

NOVEMBER 2024

J.P. Morgan Kronos+SM 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
1954							1.89%	-3.15%	9.79%	-3.51%	7.86%	8.28%	22.09%
1955	0.16%	1.66%	0.57%	7.59%	-1.56%	11.40%	6.02%	-2.49%	5.90%	-8.74%	8.52%	-0.54%	30.28%
1956	0.11%	6.13%	11.80%	1.67%	-5.93%	4.53%	7.92%	-4.71%	-5.11%	0.93%	0.55%	7.06%	25.91%
1957	-3.49%	-8.22%	4.58%	5.47%	7.10%	-1.83%	4.23%	-5.33%	-6.09%	4.60%	5.87%	-3.48%	1.75%
1958	7.10%	-0.14%	8.18%	-0.93%	1.25%	3.02%	6.56%	-0.01%	3.90%	3.25%	4.71%	4.22%	49.12%
1959	1.51%	-1.77%	1.70%	8.18%	0.94%	-1.06%	3.20%	-0.60%	-1.13%	3.61%	2.33%	3.95%	22.48%
1960	-9.44%	0.27%	-5.59%	1.88%	3.08%	2.96%	-0.48%	2.69%	-6.43%	-3.60%	6.81%	4.44%	-4.66%
1961	6.84%	2.83%	6.30%	-1.24%	5.16%	-1.09%	2.91%	5.67%	-0.98%	4.15%	6.01%	0.40%	43.21%
1962	-5.44%	4.05%	-0.71%	-13.06%	-12.18%	-7.51%	8.15%	4.27%	-5.99%	2.38%	12.39%	3.03%	-13.29%
1963	5.73%	-0.60%	3.21%	6.31%	0.73%	-3.61%	4.37%	6.51%	0.40%	1.42%	-3.66%	2.24%	24.85%
1964	4.14%	0.58%	0.87%	3.18%	2.79%	-1.91%	4.97%	-3.73%	4.49%	1.67%	0.59%	-0.75%	17.79%
1965	3.98%	0.49%	-3.48%	4.08%	-0.57%	-8.54%	3.40%	1.40%	5.40%	2.98%	-2.12%	-0.11%	6.20%
1966	0.55%	1.08%	-6.39%	5.39%	-11.01%	-1.92%	3.31%	-5.19%	-2.24%	-0.81%	-1.84%	-0.68%	-18.97%
1967	11.78%	0.38%	6.95%	3.60%	-9.44%	3.52%	5.49%	-0.86%	5.49%	-4.16%	-2.09%	3.16%	24.48%
1968	-8.48%	-6.55%	3.47%	8.48%	1.22%	2.89%	-0.62%	-0.18%	6.30%	4.23%	2.53%	-7.90%	3.76%
1969	-3.62%	-8.70%	1.34%	1.76%	1.20%	-3.88%	-5.82%	5.15%	-6.94%	4.64%	-2.30%	-3.53%	-19.76%
1970	-14.94%	2.77%	3.58%	-14.67%	-2.33%	-0.52%	0.59%	-0.45%	2.71%	0.17%	10.19%	6.14%	-9.53%
1971	4.15%	-0.66%	4.41%	4.52%	-5.92%	0.90%	-8.19%	1.44%	2.16%	-2.19%	4.80%	14.39%	19.57%
1972	1.75%	2.69%	2.16%	2.87%	-3.30%	-5.44%	0.15%	7.60%	0.37%	-2.30%	6.91%	2.20%	15.93%
1973	1.55%	-7.30%	6.33%	-4.55%	6.43%	-5.32%	0.14%	-2.14%	5.70%	-2.60%	-14.84%	4.56%	-13.50%
1974	-0.44%	-2.62%	-1.14%	-6.86%	0.50%	1.87%	-17.61%	-4.12%	-24.02%	14.14%	-8.23%	-3.53%	-44.58%
1975	7.23%	11.07%	-0.01%	3.47%	3.84%	6.96%	-13.40%	0.15%	-9.82%	12.59%	0.59%	-2.16%	18.61%
1976	18.77%	-1.32%	2.28%	-0.92%	-2.08%	5.64%	-3.39%	-2.39%	8.03%	-3.20%	-5.33%	3.51%	18.69%
1977	-8.74%	-3.03%	-0.34%	0.93%	2.06%	6.49%	-1.68%	-3.34%	2.55%	-3.16%	0.15%	0.94%	-7.70%
1978	-9.31%	-4.89%	3.61%	9.13%	1.60%	-2.23%	3.45%	7.22%	-2.39%	-10.90%	0.80%	1.68%	-4.21%
1979	6.31%	-9.24%	7.79%	1.69%	-7.21%	4.35%	2.80%	6.43%	-1.01%	-2.75%	1.77%	2.80%	12.83%
1980	4.58%	0.17%	-11.04%	0.80%	1.52%	0.55%	12.33%	1.50%	10.59%	7.98%	9.99%	-10.31%	28.81%
1981	-6.85%	4.99%	4.24%	-6.82%	-3.20%	-4.09%	0.25%	-11.36%	-6.28%	5.72%	8.63%	-3.80%	-18.86%
1982	-2.32%	-8.23%	-8.60%	7.29%	-6.17%	-0.42%	-0.42%	1.98%	2.14%	21.75%	10.07%	1.00%	15.32%
1983	1.35%	-1.09%	7.64%	8.02%	-2.74%	10.42%	-1.78%	0.18%	5.71%	0.24%	1.01%	0.67%	32.70%
1984	0.04%	-4.83%	-0.80%	-0.34%	-11.07%	7.12%	0.76%	18.85%	-2.75%	0.65%	-0.06%	1.07%	6.16%
1985	6.71%	1.50%	1.45%	-2.71%	9.04%	3.54%	0.97%	-1.88%	-5.53%	5.14%	7.33%	4.79%	33.58%
1986	4.30%	7.81%	3.68%	-3.54%	2.43%	2.87%	-10.72%	7.44%	-12.28%	6.37%	7.80%	-0.41%	13.87%
1987	22.22%	5.54%	9.50%	3.79%	4.30%	8.88%	3.13%	7.10%	-3.80%	8.78%	-13.14%	3.72%	73.35%
1988	12.50%	4.26%	0.57%	0.16%	4.37%	5.19%	1.12%	-1.17%	6.02%	5.98%	0.40%	3.76%	51.74%
1989	4.83%	-5.03%	5.47%	5.57%	4.84%	-2.30%	9.64%	1.11%	-1.73%	-3.10%	0.42%	2.94%	23.89%
1990	-5.35%	1.84%	4.36%	-6.98%	11.96%	-3.72%	-3.61%	-8.59%	-2.50%	-0.28%	8.28%	4.96%	-1.80%
1991	-2.38%	12.63%	6.88%	-0.28%	6.74%	-8.50%	4.42%	-2.39%	-3.30%	-0.02%	-8.98%	5.23%	8.02%
1992	-1.94%	0.51%	-5.40%	2.41%	0.34%	-0.06%	0.57%	-5.20%	2.23%	-3.02%	2.87%	3.48%	-3.67%
1993	-1.19%	5.48%	1.60%	-4.48%	-0.06%	0.91%	-2.18%	2.57%	-2.82%	3.98%	-2.28%	1.79%	2.87%
1994	2.26%	-6.04%	-2.03%	3.80%	1.57%	-5.85%	2.42%	0.84%	-3.00%	0.09%	-8.71%	-0.85%	-15.20%
1995	0.59%	4.45%	1.38%	3.74%	3.66%	5.29%	2.62%	-0.20%	6.84%	-0.39%	5.42%	0.53%	39.31%
1996	6.14%	-0.92%	0.19%	3.26%	2.71%	0.87%	-5.59%	7.10%	6.55%	6.48%	9.37%	-7.81%	30.38%
1997	9.49%	-1.46%	-7.05%	5.43%	8.08%	3.46%	8.58%	-9.59%	10.73%	0.73%	5.59%	3.20%	41.06%

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

Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from July 7, 1954 through December 21, 2020 and the actual performance of the Index from December 22, 2020 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.

Except as noted above and in the section entitled "Use of hypothetical backtested returns" at the end of this document, the hypothetical monthly and annual returns set forth above were determined using the methodology currently used to calculate the Index. 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 3 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.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this document or the accompanying product supplement, underlying supplement, prospectus supplement or prospectus. Any representation to the contrary is a criminal offense.

The notes are not bank deposits, are not insured by the Federal Deposit Insurance Corporation or any other governmental agency and are not obligations of, or guaranteed by, a bank.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
1998	-3.81%	9.44%	4.77%	7.54%	-4.36%	0.10%	2.29%	-26.57%	7.56%	-1.24%	10.41%	0.11%	0.15%
1999	7.62%	-8.02%	-0.15%	2.37%	-2.34%	4.03%	-1.11%	-2.09%	-3.00%	13.69%	2.18%	5.23%	18.02%
2000	-13.72%	5.02%	20.52%	-3.47%	-8.90%	5.83%	-0.18%	9.07%	-4.89%	-1.89%	-7.52%	2.84%	-1.81%
2001	0.37%	-10.44%	0.20%	10.20%	10.00%	1.18%	-0.50%	-11.04%	-4.70%	4.34%	15.12%	1.81%	13.97%
2002	2.10%	-3.48%	9.82%	-9.09%	-0.98%	-8.44%	13.92%	5.87%	-12.59%	10.29%	8.09%	-11.65%	-0.97%
2003	-7.00%	-1.23%	1.06%	12.28%	1.09%	1.70%	2.13%	0.89%	1.92%	7.38%	1.08%	6.13%	29.64%
2004	6.03%	-0.24%	3.33%	-2.30%	4.35%	1.80%	-3.88%	-2.30%	2.12%	5.08%	5.60%	3.43%	24.87%
2005	-0.91%	1.52%	-1.10%	1.42%	5.28%	2.37%	3.15%	-0.90%	2.90%	-4.66%	6.46%	0.69%	16.90%
2006	2.07%	-2.19%	1.21%	2.47%	-0.25%	-0.08%	0.83%	2.23%	0.73%	5.22%	3.36%	2.51%	19.45%
2007	0.65%	0.07%	-0.36%	5.81%	6.78%	-6.42%	3.33%	0.72%	1.30%	2.00%	0.95%	1.38%	16.79%
2008	-2.04%	-8.56%	-8.54%	2.71%	4.99%	-9.01%	-7.83%	1.58%	-14.75%	-19.81%	-3.96%	-6.74%	-53.92%
2009	-1.61%	-15.65%	6.45%	11.52%	12.09%	-2.67%	7.72%	7.40%	5.06%	4.71%	6.75%	2.47%	49.67%
2010	1.34%	0.79%	8.23%	4.05%	-7.78%	-6.07%	11.04%	-6.71%	13.69%	6.40%	5.30%	10.61%	45.44%
2011	1.85%	6.76%	0.23%	5.30%	-2.41%	-3.29%	2.50%	-3.38%	-6.36%	8.63%	9.36%	1.08%	20.60%
2012	7.70%	6.91%	1.42%	1.48%	-7.75%	2.15%	-2.92%	3.39%	6.37%	0.73%	2.25%	0.83%	23.81%
2013	8.03%	3.77%	4.96%	2.56%	4.68%	3.95%	8.19%	-1.19%	4.78%	6.19%	3.67%	-2.24%	58.28%
2014	-6.92%	3.44%	1.70%	-1.83%	2.33%	4.10%	0.15%	0.74%	-1.08%	3.85%	2.99%	-5.90%	2.84%
2015	-7.97%	8.50%	-1.37%	0.64%	2.25%	-2.95%	1.54%	2.56%	-7.09%	11.09%	2.32%	-0.05%	8.12%
2016	-3.88%	-3.60%	11.75%	-1.20%	2.81%	1.47%	4.06%	-0.15%	-0.49%	-3.61%	1.96%	2.63%	11.30%
2017	1.93%	4.76%	1.38%	0.45%	1.70%	1.39%	2.18%	2.84%	1.59%	3.00%	2.37%	1.03%	27.52%
2018	9.78%	-10.54%	-0.52%	2.51%	4.79%	4.23%	4.49%	2.71%	0.63%	-6.85%	8.69%	-5.33%	13.22%
2019	10.41%	4.85%	4.49%	4.35%	-10.79%	12.78%	1.65%	-5.13%	3.40%	-0.30%	4.54%	2.38%	35.14%
2020	2.66%	-1.79%	15.04%	12.43%	2.76%	7.50%	7.96%	7.97%	-1.23%	-0.03%	15.65%	4.68%	100.70%
2021	2.72%	4.87%	0.83%	7.23%	2.81%	1.17%	0.16%	3.64%	-5.00%	11.44%	2.53%	4.21%	42.26%
2022	-8.36%	0.01%	-5.84%	-15.88%	9.19%	-8.85%	11.93%	-5.51%	-12.49%	9.93%	0.99%	-15.24%	-37.08%
2023	6.91%	-2.65%	8.62%	2.59%	-4.67%	9.49%	1.68%	-2.00%	-7.54%	-0.14%	13.92%	4.12%	32.11%
2024	0.26%	5.72%	3.00%	-5.18%	9.65%	4.17%	2.68%	-6.59%	-2.00%	-1.27%			9.74%

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

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Investing in the notes linked to the Index involves a number of risks. See "Selected Risks" on page 3 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.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this document or the accompanying product supplement, underlying supplement, prospectus supplement or prospectus. Any representation to the contrary is a criminal offense.

The notes are not bank deposits, are not insured by the Federal Deposit Insurance Corporation or any other governmental agency and are not obligations of, or guaranteed by, a bank.

Selected Risks

- Our affiliate, J.P. Morgan Securities LLC ("JPMS"), is the sponsor and calculation agent of the Index and may adjust the Index in a way that affects its level.
- The level of the Index will include the deduction of a fee of 0.95% per annum and, in some circumstances, a notional financing cost based on the Effective Federal Funds Rate.
- JPMorgan Chase & Co. is currently one of the companies that make up the Constituent.
- There are risks associated with the Index's turn-of-month strategy.
- There are risks associated with the Index's option expiry momentum strategy.
- There are risks associated with the Index's mean reversion strategy.
- The Index's strategies are applied during only a portion of each month.
- The Index may be adversely affected by an overlap between its turn-of-the-month strategy and its month-end mean reversion strategy.
- The Index may be uninvested in the Constituent.
- The Constituent of the Index may be replaced by a substitute index in certain extraordinary events.
- The notional cash return will be negatively affected if the underlying interest rate is negative.
- The Index, which was established on December 22, 2020, has a limited operating history and may perform in unanticipated ways.
- The Index comprises notional assets and liabilities. There is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest.
- The Index may not be successful or outperform any alternative strategy that may be employed of the Constituents.
- The Effective Federal Funds Rate is affected by a number of factors and may be volatile.
- The method pursuant to which the Effective Federal Funds Rate is determined may change, and any such change may adversely affect the value of notes linked to the Index.

The risks identified above are not exhaustive. You should also review carefully the related "Risk Factors" section in the prospectus supplement and the relevant product supplement and underlying supplement and the "Selected Risk Considerations" in the relevant pricing supplement.

Disclaimer

Important Information

The information contained in this document is for discussion purposes only. Any information relating to performance contained in these materials is illustrative and no assurance is given that any indicative returns, performance or results, whether historical or hypothetical, will be achieved. All information herein is subject to change without notice, however, J.P. Morgan undertakes no duty to update this information. In the event of any inconsistency between the information presented herein and any offering document, the offering document shall govern.

Use of hypothetical backtested returns

Any backtested historical performance and weighting information included herein is hypothetical. The constituent may not have traded in the manner shown in the hypothetical backtest of the Index included herein, and no representation is being made that the Index will achieve similar performance. There are frequently significant differences between hypothetical backtested performance and actual subsequent performance.

The results obtained from backtesting information should not be considered indicative of the actual results that might be obtained from an investment in notes referencing the Index. J.P. Morgan provides no assurance or guarantee that notes linked to the Index will operate or would have operated in the past in a manner consistent with these materials. The hypothetical historical levels presented herein have not been verified by an independent third party, and such hypothetical historical levels have inherent limitations. Alternative simulations, techniques, modeling or assumptions might produce significantly different results and prove to be more appropriate. Actual results will vary, perhaps materially, from the hypothetical backtested returns and allocations presented in this document. HISTORICAL AND BACKTESTED PERFORMANCE AND ALLOCATIONS ARE NOT INDICATIVE OF FUTURE RESULTS.

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