

# 2020

in Review

$\delta Y / \delta X$

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# Overview

**2020 was a huge year.** We built and launched our first iteration of a protocol for Perpetual Contracts, saw many thousands of new traders use the platform, and increased our cumulative trading volume by **40x**.

In the second half of 2020, we've been building a new product for Perpetual Contracts on **Layer 2**, powered by StarkWare's **Zero Knowledge Rollups**.

**38,588**

WALLETS CONNECTED

**\$17.4bn**

LOANS ORIGINATED

**\$2.5bn**

CUMULATIVE TRADE VOLUME

## A Year of Records

Total cumulative trade volume across Spot, Margin, and Perpetuals increased **40x** reaching **\$2.5 billion** in 2020, up from \$63 million in 2019.

Over **\$1.9 billion** in trade volume in Margin and Spot markets, and over **\$563 million** in trade volume in Perpetual Contract markets since the new protocol was launched in April.

Volumes on our Perpetual Contracts grew as a percentage of total volume, accounting for **41% of total trading** volume in December.

Over **\$17.4 billion** in loans were originated from dYdX lending pools.

Unique wallets depositing funds into dYdX's smart contracts increased by **4.8x** from 8,000 to **38,588 wallets** through December 31.

We hired **6** new team members, across **Design, Engineering, and Growth**.

These are important milestones for dYdX. Our decentralized exchange infrastructure combines **non-custodial, on-chain settlement** with an off-chain low-latency matching engine using order books. This allows us to deliver an **institutional-grade, liquid, and low slippage** trading experience for the DeFi world. Our products empower traders to better manage risk, more efficiently allocate capital, and express complex opinions on price & volatility.

Our goal is to become the largest & most technologically robust exchange — period. To do this we're building a Layer 2 system with **StarkWare** enabling **cross-margined Perpetuals**, allowing for significant improvements to trading at scale. Our engineering teams are collaborating on a scaling solution based on StarkWare's **StarkEx scalability engine** and our **Perpetuals** smart contracts.

The Layer 2 solution dramatically improves blockchain scalability by allowing any type of computation to move off-chain, while using the Ethereum blockchain as a public immutable commitment layer. StarkWare's integration with dYdX combines STARK proofs for data integrity with on-chain data availability to ensure a **fully non-custodial protocol**.

Our new Perpetual Contracts will be ready soon. We are targeting an alpha launch in **February 2021** with a full production launch shortly thereafter. We are focused on delivering the best user experience and providing our traders with **significantly lower gas costs**, and in turn, **lower trading fees**. We will also be able to rapidly launch & spin up **new trading pairs**, allowing traders access to the exposure they want, when they want.

We see massive growth for Perpetual markets on decentralized exchanges, and we are hyper focused on being the market leader. Perpetuals are an exciting use case for blockchains, and we're thrilled to be building a critical component of DeFi. We believe DEXs will continue to gain market share in relation to CEXs due to decreased switching costs, simple onboarding, better UI & UX, increased security guarantees, and more attractive trading products.

There remains so much valuable potential to be unlocked. We're excited about the future of finance, and hope you join our journey.



**Antonio Juliano**

Founder, CEO of dYdX

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# Trade Volume

It took **320 days** to reach our first **\$1bn** in traded volume, and **124 days** to reach **\$2bn**.

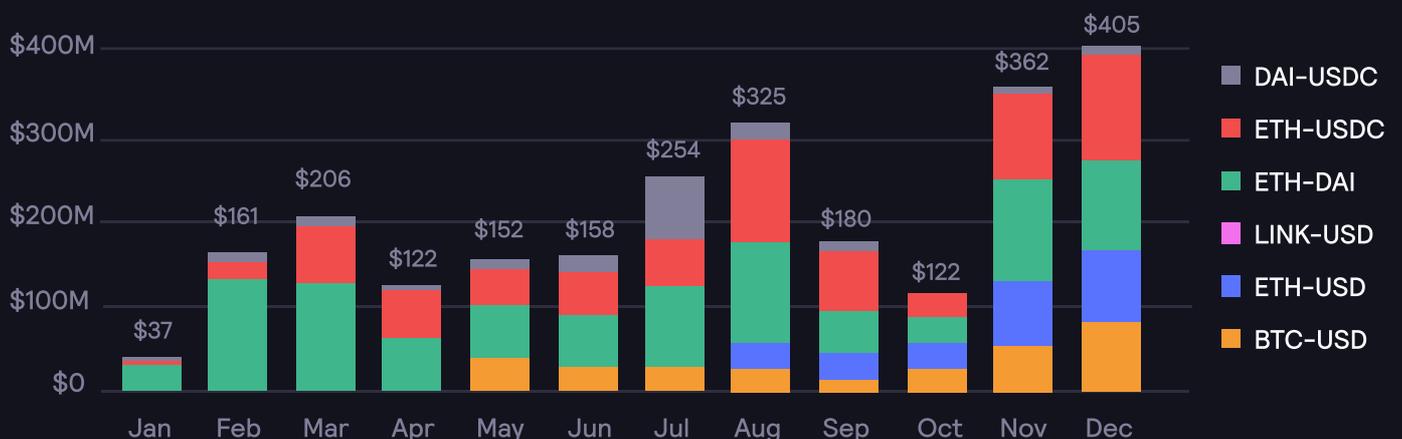
## Cumulative Trading Volume



In 2020, total monthly volumes increased over 10x from \$37M in January to **\$405M in December**. **ETH-DAI** (\$1B in Margin / Spot volume) and **ETH-USDC** (\$705M in Margin / Spot volume) were the most traded pairs.

Volumes surged in Q1 around the Black Thursday market crash, over the DeFi summer, and later in Q4 as traders flocked to dYdX to use leverage when crypto volatility increased. Trading volumes on dYdX reached a (now-broken) all-time high on December 27th with \$51M in daily volume.

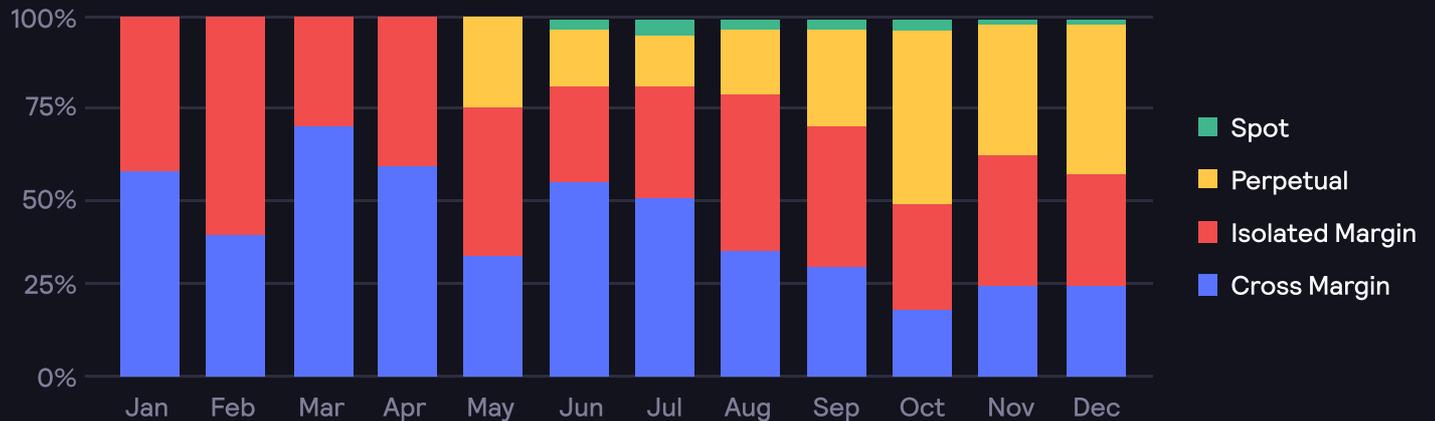
## Monthly Volume



# Trade Volume

After launching Perpetual Contracts in April, perpetuals volumes grew as a percent of total trading volume, accounting for **41%** of trading volume in December.

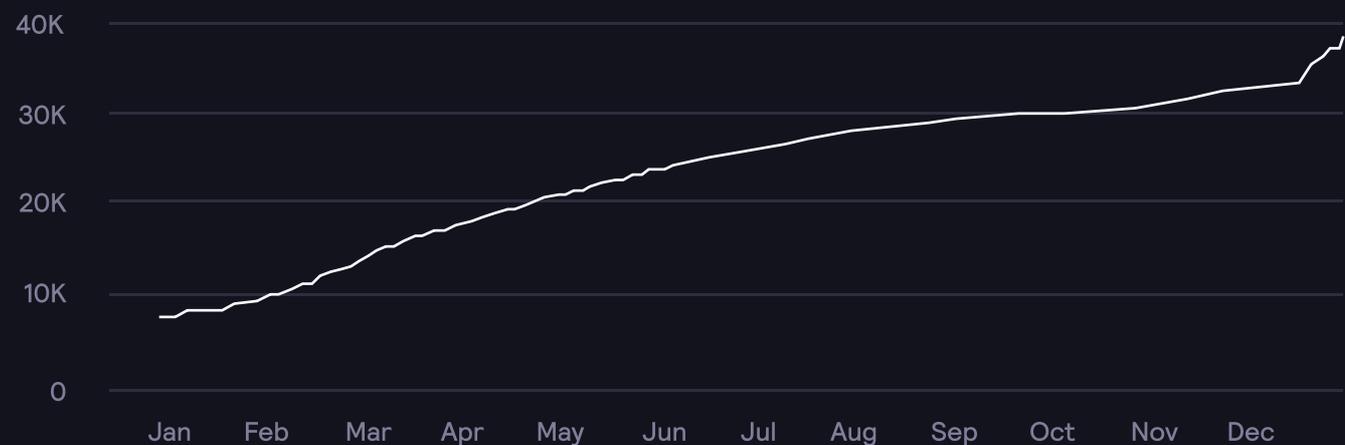
## Monthly Volume by Product Type (as % of Total Volume)



# User Growth

Our user base, as measured by unique wallets depositing funds into dYdX's smart contracts, increased by **4.8x** from 8000 wallets in January to **38,588 wallets** through December 31. We averaged 563 weekly active users, and experienced a significant increase in Q4, and continues to increase steadily.

## Cumulative Sum of Users (by Deposits)



# User Growth

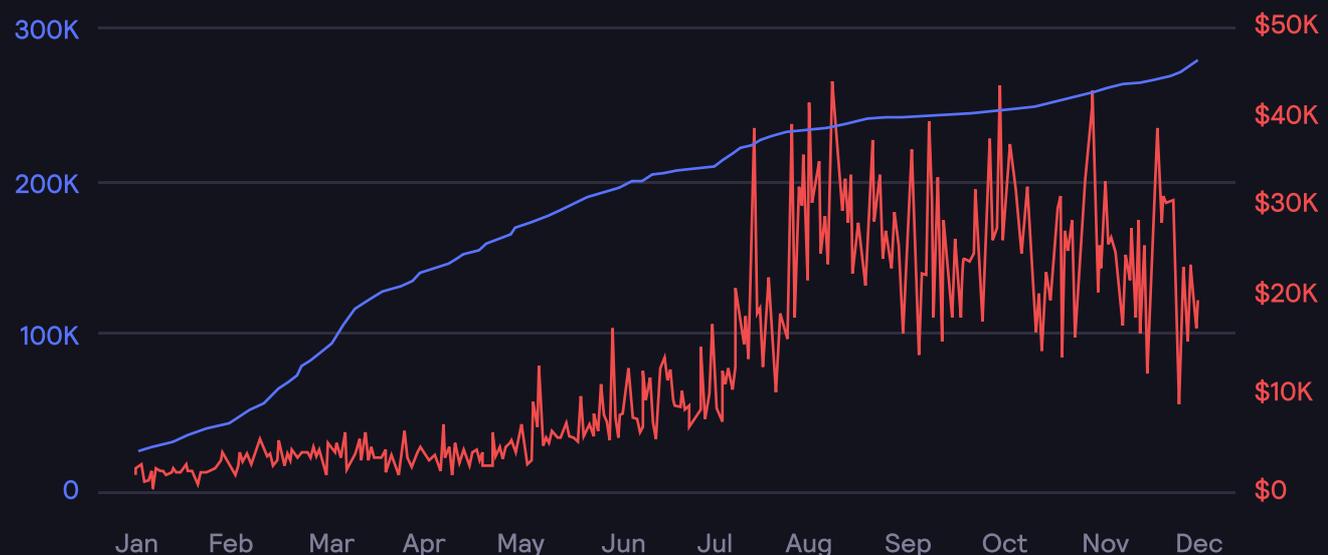
## Weekly Active Users



In 1H 2020, dYdX saw a daily average trade count of **975** and an average trade size of **\$4,838**. In 2H 2020, dYdX saw a lower daily average trade count of 433 and a higher average trade size of **\$25,000**. Users increased their average trade size in response to a temporary increase in the minimum trade sizes and small order fee/thresholds due to the ETH gas environment.

## Cumulative Trade Count vs. Average Trade Size

■ Cumulative Count ■ Average Trade Size

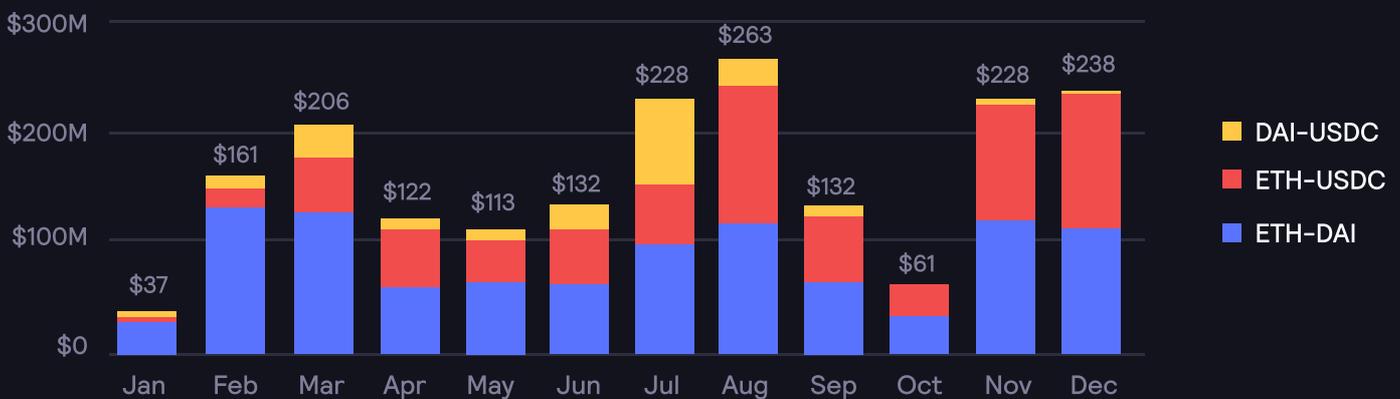


# Margin & Spot

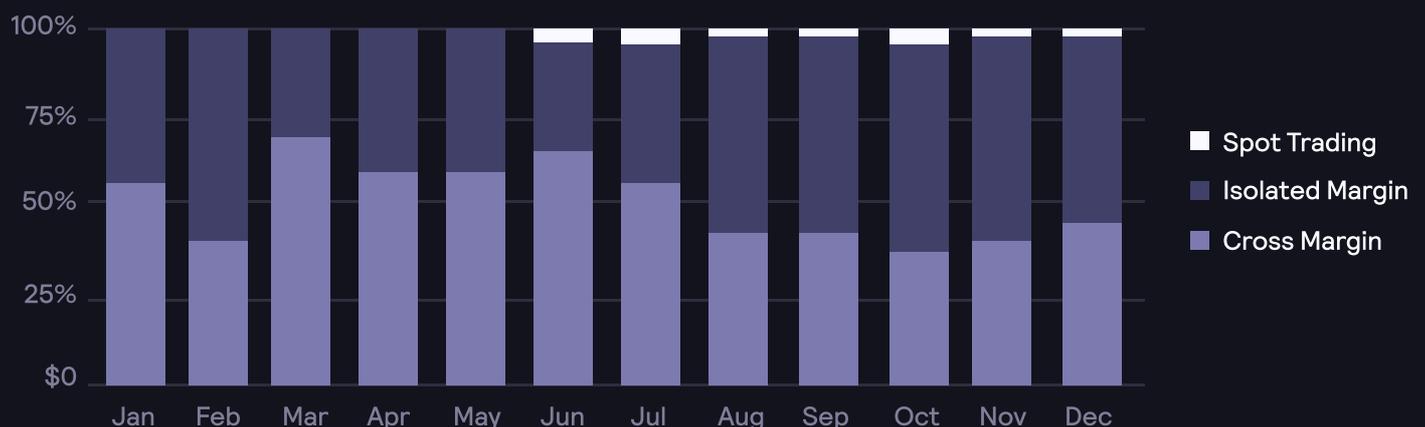
The first product built on dYdX was known as **Expo** and launched in October 2018, supporting leveraged long or short Ethereum positions. After running for nine months, Expo was sunsetted in favor of **Solo**, a revamped dYdX that offered more functionality. Currently, the platform supports three assets, **ETH**, **DAI** and **USDC** with up to **5x** leverage. There is no lock-up or duration for lending but borrows/margin positions are limited to 28 days. In June 2020, dYdX launched spot trading for these 3 trading pairs assets.

In 2020, monthly volumes for margin / spot markets increased **16x** from \$37M in January to **\$238M** in December. **ETH-USDC** and **ETH-DAI** were the most traded pairs, with **\$705M** and **\$1B** in annual volume in the spot & margin markets respectively. **Cross-margin** products accounted for on average **43%** of spot & margin volume on a monthly basis. Isolated margin products accounted for on average 37% of margin / spot volume on a monthly basis.

## Monthly Trading Volume by Pair (Spot & Margin)



## Monthly Trading Volume by Type (as % of Spot & Margin Volume)



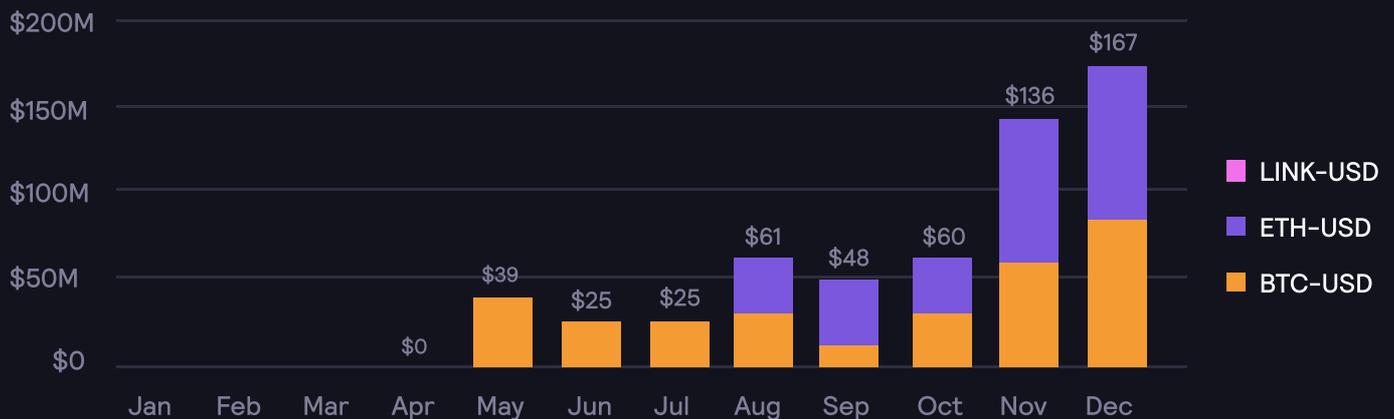
# Perpetual Contracts

PERPETUALS

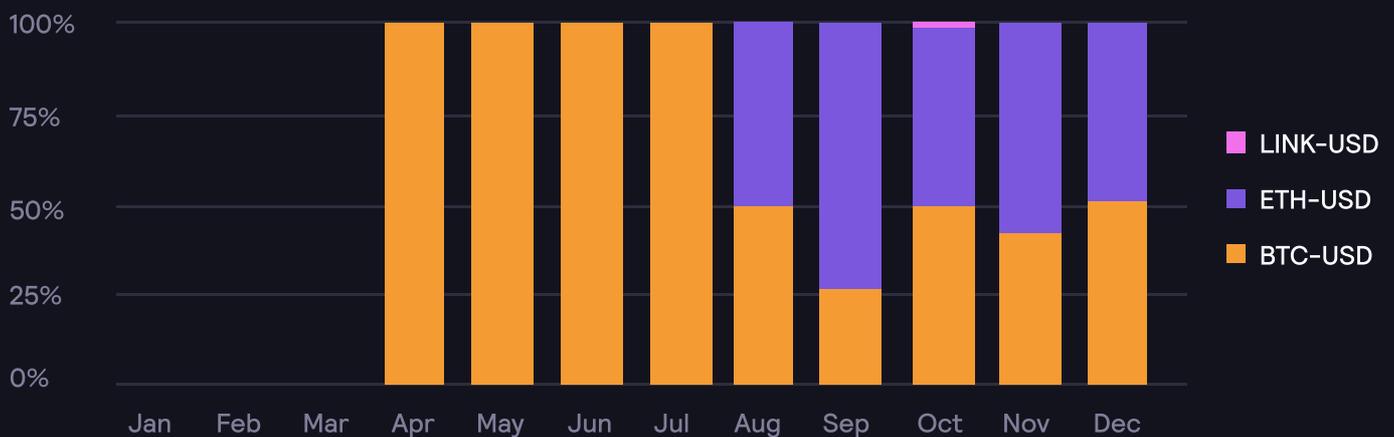
We believe decentralized perpetuals are a big step forward for adoption, and are a natural fit for DeFi. Smart contracts exist to solve problems around trustworthiness and lack of transparency. These issues exist with centralized perpetuals where users have no visibility into liquidation mechanisms, insurance funds, and socialized losses. Further, perpetuals open up a world of trading possibilities, not currently available in DeFi. Now any asset, not just those based on Ethereum, can be traded on DeFi. Perpetuals trading is an exciting use case for blockchain tech and we're thrilled to be building a core component of the DeFi system.

In April 2020, we launched a decentralized BTC-USD Perpetual Contract market. In August, we added an ETH Inverse Perpetual (settled and margined in ETH). In September, we launched a LINK-USD Perpetual Contract.

## Monthly Volume



## Monthly Volume by Type (as % of Perpetuals Volume)

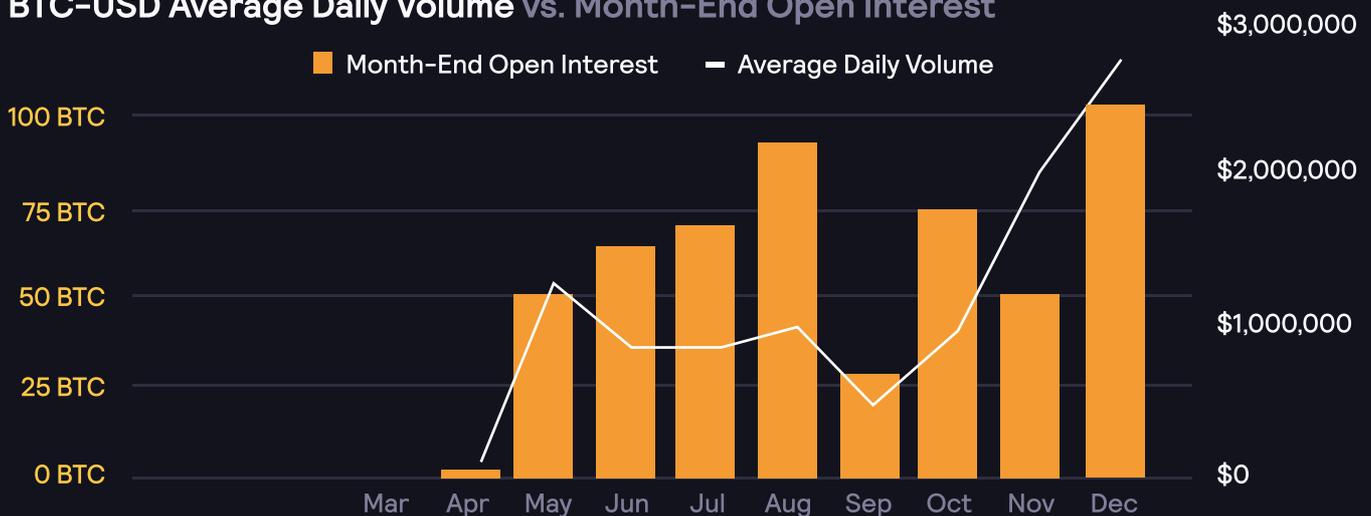


Monthly average volumes for BTC and ETH perpetual contracts were \$38M and \$51M, respectively. In November and December 2020, volumes doubled as volatility in the markets surged. Cash and carry strategies on BTC and ETH were popular ways to generate yields for sophisticated investors. Crypto dollar yields are attractive in a low-yield environment and an opportunity to onboard more capital into crypto. We are excited to provide non-custodial, liquid on-ramps to crypto dollar yields.

## BTC-USD

We saw increasing open interest representing new money coming into the market.

### BTC-USD Average Daily Volume vs. Month-End Open Interest



Since launch, the BTC-USD perpetual has seen a significantly elevated funding rate compared with other stablecoin-denominated perpetual markets. Traders have been slightly long biased, with an average funding rate of 0.08%.

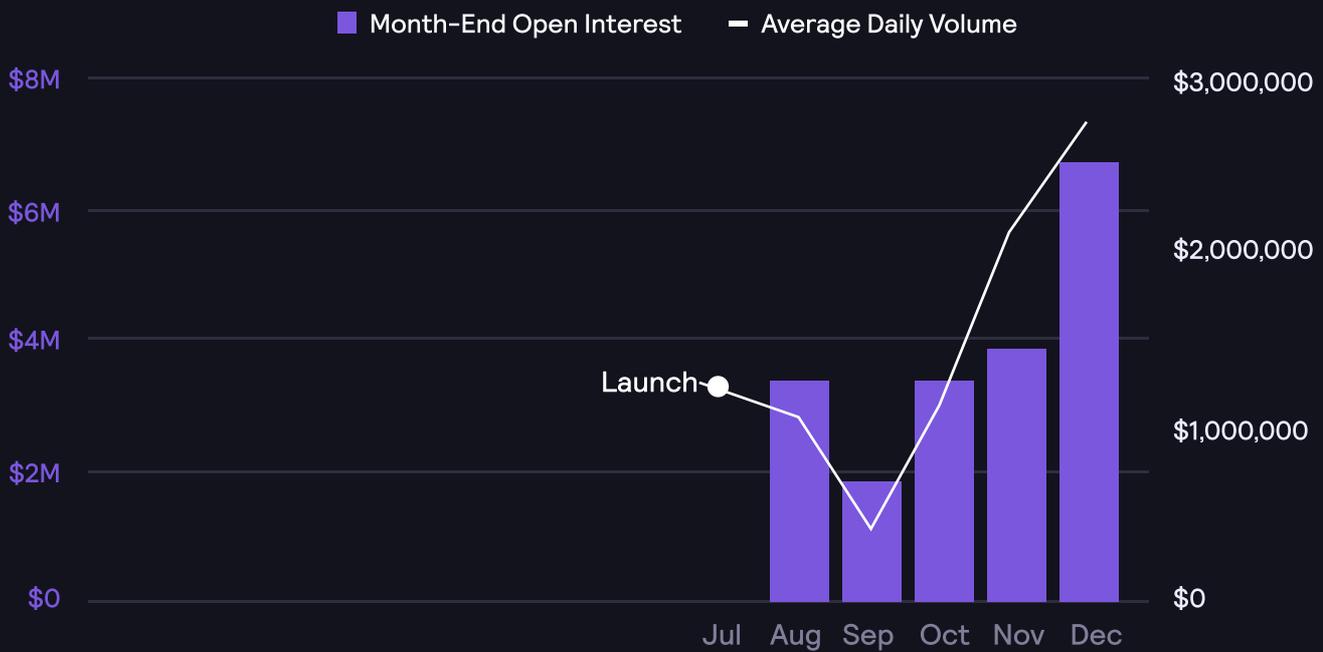
### Historical Funding Rate (BTC-USD Perpetual)



## ETH-USD

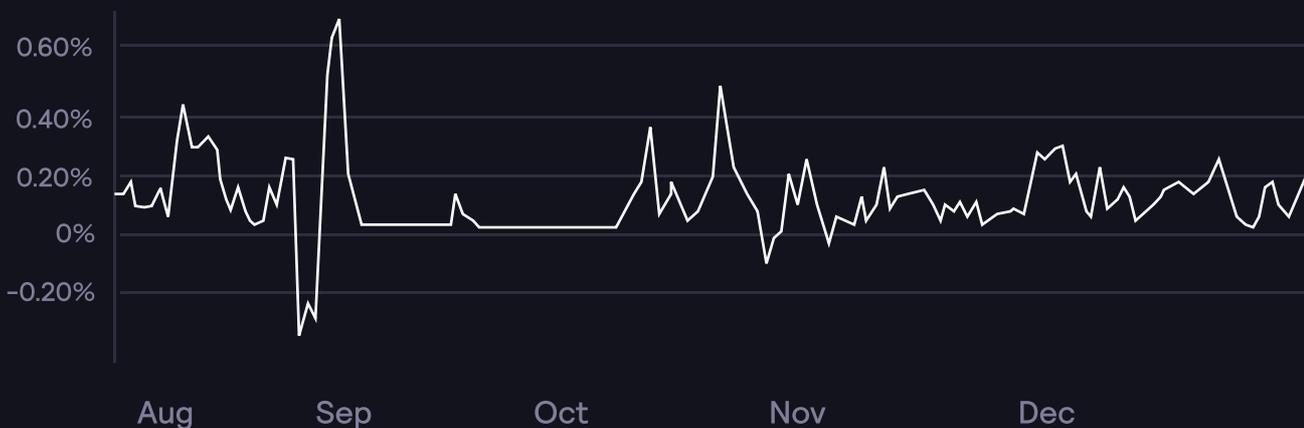
We saw increasing open interest representing new money coming into the market.

### ETH-USD Average Daily Volume vs. Month-End Open Interest



Since launch, the ETH-USD perpetual has seen a significantly elevated funding rate compared with other stablecoin-denominated perpetual markets. Traders have been very long biased, with an average funding rate of 0.12%.

### Historical Funding Rate (ETH-USD Perpetual)

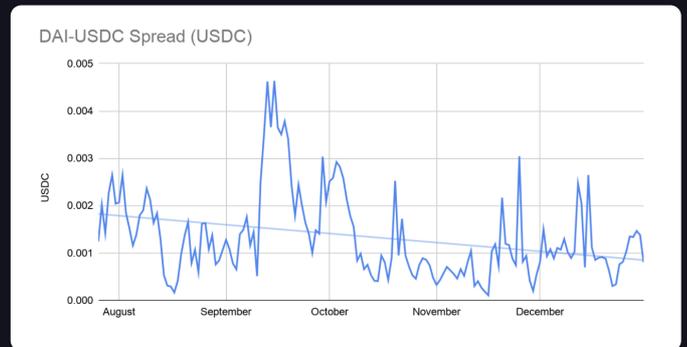
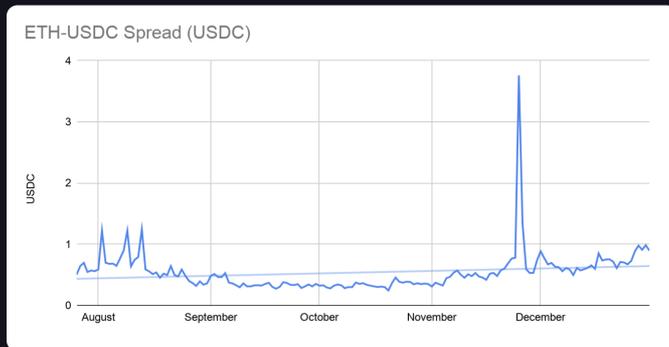


# Liquidity

Ultimately, what matters for an exchange is the liquidity that traders can access. One thing we often heard was that DeFi has poor liquidity and high spreads. This is where an off-chain order book with on-chain settlement can shine. dYdX has worked closely with market makers and liquidity providers to tighten spreads and reduce slippage.

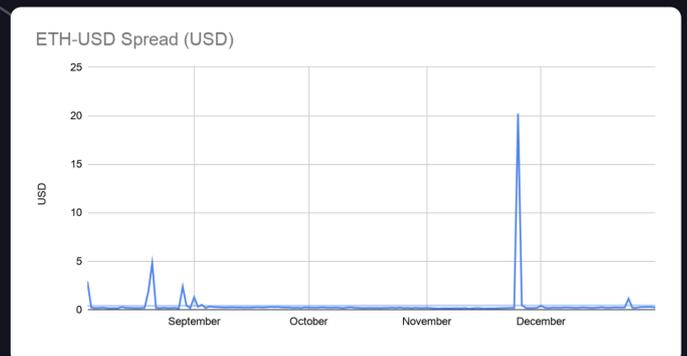
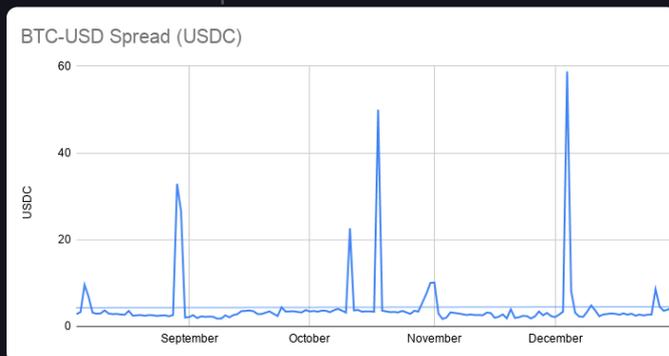
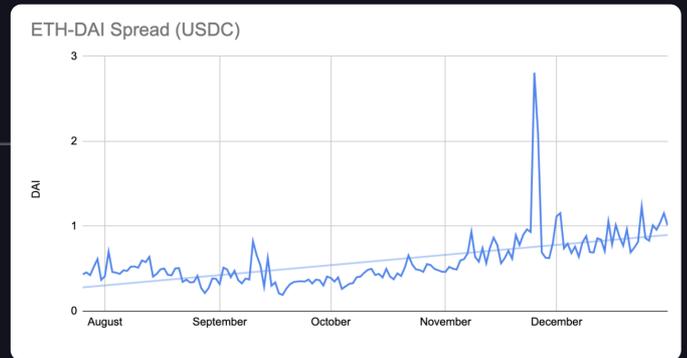
## Tight Spreads

The spread is the difference between the highest bid and the lowest ask on the order book.



Margin

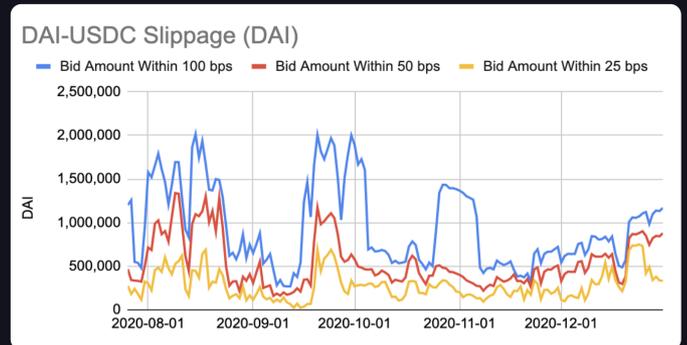
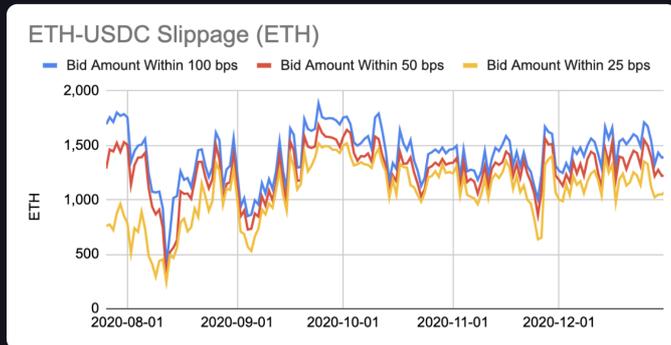
Perpetual



# Liquidity

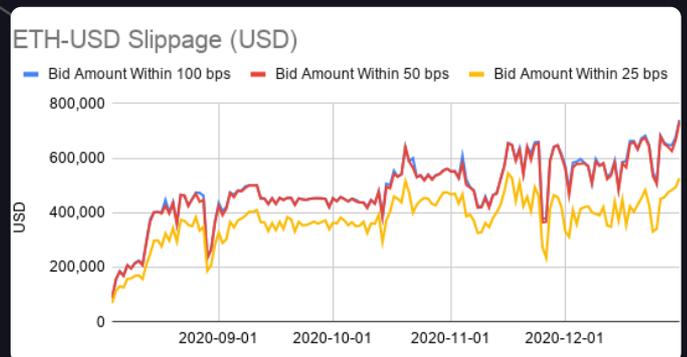
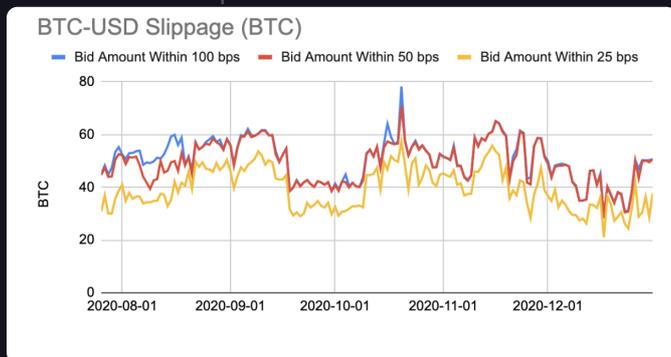
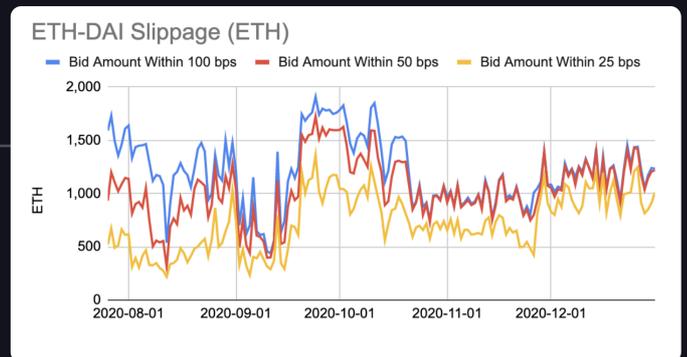
## Low Slippage

In the charts below, the blue line denotes how much liquidity is available within 100 bps, the red line within 50 bps, and the yellow line within 25 bps of mid-market price. For example, users could place a \$400k market buy on the ETH-USD Perpetual and experience ~25 bps of slippage.



Margin

Perpetual



# Borrow & Lend

LIQUIDITY POOLS

dYdX launched borrow and lend pools where funds are lent into a smart contract and can be withdrawn at any time. Users can borrow provided they post 125% of the borrowed asset as collateral and maintain a collateralization ratio of 115%. The interest rate is floating and changes non-linearly based on the proportion of deposited assets that are borrowed.

In 2020, dYdX saw its borrow / lend pool volumes climb rapidly. We originated more than \$17 billion in loans, with 75% of loans collateralized in ETH. We saw a huge demand for borrowing ETH. We believe attractive interest rates, security, and efficient shorting capabilities contributed to the rise.



YTD Txn Count

**404,325**

YTD Volume

**\$17,375,840,562**

By asset

 ETH	<b>33,384</b> \$13.081M	75%
 DAI	<b>2.461M</b> \$2.493M	14%
 USDC	<b>1.800M</b> \$1.800M	10%

# More Updates

Here are some more miscellaneous updates from our team. Keep an eye on our social media, or join our [Discord](#) for more real-time updates.

## Market Developments

### **From low volatility to Black Thursday through the Halving**

On March 12th, dubbed Black Thursday, crypto markets collapsed, in tandem with traditional markets, with crypto prices declining across the board between 50%-60%, dropping to 2020 lows. A key factor that exacerbated the severity of the crash was a cascade of liquidations on derivative exchanges. Over the following few months, both BTC and ETH volatility were relatively muted, despite the hype around the BTC halving. Implied volatility fell rapidly, catching a lot of the trading community off guard. We saw more selling than buying on the BTC-USDC perpetual. This was in line with BTC's price decline and delta neutral traders collecting funding on the perp.

### **The rise of spot DEX trading & the Summer of DeFi**

Over the summer, we saw the most flow in ETH-USDC, with DAI-USDC being a close second. Liquidity improved on our ETH-USDC product so that most likely became our preferred venue to get ETH exposure. We attribute the increase in DAI-USDC volume to users swapping stablecoins to capture various DeFi yield farming opportunities. We also saw ETH gas prices spike due to the rise of liquidity mining initiatives and increasing DEX usage.

### **Institutional Adoption leading to All-Time High in Q4**

In 2020, institutions began to embrace BTC like never before. In May, Paul Tudor Jones publicly endorsed bitcoin as a potential hedge against inflation. In 2H 2020, other major institutions joined in, with several institutions adding BTC to their balance sheets. We also saw institutions begin to embrace DeFi. Several MPC Wallet providers began to support DeFi protocols, including dYdX, due to customer demand.

# More Updates

## Growing the Team

Our team is focused on delivering the best product in decentralized finance. We're a highly efficient team, the majority of which are engineers, and punch above our weight class. We have recruited 10x engineers from leading Silicon-Valley companies (Google, Uber, Waymo, Blend), blockchain companies (Coinbase, ConsenSys), financial technology companies (Bloomberg, Nerdwallet), Wall Street and leading universities (Princeton, University of Pennsylvania).

We have also invested in building out our growth team with Wall Street, technology, and investment professionals with experiences at Ripple, BlockTower Capital, Techstars, Wharton Business School, AIG, and Facebook.

Building a best-in class decentralized exchange requires the efforts of many talented people. We've been fortunate to add some outstanding talent in 2020 and build the best team that will enable us to achieve our goals:

**Vijay Chetty** - Head of Business Development

**David Gogel** - Growth Lead

**Corey Miller** - Senior Growth Associate

**Achal Srinivasan** - Product Designer

**Yiran Tao** - China Growth Lead

**Lucas Wotton** - Software Engineer

The dYdX team currently stands at 14 people. If you're excited about what we're building at dYdX and want to join the team, please check out our **Careers** page or reach out to us at [jobs@dydx.exchange](mailto:jobs@dydx.exchange). We'd love to hear from you!

# More Updates

## Driving Growth in China

China is a very important market for dYdX, DeFi, and the global cryptocurrency industry. dYdX is committed to long-term success in China and is investing heavily in growth.

We're constantly refining how to better serve the local market. To date, we have translated our front-end trading application and help desk into Mandarin. We bootstrapped a Chinese community of 300 users on WeChat. Further, we have developed partnerships with several leading Chinese wallet providers, including imToken, Math Wallet, and TokenPocket. Finally, in December, we hired Yiran Tao, our first international employee, focused on driving Growth in Greater China.

We're also excited to be part of Huobi's Global DeFi Alliance, bridging the gap between East and West and exploring new product and partnership opportunities. We've joined Conflux Network's Open DeFi Alliance too, helping to cross-promote innovation, risk management, and liquidity initiatives between Eastern and Western DeFi players. We are on the lookout to participate in more events too after joining panels with IOSG VC and DODO during Shanghai Blockchain Week.

## [Click here](#) to join Discord

In 2020, we migrated our community from Telegram to Discord to drive social engagement. We have dedicated channels for more targeted discussions.

# More Updates

## The Integral

In April, dYdX launched “The Integral”, a new blog that explores a variety of research topics focused on crypto markets. Some of our leading posts include:

[How DeFi is Eating Traditional Finance](#)

[Trader Insights: Dephi Alpha](#)

[Examining the World of Crypto Dollar Yields](#)

[Trader Spotlight: Andrew Kang](#)

[Comparing Perpetual Markets](#)

[Trader Insights: Yield Farming](#)

[AMA Recap: Trader Spotlight feat. CryptoCat](#)

[Comparing DeFi Token Models](#)

[Understanding Perpetual Market Funding](#)

## Partnerships

[Partnering with StarkWare to scale decentralized trading](#)

[dYdX Chooses Chainlink as its Oracle Provider for New Market](#)

[Joined Huobi and the Global DeFi Alliance to promote cooperation in DeFi](#)

[dYdX Joins Open DeFi To Help Create New Asset Classes and Markets For Traders](#)

[dYdX Spot Trading is Live on Hummingbot](#)

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# More Updates

## Product Announcements

[Launched BTC Perpetual Contract Market](#)

[ETH-USD Perpetual Contract Market is Live](#)

[LINK-USD Perpetual Contract Market is Live](#)

[Announcing the dYdX Perpetual Contracts Bug Bounty](#)

[Perpetual Contract historical funding rates now available via the exchange & API](#)

[Launched “Trailing Stop Loss” orders for all Spot, Margin & Perpetual positions](#)

[Updated developer documents for programmatic traders and developers](#)

[Launched “Take-Profit” orders to isolated margin positions](#)

[Added USDT deposit and withdrawal support using Curve](#)

[Launched leverage slider on Perpetual Contracts](#)

[Launched email notifications](#)

[Launched spot markets](#)

[Launched affiliate program](#)

[Launched support for 3 new languages \(Chinese, Japanese, Russian\)](#)

[Optimized trading page for mobile](#)

[Introduced a business model and trading fees on the exchange](#)

[Launched a mobile version of the balances page](#)

[Launched ability to export history on dYdX to a csv file](#)

[Launched stop orders](#)

[Launched advanced trading controls including fill-or-kill and post-only](#)

# More Updates

## Virtual Appearances

We were also busy on the marketing side. dYdX participated in several AMAs, panels, podcasts, and virtual events. Learn more about our products, decentralized trading, Layer 2, DeFi, and more:

[Bankless AMA with Antonio Juliano](#)

[dYdX Feature in The Pomp Letter: How DeFi is Eating Traditional Finance](#)

[Antonio on Crypto Tonight x OFC Panel | Derivatives in Defi](#)

[Antonio interview at Reimagine 2020 v3](#)

[Antonio on Blockcrunch Podcast: winning the DeFi exchange Wars](#)

[Antonio at LA Blockchain Summit: Flash Loans vs. Traditional Loans](#)

[Antonio on Huobi panel: New Paradigm in DeFi AMM](#)

[Antonio at Liquidity 2020: Decentralized Trading & Scaling with Layer 2](#)

[David at Liquidity 2020: Scaling Growth & Liquidity on CLOB DEXs](#)

[Antonio at BlockJam Japan: Decentralized Trading & Scaling with Layer 2](#)

[Antonio at Shanghai Blockchain Week: IOSG DeFi Summit 2020](#)

[Antonio on CryptoTesters podcast: Creating a decentralized BitMEX](#)

[Vijay on Linqto Panel: DeFi Expectations](#)

[David AMA with Nest: Verified Quotes and Applications in DEXs](#)

[Antonio AMA with Math Wallet: Perpetual trading and the future of DEX](#)

[Antonio at Avalanche's MoneyDance: Decentralized Trading & Scaling with Layer 2](#)

[Zhuoxun on Crypto Tonight | Episode 4: When DeFi is not Fine](#)

[Antonio in AMA interview with 8btc](#)

[Zhuoxun on Base Layer Podcast](#)