

J.P.Morgan

# J.P. Morgan Kronos US Equity (JPUSKRSP) Index

March 2024

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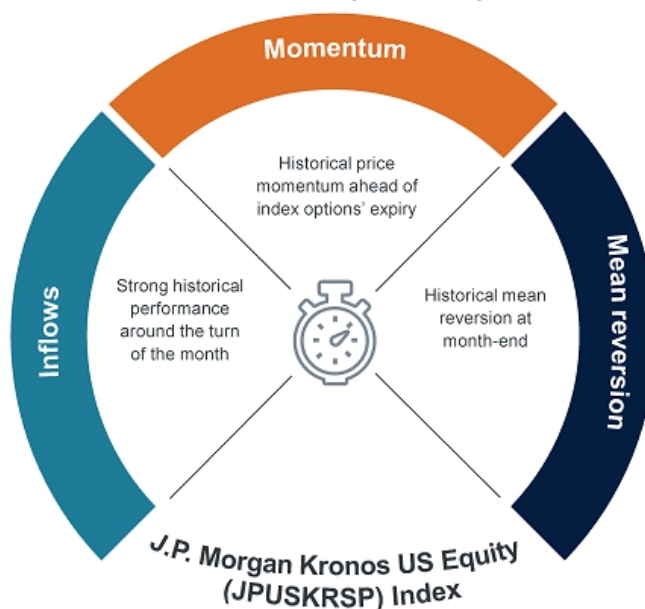
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## Executive summary

### J.P. Morgan Kronos US Equity (JPUSKRSP) Index

- The J.P. Morgan Kronos US Equity (JPUSKRSP) Index ("the Index") attempts to provide a dynamic exposure to the S&P 500® Price Index ("the S&P 500") based on the following principles:
- The Index does not reflect the reinvestment of dividends and is subject to a daily deduction of 0.35% per annum

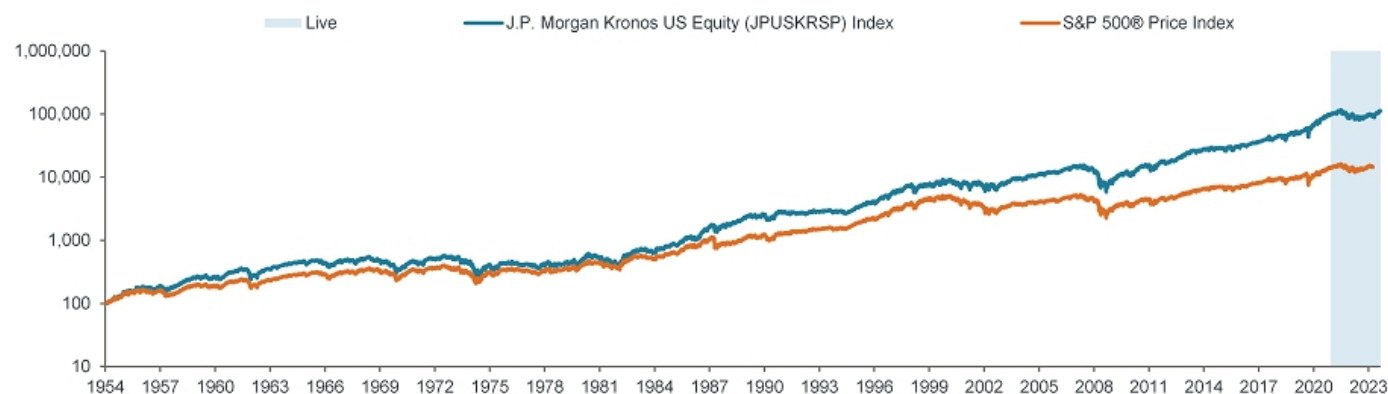


Note: Past performance is no guarantee of future performance. There can be no assurance that any strong performance, momentum, or mean-reversion will be observed regularly or at all in the future on the monthly cycle indicated by the Index

# J.P. Morgan Kronos US Equity (JPUSKRSP) Index would have outperformed over a 60Y+ horizon

Hypothetical backtested and actual performance

## HYPOTHETICAL BACKTESTED AND ACTUAL PERFORMANCE (JUL 1954 – FEB 2024)



## HYPOTHETICAL BACKTESTED AND ACTUAL PERFORMANCE STATISTICS (JUL 1954 – FEB 2024)

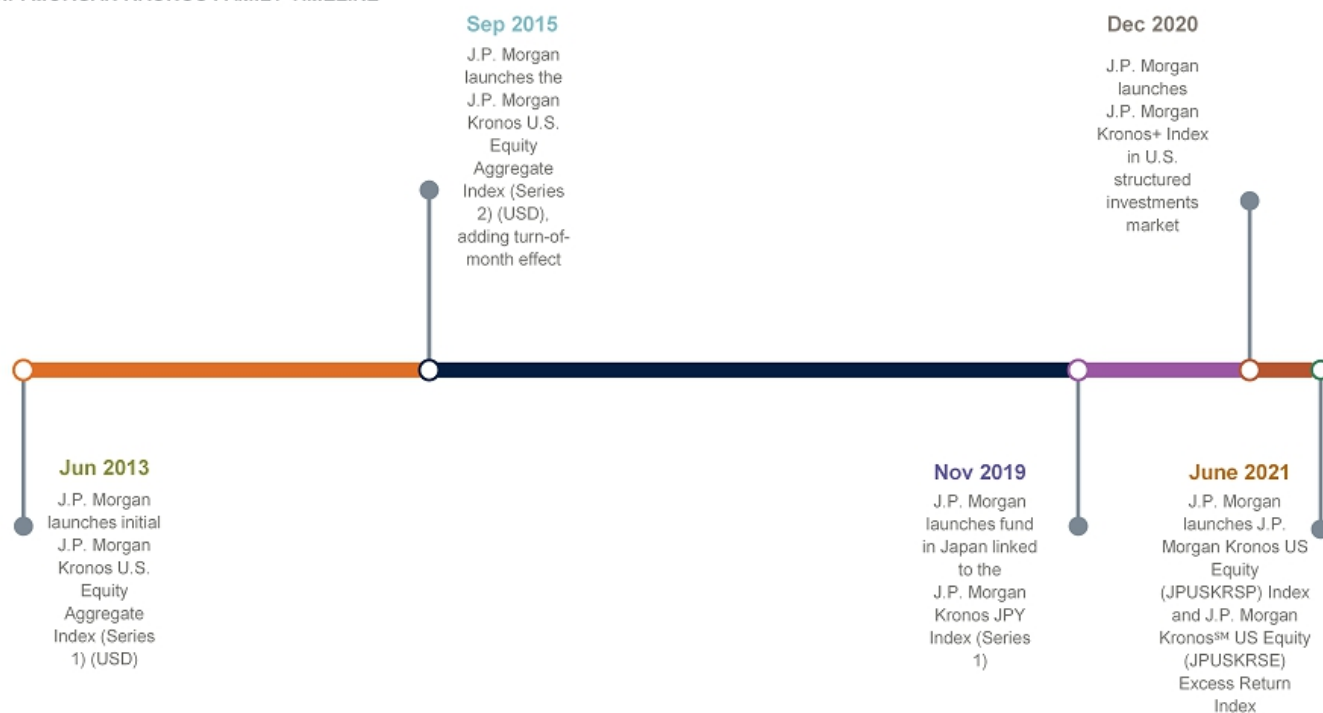
Index	Annualized return	Annualized volatility	Maximum drawdown
S&P 500® Price Index	7.65%	16.01%	-56.78%
J.P. Morgan Kronos US Equity (JPUSKRSP) Index	10.66%	18.97%	-62.02%

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through Jun 11, 2021 and the actual performance of the Index thereafter. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.

# J.P. Morgan Kronos family

## Chronology

### J.P. MORGAN KRONOS FAMILY TIMELINE





# The turn-of-month effect

## Index design principles

- Historically, the S&P 500's performance has been better the first few and last few days of the month than for the rest. Some have attributed this to:
  - month-end portfolio adjustments by institutions
  - distributions from pensions and other retirement accounts that are immediately reinvested
  - monthly investments by retail mutual fund investors through Systematic Investment Plans
- However, other factors may be responsible for this effect—there can be no assurance that any factor will persist or cause this effect in the future.

### HISTORICAL RETURN STATISTICS BY DAY-OF-MONTH FOR THE S&P 500® PRICE INDEX (JUL 1954 – DEC 2023)

	First 4 trading days of the month	Middle of the month	Last 2 trading days of the month
Annualized return	25.18%	1.73%	20.89%
% of daily returns that are positive	56%	52%	54%

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index and any dividends on its underlying components from December 21, 1987 through December 29, 2023. **PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.**



## Momentum into monthly options expiry

S&P 500® INDEX COMPOUND AVERAGE RETURN ON DAYS NEAR MONTHLY OPTIONS EXPIRY DATES (JUL 1983 – DEC 2023)



- Historically, the S&P 500's return has exhibited momentum in the third week of the month (prior to the scheduled monthly options expiry): this week's return is on average approximately 11% of the return in the prior three weeks<sup>1</sup>
- Since this effect is only visible in the data since 1983, when the CBOE first listed S&P 500® index options, some have theorized this could be due to systematic call overwriting
- However, other factors may be responsible for this effect—there can be no assurance that any factor will persist or cause this effect in the future.

Source: J.P. Morgan. "Average daily returns for months in which the momentum signal was positive" are compound average daily returns of the S&P 500® Price Index on the specified days in months in which the S&P 500® Price Index return during the period from the trading day following the prior options expiry to the 4<sup>th</sup> trading day prior to the options expiry (the "relevant period") is positive; "Average daily returns for months in which the momentum signal was negative" are compound average daily returns of the S&P 500® Price Index on the specified days in months in which the S&P 500® Price Index return during the period from the trading day following the prior options expiry to the 4<sup>th</sup> trading day prior to the options expiry (the "relevant period") is negative.

<sup>1</sup> Specifically, the least-squares regression from July 1983 to July 2021 of the trailing 4-trading day return as of the Monday following the third (3rd) Friday of the month (or if such Monday is a holiday, the prior trading day) against the return from the Monday following the third (3rd) Friday of the prior month to the trading day that is 5 trading days before the Monday following the third (3rd) Friday, has a slope of 11% and an intercept of 0%. Hypothetical or simulated performance results have certain inherent limitations. No representation is made that profits or losses similar to those which may be shown herein will be achieved.

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. It is not possible to invest directly in an Index.

# Mean reversion into month-end

## Index design principles

- Historically, the S&P 500's return has exhibited mean reversion in the last week of the month: this week's return is on average approximately -12% of the return in the prior weeks<sup>2</sup>
- Some theories speculate this might be due to month-end rebalancing flows from institutional investors targeting fixed portfolio weights
- However, other factors may be responsible for this effect—there can be no assurance that any factor will persist or cause this effect in the future.



<sup>2</sup> Specifically, the least-squares regression from July 1954 to December 2020 of the trailing 6-trading day return as of month-end against the return from the prior month-end to the trading day that is 6 trading days before month-end, has a slope of -12% and an intercept of 0%.

# Index construction

## J.P. Morgan Kronos US Equity (JPUSKRSP) Index

### Turn-of-month

- For the **first 4 trading days** of each month, the Index provides a **150% leveraged long** exposure to the S&P 500

### Options expiry

- Three trading days** before the 3<sup>rd</sup> Friday of the month (the customary monthly S&P 500 index options expiry), if the prior day's S&P 500 level is:
  - Above** its last closing price after the prior expiry, then the Index provides a **150% leveraged long** exposure to the S&P 500 through the close of the first trading day following the 3<sup>rd</sup> Friday of the month
  - Below** its last closing price after the prior expiry, then the Index allocates to 50% long exposure to the S&P 500
- The Index reverts this allocation at the close of the first trading day following such 3<sup>rd</sup> Friday

### Month-end

- Six trading days** before the last trading day of the month, if the prior day's S&P 500 level is:
  - Above** its closing price on the prior month-end, then the Index allocates 50% long exposure to the S&P 500 until close of the day 2 days prior to month-end, then provides 100% (unleveraged) exposure to the S&P 500 (due to overlap with the turn-of-month)
  - Below** its closing price on the prior month-end, the Index provides a **150% leveraged long** exposure to the S&P 500
- At month-end, the Index rebalances into (or maintains) its 150% leveraged start-of-month allocation

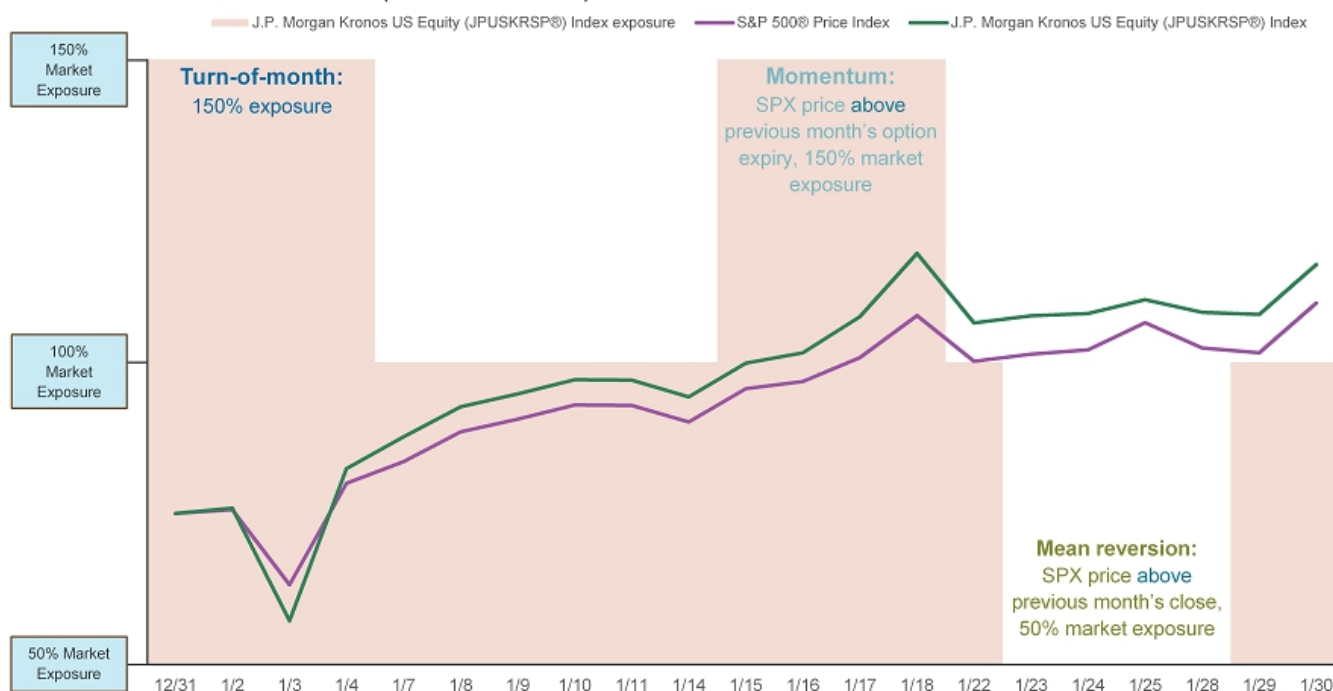
### Rest of the month

- Otherwise, the Index provides 100% (unleveraged) exposure to the S&P 500

- The Index is subject to a daily deduction of 0.35% per annum, even when the Index provides 50% exposure to the S&P 500. The notional financing cost is deducted only when 150% long exposure is provided

## Example Month – Index Construction

### HISTORICAL BACKTESTED EXPOSURE (DEC 2018 – JAN 2019)

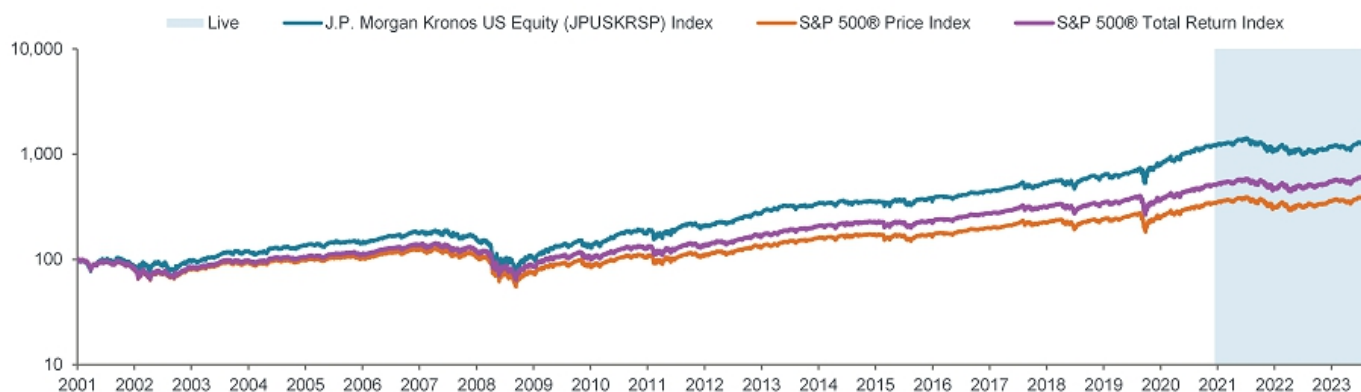


Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through Jun 11, 2021 and the actual performance of the Index thereafter. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.

# Its outperformance has been most pronounced in the past 20 years

## Hypothetical backtested and actual performance

### HYPOTHETICAL BACKTESTED AND ACTUAL PERFORMANCE (JUL 2001 – FEB 2024)



### HYPOTHETICAL BACKTESTED AND ACTUAL PERFORMANCE STATISTICS (JUL 2001 – FEB 2024)

Index	1Y ann.	3Y ann.	5Y ann.	10Y ann.	All Hist. ann.
S&P 500® Price Index Return	28.28%	10.14%	12.84%	10.60%	6.49%
Volatility	12.27%	17.43%	21.33%	17.78%	19.41%
S&P 500® Total Return Index Return	30.36%	11.88%	14.75%	12.69%	8.57%
Volatility	12.27%	17.43%	21.33%	17.78%	19.41%
J.P. Morgan Kronos US Equity (JPUSKRSP) Index Return	31.67%	7.96%	18.74%	15.67%	12.26%
Volatility	14.07%	20.44%	24.67%	20.75%	22.86%

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through June 11, 2021 and actual index performance thereafter. Volatility is defined as the annualized standard deviation of daily logarithmic returns over the time period above. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.

# Its outperformance has been most reliable in the past 10 years

## Hypothetical backtested and actual performance

### RELATIVE BACKTESTED PERFORMANCE BY HOLDING PERIOD (JUL 1954 – DEC 2023)

	... since inception	... in past 50Y	... in past 30Y	... in past 20Y	... in past 10Y	... in past 5Y
<b>1Y holding periods ending...</b>						
Number of periods	17236	12608	7555	5037	2520	1261
Average S&P 500 return	8.53%	8.99%	9.20%	9.03%	10.84%	10.45%
Average JPUSKRSP Index backtested return	11.96%	12.77%	14.19%	15.49%	16.57%	19.42%
% of periods in which JPUSKRSP Index outperformed	66.15%	65.82%	74.55%	80.50%	73.10%	68.52%
Average outperformance	7.28%	8.19%	8.47%	9.06%	9.40%	15.39%
Average underperformance	-4.11%	-4.71%	-5.22%	-4.30%	-4.23%	-5.03%
<b>3Y holding periods ending...</b>						
Number of periods	16732	12608	7555	5037	2520	1261
Average S&P 500 return	26.60%	28.93%	31.22%	26.35%	39.26%	40.37%
Average JPUSKRSP Index return	39.76%	43.87%	49.06%	52.60%	67.99%	82.27%
% of periods in which JPUSKRSP Index outperformed	65.58%	66.43%	76.74%	93.71%	95.79%	93.74%
Average outperformance	24.07%	26.70%	26.05%	28.15%	30.08%	44.86%
Average underperformance	-7.61%	-8.33%	-9.29%	-1.97%	-2.15%	-2.48%
<b>5Y holding periods ending...</b>						
Number of periods	16227	12607	7554	5036	2519	1260
Average S&P 500 return	47.89%	51.81%	55.84%	40.12%	73.55%	67.08%
Average JPUSKRSP Index return	73.57%	80.93%	87.70%	90.12%	138.53%	144.15%
% of periods in which JPUSKRSP Index outperformed	66.95%	68.75%	80.01%	100.00%	100.00%	100.00%
Average outperformance	43.68%	47.68%	44.12%	50.00%	64.97%	77.07%
Average underperformance	-10.78%	-11.70%	-17.23%	N/A	N/A	N/A

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through June 11, 2021 and actual index performance thereafter. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.



# Its outperformance has been most reliable in the past 10 years

## Hypothetical backtested and actual performance

### RELATIVE BACKTESTED PERFORMANCE BY HOLDING PERIOD (JAN 1988 – DEC 2023)

	... in past 30Y	... in past 20Y	... in past 10Y	... in past 5Y
<b>1Y holding periods ending...</b>				
Number of periods	7428	4910	2393	1134
Average S&P 500 Total Return Index return	11.26%	11.08%	12.82%	12.00%
Average JPUSKRSP Index backtested return	14.29%	15.67%	17.01%	20.66%
% of periods in which JPUSKRSP Index outperformed	65.66%	71.77%	60.26%	69.58%
Average outperformance	7.46%	7.98%	9.45%	14.61%
Average underperformance	-5.47%	-4.03%	-3.78%	-4.96%
<b>3Y holding periods ending...</b>				
Number of periods	7429	4911	2394	1135
Average S&P 500 Total Return Index return	39.38%	34.01%	48.35%	49.59%
Average JPUSKRSP Index return	49.40%	53.21%	70.05%	88.19%
% of periods in which JPUSKRSP Index outperformed	65.45%	82.85%	86.97%	98.06%
Average outperformance	22.68%	23.97%	25.48%	39.39%
Average underperformance	-13.97%	-3.86%	-3.55%	-1.01%
<b>5Y holding periods ending...</b>				
Number of periods	7429	4911	2394	1135
Average S&P 500 Total Return Index return	72.82%	54.21%	92.86%	84.75%
Average JPUSKRSP Index return	87.16%	89.36%	139.50%	146.81%
% of periods in which JPUSKRSP Index outperformed	69.73%	93.85%	95.99%	100.00%
Average outperformance	34.98%	37.60%	48.72%	62.06%
Average underperformance	-33.21%	-2.26%	-3.15%	N/A

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through June 11, 2021 and actual index performance thereafter. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.



# The Index would have delivered positive performance in the last 2 S&P 500 down years

Hypothetical backtested and actual performance

## ANNUAL BACKTESTED INDEX PERFORMANCE COMPARISON (1957 – 2023)

Year	S&P 500® Price Index	S&P 500® Total Return Index	J.P. Morgan Kronos US Equity (JPUSKRSP) Index	Year	S&P 500® Price Index	S&P 500® Total Return Index	J.P. Morgan Kronos US Equity (JPUSKRSP) Index	Year	S&P 500® Price Index	S&P 500® Total Return Index	J.P. Morgan Kronos US Equity (JPUSKRSP) Index
1957	-14.31%		-6.36%	1979	12.31%		12.81%	2001	-13.04%	-11.89%	-0.10%
1958	38.06%		43.76%	1980	25.77%		27.75%	2002	-23.37%	-22.10%	-12.19%
1959	8.48%		15.51%	1981	-9.73%		-14.21%	2003	26.38%	28.68%	28.50%
1960	-2.97%		-3.59%	1982	14.76%		15.53%	2004	8.99%	10.88%	16.89%
1961	23.13%		33.04%	1983	17.27%		25.05%	2005	3.00%	4.91%	9.95%
1962	-11.81%		-12.06%	1984	1.40%		4.08%	2006	13.62%	15.79%	16.71%
1963	18.89%		22.05%	1985	26.33%		30.14%	2007	3.53%	5.49%	10.25%
1964	12.97%		15.55%	1986	14.62%		14.55%	2008	-38.49%	-37.00%	-46.34%
1965	9.06%		7.82%	1987	2.03%		35.55%	2009	23.45%	26.46%	36.86%
1966	-13.09%		-15.82%	1988	12.40%		31.03%	2010	12.78%	15.06%	28.48%
1967	20.09%		22.49%	1989	27.25%	31.69%	25.87%	2011	0.00%	2.11%	10.34%
1968	7.66%		5.91%	1990	-6.56%	-3.10%	-3.83%	2012	13.40%	16.00%	18.74%
1969	-11.36%		-15.46%	1991	26.31%	30.47%	17.17%	2013	29.60%	32.39%	43.53%
1970	0.10%		-4.47%	1992	4.46%	7.62%	0.50%	2014	11.39%	13.69%	7.25%
1971	10.79%		15.35%	1993	7.06%	10.08%	5.14%	2015	-0.73%	1.38%	3.93%
1972	15.63%		16.02%	1994	-1.54%	1.32%	-8.43%	2016	9.54%	11.96%	10.69%
1973	-17.37%		-15.12%	1995	34.11%	37.58%	36.93%	2017	19.42%	21.83%	23.59%
1974	-29.72%		-37.24%	1996	20.26%	22.96%	25.53%	2018	-6.24%	-4.38%	3.42%
1975	31.55%		25.40%	1997	31.01%	33.36%	36.29%	2019	28.88%	31.49%	32.25%
1976	19.15%		19.21%	1998	26.67%	28.58%	13.16%	2020	16.26%	18.40%	53.87%
1977	-11.50%		-9.44%	1999	19.53%	21.04%	19.15%	2021	26.89%	28.71%	34.66%
1978	1.06%		-1.30%	2000	-10.14%	-9.10%	-5.60%	2022	-19.44%	-18.11%	-28.46%
								2023	24.23%	26.29%	28.43%

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through December 29, 2023. S&P 500® Total Return Index annual returns only provided from 1989, as the index was launched on Sep 11, 1989 with backtesting back to Jan 4, 1988.

PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS. Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated return

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# The Index would have generated strong returns on an absolute basis

## Hypothetical backtested and actual performance

### HYPOTHETICAL BACKTESTED AND ACTUAL MONTHLY AND ANNUAL RETURNS (JAN 2000 – FEB 2024)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2000	-9.46%	1.49%	14.99%	-3.23%	-5.51%	4.10%	-0.87%	7.57%	-5.13%	-1.12%	-7.78%	1.76%	-5.60%
2001	1.84%	-9.79%	-3.14%	8.94%	5.28%	-0.64%	-0.78%	-8.71%	-6.40%	3.07%	11.30%	1.30%	-0.10%
2002	0.33%	-2.78%	6.75%	-7.56%	-0.98%	-7.77%	2.72%	3.27%	-11.79%	9.57%	6.87%	-8.85%	-12.19%
2003	-4.78%	-1.46%	1.01%	10.16%	3.15%	1.41%	1.92%	1.33%	0.38%	6.43%	0.91%	5.67%	28.50%
2004	3.83%	0.52%	0.86%	-1.97%	2.73%	1.81%	-3.61%	-1.05%	1.54%	3.26%	4.75%	3.37%	16.89%
2005	-1.69%	1.69%	-1.49%	-0.27%	4.14%	1.20%	3.36%	-0.98%	1.79%	-3.18%	4.99%	0.29%	9.95%
2006	2.36%	-1.09%	1.19%	1.84%	-1.67%	-0.03%	0.69%	2.20%	1.59%	4.20%	2.50%	1.91%	16.71%
2007	1.05%	-1.06%	0.34%	5.07%	5.02%	-4.11%	0.07%	1.01%	2.48%	1.73%	-1.71%	0.28%	10.25%
2008	-4.05%	-5.98%	-4.61%	3.75%	3.03%	-8.76%	-4.45%	1.43%	-11.94%	-18.24%	-5.57%	-2.96%	-46.34%
2009	-4.95%	-13.27%	7.63%	10.45%	8.66%	-1.26%	7.61%	5.39%	4.33%	1.37%	6.25%	2.13%	36.86%
2010	-1.16%	1.82%	7.05%	2.75%	-7.90%	-5.69%	8.94%	-5.71%	11.23%	5.06%	2.55%	8.55%	28.48%
2011	2.07%	5.00%	0.06%	4.10%	-1.86%	-2.52%	0.16%	-4.37%	-6.74%	9.73%	4.37%	0.98%	10.34%
2012	6.03%	5.51%	2.28%	0.39%	-7.00%	3.07%	-0.83%	2.70%	4.40%	-0.62%	1.27%	0.79%	18.74%
2013	6.55%	2.44%	4.29%	2.20%	3.38%	1.23%	6.56%	-2.13%	3.89%	5.34%	3.25%	0.05%	43.53%
2014	-5.24%	3.89%	1.21%	-0.60%	2.24%	3.00%	-0.67%	2.26%	-1.31%	3.10%	2.74%	-3.16%	7.25%
2015	-5.54%	7.01%	-1.53%	0.76%	1.66%	-2.52%	1.77%	-1.86%	-4.85%	9.71%	1.20%	-0.88%	3.93%
2016	-4.42%	-2.00%	9.17%	-0.46%	2.19%	0.80%	3.82%	-0.12%	-0.30%	-2.76%	2.70%	2.24%	10.69%
2017	1.88%	4.25%	0.68%	0.68%	1.44%	0.95%	2.06%	1.46%	1.77%	2.62%	2.60%	1.02%	23.59%
2018	7.70%	-7.23%	-1.58%	1.40%	3.48%	2.36%	4.06%	2.89%	0.54%	-6.85%	5.21%	-7.20%	3.42%
2019	9.15%	3.92%	3.15%	4.15%	-8.68%	9.82%	1.49%	-3.45%	2.57%	0.88%	3.99%	2.63%	32.25%
2020	1.26%	-5.12%	0.70%	12.59%	3.68%	4.66%	6.75%	7.51%	-2.56%	-1.35%	13.25%	4.21%	53.87%
2021	0.80%	3.77%	2.54%	6.25%	1.69%	1.71%	1.23%	3.28%	-4.86%	9.18%	0.85%	4.31%	34.66%
2022	-6.76%	-1.55%	-1.19%	-12.37%	4.55%	-8.61%	10.54%	-4.84%	-10.90%	8.99%	3.18%	-10.62%	-28.46%
2023	6.56%	-2.62%	6.06%	2.04%	-2.22%	7.99%	2.41%	-1.86%	-6.20%	-1.13%	11.42%	4.29%	28.43%
2024	0.94%	5.47%											6.46%

Source: J.P. Morgan. Historical performance measures for the Index represent hypothetical backtested performance using the actual performance of the S&P 500® Price Return Index from June 21, 1954 through June 11, 2021 and actual index performance thereafter. **PAST PERFORMANCE AND BACKTESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS.** Please see "Use of hypothetical backtested returns" at the front of this document for further information related to backtesting including a discussion of certain limitation of backtesting and simulated returns.

## Selected risks associated with the Index

**Our affiliate, J.P. Morgan Securities plc ("JPMS plc"), is the sponsor and calculation agent of the Index and may adjust the Index in a way that affects its level**—Policies and judgments for which JPMS plc is responsible could have an impact, positive or negative, on the level of the Index and the value of your investment. JPMS plc may have interests adverse to your interests as an investor in notes linked to the Index, and JPMS plc is under no obligation to consider your interests.

**The level of the Index will include the deduction of a fee of 0.35% per annum and, in some circumstances, a notional financing cost based on the Effective Federal Funds Rate**—This index fee and, when the exposure to the S&P 500 Index (the "Constituent") is leveraged, the notional financing cost will be deducted daily. As a result of the deduction of this index fee and, when applicable, the notional financing cost, the level of the Index will trail the value of a hypothetical identically constituted synthetic portfolio from which no such fee or cost is deducted, assuming that the rates underlying the notional financing cost remain positive.

**JPMorgan Chase & Co. is currently one of the companies that make up the Constituent**—JPMC will not, however, have any obligation to consider your interests in taking any corporate action that might affect the level of the Constituent.

**There are risks associated with the Index's turn-of-month strategy**—No assurance can be given that the turn-of-the-month strategy will be successful or that it will outperform any alternative strategy.

**There are risks associated with the Index's option expiry momentum strategy**—No assurance can be given that the options expiry momentum strategy will be successful or that it will outperform any alternative strategy.

**There are risks associated with the Index's mean reversion strategy**—No assurance can be given that the month-end mean reversion strategy will be successful or that it will outperform any alternative strategy.

**The Index's strategies are applied during only a portion of each month**—Each of the Index's strategies is implemented over only a limited number of days in a calendar month as described above. Outside of these limited number of days, the Index will track 100% of the performance of the Constituent (subject to the deduction of the index fee) and will not benefit from the application of any strategy. The Index may underperform the Constituent due to the limited application of the strategies along with the deduction of the index fee and, when applicable, the notional financing cost.

## Selected risks associated with the Index

**The Index may be adversely affected by an overlap between its turn-of-the-month strategy and its month-end mean reversion strategy**—During the final two Index Business Days of each month, the turn-of-the-month strategy and the month-end mean revision strategy are both applicable, subject to a maximum exposure to the Constituent of 150%. As a result, the exposure to the Constituent may be higher or lower than would have been the case had only one of those strategies been applied and the performance of the Index may be worse than if only one strategy were applied or no maximum exposure limit were applied.

**The Index may be significantly uninvested in the Constituent**—The level of the Constituent may increase significantly while the exposure of the Index to the Constituent is 50%, but the Index will benefit from only 50% of any such increase. The index fee is deducted daily at a rate of 0.35% per annum, even when the Index provides only 50% exposure to the Constituent.

**The Constituent of the Index may be replaced by a substitute index in certain extraordinary events**—Changing a Constituent may affect the performance of the Index, and therefore, the return on an investment, as the replacement Constituent may perform significantly better or worse than the original Constituent.

**The notional cash return will be negatively affected if the underlying interest rate is negative**—If the Effective Federal Funds Rate becomes negative, when the exposure to the Constituent is 0%, the notional cash return will have a negative effect on the performance of the Index and therefore the value of the notes.

### Other key risks:

- The Index, which was established on June 11, 2021, 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 might be employed in respect 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 carefully review the related “Risk Factors” section in the relevant product supplement and underlying supplement and the “Selected Risk Considerations” in the relevant pricing supplement.



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