

# S&P Dow Jones Indices

A Division of **S&P Global**

INDEX INVESTMENT STRATEGY

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Index Dashboard: Risk & Volatility June 15, 2022

VOLATILITY MEASURES				
US Equity	VIX	1m ±	200D Ave Realized (1Yr)	
Cboe Volatility Index® (VIX®)	29.62	-1.34	23.27	19.25
Cboe Short-Term Volatility (VIX9D)	32.53	0.23	22.31	19.25
Cboe 3-month Volatility (VIX3M)	30.78	-2.02	25.83	19.25
Cboe 1-Year Volatility (VIX1Y)	31.71	-1.09	28.39	19.25
Cboe DJIA Volatility (VXD)	24.90	-3.81	21.00	16.41
Global Equity				
VSTOXX® (V2X)	30.07	2.44	25.66	22.37
S&P/ASX 200 VIX (A-VIX)	22.16	5.56	14.44	14.06
S&P/BMV IPC VIX (SPBMVIX)	19.76	2.44	14.78	14.78
HSI Volatility (VHSI)	30.96	0.11	25.13	26.87
Cboe EM ETF (VXEEM)	26.50	-2.15	25.33	21.27
Interest Rate				
Cboe 20+ Yr US Treasury ETF (VXTLT)	26.69	1.44	19.71	6.09
S&P/JPX JGB VIX® (SPJGB)	5.92	4.11	2.09	1.82
Currency				
Cboe Euro ETF (EVZ)	10.27	0.21	7.39	7.34
Commodity				
Cboe Gold ETF Volatility (GVZ)	19.40	-0.29	17.81	14.23
Cboe Oil ETF Volatility (OVX)	47.04	-4.85	47.15	39.77
Volatility of VIX				
Cboe VIX of VIX (VVIX)	105.37	-9.59	116.73	137.76
INVESTABLE VOLATILITY INDICES				
Index	1m ±	YTD	12m ±	
S&P Daily Inverse Short-Term VIX	4.32%	-45.4%	-33.6%	
S&P 500 VIX Futures Term Structure	2.31%	-1.9%	20.2%	
Cboe S&P 500 Put-write Index	0.91%	-6.2%	3.7%	
S&P Dynamic VIX Index	0.59%	-2.4%	5.9%	
Cboe S&P 500 Buy-write Index	-1.03%	-9.4%	-0.4%	
S&P VIX Mid-Term Futures Index	-1.13%	17.9%	18.1%	
S&P 500 Dynamic VEQTOR Index	-2.48%	-13.5%	-5.9%	
S&P VIX Short-Term Futures Index	-7.57%	26.8%	-26.2%	
<b>S&amp;P 500®</b>	-11.88%	-17.21%	-3.58%	

TERM STRUCTURE & SKEW			
VIX Futures Term Structure			
VIX Futures Indices Roll Costs (Monthly)			
Short-term futures	-0.16%		
Mid-term futures	-0.02%		
Skew	Level	1M	12m ±
Cboe Skew Index (SKEW)	118.36	-4.13%	-26.64%
REALIZED MEASURES			
S&P 500 Correlations (Month-end)	1 Year	3 Year	10 Year
S&P Europe 350®	0.86	0.89	0.82
S&P Emerging BMI	0.56	0.77	0.70
S&P 500 Bond	0.69	0.61	0.42
S&P GSCI Commodity	-0.12	0.41	0.40
U.S. Dollar Index	-0.54	-0.50	-0.32
S&P 500 Single Stocks	21-Day	12M Ave	3Y Ave
Dispersion (annualized)	18.11%	24.23%	23.15%
Volatility (annualized)	39.18%	27.94%	28.83%
Correlation (pairwise)	0.54	0.32	0.32

## COMMENTARY

- The anticipation ahead of, and ultimate realization of the U.S. Federal Reserve's largest rate hike since 1994 dominated market sentiment this month. Since mid-May, VIX has skittered around between 25 and 35 and closed yesterday close to the midpoint of the range after a 0.75% increase in the target interest rate was confirmed.
- With all eyes on the central bank and the inflation data driving their actions, correlations between U.S. stocks and sectors have risen. The 21-day trailing average pairwise stock-stock correlation between S&P 500 constituents is currently 0.54 – the highest reported in any of our risk dashboards since the turmoil of early 2020.
- As the 2008/9 financial crisis illustrated in bold brushstrokes, when correlations are high, there are few safe-harbours to be found. However, while bond and equity markets have also moved in the same direction uncommonly frequently recently, commodities have offered one source of continued diversification. Offering a sign that perhaps the high volatility in the energy markets may have passed its peak, the Cboe Oil ETF Volatility Index has fallen since our last report by 5 points, closing yesterday just below its 200-day trailing average.
- The VIX futures curve may be presently close to flat, but with the spot level close to 30, this might be viewed as less encouraging in terms of market expectations for medium-term volatility. Having reached a more than 12-month-high of 33.19 on Monday, the one-year-based VIX1Y closed yesterday at 31.71.

**Sources:** S&P Dow Jones Indices LLC and/or its affiliates, Cboe, U.S. Federal Reserve (Dollar index and 10Yr Swap Rate), VIX Network members, Bloomberg LLC all as of June 15, 2022. **Volatility measures:** respective VIX and changes in those levels May 18 to June 15 2022. 200D Average is the moving average based on trading days, colour coded by whether current respective VIX is above or below average. 1 year realized volatility calculated according to previous 1 years daily returns, annualised. Investable Index performance based on total return. Index Correlations of monthly returns between total return indices, in USD to month-end Apr. 2022. **Stock Correlations, Dispersion and Volatility** based on index-weighted averages as of June 15, 2022. VIX futures monthly roll costs are expressed as the weighted sum of the percentage difference in price between each future and the future next closer to expiry, expressed as a fraction of that futures price and weighted according to that future's weight in the either the S&P VIX Short-Term Futures Index, or the S&P VIX Mid-Term Futures Index, as appropriate. Charts and graphs are provided for illustrative purposes. Past performance is no guarantee of future results. For more information, please visit our website at [www.spdji.com](http://www.spdji.com)

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S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live; index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

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