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ListDer Research

Review and Preview of VSTOXX Index, Futures, and Options

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As with all investments, your capital is at risk

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Outline

- **VSTOXX Tutorial**
- **2024 Review**
- **2025 Preview**
- **Questions / Q&A**

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VSTOXX

- **VSTOXX is a measure of 30-day expected volatility derived from Euro Stoxx 50 option pricing**
- **It may be thought of as a European Fear Index**
- **Typically, VSTOXX has an inverse relationship with Euro Stoxx 50 price behavior**

VSTOXX vs. Euro Stoxx 50

Euro Stoxx 50 vs. VSTOXX Daily 2024



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Source: Bloomberg

VSTOXX vs. Euro Stoxx 50

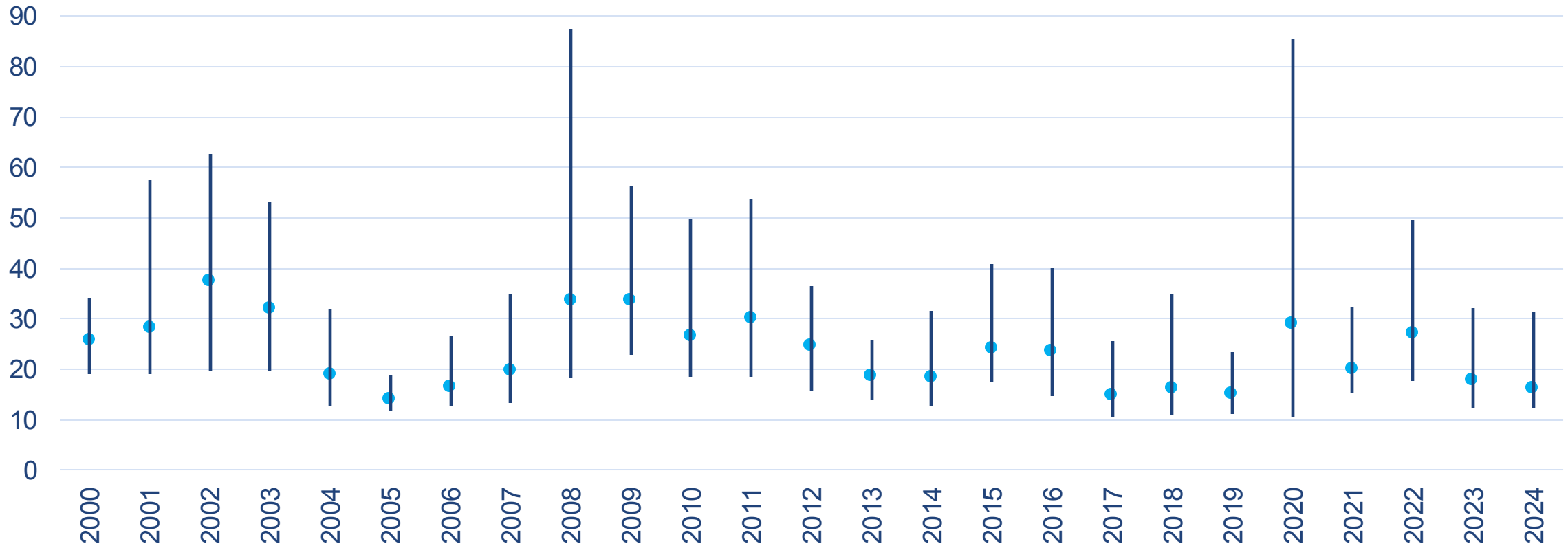
Year	Correlation	Euro Stoxx 50 Performance		Year	Correlation	Euro Stoxx 50 Performance
2000	-0.7471	-2.69%		2013	-0.7771	+18.05%
2001	-0.7913	-20.25%		2014	-0.8451	+1.13%
2002	-0.7955	-37.30%		2015	-0.8063	+4.85%
2003	-0.6620	+15.24%		2016	-0.7902	+0.08%
2004	-0.7176	+7.31%		2017	-0.7644	+6.49%
2005	-0.7597	+21.27%		2018	-0.8309	-14.77%
2006	-0.8217	+15.12%		2019	-0.8584	+25.51%
2007	-0.8663	+6.91%		2020	-0.7361	-4.72%
2008	-0.8002	-44.34%		2021	-0.8793	+20.56%
2009	-0.7243	+21.00%		2022	-0.7987	-11.90%
2010	-0.7544	-5.37%		2023	-0.8348	19.19%
2011	-0.7990	-17.47%		2024	-0.7136	7.69%
2012	-0.7384	+13.39%				

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Source: Bloomberg

VSTOXX Annual Price Action

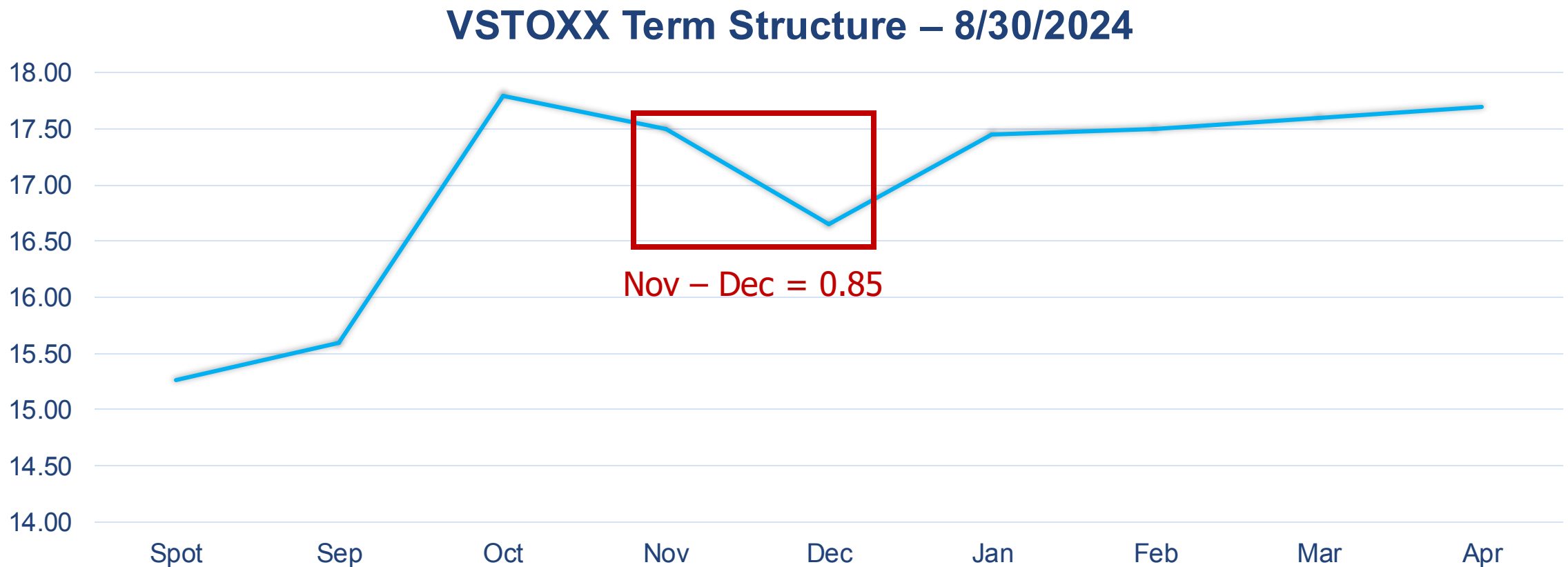
VSTOXX Annual High / Low / Average 2000 - 2024



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Source: Bloomberg

VSTOXX Term Structure – 8/30/24

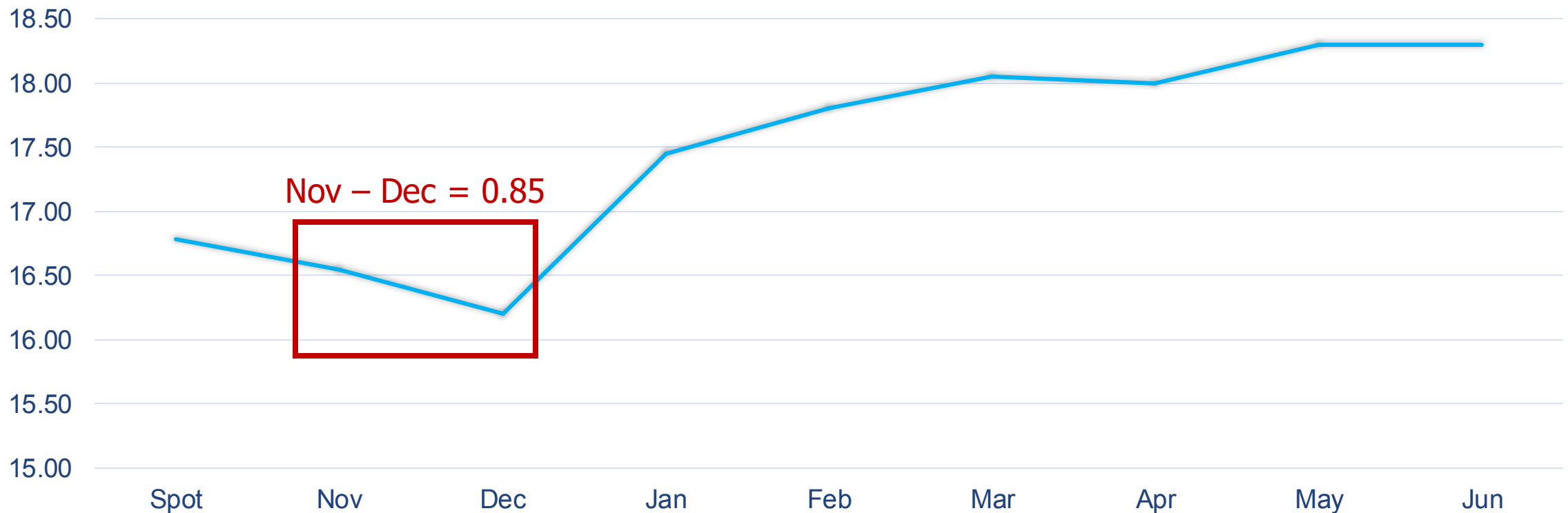


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Source: Bloomberg

VSTOXX Term Structure – 11/8/24

VSTOXX Term Structure – 11/8/2024



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Source: Bloomberg

Large Ratio Spread

- Over the course of a couple of weeks in September a trader built a large position selling 2 December 15 Puts for each December 17 Put purchased
- The total size of this trade was short 98,000 Dec 15 Puts and long 49,000 Dec 17 Puts at a net cost of 0.17
- Exit trades plus settlement has the trade exited at a credit of 0.66 for a profit of 0.49

VSTOXX Dec 15/17 Put Ratio Entry

Date	Sell 15 Put	Premium	Buy 17 Put	Premium	Debit
5-Sep	7000	1.075	3500	2.425	(0.275)
11-Sep	13000	1.027	6500	2.206	(0.152)
12-Sep	2000	1.113	1000	2.400	(0.174)
13-Sep	11000	1.200	5500	2.575	(0.175)
18-Sep	20000	1.130	10000	2.450	(0.190)
19-Sep	45000	1.300	22500	2.750	(0.150)
Net	98000	1.198	49000	2.567	(0.171)

Source: Bloomberg

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VSTOXX Dec 15/17 Put Ratio Exit

Date	Buy 15 Put	Premium	Sell 17 Put	Premium	Credit
30-Sep	24000	0.975	12000	2.325	+0.375
1-Oct	3000	0.800	1500	2.000	+0.400
9-Oct	2000	0.775	1000	1.925	+0.375
23-Oct	2000	0.800	1000	1.975	+0.375
31-Oct	7000	0.593	3500	1.586	+0.400
6-Nov	6000	0.925	3000	2.250	+0.400
13-Nov	4000	0.750	2000	2.000	+0.500
22-Nov	6000	0.330	3000	1.200	+0.540
4-Dec	10000	0.630	5000	2.100	+0.840
6-Dec	10000	0.640	5000	2.150	+0.870
Settlement	24000	0.940	12000	2.940	+1.060
Net	98000	0.805	49000	2.270	+0.660

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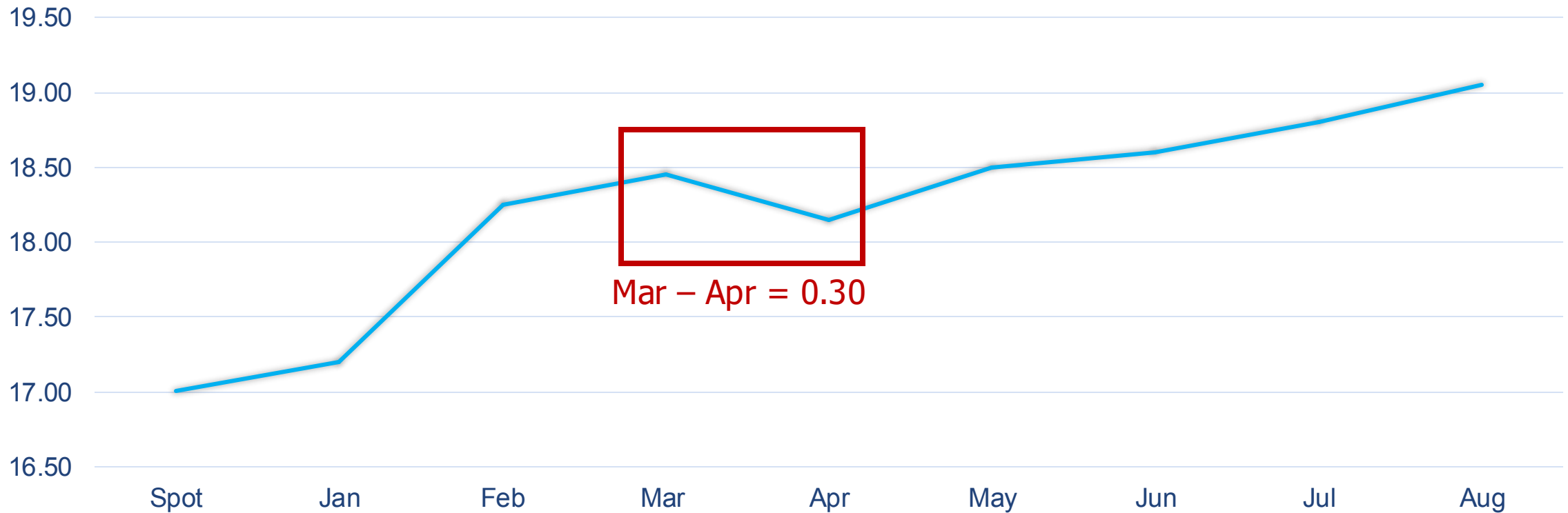
Source: Bloomberg

Looking Forward

- **Germany will hold elections between the February and March VSTOXX settlements**
- **The VSTOXX term structure is reflecting higher risk around this event**

VSTOXX Term Structure – 12/30/24

VSTOXX Term Structure - 12/30/2024



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Questions / Contact

Questions?

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