The 2024 BTC Halving Preview: Bullish but is it tradeable?

April 18th, 2024

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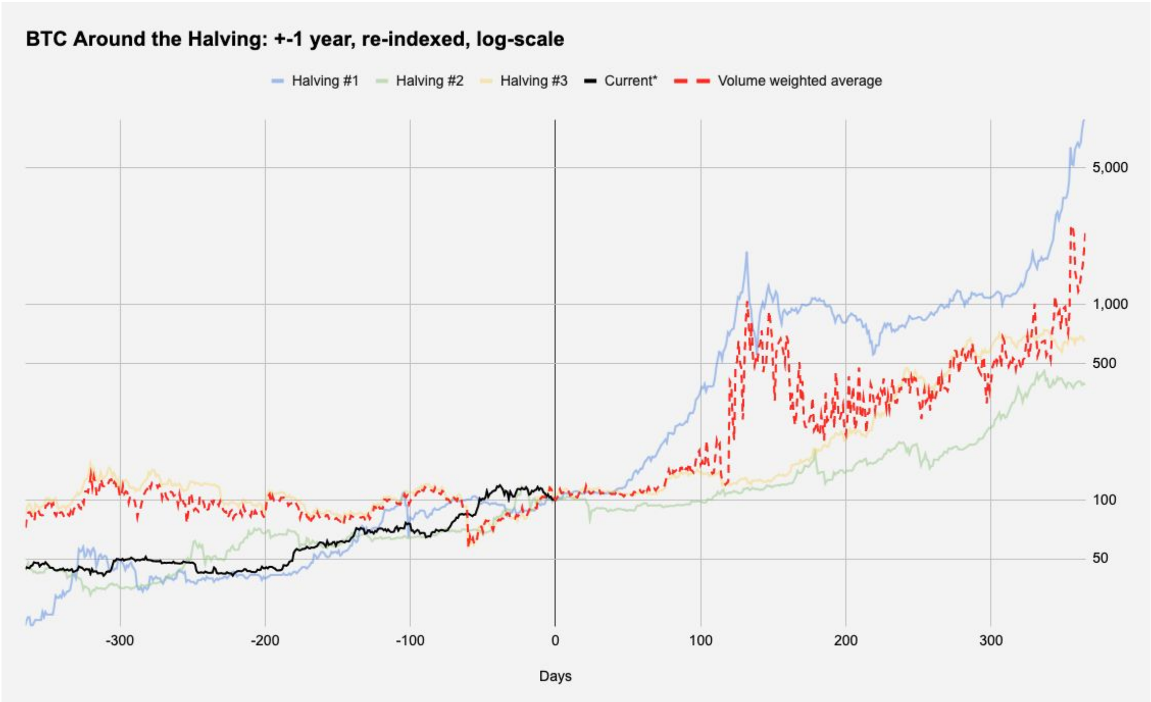
Summary

- On the surface, this highly anticipated event in the Bitcoin network has historically been bullish.
- However, given the low historical occurrences to examine, and with a closer look at BTC's performance in context of overall markets, it is hard to make any high conviction calls on the basis of the halving event alone.
- Overall, the BTC halving may not be a tradeable event but it is structurally bullish from a supply perspective. With the right macro tailwinds, BTC may be in for another rally post-halving.

The consensus regarding the Bitcoin halving is that it is bullish, and the popular belief is that it is a tradeable event. But is this really the case? In this report, we delve into past halvings and look at both supply and macro data for the upcoming 2024 halving for more insight into what this well-telegraphed event means for investors.

Figure 1: The halving looks bullish for BTC

Source: investing.com



Day 0 = halving date, re-indexed to Day 0 = 100. Since the upcoming halving is scheduled for 20Apr24, we extrapolate the last few days by using the latest price figure from 17Apr24.

What is the Bitcoin halving?

The halving, or sometimes referred to as the "halvening", is a pre-programmed event in the Bitcoin network that cuts the reward for Bitcoin miners in half (see below for more on what this means). This is an important mechanism in Bitcoin's monetary policy that ensures that only 21 million BTC will ever be in circulation, as well as to prevent inflation as it reduces the rate at which new BTC are created.

This programmed update happens every 210,000 blocks, which roughly equates to every four years, with the next one estimated for the 20th April 2024. When Bitcoin launched in 2009 the mining reward was set at 50 BTC, and with three previous halvings (2012, 2016, and 2020), the reward will soon drop to 3.125 BTC per block.

A refresher: Bitcoin miners and rewards

Bitcoin uses a Proof-of-Work (PoW) consensus mechanism to validate and secure transactions on the blockchain. In PoW, miners compete to solve complex mathematical problems and the first miner to correctly do so gets to add the next block of transactions to the blockchain. In exchange for validating transactions and adding blocks to the blockchain, the winning miner is rewarded with newly created Bitcoins, and it is this reward that is "halved" in the halving.

The cold reality of historic halvings

On the surface, the halving has proven to be very bullish for BTC.

Figure 1 shows BTC's historic price action preceding and succeeding each of the previous halving days, from 1 year before until 1 year after. The red dotted-line shows the volume weighted average of the past halvings, while the black line shows the current BTC path. Figure 2 outlines the data in table form:

Figure 2: BTC performance around halvings

Source: investing.com

	Price ($)			Returns		
Year	**1 year ago**	**Day of Halving**	**1 year later**	**-1yr -> Halving**	**Halving -> 1yr**	**-1yr -> +1yr**
2012	2.80	12.40	1,101.40	342.86%	8782.26%	39235.71%
2016	283.60	651.80	2,511.40	129.83%	285.30%	785.54%
2020	6,984.80	8,579.80	56,695.70	22.84%	560.80%	711.70%
Vol. Wgt. Avg. (index)	72.00	100.00	2,357.00	38.89%	2257.00%	3173.61%
2024 / current	27,264.80	61,660.20	-	126.15%	-	-

Average 365-day rolling return: +545.60%

Since the upcoming halving is scheduled for 20Apr24, we extrapolate the last few days by using the latest price figure from 17Apr24.

The log-scaled y-axis of Figure 1 suggests the halving as a bullish catalyst, but given that we have only had three observations, the first of of which was when BTC was only $12.80, and the third occurred in May 2020 when all risk-assets were massively bid in the Covid rally and people were given stimulus cheques, it seems any interpretation of the data will require a pinch of salt. Further, when we take a look at the average 1-year return for BTC since mid-2011, the 1-year post-halving returns don't look very impressive with the exception of the first halving in 2012.

And here, the 2020 halving raises an interesting question of how global markets in general performed. In Figure 3 we replicate Figure 2 using equities, specifically the S&P 500, as a benchmark of risk assets:

Figure 3: S&P 500 performance around halvings

Source: S&P

	Price ($)			Returns		
Year	1 year ago	Day of Halving	1 year later	-1yr -> Halving	Halving -> 1yr	-1yr -> +1yr
2012	1,192.55	1,409.93	1,805.81	18.23%	28.08%	51.42%
2016	2,051.31	2,137.16	2,427.43	4.19%	13.58%	18.34%
2020	2,811.87	2,930.32	4,152.10	4.21%	41.69%	47.66%
Average	-	-	-	8.88%	27.78%	39.14%
2024 / current	4,129.79	5,022.22	-	21.61%	-	-

Average 252-day rolling return: +11.42%

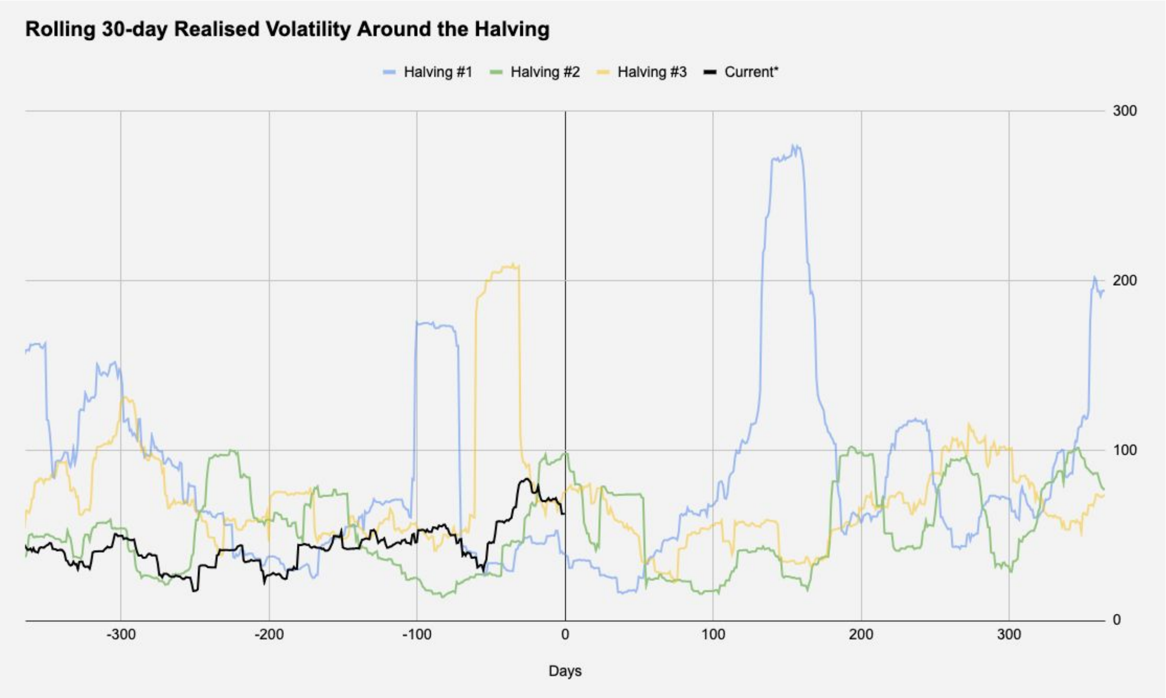
Since the upcoming halving is scheduled for 20Apr24, we extrapolate the last few days by using the latest price figure from 17Apr24.

While SPX's average rolling 1-year return was +11.42% (since mid-July of 2011, matching the historic price data for BTC we have), its average performance 1-year from the Bitcoin halving has been over +27% - i.e. more than double the mean! This highlights an important reality that the popular narrative often happily overlooks. For the same reason we wouldn't conclude that "therefore the programmed update in the Bitcoin network that halves the reward miners receive is very bullish for the S&P 500", there is probably no real conclusive statement we can draw from the past performance in BTC either. Otherwise, by some measures like the hit ratio of better-than-mean performance, you might even conclude that the BTC halving is more bullish for SPX than it is for BTC itself!

For those interested in volatility, there similarly seems to be no distinctive relationship to the halving date or period. Figure 4 looks at 30-day realised volatility leading up to and following the halving date (+-365 days):

Figure 4: No pattern in BTC volatility

Source: Presto Research, investing.com



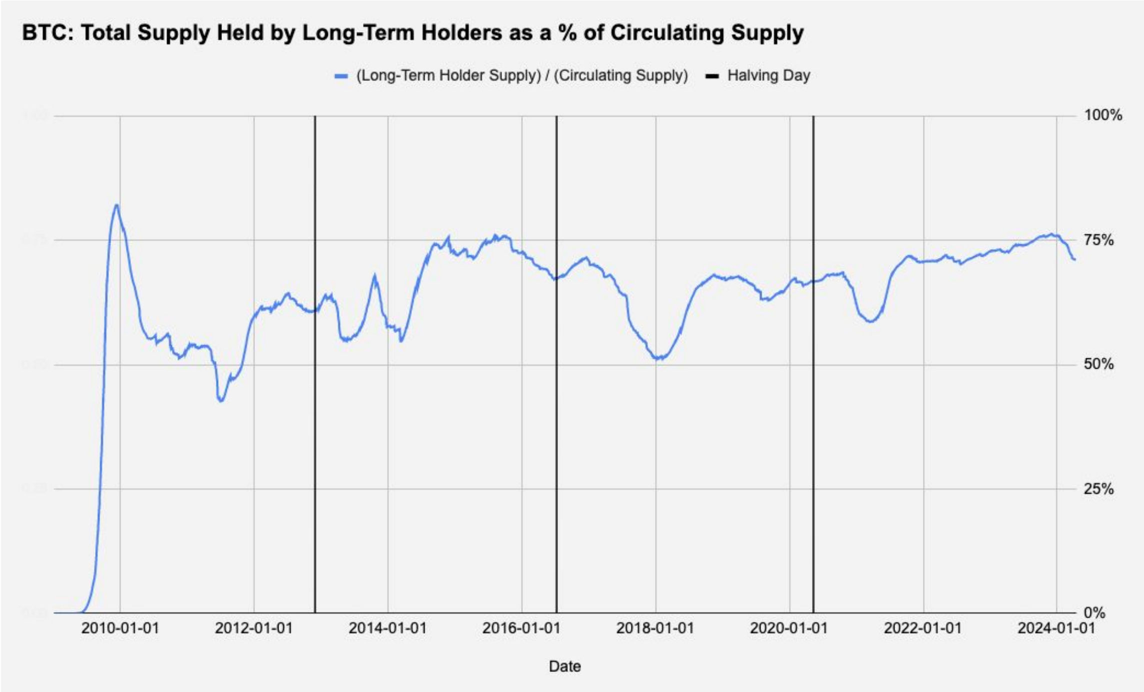
Rolling 30-day realised volatility +-1 year from the halving date. Since the upcoming halving is scheduled for 20Apr24, we extrapolate the last few days by using the latest price figure from 17Apr24.

The 2024 Halving Topic #1: Long-term Holders

Here we look at the total amount of BTC held by long-term holders, adjusted by BTC's supply. Given that the circulating supply of BTC increases until the hard-coded limit of 21 million Bitcoins is reached, we divide the long-term holder amount by the circulation supply at the time to view the holding as a percentage:

Figure 5: Bitcoins held by "long-term holders"

Source: Glassnode



Total supply of Bitcoins held by "long-term holders" (defined by Glassnode as Bitcoin wallets that have have their BTC for at least 155 days), divided by the circulating supply of Bitcoin at the time.

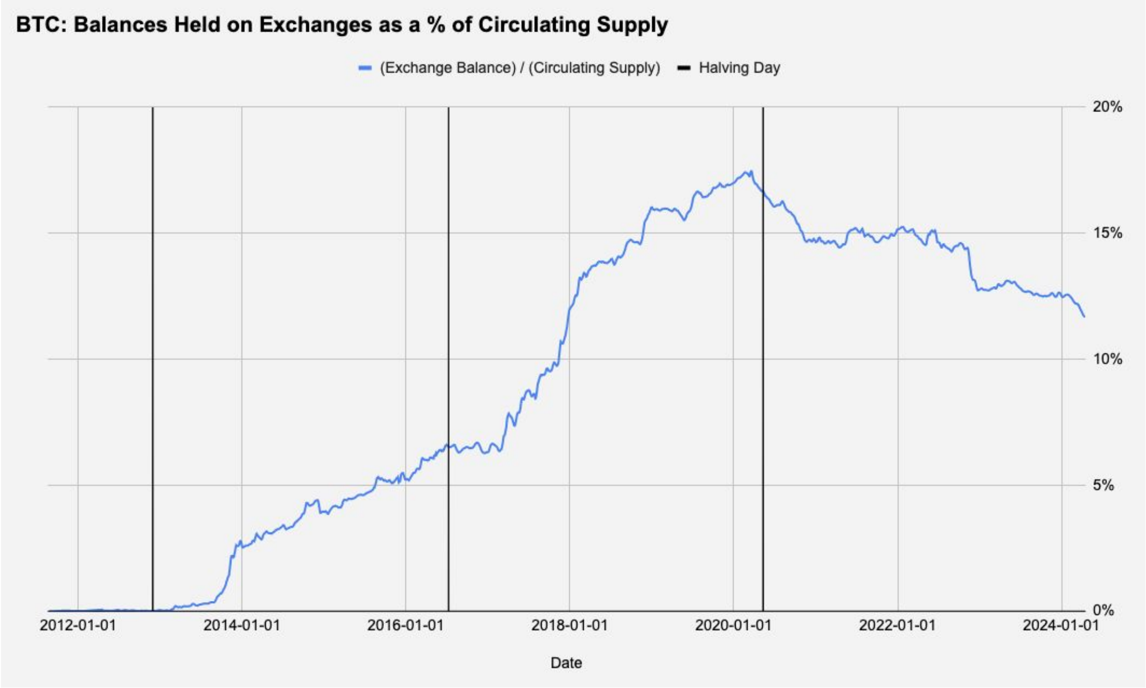
Although subtle in 2020, Figure 5 suggests that long-term holders may be taking profit ahead of halvings, and the dip is seen in 2024 too. This selling dynamic is generally attributed to miners; as the halving essentially reduces per-block revenue by 50%, miners often sell portions of their treasury to upgrade their hardware for more efficient mining when rewards are reduced. This structural selling pressure may be occurring now, as we are days ahead of the 2024 halving.

The 2024 Halving Topic #2: Exchange BTC balances

Although exchanges don't take directional bets, we nonetheless look at the reserve holdings of exchanges (and by an extension, likely their internal market makers as well) to see if there has been a pattern around halving days:

Figure 6: Bitcoins held by cryptocurrency exchanges

Source: Glassnode



Total supply of Bitcoins held by cryptocurrency exchanges, divided by the circulating supply of Bitcoin at the time.

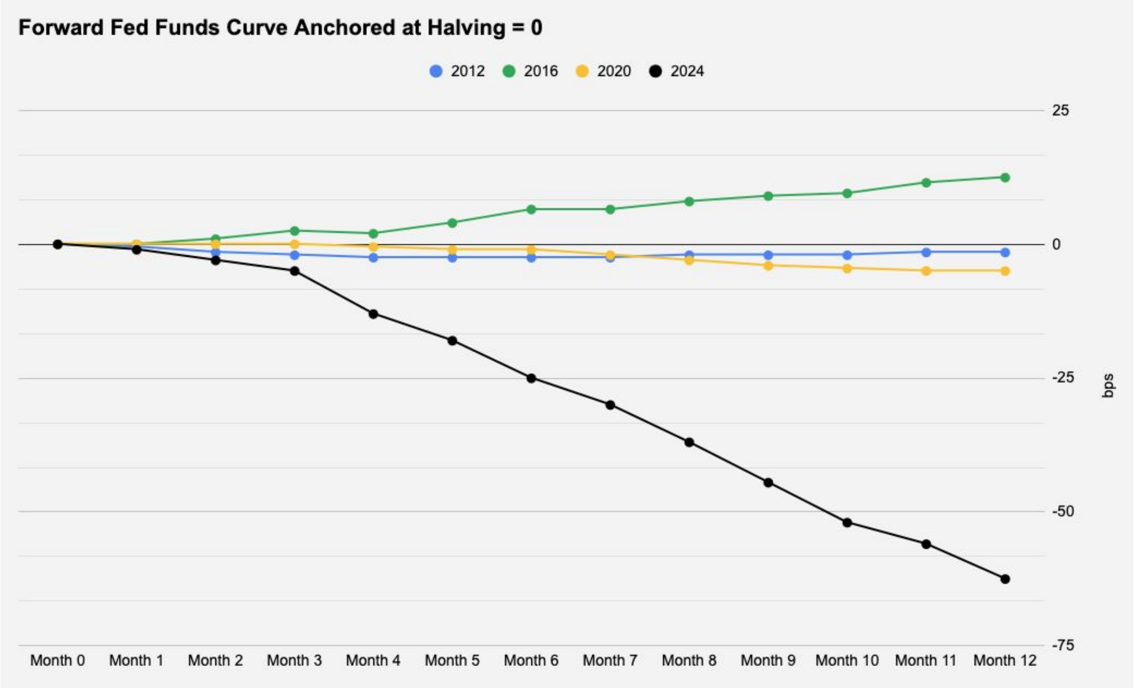
There doesn't seem to be anything interesting with regard to the halving we can see in Figure 6. The only observable trend is a longer-term one where exchanges went through a ~6 year accumulation phase which started to drop steadily with the onset of the previous bull market.

The 2024 Halving Topic #3: Macro backdrop

The relevance of macro conditions on Bitcoin is often argued, but macro cycles, and in particular USD liquidity (as a function of monetary policy/interest rates, risk appetite, etc.) is still the driving force of asset prices over the medium to long-term. Given this, we hone in on what the market was pricing as the Federal Funds rate for the next 12 months on the halving day in Figure 7.

Figure 7: Fed expectations at halving

Source: CBOT



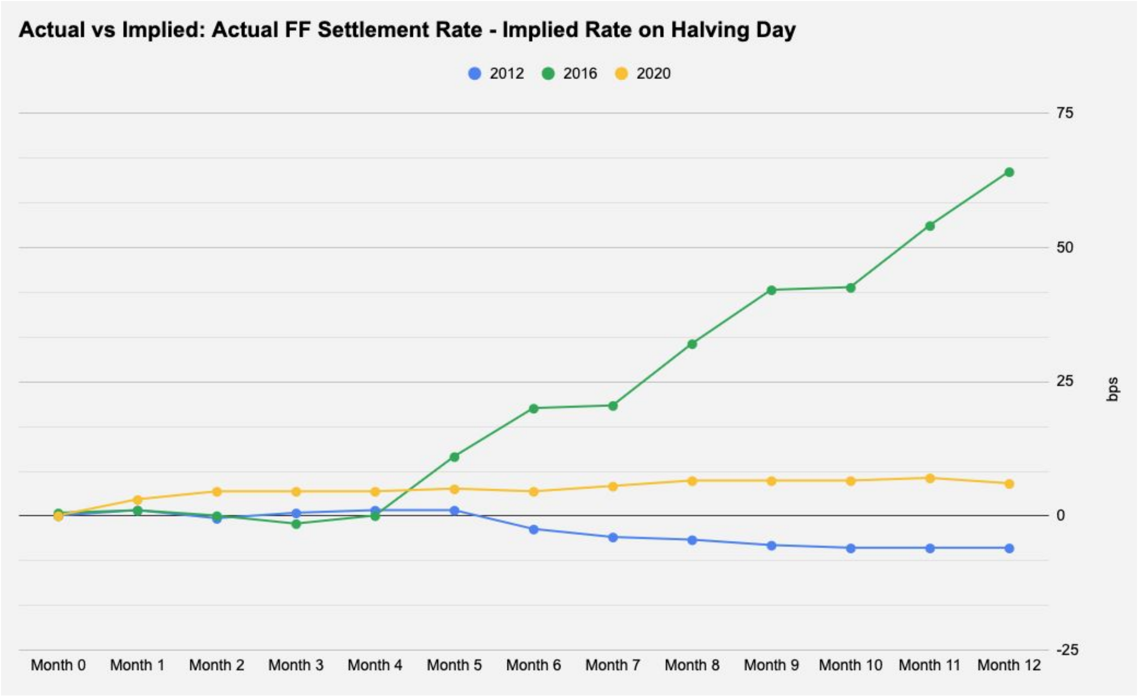
Fed Funds curve implied by FF futures for the next 12 months, on the day of the halving. For the upcoming 2024 halving, price snapshots were taken on 17Apr24.

It is clear that the upcoming halving is an outlier with almost 3 cuts priced in, or more simply just by having any sort of interest rate change expected.

Easing of interest rates is generally positive for risk assets but what often matters for price action is not what's already priced in, but the magnitude of deviation from market expectations, whether that be an inflation print or a statement from the Fed chair. In Figure 8, we compare the actual settlement implied rate with what the market was expecting on each of the halving days in order to see how accurate the forward pricings from Figure 7 were.

Figure 8: Accuracy of Fed expectations

Source: CBOT



E.g. if the halving occurred on 09Jul16, Month 1 for 2016 would be [August FF future settlement price] - [August FF price on 09Jul16].

2012 and 2020 data is fairly unremarkable, easily within +-10bps from initial expectations, but 2016 is worth looking into as the Fed hiked twice, which was not priced in at the time of the second halving. Interestingly, Figure 1 and 2 show that the 12 months following the 2016 halving was the worst performing one for BTC out of the three previous halvings, and the only time where it underperformed its 1-year average returns. With more than two rate cuts priced in today for the next 12-months, therefore, a more important driver post-halving BTC price may be persistent US inflation or anything else that may encourage the Fed to remain on hold rather than cut.

Conclusion

We briefly explored the unique macro backdrop of this upcoming halving but there are other considerations not mentioned in this report, predominantly revolving around the recent spot BTC ETF launch. With all the attention BTC has drawn recently, this is definitely the most anticipated halving so far, and the general institutionalisation of BTC has introduced new players that may change the supply/demand and price action dynamics. It’s worth nothing here that the newly launched ETFs hold over 4.1% of BTC’s circulating supply while MicroStrategy owns more than 1%.

Given that there have only been three previous halvings, it's hard to draw statistically significant conclusions from past performance to determine whether this is a tradeable event. Structurally however, this is undeniably a bullish event from a supply perspective.

About Presto

Presto is a Singapore-based algorithmic trading and financial services firm founded in 2014. Presto focuses on delivering exceptional value for clients through rigorous research-driven approach to investment and trade execution. With more than a 100 million trade executions in a day, Presto is a leading financial services firm in both digital assets and traditional finance markets.

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