# NOVEMBER 2024 MerQube US Large-Cap Vol Advantage Index

## J.P.Morgan

### Hypothetical and Actual Historical Monthly and Annual Returns

Backtested	Actual

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2005	-0.87%	4.80%	-6.33%	-7.97%	4.81%	-1.73%	10.82%	-4.87%	-0.10%	-7.64%	8.83%	-1.54%	-3.87%
2006	5.53%	-1.34%	1.61%	2.11%	-10.70%	-2.28%	-1.92%	4.04%	5.65%	9.12%	4.35%	1.62%	17.59%
2007	2.68%	-10.44%	-3.24%	11.67%	8.36%	-8.13%	-8.67%	0.34%	4.20%	0.96%	-8.45%	-3.15%	-15.44%
2008	-12.63%	-6.39%	-3.06%	5.53%	-0.90%	-15.94%	-2.31%	1.10%	-10.15%	-15.73%	-6.19%	-0.33%	-51.25%
2009	-8.54%	-9.00%	4.66%	7.69%	5.36%	-0.40%	9.52%	4.55%	4.61%	-5.29%	7.95%	2.46%	23.53%
2010	-6.91%	3.29%	13.14%	1.82%	-14.64%	-9.18%	7.78%	-8.22%	14.27%	6.73%	-2.79%	12.71%	13.50%
2011	5.04%	6.97%	-1.32%	8.91%	-4.27%	-5.78%	-6.49%	-8.14%	-9.10%	9.69%	-1.35%	1.18%	-6.88%
2012	7.49%	8.33%	6.97%	-2.89%	-13.37%	6.20%	2.54%	4.44%	5.08%	-5.66%	0.34%	0.46%	19.10%
2013	9.89%	3.85%	8.48%	2.28%	7.23%	-4.26%	11.82%	-9.92%	6.62%	9.89%	8.37%	3.67%	72.35%
2014	-10.43%	10.54%	-0.01%	-0.50%	7.08%	5.62%	-5.69%	9.35%	-6.66%	0.00%	7.42%	-8.80%	5.06%
2015	-8.86%	10.90%	-8.39%	-0.41%	3.29%	-4.65%	-0.09%	-17.29%	-4.40%	17.28%	-3.38%	-6.60%	-24.07%
2016	-11.03%	-1.49%	13.77%	-0.53%	4.22%	-2.68%	10.44%	-0.64%	-4.01%	-6.30%	5.37%	3.35%	8.14%
2017	3.01%	14.83%	-2.43%	-0.25%	4.00%	1.42%	7.49%	-1.03%	6.02%	9.87%	12.43%	2.31%	73.07%
2018	22.09%	-15.93%	-12.41%	-1.20%	4.38%	0.66%	9.31%	8.66%	0.99%	-15.25%	0.42%	-14.51%	-18.54%
2019	13.69%	6.76%	0.32%	11.77%	-15.83%	14.02%	0.84%	-6.78%	2.30%	5.26%	12.28%	7.23%	59.16%
2020	0.92%	-19.13%	-6.92%	9.72%	4.51%	-0.46%	7.27%	13.10%	-6.15%	-6.30%	10.42%	6.16%	8.44%
2021	-4.27%	1.18%	6.10%	11.97%	0.66%	3.71%	5.66%	6.76%	-12.19%	17.25%	-1.83%	4.30%	42.86%
2022	-12.36%	-4.54%	4.68%	-14.75%	-0.98%	-12.93%	13.14%	-8.48%	-12.75%	8.73%	7.38%	-11.77%	-40.09%
2023	9.72%	-5.83%	2.08%	2.25%	-0.08%	13.69%	7.68%	-7.89%	-14.22%	-5.38%	18.61%	11.26%	30.15%
2024	2.69%	12.36%	6.58%	-10.73%	11.20%	7.81%	0.11%	2.99%	-1.14%	-4.20%			28.50%

Please refer to the "Selected Risks" and "Disclaimer" on the following page.

Historical performance measures for the MerQube US Large-Cap Vol Advantage Index (the "Index") represent hypothetical backtested performance from January 7, 2005 through February 10, 2022 and the actual performance of the Index from February 11, 2022 through October 31, 2024. Please see "Use of hypothetical backtested returns" at the end of this presentation for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.

The hypothetical backtested and historical levels presented herein have not been verified by J.P. Morgan, and hypothetical historical levels have inherent limitations. PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.

Investing in the notes linked to the Index involves a number of risks. See "Selected Risks" on page 2 of this document, "Risk Factors" in the prospectus supplement and the relevant product supplement and underlying supplement and "Selected Risk Considerations" in the relevant pricing supplement.

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- The level of the Index will include the deduction of a 6.0% per annum daily deduction.
- MerQube (the "Index Sponsor") may adjust the Index in a way that affects its level, and the Index Sponsor has no obligation to consider your interests.
- The Index may not approximate its target volatility.
- The Index is subject to risks associated with the use of significant leverage.
- The Index may be significantly uninvested.
- The Index may be adversely affected if later futures contracts have higher prices than an expiring futures contract included in the Index.
- The Index is an "excess return" index and not a "total return" index because it does not reflect interest that could be earned on funds notionally committed to the trading of futures contracts.
- The Index, which was established on February 11, 2022, has a limited operating history and may perform in unanticipated ways.
- The Index is subject to significant risks associated with futures contracts, including volatility.
- An investment linked to the Index will be subject to risks associated with non-U.S. securities.
- Concentration risks associated with the Index may adversely affect the value of investments linked to the Index.
- Suspension or disruptions of market trading in the futures contracts included in the Index may adversely affect the value of investments linked to the Index.
- The official settlement price and intraday trading prices of the relevant futures contracts included in the Index may not be readily available.
- Changes in the margin requirements for the underlying futures contracts included in the Index may adversely affect the value of investments linked to the Index.
- The Index may not be successful or outperform any alternative strategy that may be employed of the Constituent.

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