)
Rewards	Staking rewards	Interest income
Risks/Drawbacks	Staked tokens can’t be used (though daily liquidity is ensured through 21Shares products)	Counterparty credit risk (100% collateral for 21Shares products)

Transparency And 21Shares’ Approach To ETP Crypto Staking

Transparency is a hallmark of both ETPs and cryptocurrencies. 21Shares is committed to sharing all relevant information regarding its staking practices to ensure investors can make informed decisions. Currently, 21Shares has the following staking ETPs:

- **21Shares Solana Staking ETP (ASOL)**
- **21Shares Tezos Staking ETP (AXTZ)**
- **21Shares Staking Basket Index ETP (STAKE)**
- **21Shares Ethereum Staking ETP (AETH)**
- **21Shares Stacks Staking ETP (ASTX)**
- **21Shares Celestia Staking ETP (ATIA)**
- **21Shares Toncoin Staking ETP (TONN)**
- **21Shares Injective Staking ETP (AINJ)**
- **21Shares Sui Staking ETP (ASUI)**
- **21Shares Avalanche Staking ETP (AVAX)**
- **21Shares Cosmos Staking ETP (ATOM)**
- **21Shares Aptos Staking ETP (APTOS)**
- **21Shares Ethereum Core Staking ETP (ETHC)**

Please contact sales@21.co if you have further questions regarding 21Shares' staking practices.

Staking terms	Staking yield (annualized range)	3-20%
	Lock-up periods (ETPs have daily liquidity)	0-180 days
	Staking providers	Coinbase Cloud, Blockdaemon

Frequently Asked Questions

1. **Given the lock-up/unbonding periods often required of staking, do 21Shares ETPs that offer staking also provide daily liquidity?**
   Yes, all 21Shares ETPs - including the staking products - can be bought or sold daily. To ensure 21Shares can meet daily redemption requests, 21Shares typically stakes less than 100 percent of the crypto assets in an ETP (please see page 4 for a discussion of Utilization Rate).

2. **What is the typical return generated by staking rewards in 21Shares ETPs?**
   The level of staking rewards depends on the underlying cryptocurrency and constantly changes. Generally, staking yield depends on the amount of staked assets in a blockchain network. The more assets people stake, the lower the staking yield.

3. **How do 21Shares ETP investors receive staking rewards?**
   Staking rewards are added to the Net Asset Value (NAV) of an ETP at the end of each trading day.

4. **ETPs are 100% collateralized in cold storage. Does this apply to staking ETPs?**
   Yes. Each of the staking providers 21Shares uses has the ability to stake directly from the ETP's own wallets. This means the crypto assets never leave the ETP's custodian during staking and remain in cold storage.

5. **Can I stake crypto on my own?**
   Yes, investors certainly can (and do) directly stake their own crypto but it requires substantial setup and a relatively high level of expertise. In addition, significant daily oversight is required to manage slashing risk (see page 4). This can also be quite expensive given the fees on community validators.
   By choosing 21Shares staking ETPs, an investor can enjoy the benefits of staking through a professional staking platform, without the need for specialized expertise in staking (or in crypto).

Conclusion

21Shares set out to build bridges into crypto when it launched the first physically backed crypto ETP in 2018. Since then, 21Shares has launched over 30 additional crypto-backed ETPs, giving investors optionality in their crypto exposure. As a pioneer in this space and a genuinely crypto-native firm, 21Shares has now built bridges into the crypto-staking ecosystem. Although not without risks, crypto staking can offer ETP investors new potential return streams that are well worth exploring. With the right information, investors can make informed decisions on which 21Shares products are right for them.

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