



Market Structure Report

04-12-2024

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Summary:

- Dealers have pulled back into more favorable positioning, just shy of our gamma flipping point.
- As we've previously highlighted, the 5200 strike is likely the more critical level than the GEX flip at 5217, just based on the amount of open interest tied to that strike. In fact, on our total gamma by strike model, the 5200 strike actually shows quite a bit of positive gamma, which reinforces that this is the level to watch.
- That said, this positioning still presents a highly dynamic and patch-dependent setup.
- If SPX pushes higher, then we should see realized volatility start to compress, as dealers will be forced to sell into strength and buy into weakness in order to eliminate their directional exposure.
- On the other hand, a move lower will likely lead to some volatility expansion, as dealers will be forced to hedge their short gamma exposure by shorting futures into the decline.
- So far, this week has played out broadly as expected, as the 5150 strike acted as support on Wednesday, followed by a move back up to the 5200 strike.
- There has been a notable expansion in our probable volatility bands since last week, which now makes up just over a 100-point spread for SPX. Given SPX is right in the middle of our ranges, we don't have a strong directional bias either way, although we do expect the broader consolidation range to hold.
- Despite SPY gaining 0.75% yesterday, breadth was slightly negative at the close.
- This divergence was driven by one of the strongest examples of market cap distortion we've seen (second overall), where just ten companies were responsible for over 57% of the gains.
- Out of that, Apple, Nvidia, and Microsoft accounted for just under 30% of the bullish momentum, leaving the broader index in the dust.

Volatility Regime:

Low

Neutral

High

Flow Risk:

Bullish

Neutral

Bearish

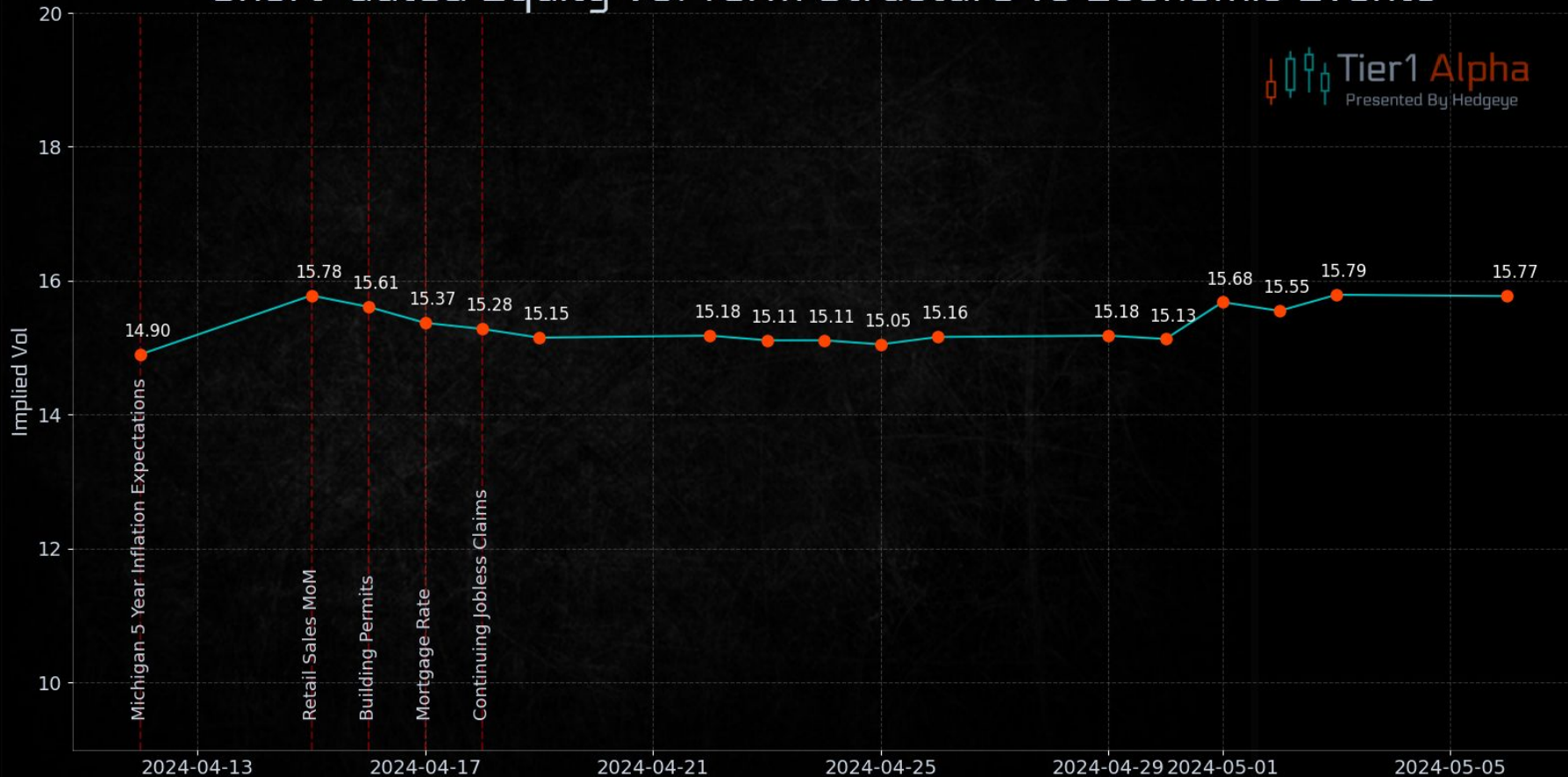
PV Band Risk/Reward:

Long

Neutral

Short

Short-dated Equity Vol Term Structure vs Economic Events



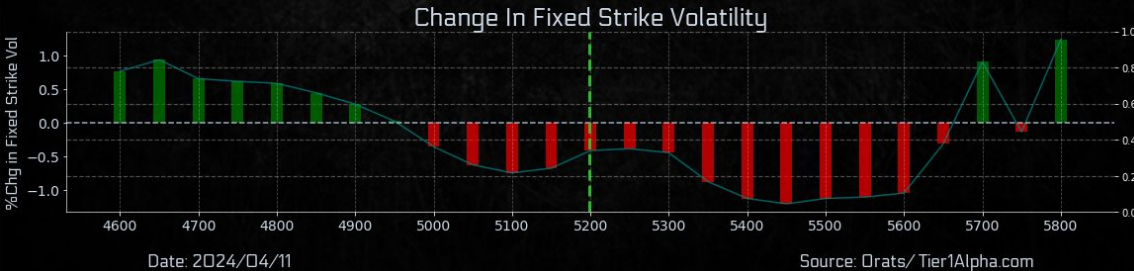
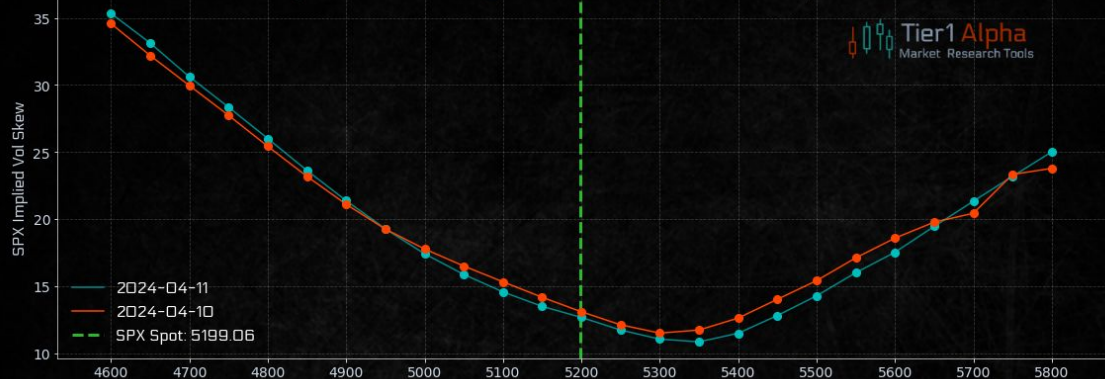
Date: 2024/04/11

Source: Drats/Tier1Alpha.com

Economic Event Calendar With Short-Dated Options Positioning

Date	Event	Estimate	Previous	Impact	Call IV	Put IV	SPX IV	Expected Move	P/C Vol	P/C OI
2024-04-12	Michigan 5 Year Inflation Expectations	--	2.8	low	15.19	14.96	15.08	+/- 0.78%	1.03	2.56
2024-04-12	Consumer Confidence	79.0	79.4	high	15.19	14.96	15.08	+/- 0.78%	1.03	2.56
2024-04-15	Retail Sales MoM	0.3	0.6	high	16.45	15.78	16.12	+/- 1.19%	1.65	3.03
2024-04-16	Building Permits	1.514	1.524	high	16.28	15.27	15.77	+/- 1.43%	1.69	2.85
2024-04-17	Mortgage Rate	--	7.01	low	16.15	14.91	15.53	+/- 1.62%	1.47	2.55
2024-04-17	Mortgage Applications	--	0.1	low	16.15	14.91	15.53	+/- 1.62%	1.47	2.55
2024-04-17	MBA Mortgage Refinance Index	--	498.3	low	16.15	14.91	15.53	+/- 1.62%	1.47	2.55
2024-04-17	MBA Purchase Index	--	138.7	low	16.15	14.91	15.53	+/- 1.62%	1.47	2.55
2024-04-18	Continuing Jobless Claims	--	--	low	16.45	14.45	15.45	+/- 1.8%	1.02	2.92
2024-04-18	Initial Jobless Claims	--	--	medium	16.45	14.45	15.45	+/- 1.8%	1.02	2.92
2024-04-18	Philly Fed Employment	--	-9.6	low	16.45	14.45	15.45	+/- 1.8%	1.02	2.92
2024-04-18	Philly Fed New Orders	--	5.4	low	16.45	14.45	15.45	+/- 1.8%	1.02	2.92

SPX Implied Volatility Skew -- OpEx: Fri Apr 19 2024



Date: 2024/04/11

Source: Drats / Tier1Alpha.com

SPX Implied Volatility with Fixed Strike Vol

Expiration	Fri Apr 19 2024		Fri May 17 2024		Fri Jun 21 2024	
	Strike	Implied Vol	FSV Change	Implied Vol	FSV Change	Implied Vol
4700.0	30.61	0.65	19.8	-0.41	19.46	-0.36
4750.0	28.35	0.61	18.94	-0.4	18.79	-0.34
4800.0	26.01	0.58	18.07	-0.41	18.13	-0.33
4850.0	23.63	0.44	17.22	-0.43	17.47	-0.31
4900.0	21.38	0.27	16.47	-0.39	16.82	-0.31
4950.0	19.28	0.02	15.71	-0.39	16.19	-0.3
5000.0	17.42	-0.36	14.98	-0.38	15.59	-0.27
5050.0	15.88	-0.63	14.3	-0.36	14.99	-0.28
5100.0	14.58	-0.75	13.64	-0.34	14.43	-0.25
5150.0	13.5	-0.68	13.08	-0.24	13.9	-0.23
5200.0	12.68	-0.42	12.52	-0.2	13.43	-0.18
5250.0	11.74	-0.39	12.0	-0.2	12.97	-0.16
5300.0	11.06	-0.45	11.59	-0.17	12.55	-0.14
5350.0	10.86	-0.88	11.24	-0.18	12.18	-0.12
5400.0	11.5	-1.13	11.0	-0.22	11.85	-0.11
5450.0	12.82	-1.21	10.89	-0.26	11.56	-0.11
5500.0	14.29	-1.13	10.9	-0.28	11.31	-0.12
5550.0	16.01	-1.11	11.06	-0.33	11.12	-0.16
5600.0	17.54	-1.05	11.34	-0.32	10.98	-0.18
5650.0	19.46	-0.32	11.83	-0.28	10.91	-0.2
5700.0	21.34	0.9	12.23	-0.3	10.9	-0.25

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



Strikes In Play

5150.0
5175.0
5200.0
5225.0
5250.0



Positive Gamma Negative Gamma Zero Gamma: 5217 Lower PV Band: 5122.0 Upper PV Band: 5263.0

03/14/2024

03/21/2024

03/28/2024

04/05/2024

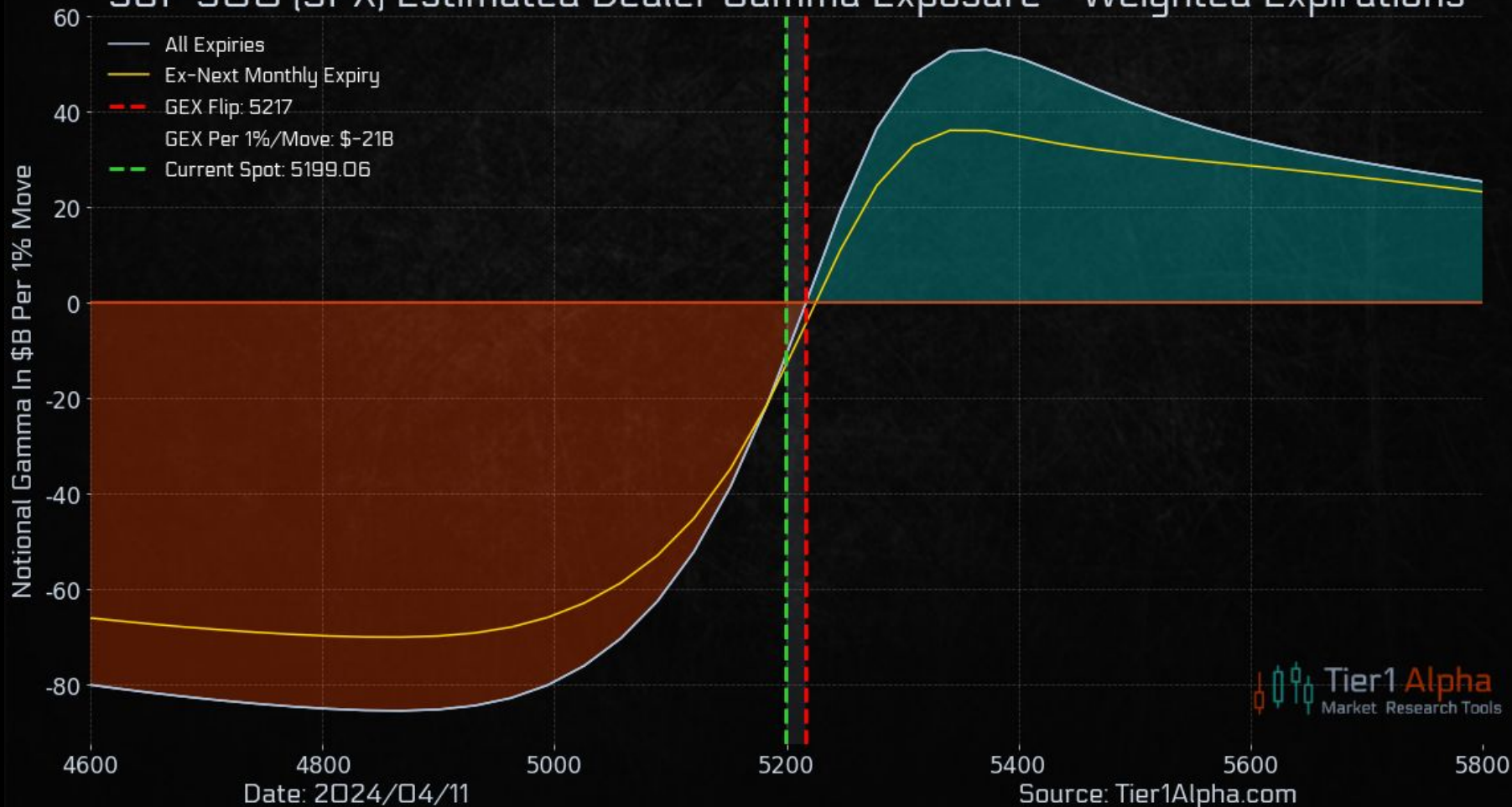
04/12/2024

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Date: 2024/04/11

Source: Intrinio/Tier1Alpha.com

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



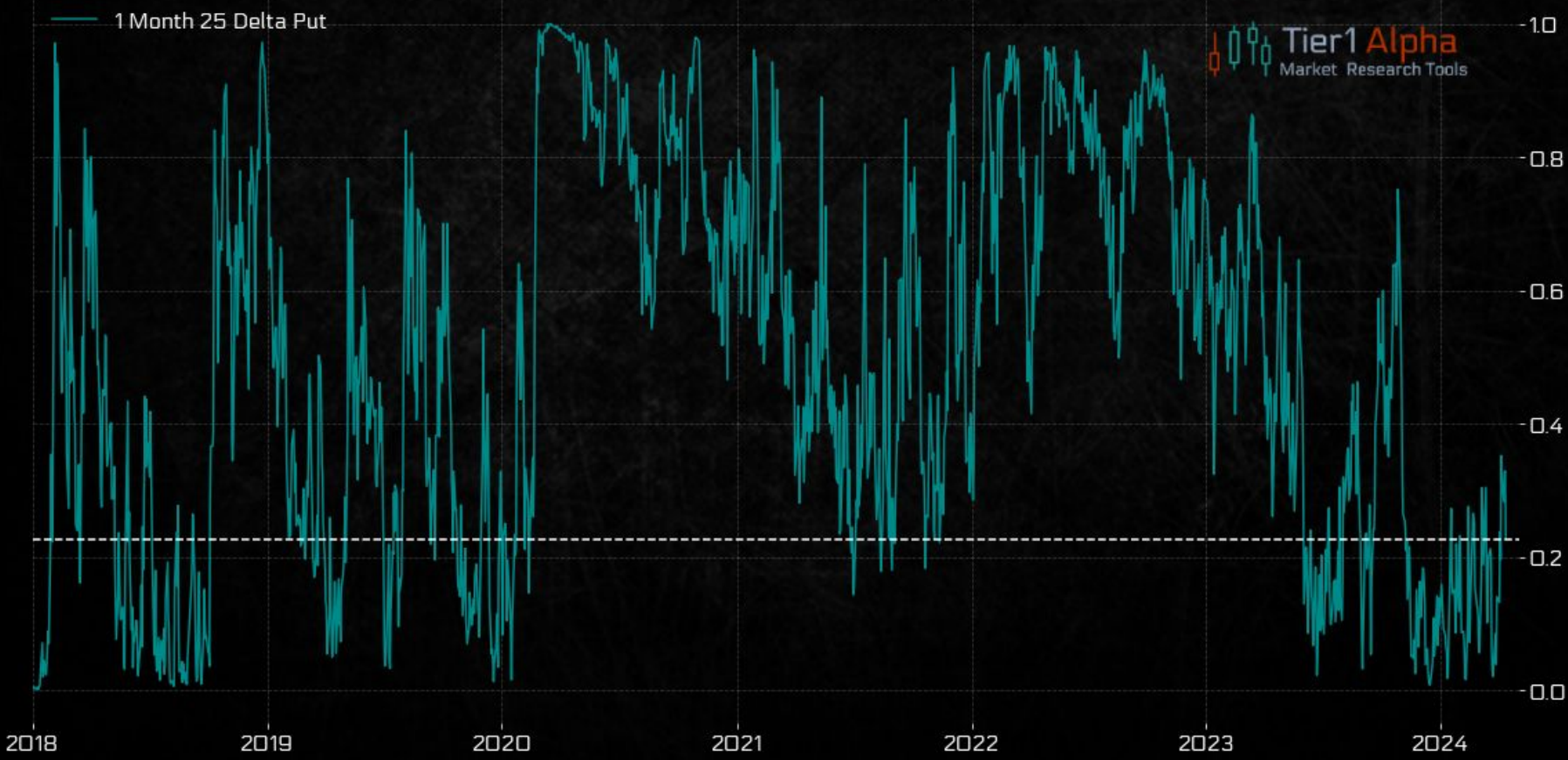
SPX Total Gamma Exposure By Strike -- Weighted Expirations



Date: 2024/04/11

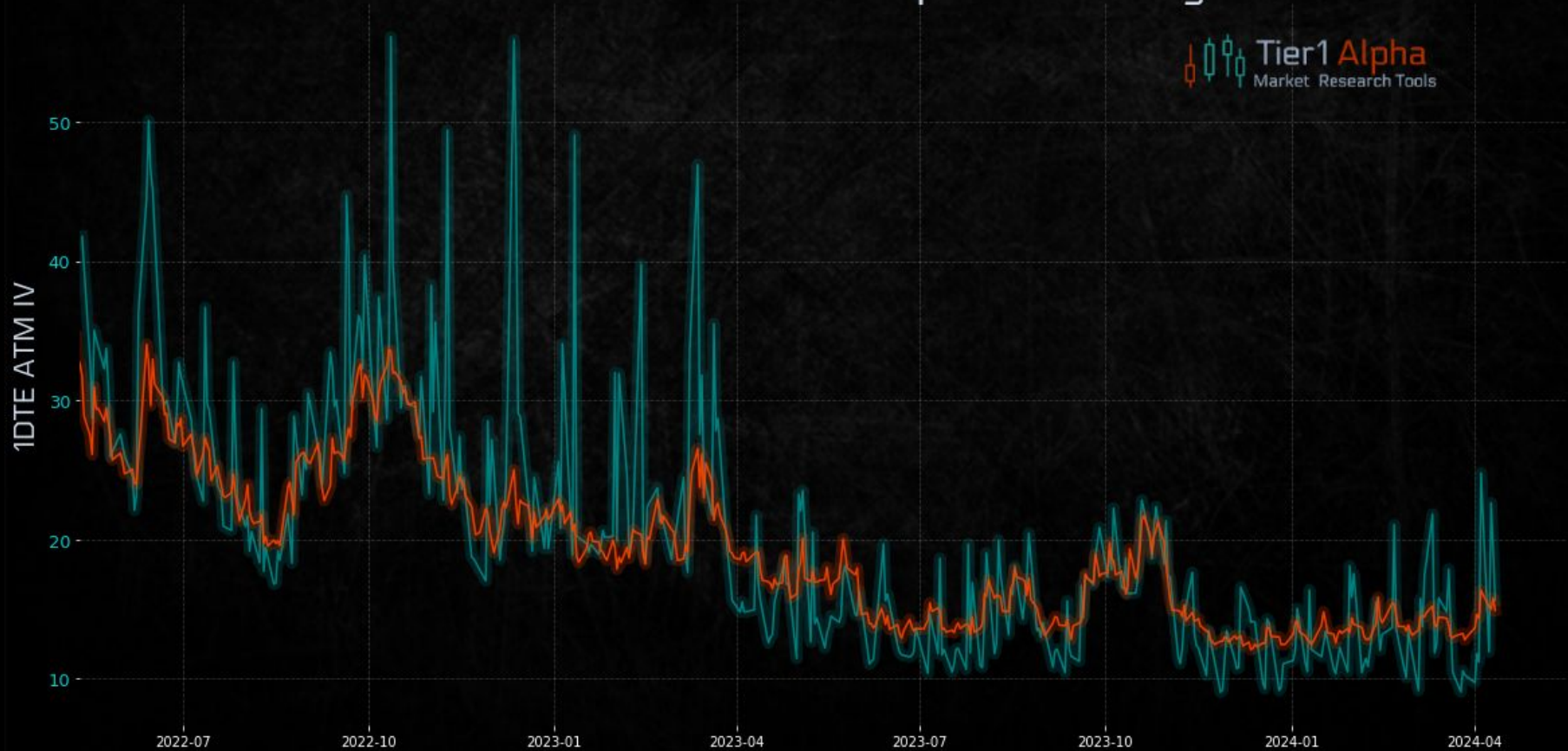
Source: Intrinsic / Tier1Alpha.com

Rolling Cost of 1 Month 25 Delta Put Options Percentile Rank



SPX 1DTE 50-Delta Implied Volatility

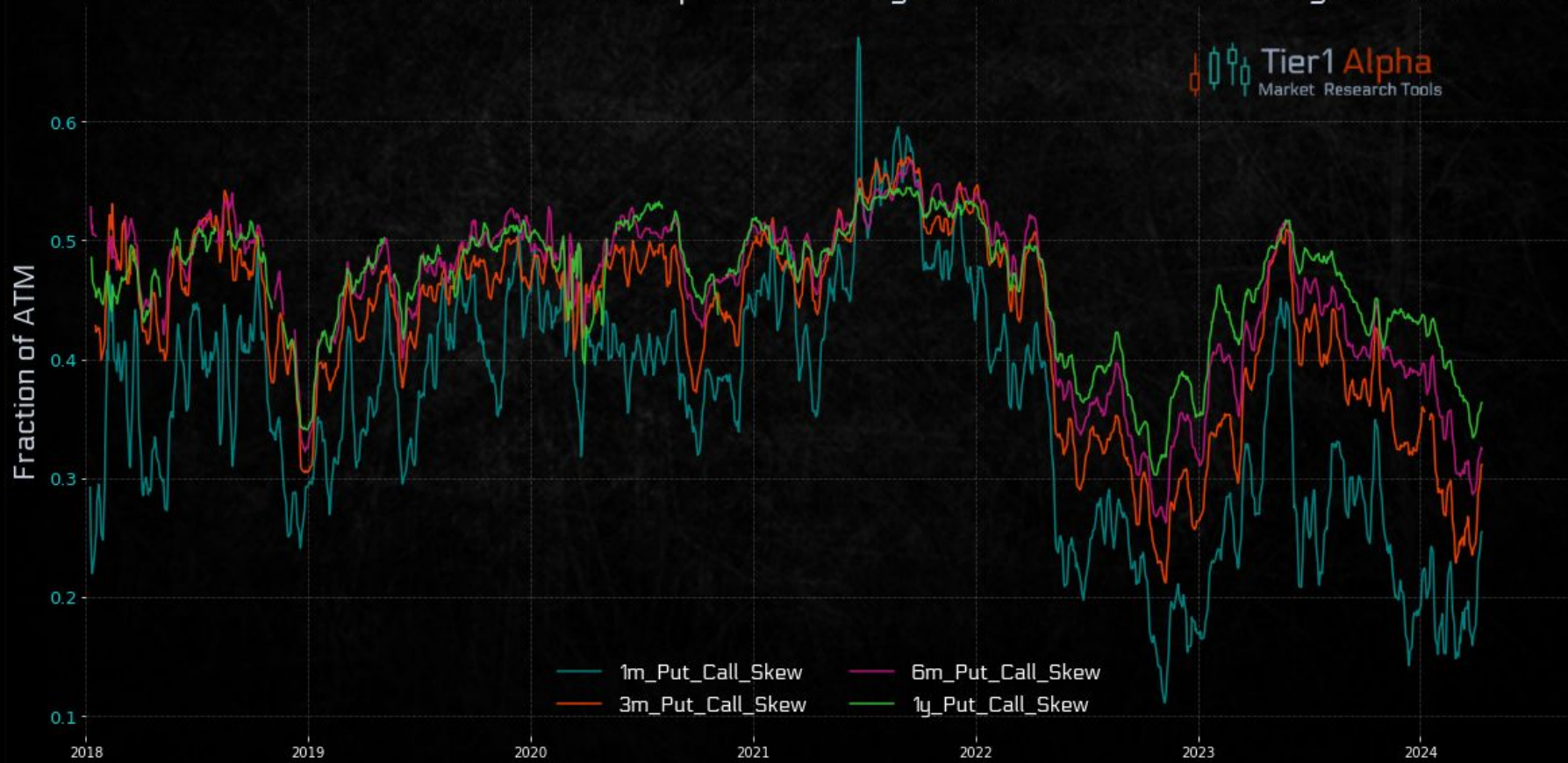
Tier1 Alpha
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Source: Tier1Alpha.com

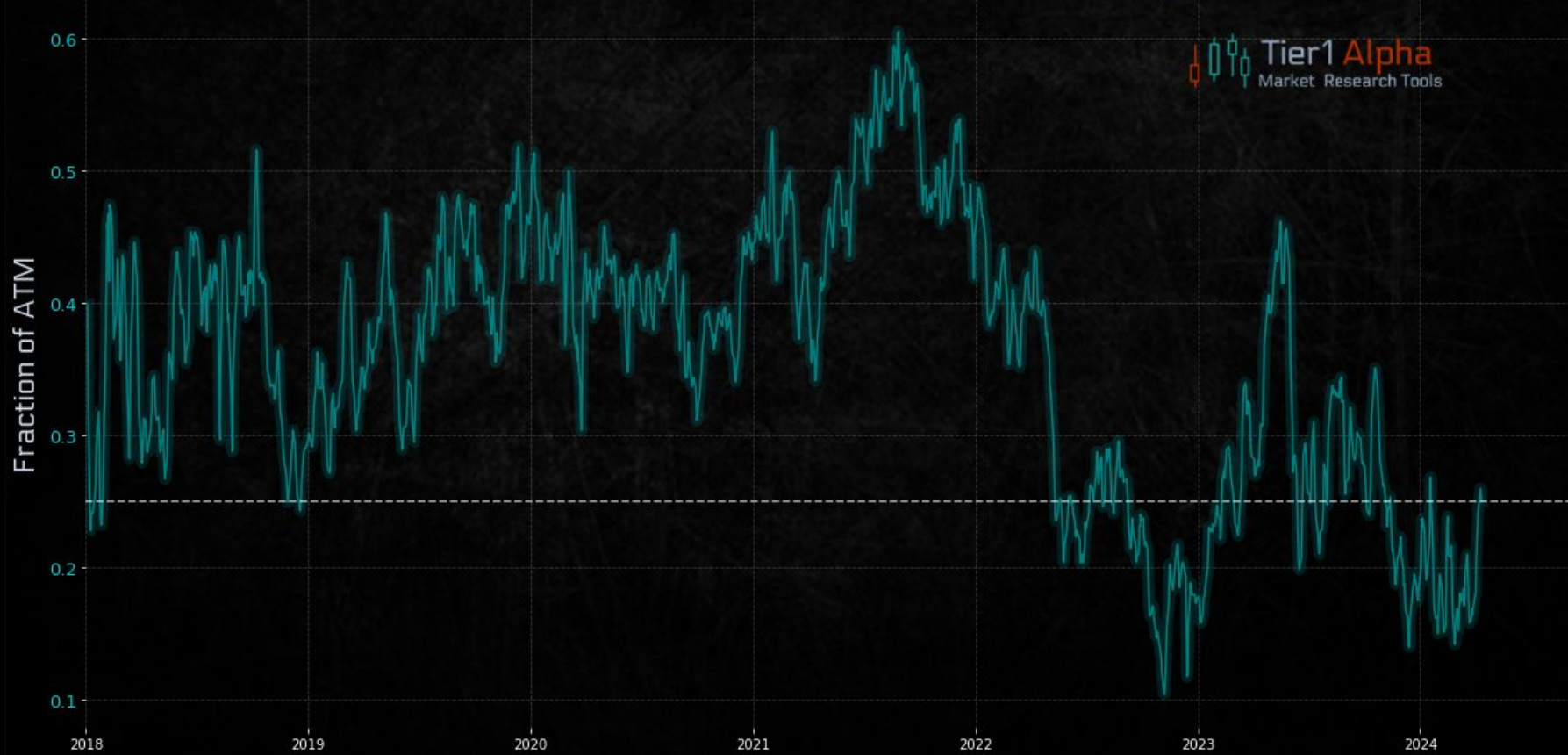
25-Delta Put vs 25-Delta Call Implied Volatility Skew, Constant Maturity, Normalized



Date: 2024/04/11

Source: Tier1Alpha.com

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



Date: 2024/04/11

Source: Tier1Alpha.com

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



Date: 2024/04/11

Source: Intrinio/ Tier1Alpha.com

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



Strikes In Play

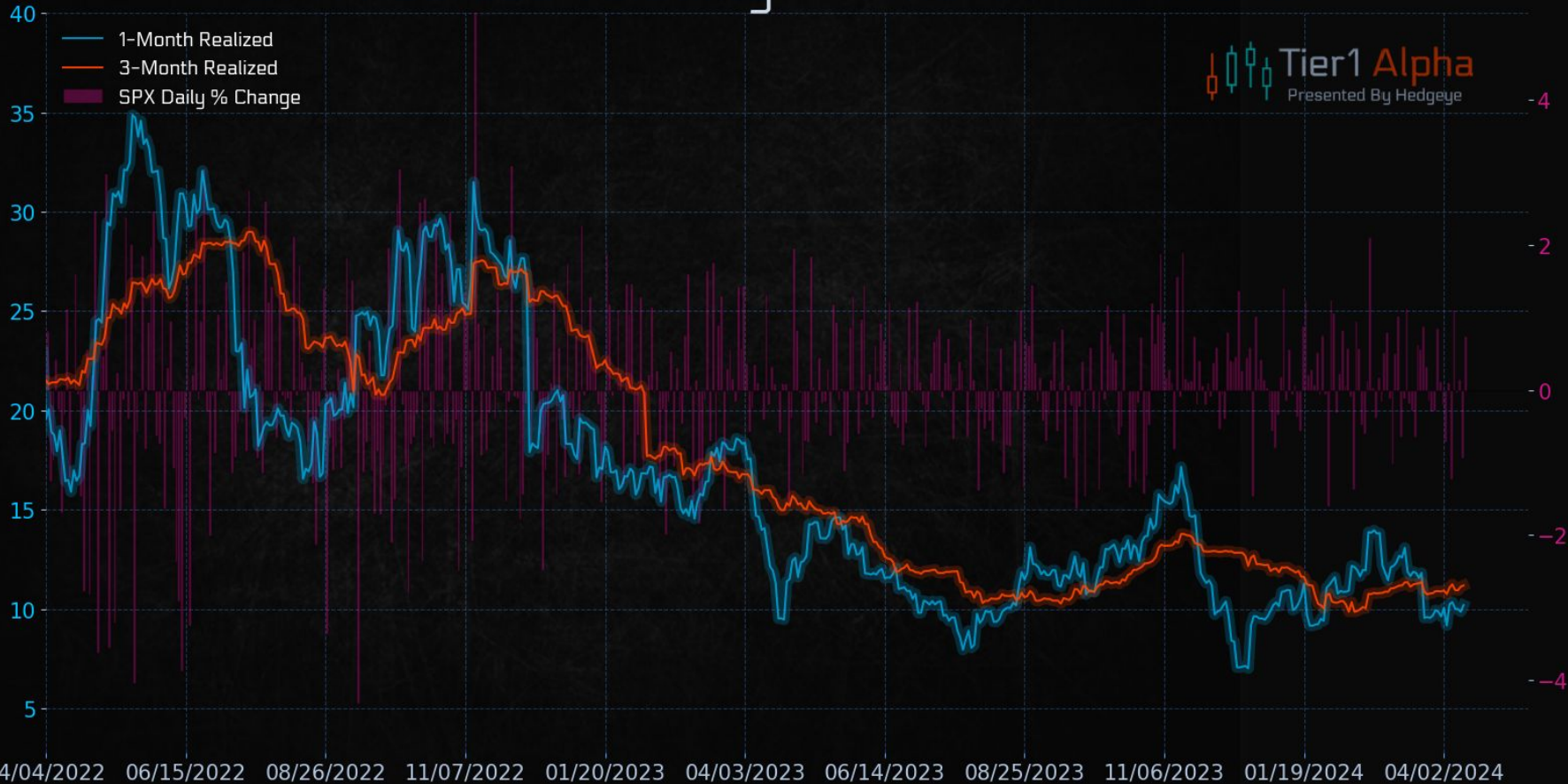
- 2025.0
- 2040.0
- 2050.0
- 2070.0
- 2080.0



Date: 2024/04/11

Source: Intrinio/Tier1Alpha.com

SPX Realized Volatility -- 1 Month vs 3 Month



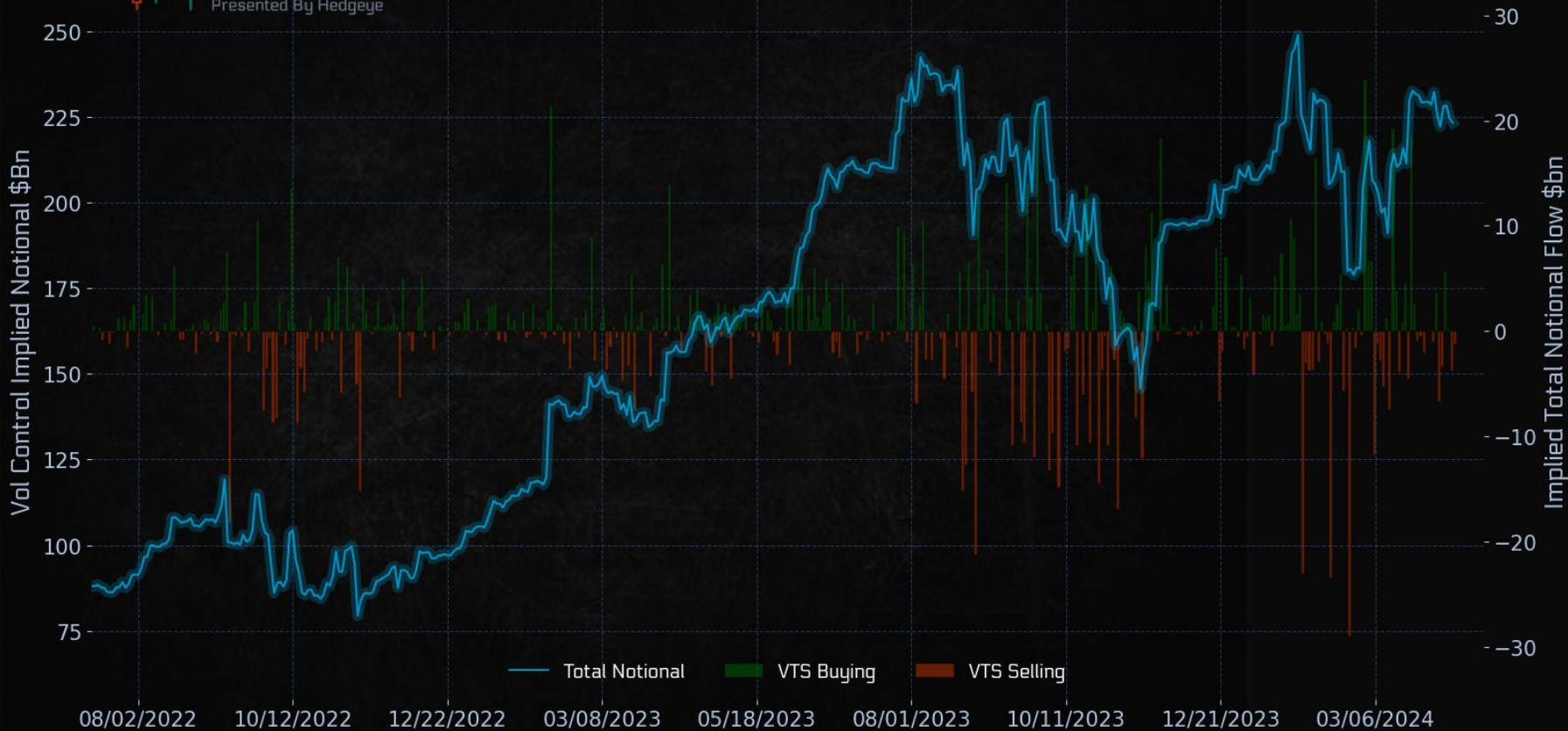
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Presented By Hedgeye

Date: 2024/04/11

Source: Tier1Alpha.com

Vol Control Implied Notional Flows

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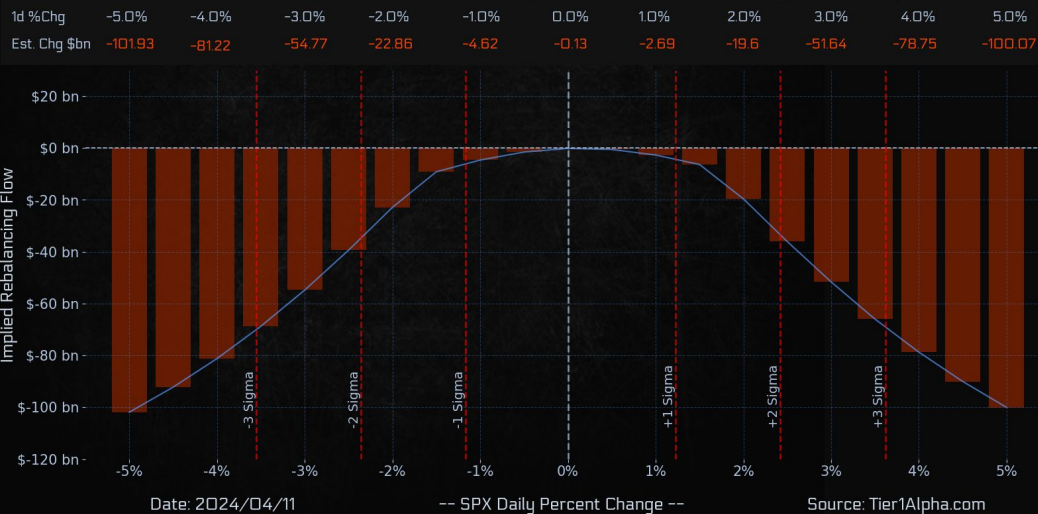
Date: 2024/04/11

Source: Tier1Alpha.com

SPX Realized Vol Data In Sample for 2024-04-12

Dropoff	1m Dates	1m Drop %	3m Dates	3m Drop %
T+1	2024-03-14	-0.3%	2024-01-12	0.1%
T+2	2024-03-15	-0.6%	2024-01-16	-0.4%
T+3	2024-03-18	0.6%	2024-01-17	-0.6%
T+4	2024-03-19	0.6%	2024-01-18	0.9%
T+5	2024-03-20	0.9%	2024-01-19	1.2%
T+6	2024-03-21	0.3%	2024-01-22	0.2%
T+7	2024-03-22	-0.1%	2024-01-23	0.3%
T+8	2024-03-25	-0.3%	2024-01-24	0.1%
T+9	2024-03-26	-0.3%	2024-01-25	0.5%
T+10	2024-03-27	0.9%	2024-01-26	-0.1%

Vol Control Implied Rebalancing Flow vs SPX Daily %Change

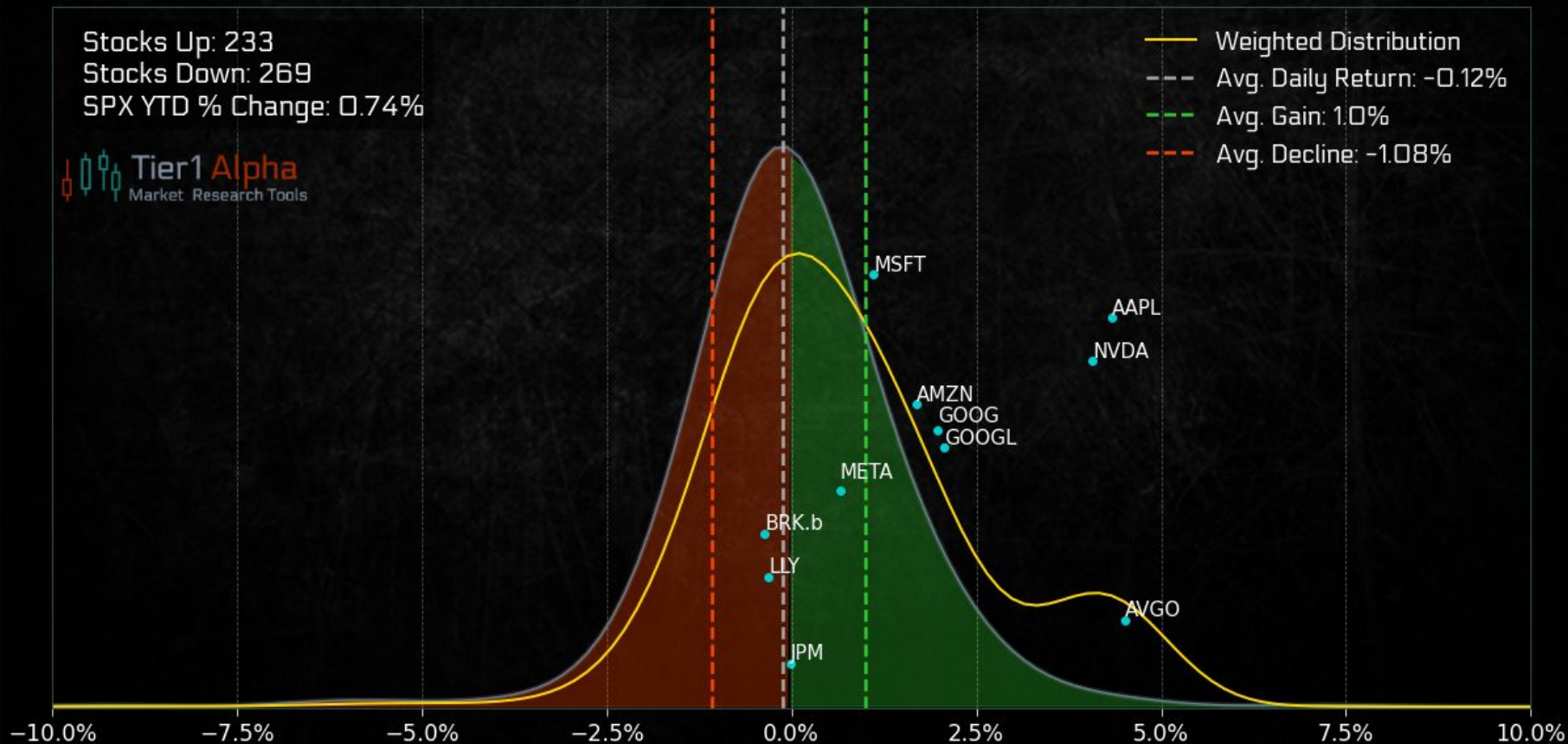


S&P 500 MBAD Indicator for 2024/04/11

Stocks Up: 233
Stocks Down: 269
SPX YTD % Change: 0.74%



- Weighted Distribution
- - - Avg. Daily Return: -0.12%
- - - Avg. Gain: 1.0%
- - - Avg. Decline: -1.08%

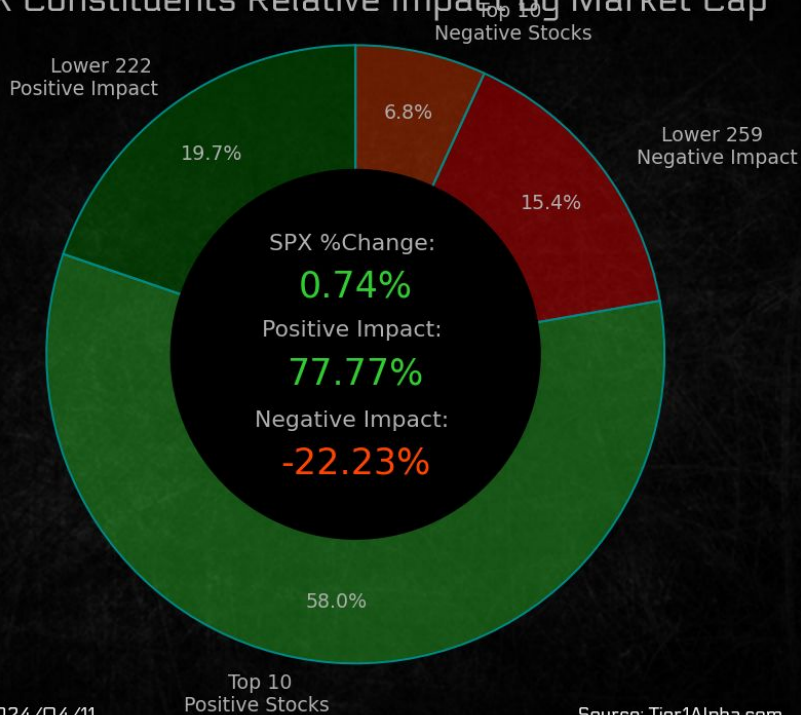


Date: 2024/04/11

--10% Return Distribution For SPX, Individual Constituents--

Source: IEX Cloud/ Tier1Alpha.com

SPX Constituents Relative Impact By Market Cap



Date: 2024/04/11

Source: Tier1Alpha.com

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
AAPL	4.3%	18.1%	5.61%	UNH	-1.9%	-1.4%	1.03%
NVDA	4.1%	15.5%	5.07%	MS	-5.2%	-1.1%	0.27%
MSFT	1.1%	5.9%	7.17%	GL	-53.1%	-0.8%	0.02%
AMZN	1.7%	4.7%	3.76%	JNJ	-0.9%	-0.6%	0.86%
AVGO	4.5%	4.6%	1.35%	PG	-0.9%	-0.6%	0.86%
GOOGL	2.1%	3.2%	2.08%	HD	-0.9%	-0.6%	0.83%
GOOG	2.0%	2.6%	1.75%	FAST	-6.5%	-0.5%	0.1%
TSLA	1.7%	1.4%	1.1%	ABBV	-0.9%	-0.5%	0.72%
META	0.6%	1.2%	2.46%	BRK.B	-0.4%	-0.5%	1.74%
MU	4.3%	1.0%	0.31%	BMJ	-2.3%	-0.4%	0.24%



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