

S&P Dow Jones Indices

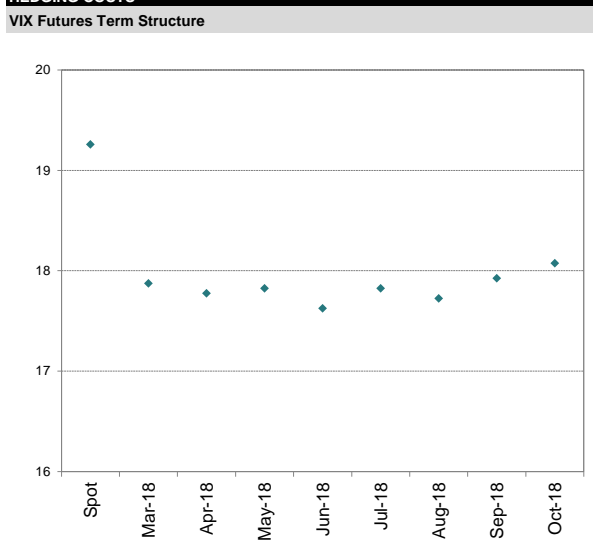
A Division of **S&P Global**

Index Dashboard: Risk & Volatility - February 14, 2018

VOLATILITY MEASURES

Implied Volatility Measures	VIX	1m ±	200D Ave	Realized 1Yr
Cboe Volatility Index® (VIX®)	19.26	7.35	11.45	9.75
Cboe Short-Term Volatility Index (VXST)	18.73	7.07	10.68	9.75
Cboe 3-month Volatility Index (VXV)	19.34	6.09	13.48	9.75
Cboe DJIA Volatility Index (VXD)	21.29	8.29	11.71	10.29
VSTOXX® (V2X)	20.71	8.76	14.16	9.57
S&P/ASX 200 VIX (A-VIX)	18.34	5.83	12.51	9.88
S&P/TSX 60 VIX (VIXC)	21.65	9.18	12.38	8.14
HSI Volatility Index (VHSI)	23.36	8.36	14.88	13.44
Cboe/CME FX Yen Volatility (JYVIX)	10.83	3.07	8.84	7.54
Cboe/CME FX GBP Volatility (BPVIX)	10.44	2.19	8.21	7.94
Cboe/CME FX Euro Volatility (EUVIX)	9.45	1.68	7.53	6.92
Cboe / CBOT 10Yr US Tsy (TYVIX)	5.33	1.64	4.16	3.63
Cboe Interest Rate Swap (SRVIX)	78.19	12.83	73.00	66.34
S&P/JPX JGB VIX® (SPJGB)	1.69	-0.21	1.65	1.14
Cboe Gold ETF Volatility Index (GVZ)	14.97	3.20	11.92	10.01
Cboe Oil ETF Volatility Index (OVX)	27.73	3.03	27.85	24.88
Cboe VIX of VIX (VVIX)	124.49	21.86	95.75	144.69
Investable Volatility	1m ±	YTD	12m ±	
S&P VIX Short-Term Futures Index	56.77%	51.55%	-35.24%	
S&P VIX Mid-Term Futures Index	22.99%	17.82%	-26.78%	
S&P 500 Dynamic VEQTOR Index	3.05%	7.88%	21.34%	
CBOE S&P 500 Buy-write Index	-2.81%	-2.01%	7.45%	
S&P 500 Stock Covered Call Index	-3.56%	1.93%	14.32%	
S&P 500 VEQTOR Switch Index	-4.96%	-0.44%	16.06%	
S&P Dynamic VIX Index	-8.91%	-10.68%	-24.80%	
S&P Daily Inverse Short-Term VIX	-95.69%	-95.55%	-91.54%	
S&P 500	-3.71%	0.94%	15.45%	

HEDGING COSTS



VIX Futures Indices Roll Costs (Monthly)

Short-term futures	-0.56%
Mid-term futures	0.56%

REALIZED MEASURES

S&P 500 Correlations (Month-end)	1 Year	3 Year	10 Year
S&P Europe 350	0.26	0.80	0.88
S&P 500 Bond	-0.43	0.15	0.36
S&P GSCI Commodity	0.51	0.29	0.55
U.S. Dollar Index	-0.12	-0.11	-0.54
S&P 500 Stocks (as of Friday close)	21-Day	12M Ave	3Y Ave
Dispersion (annualized)	22.23%	18.41%	19.09%
Volatility (annualized)	28.40%	18.06%	20.79%
Correlation (pairwise)	0.43	0.16	0.24

COMMENTARY

- Volatility returned to the U.S. equity markets in February as an initially rates-led selloff saw the S&P 500 record its largest one-day move since 2011, dropping 4.1% on February 5th.
- In tandem, the VIX recorded its largest ever one day increase on February 5th to close at 37.32 – its highest level since August, 2015. It has since declined back below 20, closing last night at 19.26.
- With market participants seemingly unsure as to whether we may be entering a new – higher volatility - regime, the volatility of volatility (VVIX) made an all-time high of 180.24 on February 8th, closing last night at a well-above-average 124.49.
- The rise in U.S. equity market volatility echoed around the globe and, with one exception, all of our reported volatility measures rose. The S&P/JPX JGB VIX provided the outlier; it fell after the Bank of Japan reassured the markets of its unchanged stimulus intentions at its January 22nd meeting.
- Among our investable volatility indices, the S&P 500 Short-Term VIX Futures Index unsurprisingly took the top spot, rising 56.77% since our last report. Conversely, the S&P 500 Daily Inverse Short-Term VIX Futures Index declined by 95.69%, giving back the past 10 years of accumulated total return amid the spike in volatility.
- Providing hope that diversification effects may offer a degree of sanctuary for investors in the near-term, S&P 500 stock-to-stock correlations - and correlations between the benchmark and other markets such as bonds or European equities - remain mild in comparison to their recent history.

Sources: S&P Dow Jones Indices LLC and/or its affiliates, Cboe, U.S. Federal Reserve (Dollar index and 10Yr Swap Rate), all as of February 14, 2018. Volatility measures: respective VIX and changes in those levels 17 January to February 14, 2018. 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 January 2018. Stock Correlations, Dispersion and Volatility based on index-weighted averages as of February 8, 2018. VIX futures monthly rol 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

About the VIX® Network

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