

# S&P Dow Jones Indices

A Division of **S&P Global**

## INDEX INVESTMENT STRATEGY

Index Dashboard: Risk & Volatility August 21, 2019

| VOLATILITY MEASURES                |       |         |          |         |
|------------------------------------|-------|---------|----------|---------|
| U.S. Equity                        |       | 1m ±    | 200D Ave | RLZ 1Yr |
| Cboe Volatility Index® (VIX®)      | 15.80 | 1.83    | 17.01    | 16.40   |
| Cboe Short-Term Volatility (VIX9D) | 16.09 | 2.67    | 16.77    | 16.40   |
| Cboe 3-month Volatility (VXV)      | 17.72 | 1.90    | 17.92    | 16.40   |
| Cboe 1-Year Volatility (VIX1Y)     | 18.70 | 1.02    | 18.89    | 16.40   |
| Cboe DJIA Volatility (VXD)         | 16.02 | 2.50    | 17.16    | 16.43   |
| Global Equity                      |       |         |          |         |
| VSTOXX® (V2X)                      | 16.77 | 4.17    | 16.00    | 12.72   |
| S&P/ASX 200 VIX (A-VIX)            | 16.28 | 5.39    | 13.82    | 12.22   |
| S&P/TSX 60 VIX (VIXC)              | 12.88 | 2.14    | 14.65    | 10.53   |
| HSI Volatility (VHSI)              | 20.94 | 6.35    | 19.34    | 18.37   |
| Currency                           |       |         |          |         |
| Cboe/CME Yen Volatility (JYVIX)    | 7.87  | 1.36    | 7.06     | 5.85    |
| Cboe/CME GBP Volatility (BPVIX)    | 10.78 | 3.65    | 10.10    | 8.29    |
| Cboe/CME Euro Volatility (EUVIX)   | 6.10  | 0.73    | 6.26     | 5.59    |
| Interest Rate                      |       |         |          |         |
| Cboe/CBOT 10Yr Tsy (TYVIX)         | 5.38  | 1.00    | 4.26     | 4.01    |
| Cboe IR Swap Volatility (SRVIX)    | 69.95 | 2.98    | 67.57    | 42.58   |
| S&P/JPX JGB VIX® (SPJGB)           | 1.88  | 0.17    | 1.53     | 1.34    |
| Commodity                          |       |         |          |         |
| Cboe Gold ETF Volatility (GVZ)     | 15.13 | -0.89   | 11.80    | 11.35   |
| Cboe Oil ETF Volatility (OVX)      | 32.39 | -2.55   | 36.32    | 33.41   |
| Volatility of VIX                  |       |         |          |         |
| Cboe VIX of VIX (VVIX)             | 98.03 | 7.68    | 90.13    | 135.32  |
| INVESTABLE VOLATILITY INDICES      |       |         |          |         |
| Index                              |       | 1m ±    | YTD      | 12m ±   |
| S&P VIX Short-Term Futures Index   |       | 6.76%   | -46.29%  | -15.43% |
| S&P VIX Mid-Term Futures Index     |       | 5.80%   | -14.45%  | 8.85%   |
| S&P Dynamic VIX Index              |       | -0.66%  | -12.44%  | -3.47%  |
| Cboe S&P 500 Buy-write Index       |       | -1.78%  | 9.93%    | -1.40%  |
| S&P 500 Dynamic VEQTOR Index       |       | -1.87%  | 7.58%    | -3.88%  |
| S&P 500 VEQTOR Switch Index        |       | -1.95%  | 8.34%    | 1.47%   |
| Cboe S&P 500 Put-write Index       |       | -5.77%  | 3.00%    | -6.49%  |
| S&P Daily Inverse Short-Term VIX   |       | -15.18% | 47.16%   | -18.42% |
| <b>S&amp;P 500</b>                 |       | -1.80%  | 18.20%   | 4.24%   |

| TERM STRUCTURE & SKEW                    |        |        |         |         |
|--|--------|--------|---------|---------|
| VIX Futures Term Structure               |        |        |         |         |
|  |        |        |         |         |
| VIX Futures Indices Roll Costs (Monthly) |        |        |         |         |
| Short-term futures                       |        |        | 3.74%   |         |
| Mid-term futures                         |        |        | 0.78%   |         |
| Skew                                     |        |        |         |         |
|  | Level  | 1M     | 12m ±   |         |
| Cboe Skew Index (SKEW)                   | 114.48 | -7.66% | -20.88% |         |
| REALIZED MEASURES                        |        |        |         |         |
| S&P 500 Correlations (Month-end)         |        | 1 Year | 3 Year  | 10 Year |
| S&P Europe 350®                          |        | 0.87   | 0.73    | 0.83    |
| S&P Emerging BMI                         |        | 0.81   | 0.65    | 0.75    |
| S&P 500 Bond                             |        | 0.30   | 0.18    | 0.13    |
| S&P GSCI Commodity                       |        | 0.75   | 0.62    | 0.54    |
| U.S. Dollar Index                        |        | -0.21  | -0.18   | -0.45   |
| S&P 500 Single Stocks                    |        | 21-Day | 12M Ave | 3Y Ave  |
| Dispersion (annualized)                  |        | 26.21% | 21.46%  | 19.66%  |
| Volatility (annualized)                  |        | 29.61% | 26.79%  | 21.95%  |
| Correlation (pairwise)                   |        | 0.45   | 0.29    | 0.22    |

### COMMENTARY

- A seasonal lull in liquidity provision, bearish signals from the bond markets, and a brief inversion in the U.S. yield curve between the 2Y and 10Y maturities contributed to an increase in every one of our equity volatility indicators in this report.
- Although the S&P 500 remains only 3% away from July's all-time high, August so far has seen frequent daily index changes of 2% or 3%. At the single-stock level, realized constituent volatility and dispersion in the S&P 500 rose to 30% and 26%, respectively.
- VIX rose to a six-month high of 24.81 at the start of the month, but has declined since to close last night at a more moderate 15.76. In signs that the recent spike in VIX may reflect somewhat temporary concerns, the VIX futures curve looks relatively flat – only a single VIX point separates the front contract from the eighth.
- Reflecting the uncertainty created by ongoing street protests, Hong Kong's HSI Volatility Index saw the greatest gain this report in absolute terms; the index closed last night at 20.94, up 6.35 points. Australia's S&P/ASX 200 VIX also saw a significant increase, rising by nearly half since our last report (the index rose from 10.89 to 16.28).
- Among investable indices, long volatility strategies such as the S&P VIX Short-Term Futures Index benefited this month, while volatility sellers struggled.

**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 August 21, 2019. **Volatility measures:** respective VIX and changes in those levels to July 17, 2019 to August 21, 2019. 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 July 2019. **Stock Correlations, Dispersion and Volatility** based on index-weighted averages as of August 21, 2019. 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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