



# Market Structure Report

04-29-2024

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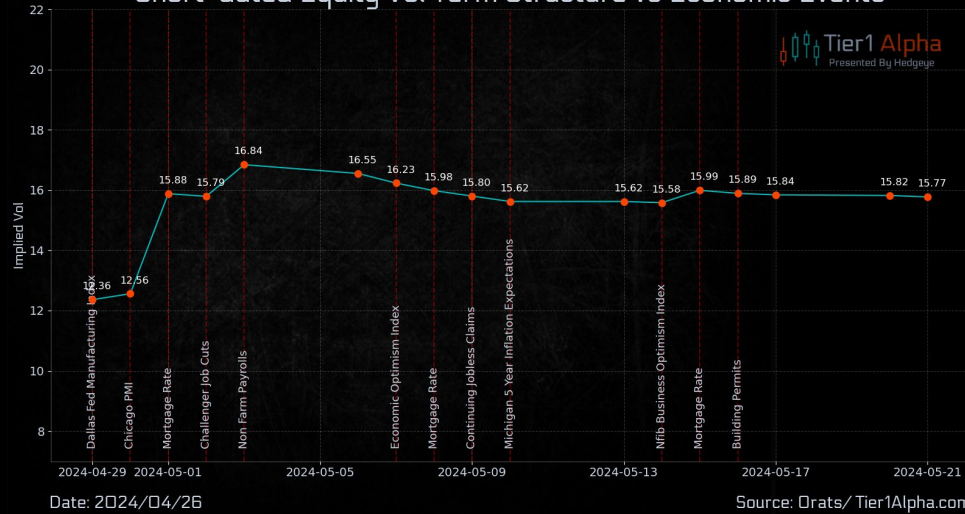
Data provided by: <https://intrinio.com/>

# Summary:

- Dealer positioning improved last Friday, leaving SPX just shy of the gamma flipping point at the 5118 strike. Even though dealers are still slightly negative, they are fairly well hedged at the current levels, implying their hedging flows will have a smaller impact on the S&P 500.
- However, the steepness of the gamma curve between the 5100 and 5000 strike suggests a slippery slope back down to the 5000 level on any weakness, which is about 2% below.
- On the other hand, our PV bands have opened up some further room towards the upside, landing just shy of the 5150 strike. This suggests higher is still possible, albeit, only for around a 1% gain.
- In any case, we suspect the 5100 level will remain the focal point over the next few days, especially given there is a significant amount of positive gamma tied to that strike, which makes it a prime candidate for some "pinning" action, which consequently should cause some near-term resistance.
- Overall, the setup is more favorable than the previous two weeks, although until we move significantly past the 5100 strike, higher volatility is still on the table.
- Market breadth was flat last Friday, with only 52% of the S&P 500 in the green. However, some exceptionally strong market cap distortion led the cash index higher, with just ten companies contributing to over 60% of the bullish momentum. Of that, Google alone was responsible for nearly 23% of the positive impact, with Nvidia contributing an additional 17%.
- The 1-month realized volatility rose to 12.91, which meant Vol Control funds will have to sell an estimated \$11B in equity exposure in order to maintain their volatility targets.
- That said, CTA funds have already started to rebuild some of their equity exposure, buying back an estimated \$5B in equities, which this broadly dampened some of the negative impact from the Vol control space, leaving our Systematic positioning index largely unchanged.

<b>Volatility Regime:</b>	Low	Neutral	High
<b>Flow Risk:</b>	Bullish	Neutral	Bearish
<b>PV Band Risk/Reward:</b>	Long	Neutral	Short

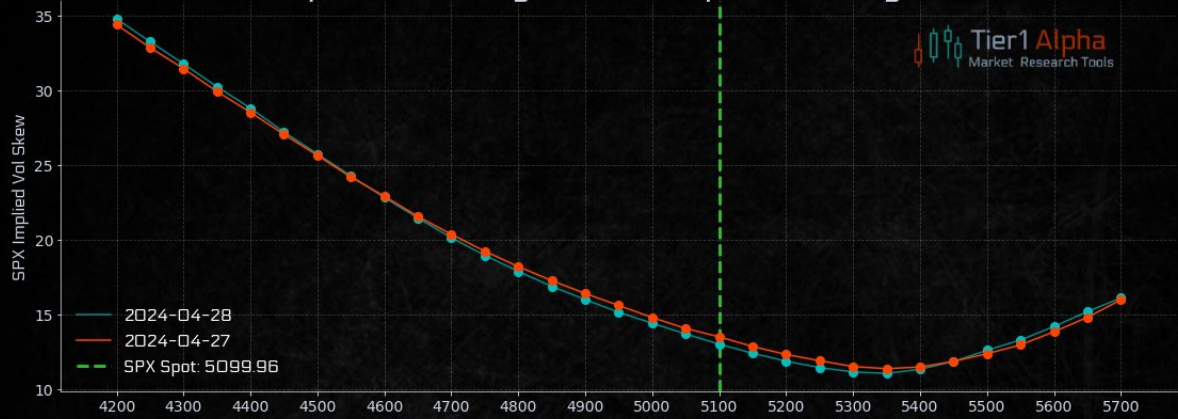
## Short-dated Equity Vol Term Structure vs Economic Events



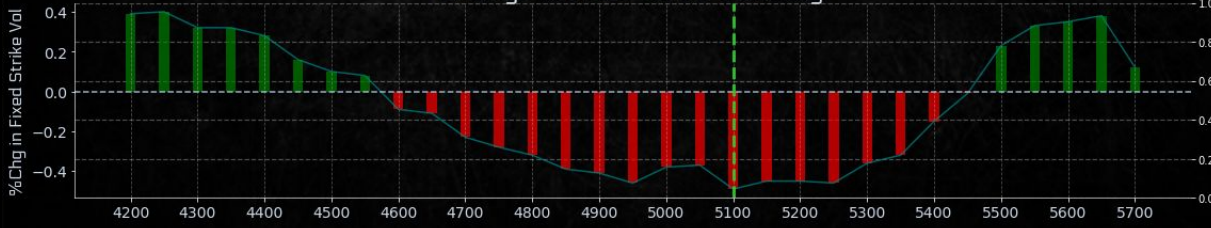
## Economic Event Calendar

Date	Event	Estimate	Previous	Impact	SPX IV
2024-04-29	Dallas Fed Manufacturing Index	nan	-14.4	medium	12.25
2024-04-30	Chicago PMI	nan	41.4	medium	12.56
2024-05-01	Mortgage Rate	nan	7.24	low	15.72
2024-05-01	Mortgage Applications	nan	-2.7	low	15.72
2024-05-01	MBA Mortgage Refinance Index	nan	472.7	low	15.72
2024-05-01	MBA Purchase Index	nan	144.2	low	15.72
2024-05-01	Manufacturing PMI	49.9	51.9	medium	15.72
2024-05-01	ISM Manufacturing Employment	nan	47.4	medium	15.72
2024-05-01	ISM Manufacturing New Orders	nan	51.4	low	15.72
2024-05-01	Business Confidence	50.0	50.3	high	15.72
2024-05-01	ISM Manufacturing Prices	nan	55.8	low	15.72
2024-05-01	Job Offers	nan	8.756	high	15.72

# SPX Implied Volatility Skew -- OpEx: Fri May 17 2024



## Change In Fixed Strike Volatility



Date: 2024/04/28

Source: Drats/ Tier1Alpha.com

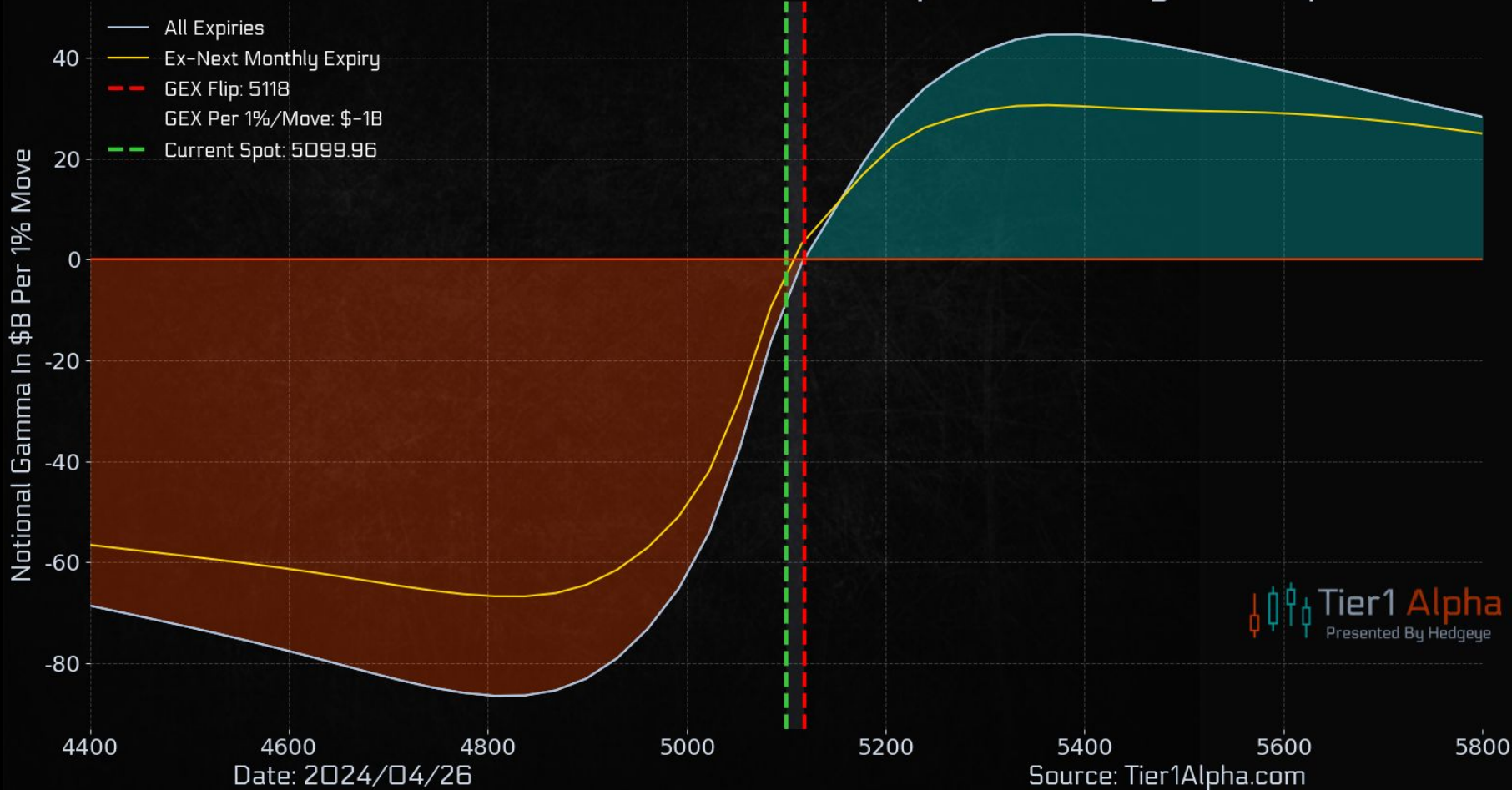
### SPX Implied Volatility with Fixed Strike Vol

Expiration	Fri May 17 2024		Fri Jun 21 2024		Fri Jul 19 2024	
	Strike	Implied Vol	FSV Change	Implied Vol	FSV Change	Implied Vol
4400.0	28.8	0.28	23.61	-0.29	20.27	-0.17
4450.0	27.21	0.16	22.71	-0.35	19.6	-0.17
4500.0	25.74	0.1	21.86	-0.35	18.95	-0.17
4550.0	24.27	0.08	21.02	-0.35	18.31	-0.15
4600.0	22.82	-0.09	20.23	-0.34	17.69	-0.15
4650.0	21.45	-0.11	19.48	-0.31	17.09	-0.14
4700.0	20.13	-0.23	18.73	-0.3	16.5	-0.13
4750.0	18.95	-0.28	18.02	-0.28	15.94	-0.12
4800.0	17.88	-0.32	17.34	-0.24	15.4	-0.1
4850.0	16.87	-0.39	16.66	-0.23	14.88	-0.09
4900.0	15.99	-0.41	16.02	-0.26	14.37	-0.08
4950.0	15.14	-0.46	15.42	-0.22	13.9	-0.05
5000.0	14.41	-0.38	14.81	-0.21	13.47	-0.08
5050.0	13.69	-0.37	14.24	-0.18	13.05	-0.08
5100.0	13.01	-0.49	13.69	-0.17	12.67	-0.07
5150.0	12.4	-0.45	13.18	-0.2	12.32	-0.09
5200.0	11.87	-0.45	12.74	-0.18	12.01	-0.09
5250.0	11.44	-0.46	12.32	-0.18	11.76	-0.06
5300.0	11.15	-0.36	11.96	-0.17	11.51	-0.08
5350.0	11.05	-0.32	11.64	-0.18	11.3	-0.08
5400.0	11.35	-0.15	11.36	-0.15	11.14	-0.08
5450.0	11.85	-0.01	11.13	-0.11	11.0	-0.08
5500.0	12.6	0.23	10.93	-0.13	10.93	-0.07
5550.0	13.29	0.33	10.81	-0.14	10.9	-0.05
5600.0	14.19	0.35	10.81	-0.12	10.94	-0.05
5650.0	15.19	0.38	10.92	-0.06	11.05	0.01
5700.0	16.1	0.12	11.1	-0.05	11.19	0.03

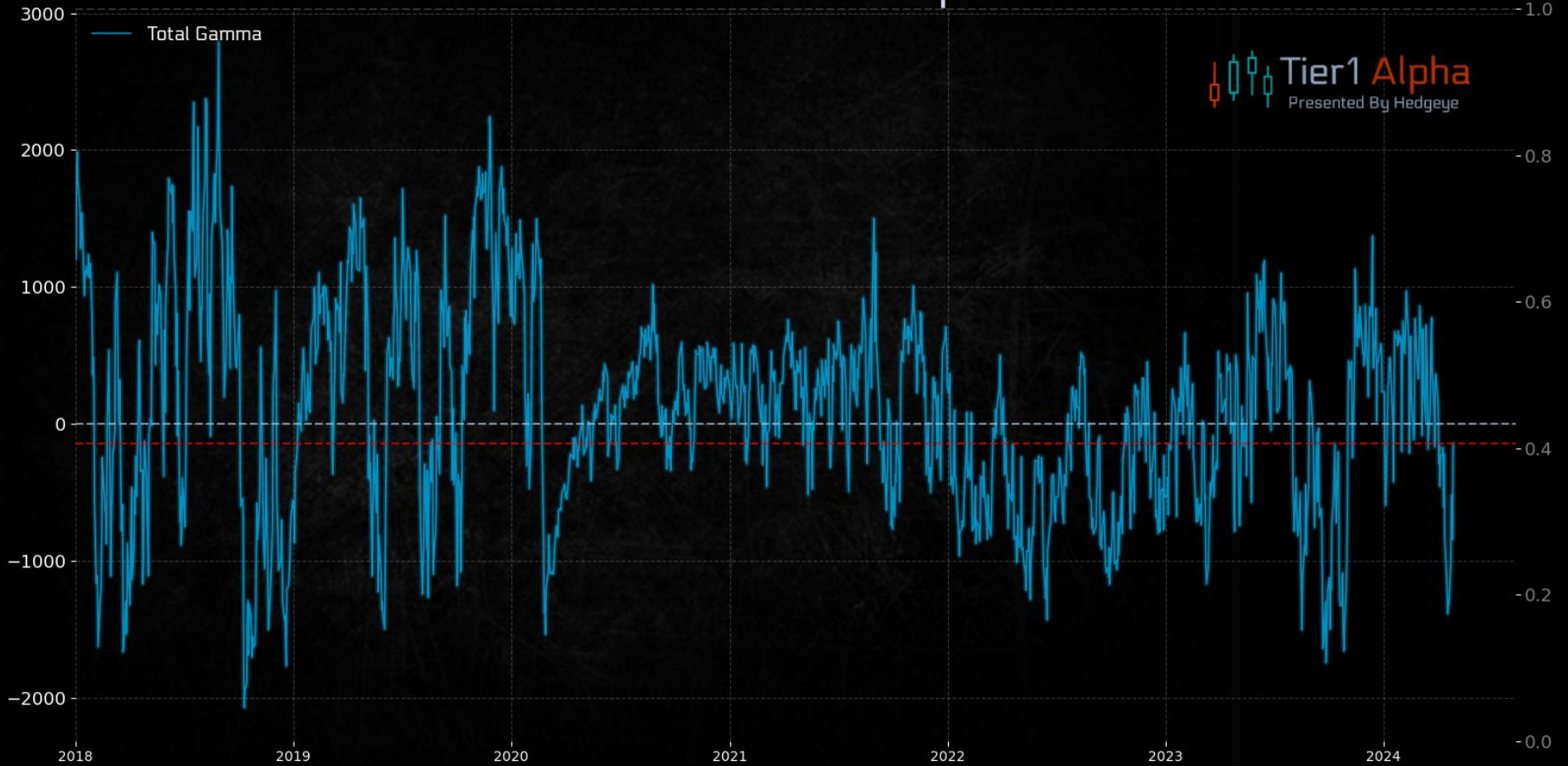
# SPX Probable Volatility & Put/Call Gamma By Strike, Weighted Expirations



# S&P 500 (SPX) Estimated Dealer Gamma Exposure - Weighted Expirations



# SPX Total Gamma Exposure

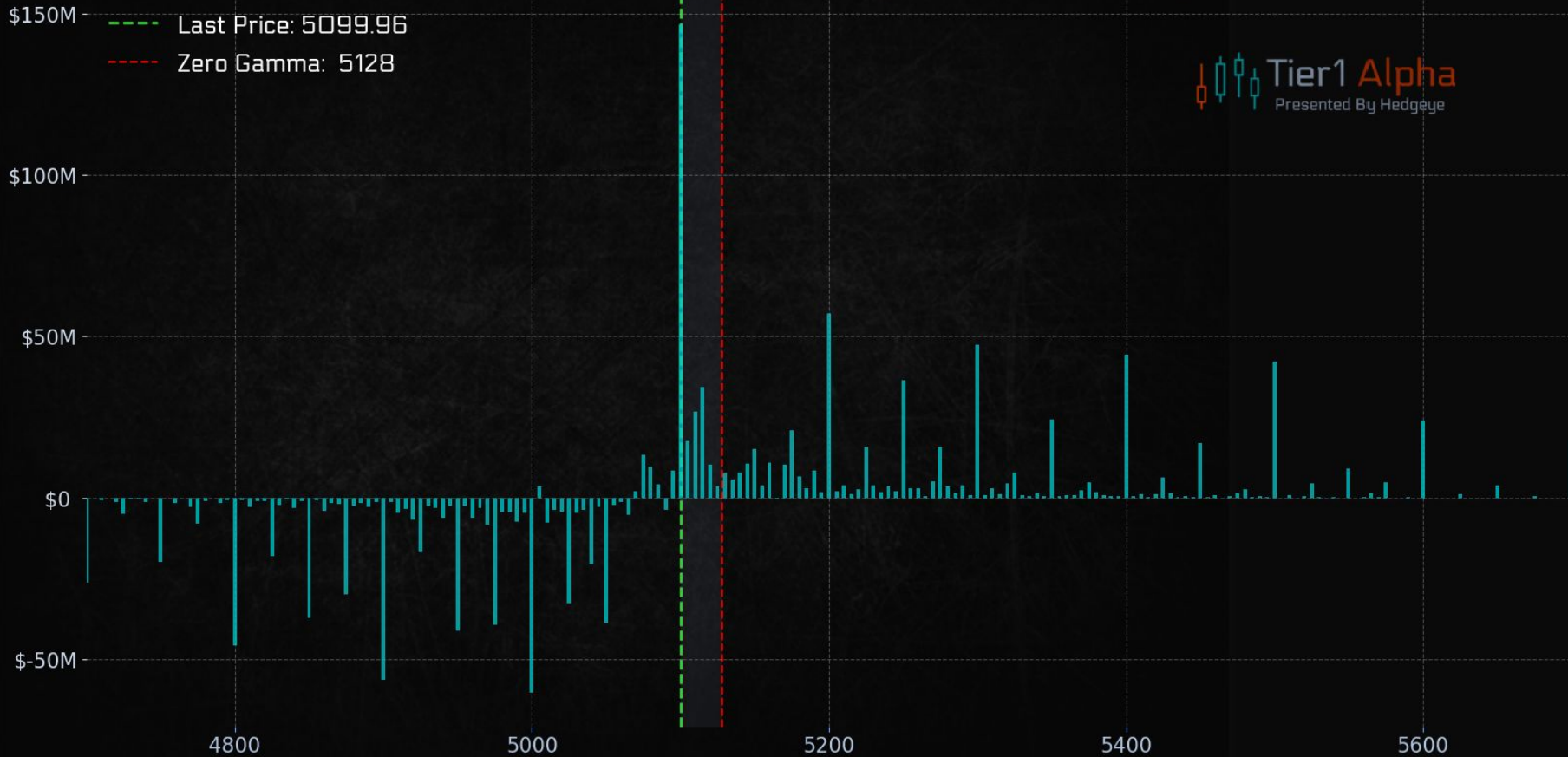


Date: 2024/04/26

Source: Tier1Alpha.com



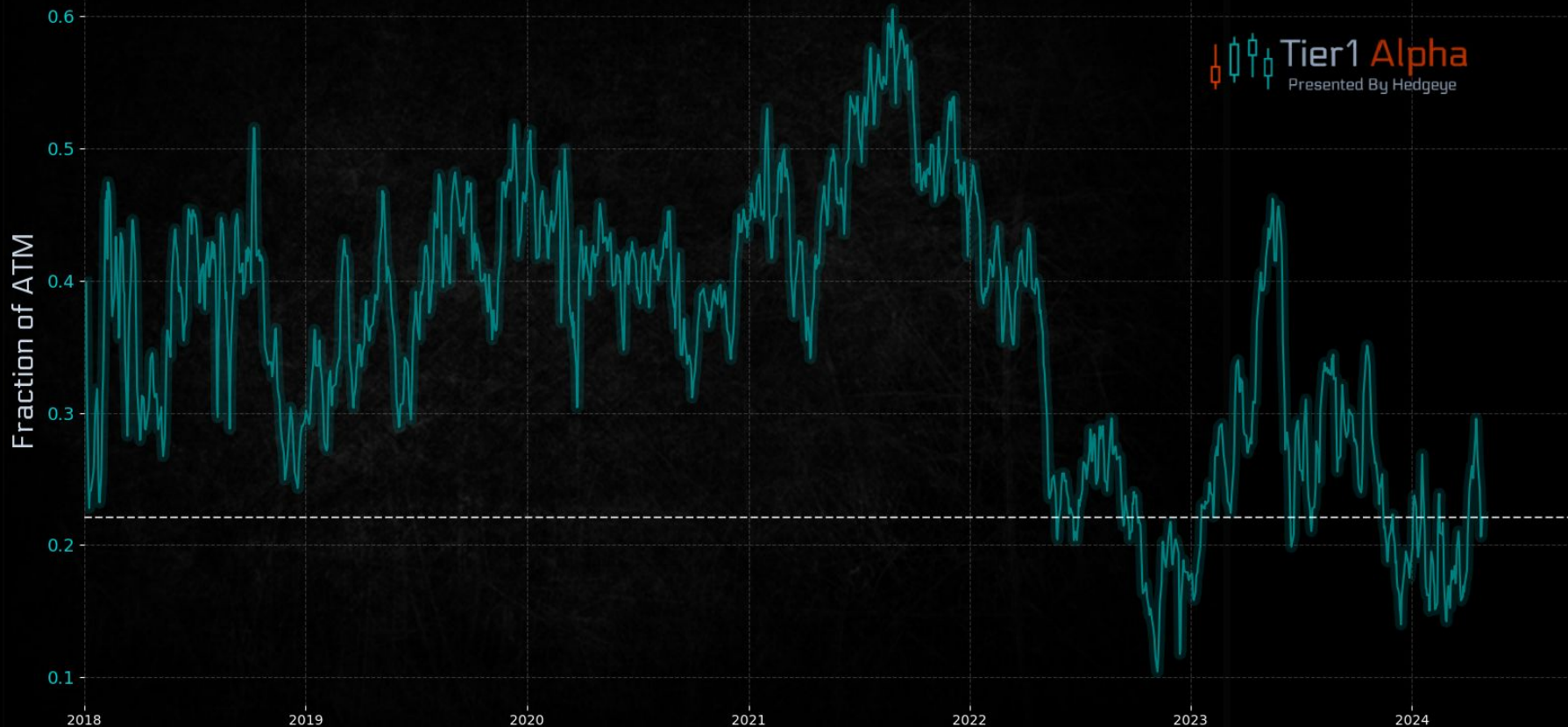
# SPX Total Gamma Exposure By Strike -- All Expirations



Date: 2024/04/26

Source: Intrinsic/Tier1Alpha.com

# 1-Month 25-Delta Put vs 25-Delta Call Implied Volatility Skew, Normalized

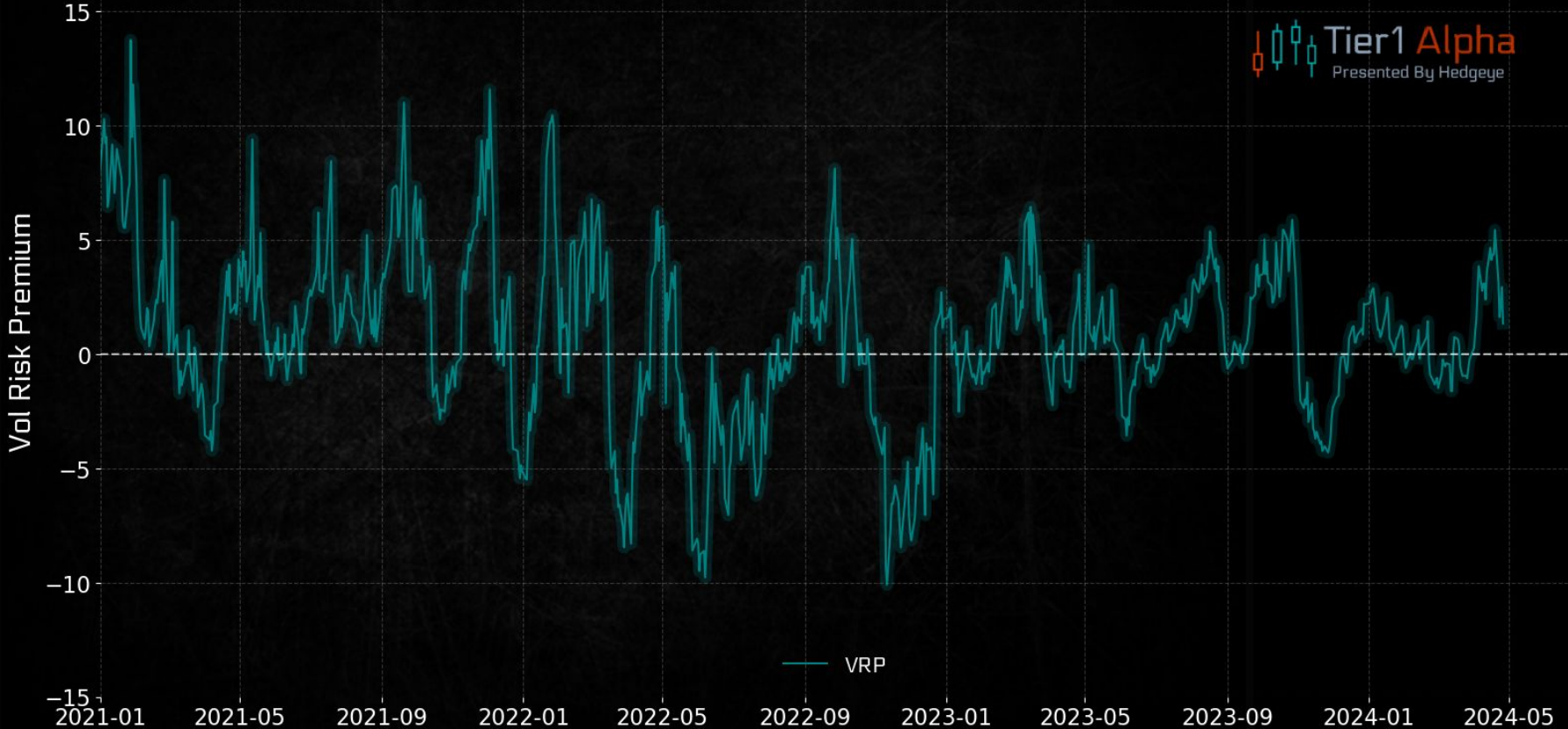


Tier1 Alpha  
Presented By Hedgeye

Date: 2024/04/28

Source: Tier1Alpha.com

# SPX Volatility Risk Premium: 1m ATM Implied Vol vs 1m Realized Vol

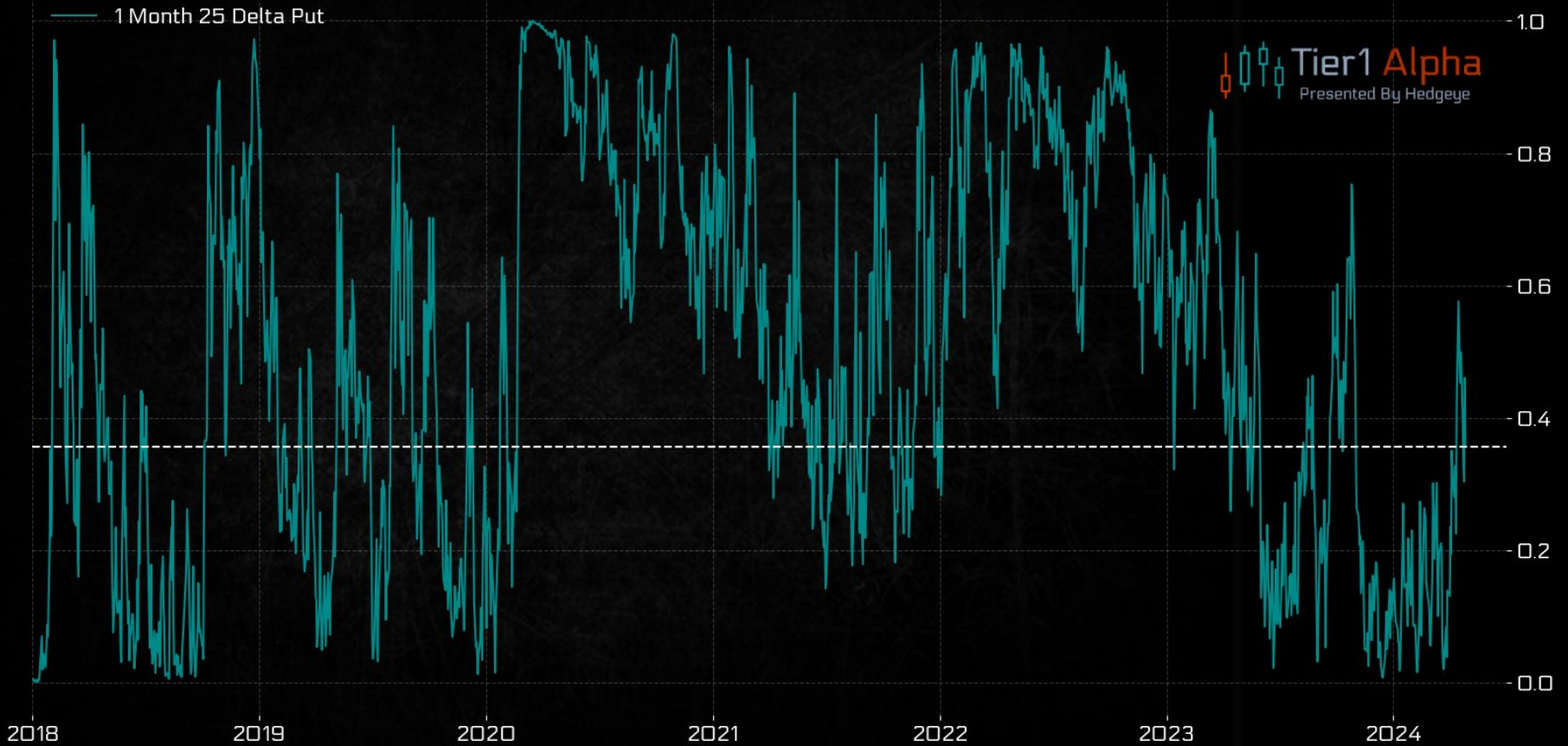


Tier1 Alpha  
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Date: 2024/04/28

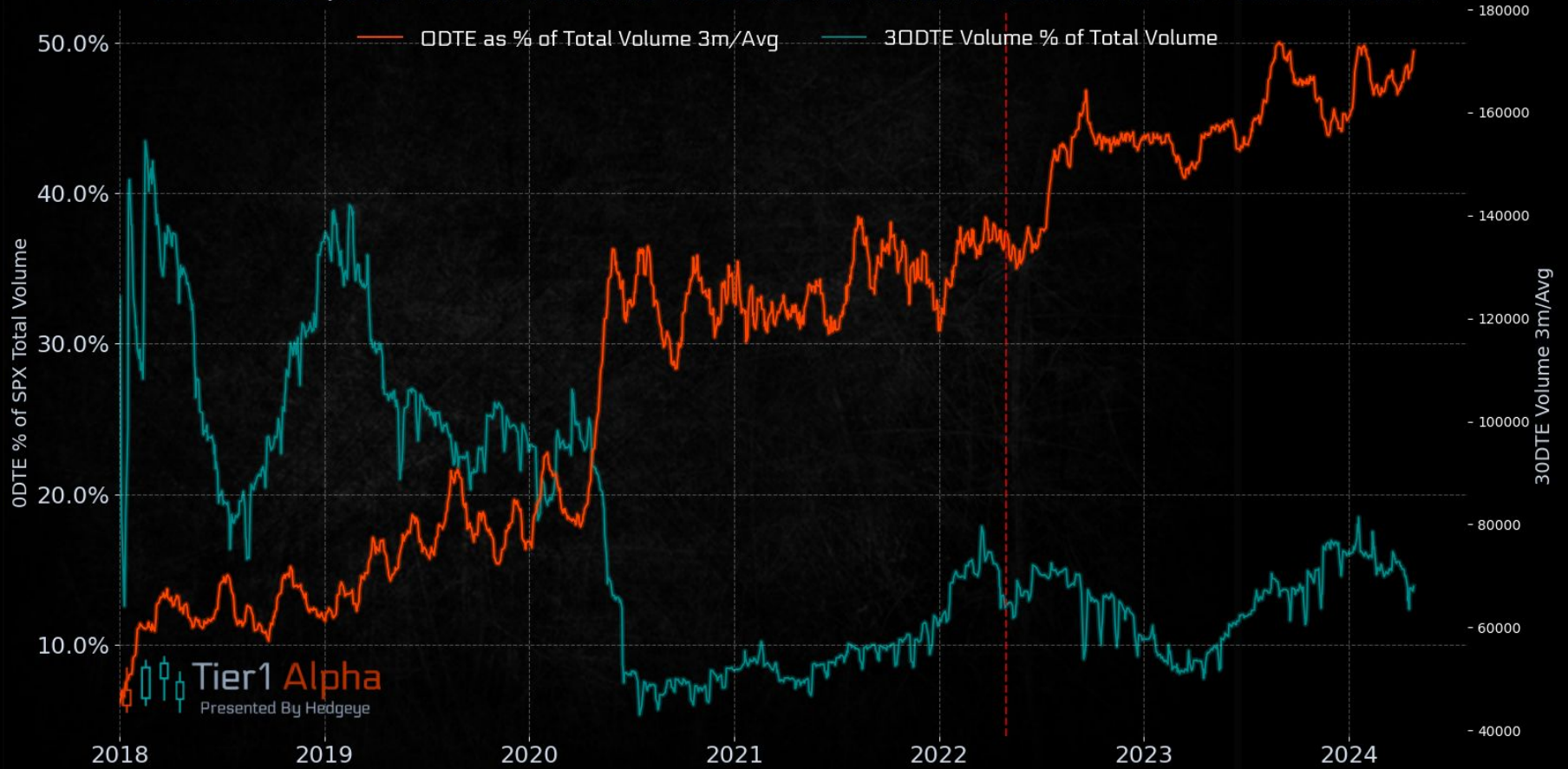
Source: Tier1Alpha.com

# Rolling Cost of 1 Month 25 Delta Put Options Percentile Rank



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# ODTE as % of Total Volume vs 30DTE Volume Used In VIX Calculation



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Date: 2024/04/29

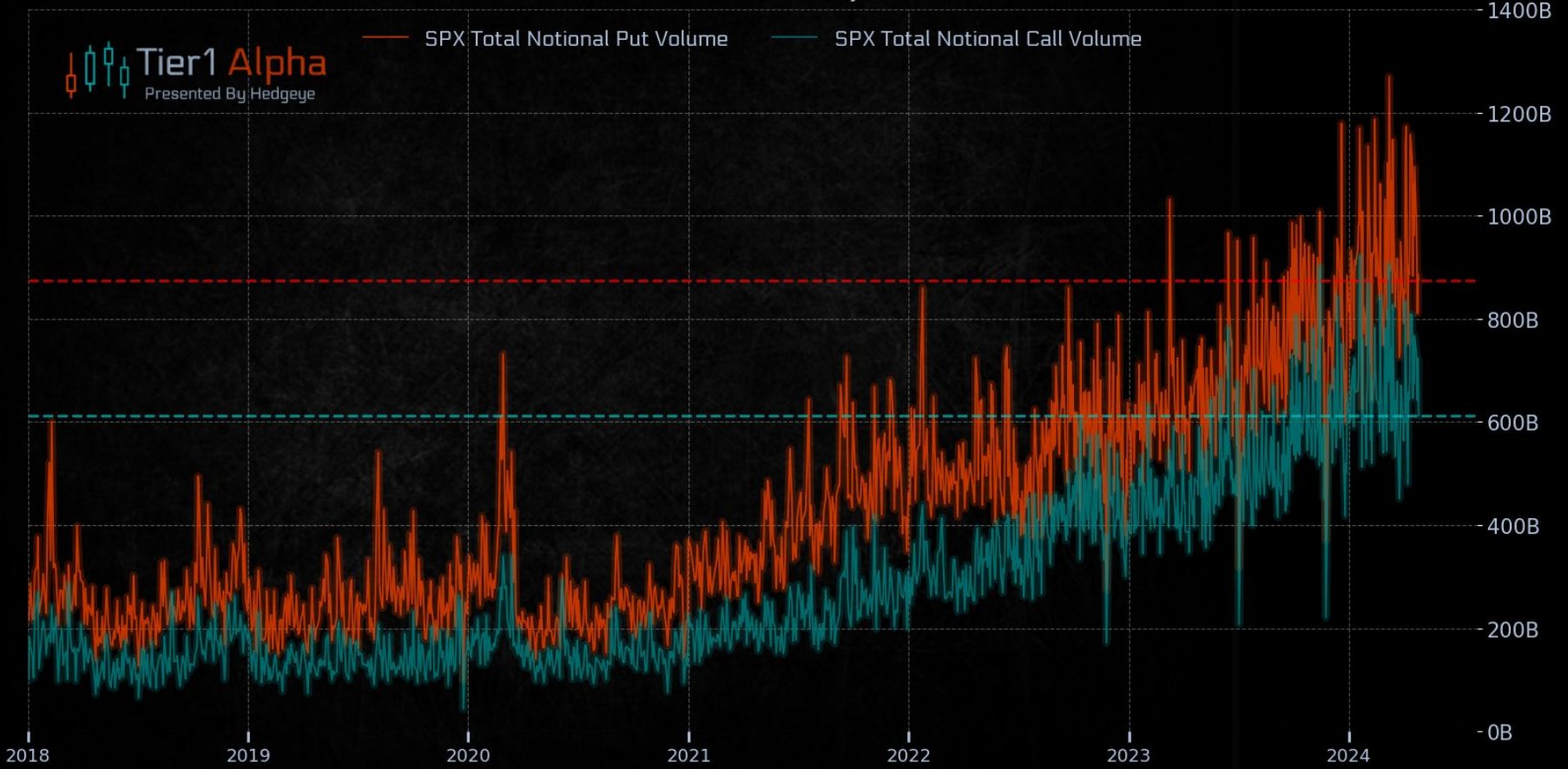
\*Not Investment Advice

Source: Tier1Alpha.com

# SPX Total Notional Put/ Call Volume

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— SPX Total Notional Put Volume — SPX Total Notional Call Volume



Date: 2024/04/29

\*Not Investment Advice

Source: Tier1Alpha.com

# Nasdaq 100 (NDX) Probable Volatility & Put/Call Gamma By Strike, Weighted Expirations



Date: 2024/04/26

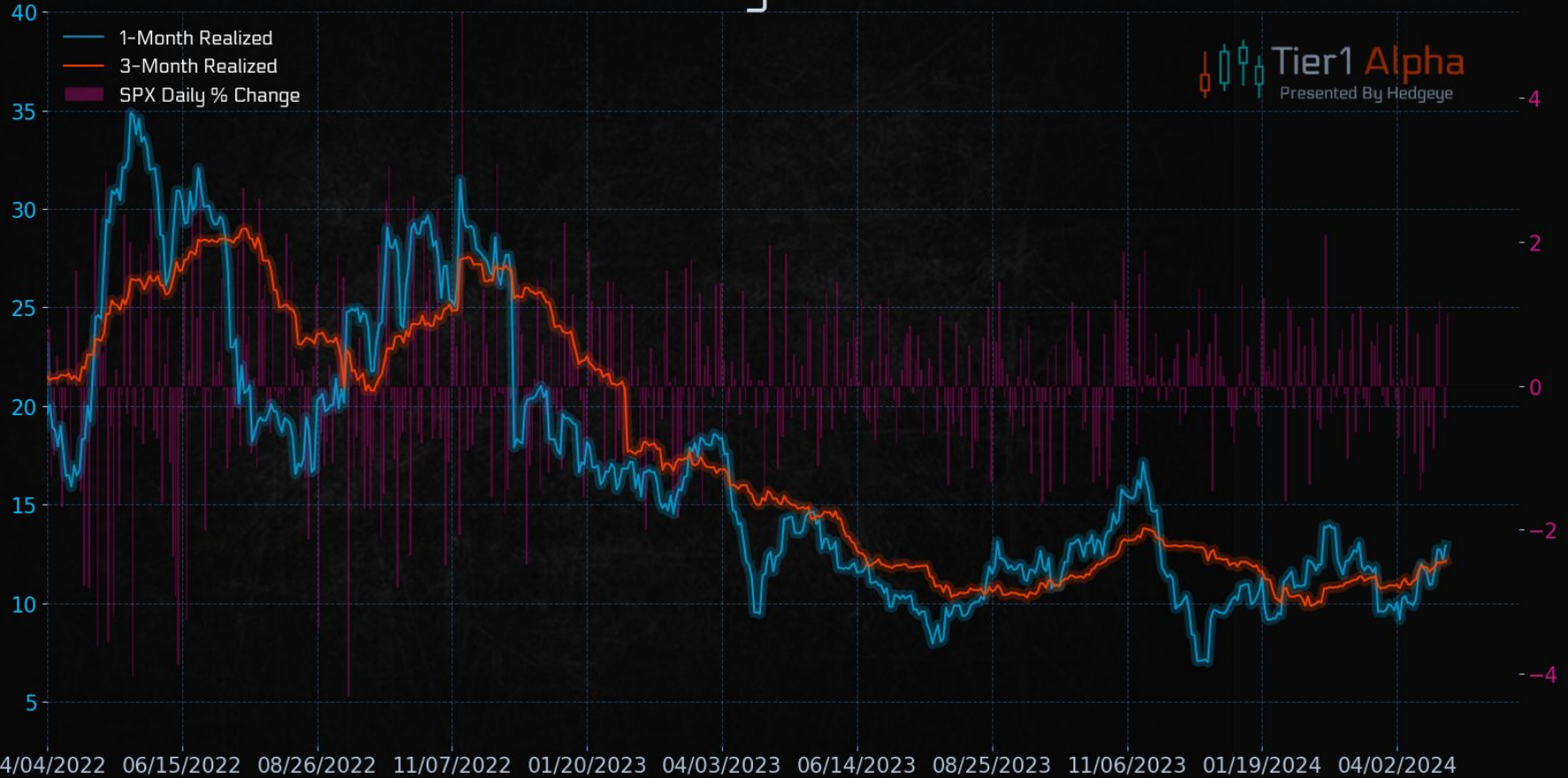
Source: Intrinio/ Tier1Alpha.com

# Russell 2000 Probable Volatility & Put/Call Gamma By Strike, Weighted Expirations





# SPX Realized Volatility -- 1 Month vs 3 Month



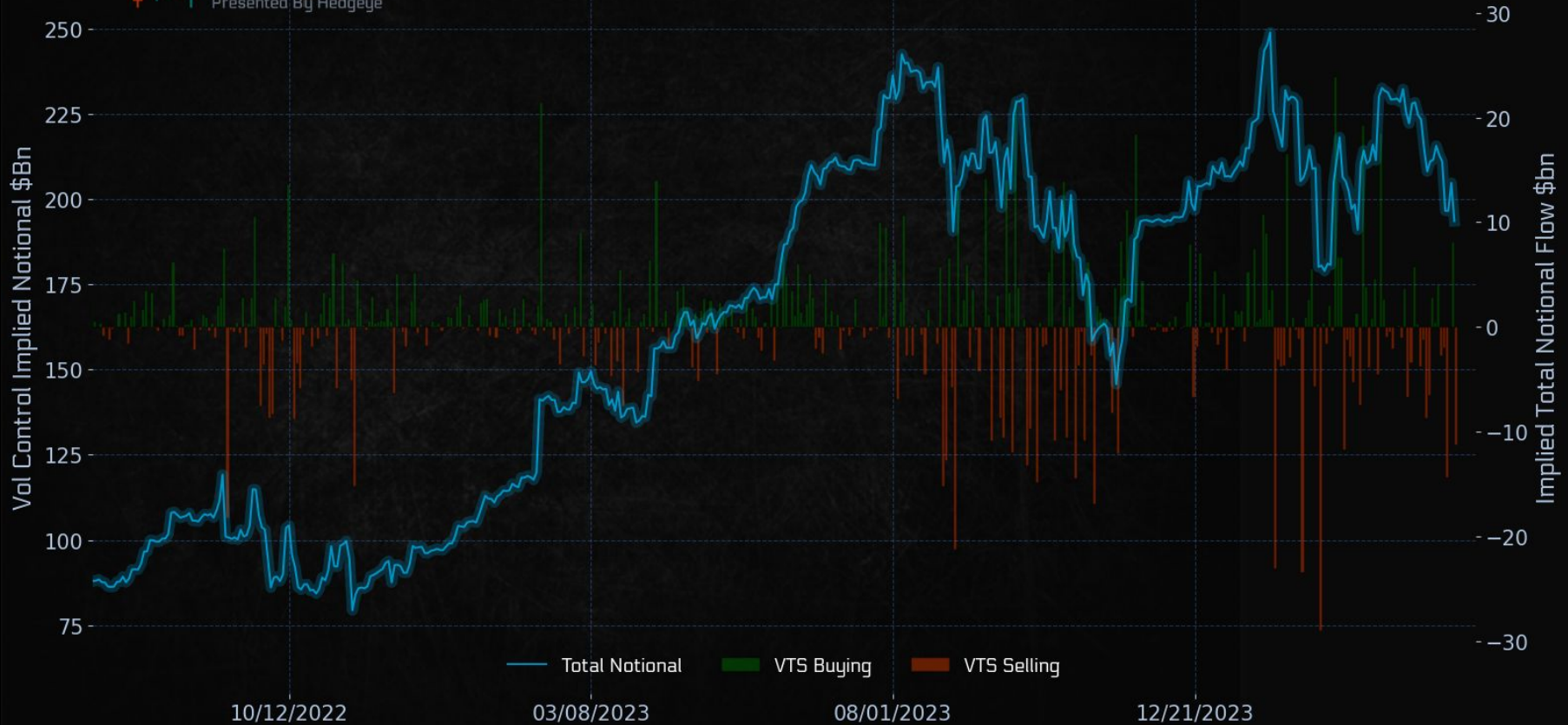
Tier1 Alpha  
Presented By Hedgeye

Date: 2024/04/26

Source: Tier1Alpha.com

# Vol Control Implied Notional Flows

Tier1 Alpha  
Presented By Hedgeye



Date: 2024/04/26

Source: Tier1Alpha.com

# Systematic Positioning Index Vs. SPX

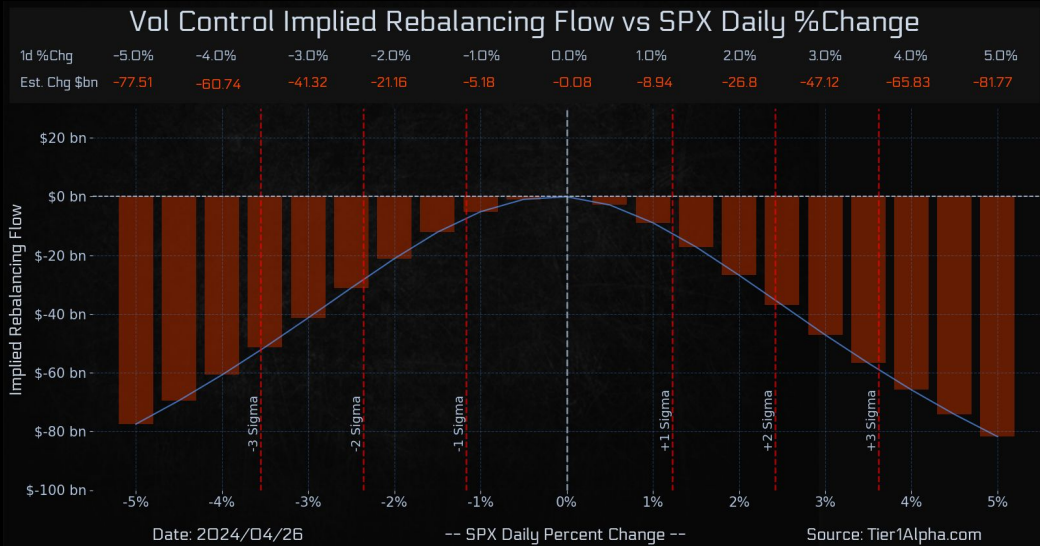


Date: 2024/04/26

Source: Tier1Alpha.com

### SPX Realized Vol Data In Sample for 2024-04-29

Dropoff	1m Dates	1m Drop %	3m Dates	3m Drop %
T+1	2024-04-01	-0.2%	2024-01-30	-0.1%
T+2	2024-04-02	-0.7%	2024-01-31	-1.6%
T+3	2024-04-03	0.1%	2024-02-01	1.2%
T+4	2024-04-04	-1.2%	2024-02-02	1.1%
T+5	2024-04-05	1.1%	2024-02-05	-0.3%
T+6	2024-04-08	-0.0%	2024-02-06	0.2%
T+7	2024-04-09	0.1%	2024-02-07	0.8%
T+8	2024-04-10	-1.0%	2024-02-08	0.1%
T+9	2024-04-11	0.7%	2024-02-09	0.6%
T+10	2024-04-12	-1.5%	2024-02-12	-0.1%

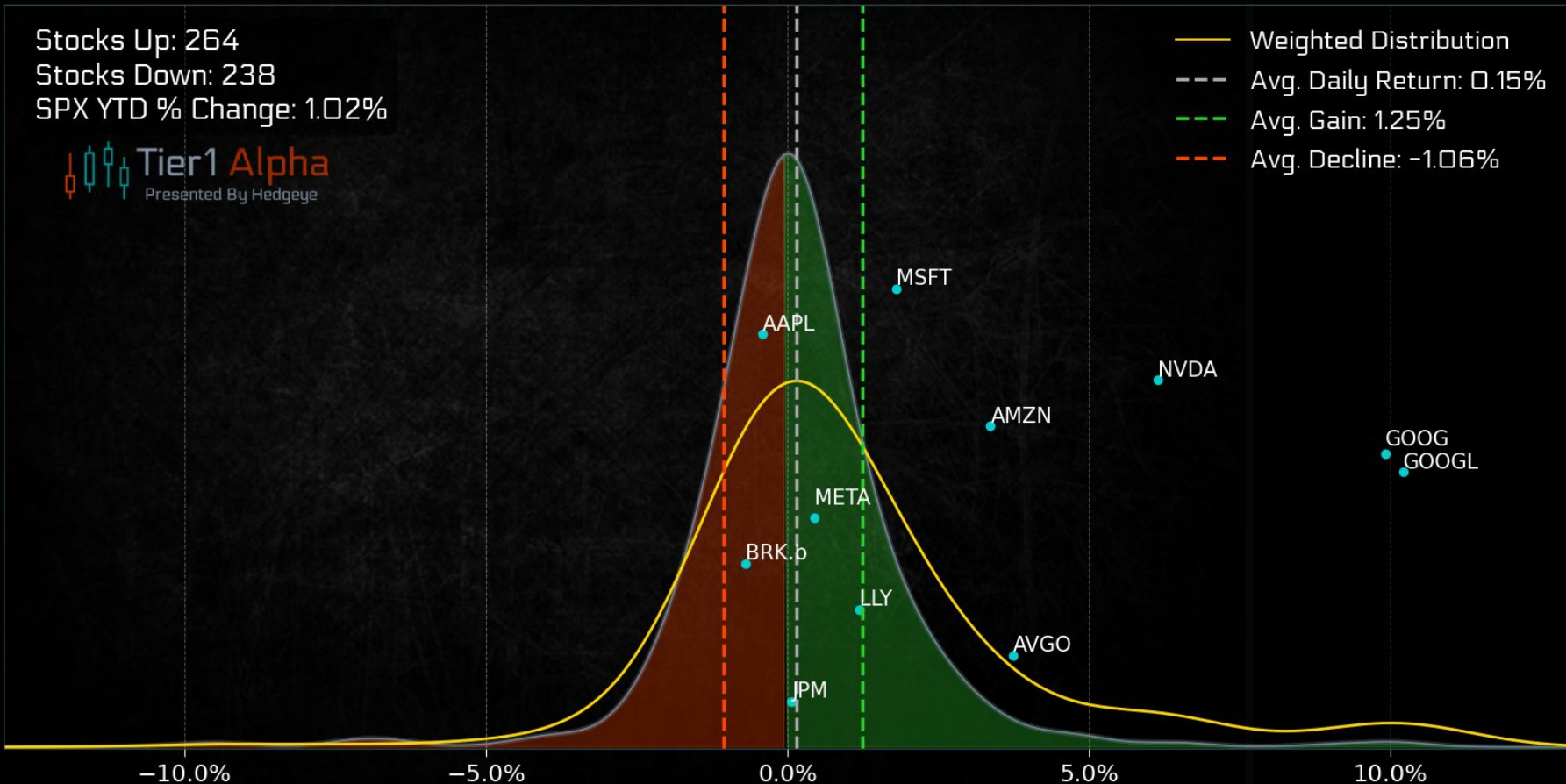


# S&P 500 MBAD Indicator for 2024/04/26

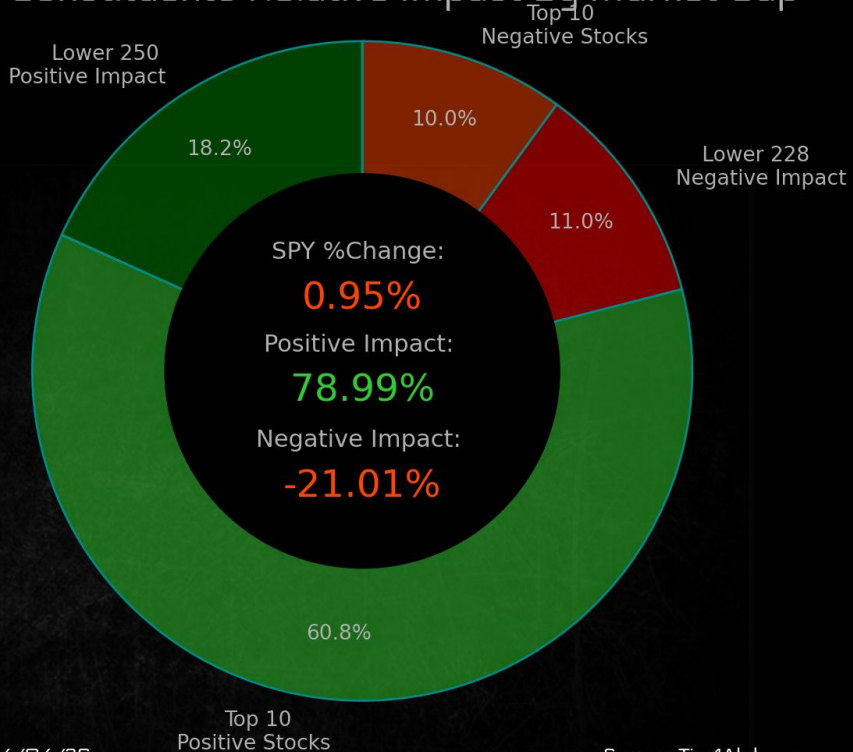
Stocks Up: 264  
Stocks Down: 238  
SPX YTD % Change: 1.02%



- Weighted Distribution
- - - Avg. Daily Return: 0.15%
- - - Avg. Gain: 1.25%
- - - Avg. Decline: -1.06%



# SPX Constituents Relative Impact By Market Cap



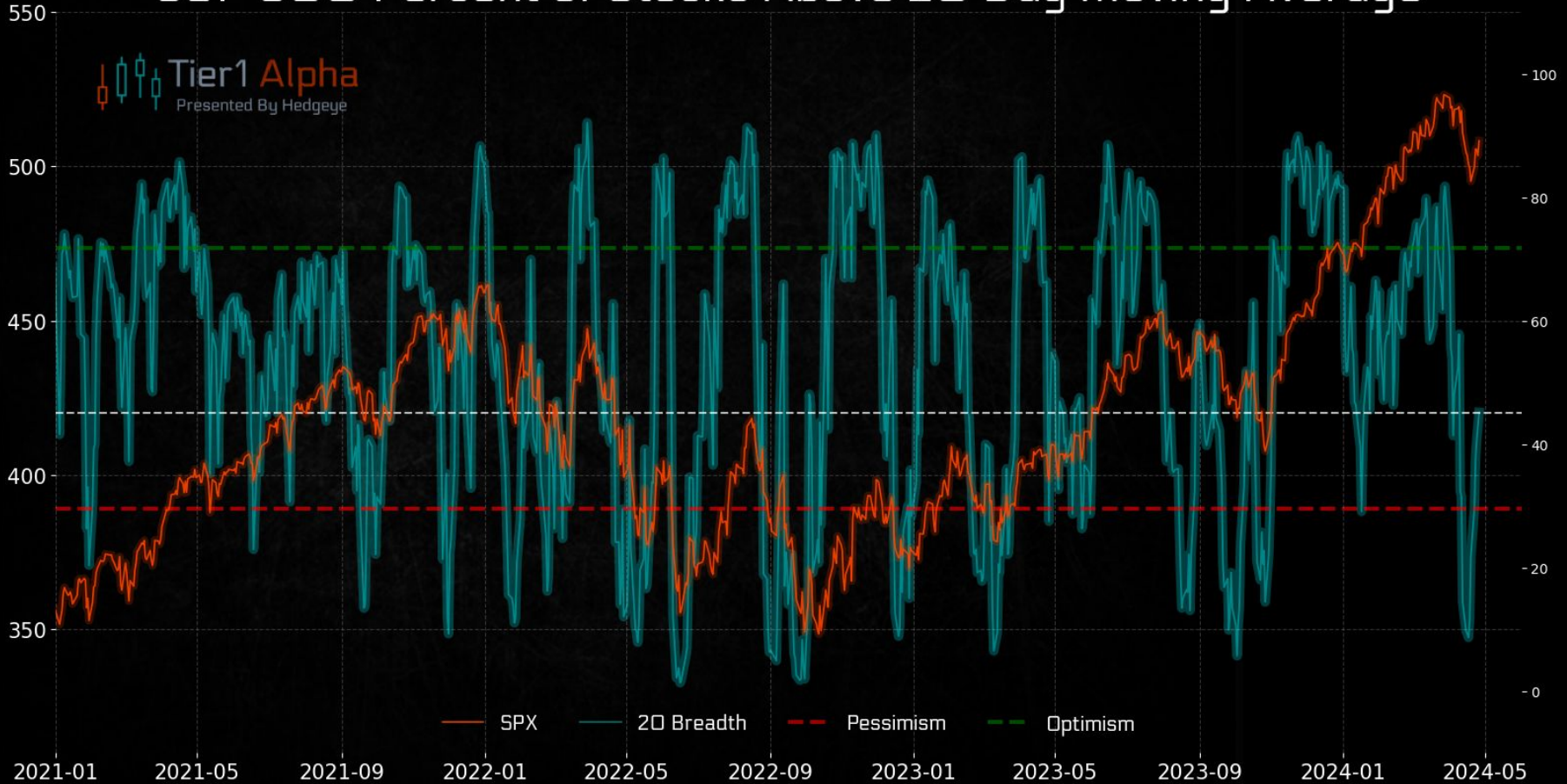
## SPX Constituents Relative Impact By Market Cap

Largest Positive Impact				Largest Negative Impact			
Top Contributor	Daily %Return	Positive Impact	% Weight	Top Detractor	Daily %Return.1	Negative Impact	% Weight.1
NVDA	6.2%	17.3%	4.97%	INTC	-9.2%	-1.8%	0.35%
GOOGL	10.2%	12.6%	2.19%	ABBV	-4.6%	-1.8%	0.69%
GOOG	9.9%	10.4%	1.85%	XOM	-2.8%	-1.8%	1.12%
AMZN	3.4%	7.4%	3.89%	AAPL	-0.4%	-1.3%	5.76%
MSFT	1.8%	7.3%	7.14%	BRK.B	-0.7%	-0.7%	1.73%
AVGO	3.7%	2.8%	1.32%	DXCM	-9.9%	-0.7%	0.12%
LLY	1.2%	0.9%	1.41%	TSLA	-1.1%	-0.6%	0.99%
AMD	2.3%	0.8%	0.6%	AON	-6.9%	-0.6%	0.15%
META	0.4%	0.7%	2.62%	PG	-0.8%	-0.4%	0.88%
RMD	18.9%	0.6%	0.06%	ODFL	-7.3%	-0.4%	0.09%

ate: 2024/04/26

Source: Tier1Alpha.com

# S&P 500 Percent of Stocks Above 20 Day Moving Average



Date: 2024/04/26

Source: IEX Cloud/ Tier1Alpha.com



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