

OCTOBER 2024

# J.P. Morgan Multi-Asset 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
1994		-0.09%	-1.57%	-1.08%	0.42%	-1.80%	0.57%	-1.18%	-1.11%	-0.29%	-1.52%	-0.31%	-7.70%
1995	-0.34%	2.08%	3.01%	1.53%	2.51%	0.57%	0.22%	-0.31%	1.29%	-0.09%	2.25%	0.63%	14.10%
1996	-1.05%	-1.94%	1.69%	0.96%	1.10%	-1.46%	-2.13%	1.81%	3.19%	1.82%	2.25%	-1.42%	4.73%
1997	0.75%	0.39%	-0.23%	0.64%	-0.56%	0.87%	4.08%	-1.20%	2.32%	-0.15%	-1.00%	0.13%	6.08%
1998	0.75%	1.03%	1.45%	0.57%	-0.28%	0.75%	0.88%	-0.45%	2.32%	-0.40%	1.44%	-2.09%	6.06%
1999	0.86%	-1.69%	-0.76%	0.88%	-1.79%	-1.19%	-0.47%	0.43%	1.99%	-0.32%	0.38%	1.35%	-0.40%
2000	-0.27%	1.89%	0.40%	-0.74%	0.93%	1.37%	-0.22%	1.50%	0.00%	-0.08%	0.65%	-1.04%	4.43%
2001	1.23%	0.18%	-0.51%	0.67%	-0.05%	0.58%	-0.92%	0.74%	-0.84%	0.74%	-0.84%	-0.14%	0.81%
2002	-0.40%	0.72%	0.70%	1.37%	-0.21%	-0.39%	-1.02%	1.46%	0.92%	-1.06%	-0.68%	2.34%	3.75%
2003	0.65%	0.43%	-2.02%	0.44%	3.14%	-1.25%	-2.28%	0.09%	0.40%	0.77%	1.06%	1.98%	3.33%
2004	0.37%	1.22%	0.57%	-1.70%	-0.05%	-0.34%	-0.04%	1.23%	1.09%	1.49%	0.62%	0.11%	4.62%
2005	0.56%	0.24%	2.13%	-0.43%	0.53%	1.37%	1.03%	0.94%	1.54%	-0.68%	2.89%	2.45%	13.24%
2006	1.12%	-1.34%	0.12%	-0.39%	-2.61%	-1.29%	0.72%	0.67%	-0.49%	0.84%	-0.12%	0.01%	-2.80%
2007	0.34%	-0.74%	-0.14%	2.03%	0.00%	-0.29%	-0.99%	-0.09%	0.27%	1.97%	1.76%	0.96%	5.13%
2008	-0.98%	1.20%	0.23%	-0.46%	1.76%	-0.24%	0.66%	0.57%	-2.46%	-5.12%	2.92%	3.26%	1.03%
2009	-1.08%	-0.65%	0.40%	-0.73%	-0.62%	0.21%	1.27%	0.63%	0.73%	-0.86%	2.43%	-2.22%	-0.58%
2010	-0.35%	0.26%	1.36%	1.32%	-0.75%	0.31%	-0.49%	2.44%	0.68%	0.90%	-0.82%	-0.17%	4.74%
2011	-0.58%	0.76%	-0.83%	2.52%	-0.05%	-0.79%	2.07%	2.73%	-1.64%	1.05%	-0.04%	1.24%	6.51%
2012	0.88%	0.25%	0.14%	0.89%	0.57%	-0.89%	0.34%	0.20%	0.20%	-0.32%	1.13%	0.85%	4.29%
2013	0.81%	2.19%	2.33%	2.41%	-0.78%	-1.91%	1.03%	-1.60%	2.23%	1.08%	1.10%	0.11%	9.27%
2014	-0.22%	0.61%	0.08%	0.58%	1.75%	0.05%	-0.26%	2.44%	1.01%	1.12%	2.99%	2.07%	12.87%
2015	1.85%	-0.38%	0.89%	-1.28%	0.51%	-1.03%	1.19%	-2.78%	0.34%	1.44%	0.40%	-0.32%	0.73%
2016	0.03%	2.47%	0.17%	-0.47%	-0.87%	2.67%	0.35%	-1.50%	0.09%	-1.95%	-0.69%	0.27%	0.45%
2017	-0.62%	1.84%	-0.62%	0.80%	0.40%	-0.79%	0.19%	0.02%	0.86%	2.41%	1.23%	1.13%	7.02%
2018	3.18%	-3.47%	-0.41%	1.07%	1.48%	0.70%	-0.89%	1.34%	0.24%	-2.59%	-1.26%	1.48%	0.67%
2019	0.14%	-0.29%	0.53%	0.82%	0.50%	2.53%	0.57%	3.06%	-1.20%	1.04%	-0.39%	0.13%	7.65%
2020	1.43%	-2.67%	1.62%	1.45%	0.67%	0.20%	1.25%	0.43%	-0.70%	-1.62%	0.81%	0.67%	3.50%
2021	-0.20%	-0.77%	-0.10%	-0.35%	0.32%	0.43%	0.70%	0.25%	-0.98%	0.57%	-1.62%	1.78%	-0.01%
2022	-2.45%	-0.01%	0.69%	-1.16%	-0.31%	-2.01%	1.20%	-2.30%	-3.07%	-0.02%	2.34%	-1.38%	-8.29%
2023	1.40%	-1.45%	2.77%	1.08%	0.12%	0.81%	-0.49%	-0.06%	-1.07%	-0.96%	2.64%	0.00%	4.80%
2024	0.76%	1.41%	1.37%	-1.16%	0.20%	0.79%	-0.87%	0.42%	0.98%				3.92%

Please refer to the "Selected Risks" and "Disclaimer" at the end of this presentation.

Historical performance measures for the J.P. Morgan Multi-Asset Index (the "Index") represent hypothetical backtested performance using the performance of each Constituent from February 22, 1994 through November 17, 2022, and actual performance of the Index from November 18, 2022 through September 30, 2024. Please see "Use of hypothetical backtested returns" at the end of this presentation for additional information related to backtesting and the use of alternative performance.

Except as noted above and in the sections 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" at the end of this presentation, "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.

## Hypothetical and Actual Historical Monthly Weights

Backtested  Actual

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Sep 24	30%	-10%	5%	—	—	40%	-5%	35%	—	5%
Aug 24	15%	—	5%	15%	-10%	40%	5%	25%	—	5%

The Constituents are identified above by their respective tickers. Please refer to the "Selected Risks" and "Disclaimer" at the end of this presentation.

The hypothetical and actual historical monthly weights set forth above represent the monthly reference portfolio weights applied to hypothetical backtested performance of the Index using the hypothetical backtested performance of some the Constituents from February 22, 1994 through November 26, 2021 and actual performance of the Constituent from November 29, 2021 through November 17, 2022 and actual performance of the Index using actual performance of the Index from November 18, 2022 to September 30, 2024.

Please see the "Use of hypothetical backtested returns" at the end of this presentation for additional information related to backtesting and the use of alternative performance in the backtest. PAST ALLOCATIONS TO CONSTITUENTS, HYPOTHETICAL OR ACTUAL, ARE NOT INDICATIVE OR PREDICTIVE OF FUTURE ALLOCATIONS.

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Jul 24	35%	-10%	–	10%	-10%	20%	5%	40%	5%	5%
Jun 24	25%	-10%	15%	10%	-10%	25%	-5%	40%	–	10%
May 24	20%	-10%	5%	10%	-10%	15%	5%	40%	5%	20%
Apr 24	25%	-10%	5%	15%	-10%	25%	–	40%	–	10%
Mar 24	30%	-10%	5%	15%	-10%	25%	5%	40%	–	–
Feb 24	30%	-10%	5%	15%	-10%	30%	5%	40%	–	-5%
Jan 24	25%	-5%	–	10%	-10%	15%	20%	40%	–	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 23	25%	-10%	–	15%	-5%	40%	-10%	40%	–	5%
Nov 23	10%	-10%	10%	10%	-10%	40%	-5%	40%	–	15%
Oct 23	5%	-10%	10%	15%	-10%	40%	5%	40%	5%	–
Sep 23	10%	-10%	10%	15%	-10%	40%	5%	40%	–	–
Aug 23	15%	-10%	5%	15%	-10%	40%	5%	40%	–	–
Jul 23	10%	-10%	10%	15%	-10%	40%	5%	40%	–	–
Jun 23	10%	-10%	10%	20%	-10%	40%	-5%	40%	-5%	10%
May 23	10%	-10%	15%	15%	–	40%	-10%	40%	-5%	5%
Apr 23	10%	-10%	15%	10%	5%	35%	-10%	40%	-5%	10%
Mar 23	5%	-5%	5%	10%	–	40%	–	40%	–	5%
Feb 23	-5%	–	10%	10%	-5%	40%	-10%	40%	–	20%
Jan 23	–	-10%	10%	10%	10%	40%	-10%	40%	5%	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 22	–	-10%	15%	10%	–	40%	–	40%	5%	–
Nov 22	–	-10%	10%	10%	5%	40%	-5%	40%	–	10%
Oct 22	10%	-10%	–	15%	-5%	40%	5%	40%	–	5%
Sep 22	–	–	–	10%	-10%	40%	10%	40%	10%	–
Aug 22	10%	-10%	5%	10%	-10%	40%	10%	40%	–	5%
Jul 22	5%	-10%	10%	5%	-10%	40%	10%	40%	5%	5%
Jun 22	5%	-5%	10%	5%	-10%	40%	10%	40%	5%	–
May 22	10%	-10%	10%	5%	-5%	40%	-10%	40%	–	20%
Apr 22	20%	-10%	10%	–	-5%	40%	-10%	40%	5%	10%
Mar 22	25%	-10%	-5%	–	–	40%	-10%	40%	5%	15%
Feb-22	20%	-10%	-5%	5%	-10%	5%	40%	40%	10%	5%
Jan-22	35%	-10%	5%	–	30%	-10%	10%	40%	–	–

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 21 (12/24-12/27)	35%	-10%	5%	–	30%	-10%	10%	40%	–	–
Dec 21 (11/23-12/23)	15%	-5%	5%	10%	-10%	–	35%	40%	10%	–
Nov 21	15%	-5%	–	10%	-10%	30%	10%	40%	10%	–
Oct 21	20%	–	-10%	15%	-10%	40%	5%	40%	5%	-5%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Sep 21	20%	—	—	5%	5%	-10%	40%	40%	5%	-5%
Aug 21	25%	-5%	—	5%	5%	-10%	40%	40%	5%	-5%
Jul 21	10%	5%	—	10%	-10%	5%	40%	40%	5%	-5%
Jun 21	15%	-5%	5%	10%	-10%	25%	10%	40%	5%	5%
May 21	5%	5%	—	10%	-10%	40%	5%	40%	5%	—
Apr 21	-5%	5%	5%	10%	-10%	10%	40%	40%	5%	—
Mar 21	5%	5%	-5%	10%	20%	40%	-10%	30%	—	5%
Feb 21	5%	5%	-5%	10%	30%	35%	-10%	25%	—	5%
Jan 21	5%	5%	-5%	10%	25%	40%	-10%	25%	—	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 20	10%	—	-5%	10%	40%	35%	-10%	15%	—	5%
Nov 20	15%	-5%	-5%	10%	35%	40%	5%	—	—	5%
Oct 20	15%	-10%	—	10%	40%	40%	-5%	5%	—	5%
Sep 20	20%	-10%	—	5%	35%	40%	-5%	10%	—	5%
Aug 20	15%	-10%	5%	—	25%	40%	-10%	25%	—	10%
Jul 20	15%	-10%	5%	5%	35%	40%	-5%	10%	—	5%
Jun 20	15%	-10%	—	5%	40%	40%	-5%	5%	—	10%
May 20	20%	-10%	-5%	5%	40%	40%	5%	-5%	—	10%
Apr 20	20%	-10%	-10%	10%	40%	40%	10%	-10%	—	10%
Mar 20 (3/13-3/25)	10%	-10%	—	10%	15%	35%	40%	-10%	—	10%
Mar 20 (3/3-3/13)	20%	-10%	5%	—	40%	10%	25%	5%	-5%	10%
Mar 20 (2/24-3/2)	30%	-10%	10%	5%	35%	—	5%	10%	-5%	20%
Feb 20	35%	-10%	5%	10%	35%	10%	10%	-10%	—	15%
Jan 20	35%	-10%	5%	10%	20%	30%	10%	-10%	—	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 19	20%	-10%	20%	5%	40%	5%	15%	-5%	—	10%
Nov 19	15%	-5%	15%	10%	25%	-10%	10%	25%	-5%	20%
Oct 19	15%	-10%	15%	10%	5%	-10%	40%	15%	—	20%
Sep 19	20%	-10%	-5%	5%	40%	-10%	40%	5%	—	15%
Aug 19	25%	-10%	—	—	10%	-5%	40%	25%	-5%	20%
Jul 19	30%	-10%	5%	-5%	40%	10%	40%	-10%	-5%	5%
Jun 19	25%	-10%	10%	-10%	35%	15%	40%	-10%	-5%	10%
May 19	25%	-10%	10%	—	40%	10%	40%	-10%	5%	-10%
Apr 19	30%	-10%	5%	5%	40%	10%	40%	-10%	—	-10%
Mar 19	-10%	25%	-5%	—	30%	-10%	40%	15%	—	15%
Feb 19	5%	10%	—	-5%	20%	-10%	40%	30%	-5%	15%
Jan 19	10%	-10%	5%	5%	-10%	20%	30%	40%	-10%	20%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 18	15%	-10%	-	5%	-10%	15%	35%	40%	-10%	20%
Nov 18	15%	-10%	-5%	10%	-10%	-5%	40%	40%	10%	15%
Oct 18	20%	-5%	-10%	15%	-10%	10%	40%	40%	10%	-10%
Sep 18	-5%	20%	-	10%	-10%	25%	40%	25%	10%	-15%
Aug 18	20%	-	-	10%	-10%	10%	40%	40%	5%	-15%
Jul 18	-10%	20%	-5%	10%	-10%	25%	30%	35%	15%	-10%
Jun 18	-5%	10%	-	10%	-10%	10%	40%	40%	15%	-10%
May 18	-5%	5%	-	10%	-10%	25%	25%	40%	15%	-5%
Apr 18	-10%	15%	-10%	15%	-10%	5%	40%	40%	10%	5%
Mar 18	20%	-10%	-10%	10%	-10%	40%	5%	40%	-	15%
Feb 18 (2/6-2/22)	5%	-10%	5%	20%	-10%	30%	-10%	40%	10%	20%
Feb 18 (1/25-2/5)	40%	-5%	5%	10%	-10%	-10%	5%	40%	10%	15%
Jan 17	40%	-	-	20%	-5%	-10%	-	35%	5%	15%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 17	40%	-	-	10%	-5%	-	10%	35%	10%	-
Nov 17	35%	-5%	10%	20%	-10%	-10%	30%	20%	-	10%
Oct 17	40%	-10%	5%	20%	-10%	-10%	10%	40%	5%	10%
Sep 17	40%	-10%	5%	20%	-10%	-10%	30%	30%	-	5%
Aug 17	40%	-	-	15%	-10%	40%	-5%	20%	-	-
Jul 17	30%	-5%	10%	15%	-10%	20%	30%	15%	-5%	-
Jun 17	30%	-10%	15%	10%	-10%	30%	15%	15%	-5%	10%
May 17	15%	10%	5%	5%	-	-	40%	15%	-5%	15%
Apr 17	40%	-10%	10%	5%	-10%	15%	5%	35%	-5%	15%
Mar 17	35%	-	-	5%	-10%	30%	30%	5%	-	5%
Feb 17	15%	10%	-	5%	-10%	10%	25%	35%	-	10%
Jan 17	10%	10%	-	5%	-10%	20%	40%	30%	-	-5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 16	-10%	25%	-5%	5%	-10%	20%	30%	40%	-	5%
Nov 16	5%	5%	5%	-	25%	-5%	40%	20%	5%	-
Oct 16	15%	-	5%	-	-10%	-	40%	40%	-5%	15%
Sep 16	15%	-	5%	-5%	25%	-5%	40%	15%	-	10%
Aug 16	20%	-5%	5%	-	10%	-10%	30%	40%	-5%	15%
Jul 16	25%	-10%	-	-5%	20%	-10%	40%	30%	-	10%
Jun 16	25%	-10%	-	-5%	10%	-10%	40%	40%	-	10%
May 16	25%	-5%	-	-	-10%	35%	5%	40%	-5%	15%
Apr 16	25%	-10%	5%	-5%	-5%	15%	30%	40%	-5%	10%
Mar 16	20%	-10%	5%	-5%	35%	-10%	25%	30%	-	10%
Feb 16	25%	-10%	-	-	-10%	10%	40%	40%	-5%	10%
Jan 16	20%	-10%	5%	10%	-5%	40%	5%	40%	-5%	-

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 15	5%	—	10%	5%	-10%	15%	35%	40%	-5%	5%
Nov 15	10%	-10%	10%	5%	-5%	10%	40%	35%	-5%	10%
Oct 15	-5%	20%	5%	—	20%	-10%	35%	35%	-5%	5%
Sep 15	—	5%	-5%	15%	-10%	25%	25%	40%	-5%	10%
Aug 15	10%	—	5%	15%	-5%	40%	5%	40%	-5%	-5%
Jul 15	—	10%	—	20%	—	40%	—	40%	—	-10%
Jun 15	10%	—	5%	20%	15%	35%	-5%	25%	—	-5%
May 15	-5%	10%	5%	20%	25%	-10%	40%	20%	—	-5%
Apr 15	5%	5%	5%	15%	25%	-5%	40%	20%	-5%	-5%
Mar 15	25%	-5%	—	10%	35%	-10%	40%	15%	-5%	-5%
Feb 15	35%	-10%	—	—	15%	-10%	40%	35%	-10%	5%
Jan 15	20%	—	—	—	10%	-10%	40%	40%	-10%	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 14	25%	-5%	—	10%	10%	-10%	40%	40%	-10%	—
Nov 14	30%	-10%	—	—	35%	-10%	40%	15%	-5%	5%
Oct 14	40%	-10%	5%	10%	10%	-10%	40%	35%	-15%	-5%
Sep 14	40%	-5%	-10%	10%	30%	-10%	40%	20%	-5%	-10%
Aug 14	40%	-10%	5%	5%	30%	-10%	40%	15%	-5%	-10%
Jul 14	30%	-10%	10%	5%	-10%	-10%	35%	35%	15%	—
Jun 14	35%	-10%	5%	—	5%	-10%	40%	40%	5%	-10%
May 14	30%	-10%	10%	-5%	-10%	5%	40%	40%	5%	-5%
Apr 14	35%	—	-5%	—	10%	-10%	40%	40%	-5%	-5%
Mar 14	10%	5%	15%	—	10%	-10%	40%	40%	-5%	-5%
Feb 14	15%	5%	5%	5%	-10%	10%	40%	40%	—	-10%
Jan 14	5%	15%	5%	5%	-10%	30%	20%	40%	—	-10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 13	20%	—	—	10%	-10%	30%	20%	40%	—	-10%
Nov 13	-5%	15%	15%	5%	15%	-10%	30%	40%	—	-5%
Oct 13	-5%	10%	10%	10%	-10%	25%	20%	40%	5%	-5%
Sep 13	-10%	20%	5%	5%	-10%	40%	10%	40%	5%	-5%
Aug 13	5%	15%	5%	5%	-10%	35%	15%	40%	-5%	-5%
Jul 13	25%	-5%	—	5%	-10%	30%	20%	40%	-5%	—
Jun 13	40%	-10%	10%	5%	40%	—	20%	5%	-5%	-5%
May 13	35%	-10%	—	10%	35%	-10%	40%	5%	5%	-10%
Apr 13	-5%	20%	5%	15%	20%	-10%	30%	40%	-10%	-5%
Mar 13	10%	10%	—	15%	20%	-10%	30%	40%	—	-15%
Feb 13	10%	10%	5%	15%	30%	-10%	30%	20%	—	-10%
Jan 13	-5%	10%	15%	15%	20%	-10%	40%	25%	—	-10%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 12	25%	-10%	15%	5%	40%	-10%	40%	-	-	-5%
Nov 12	25%	-10%	15%	5%	35%	-10%	35%	15%	-	-10%
Oct 12	20%	-5%	15%	-	40%	-10%	30%	15%	-5%	-
Sep 12	30%	-10%	10%	-	40%	-10%	35%	10%	-	-5%
Aug 12	25%	-10%	5%	-5%	40%	-5%	40%	5%	-	5%
Jul 12	35%	-10%	-5%	5%	40%	-10%	15%	35%	-10%	5%
Jun 12	30%	-10%	-	-	40%	-10%	40%	10%	-	-
May 12	25%	-10%	-	-	40%	-	40%	-	5%	-
Apr 12	25%	-10%	5%	5%	40%	-10%	40%	-	5%	-
Mar 12	25%	-10%	5%	-	40%	-5%	35%	-	5%	5%
Feb 12	25%	-10%	-	-5%	40%	20%	25%	-5%	5%	5%
Jan 12	25%	-10%	-	-	40%	20%	20%	-	10%	-5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 11	25%	-10%	-	-5%	40%	5%	15%	20%	10%	-
Nov 11	20%	-10%	-	-	20%	15%	40%	5%	10%	-
Oct 11	25%	-10%	-5%	-	30%	5%	25%	20%	10%	-
Sep 11	20%	-10%	5%	-5%	5%	40%	35%	-5%	5%	10%
Aug 11 (8/10-8/25)	25%	-10%	-10%	5%	5%	5%	20%	40%	-	20%
Aug 11 (7/25-8/9)	40%	-10%	-5%	-	5%	40%	20%	-5%	-	15%
Jul 11	15%	-	5%	-5%	25%	40%	15%	-5%	-	10%
Jun 11	25%	-10%	5%	-5%	20%	35%	-5%	20%	-	15%
May 11	10%	-5%	10%	-5%	-10%	40%	20%	20%	5%	15%
Apr 11	20%	-5%	-	-5%	20%	35%	-10%	30%	5%	10%
Mar 11	15%	-5%	10%	5%	-10%	25%	30%	15%	5%	10%
Feb 11	25%	-10%	15%	-	-5%	40%	25%	5%	-	5%
Jan 11	-10%	15%	15%	-	-10%	40%	30%	15%	-	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 10	-10%	20%	15%	5%	-	40%	15%	25%	-10%	-
Nov 10	-	10%	15%	-5%	10%	40%	35%	-5%	-10%	10%
Oct 10	20%	-5%	5%	-5%	10%	35%	40%	-10%	-	10%
Sep 10	10%	-5%	10%	-5%	-	40%	40%	-	-5%	15%
Aug 10	-	5%	15%	-5%	10%	35%	40%	-5%	-5%	10%
Jul 10	-5%	5%	15%	-	15%	10%	40%	10%	-5%	15%
Jun 10	-10%	20%	5%	-	25%	-10%	40%	25%	-5%	10%
May 10	-5%	15%	-	5%	-5%	10%	40%	30%	5%	5%
Apr 10	5%	10%	5%	5%	-10%	25%	40%	25%	-	-5%
Mar 10	-	10%	5%	5%	-10%	35%	15%	40%	-	-
Feb 10	5%	-	10%	10%	-10%	25%	40%	20%	-5%	5%
Jan 10	10%	-	5%	5%	-10%	25%	20%	40%	-	5%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 09	20%	-10%	-	-	-	40%	5%	35%	-	10%
Nov 09	5%	-	-	5%	-10%	40%	10%	40%	-	10%
Oct 09	5%	-	5%	5%	-10%	40%	10%	40%	-5%	10%
Sep 09	-5%	5%	5%	5%	-10%	30%	25%	35%	-	10%
Aug 09	-	5%	-	5%	-10%	30%	25%	35%	-	10%
Jul 09	-5%	5%	5%	5%	-10%	25%	25%	40%	-	10%
Jun 09	5%	-	-	5%	-10%	40%	10%	40%	-	10%
May 09	-5%	10%	5%	5%	-10%	40%	30%	20%	-5%	10%
Apr 09	10%	-5%	-	5%	5%	40%	15%	20%	-	10%
Mar 09	-	5%	-	5%	-10%	25%	30%	35%	-	10%
Feb 09	-	5%	-	5%	10%	40%	10%	20%	-	10%
Jan 09	-	5%	-	5%	-10%	40%	10%	40%	-	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 08	-5%	5%	10%	-	-	30%	35%	15%	-	10%
Nov 08	-	5%	5%	-	-10%	40%	25%	25%	-	10%
Oct 08 (10/13-10/27)	-5%	10%	5%	-	-10%	40%	40%	10%	5%	5%
Oct 08 (10/10-10/13)	10%	-10%	5%	5%	-10%	15%	40%	35%	5%	5%
Oct 08 (9/24-10/9)	-10%	20%	-	5%	15%	40%	-5%	30%	5%	-
Sep 08	-5%	15%	5%	-	25%	20%	5%	30%	5%	-
Aug 08	-10%	15%	5%	5%	-	40%	5%	35%	5%	-
Jul 08	-5%	15%	10%	-5%	5%	40%	20%	15%	5%	-
Jun 08	-	10%	5%	5%	15%	40%	5%	15%	10%	-5%
May 08	5%	5%	-5%	5%	10%	40%	-10%	40%	15%	-5%
Apr 08	5%	5%	-5%	5%	30%	10%	-	40%	10%	-
Mar 08	20%	-10%	-	-	5%	40%	-10%	40%	10%	5%
Feb 08	20%	-10%	-	-	5%	40%	-5%	35%	-	15%
Jan 08	10%	-10%	20%	-5%	-	40%	-5%	40%	5%	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 07	10%	-10%	15%	-5%	40%	40%	-10%	10%	5%	5%
Nov 07	-	-	15%	-5%	20%	40%	-10%	20%	5%	15%
Oct 07	15%	-10%	10%	-5%	30%	40%	-10%	10%	5%	15%
Sep 07	5%	-	15%	5%	40%	10%	-10%	40%	-10%	5%
Aug 07	20%	-10%	20%	15%	15%	-	10%	35%	-	-5%
Jul 07	20%	-10%	15%	15%	-5%	40%	-10%	40%	5%	-10%
Jun 07	20%	-10%	25%	-	20%	20%	-10%	40%	-	-5%
May 07	20%	-10%	20%	-10%	35%	15%	-10%	35%	-	5%
Apr 07	15%	-10%	20%	-	40%	5%	-10%	40%	-5%	5%
Mar 07	35%	-10%	5%	15%	-10%	35%	-10%	40%	-5%	5%
Feb 07	30%	-10%	5%	10%	-5%	40%	-10%	40%	-10%	10%
Jan 07	35%	-10%	15%	5%	-10%	35%	-10%	40%	-	-

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 06	5%	5%	15%	-5%	30%	20%	-10%	40%	-5%	5%
Nov 06	35%	-10%	10%	10%	-10%	40%	-10%	40%	-5%	-
Oct 06	30%	-10%	10%	5%	20%	20%	-10%	40%	-10%	5%
Sep 06	25%	-10%	-	15%	-5%	35%	-5%	40%	5%	-
Aug 06	25%	-10%	-5%	5%	-10%	40%	15%	25%	10%	5%
Jul 06	20%	-10%	5%	5%	-10%	40%	-	40%	10%	-
Jun 06	-10%	-	5%	20%	-10%	10%	35%	40%	-	10%
May 06	-10%	10%	20%	10%	-10%	40%	-5%	40%	-	5%
Apr 06	-10%	15%	20%	10%	-10%	35%	10%	30%	-	-
Mar 06	-10%	5%	30%	5%	-	-10%	40%	40%	-	-
Feb 06	-10%	15%	15%	5%	-5%	25%	-	40%	10%	5%
Jan 06	-	-5%	20%	20%	-10%	-10%	40%	40%	-	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 05	10%	-5%	10%	25%	-10%	-10%	35%	40%	-	5%
Nov 05	-	5%	5%	25%	-10%	-10%	40%	40%	-5%	10%
Oct 05	-10%	5%	15%	25%	-10%	-10%	35%	35%	5%	10%
Sep 05	-10%	5%	20%	10%	-5%	-10%	35%	40%	10%	5%
Aug 05	-10%	10%	20%	5%	5%	-10%	30%	40%	10%	-
Jul 05	-10%	5%	20%	-	-	-10%	35%	40%	10%	10%
Jun 05	20%	-10%	15%	-5%	25%	-10%	40%	25%	10%	-10%
May 05	25%	-10%	-	-5%	5%	-10%	40%	40%	10%	5%
Apr 05	15%	-10%	15%	10%	-10%	-10%	40%	40%	10%	-
Mar 05	20%	-5%	5%	10%	-5%	-10%	40%	40%	10%	-5%
Feb 05	25%	-10%	-	10%	5%	-10%	40%	40%	10%	-10%
Jan 05	20%	5%	-	10%	-10%	-	40%	35%	5%	-5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 04	25%	-5%	5%	-	-5%	-10%	40%	40%	10%	-
Nov 04	-5%	5%	10%	-	10%	-5%	40%	35%	10%	-
Oct 04	10%	-5%	10%	-	5%	25%	25%	20%	10%	-
Sep 04	30%	-10%	-	5%	-10%	35%	15%	25%	10%	-
Aug 04	5%	-	5%	5%	-5%	25%	35%	25%	10%	-5%
Jul 04	35%	-10%	5%	5%	-10%	25%	20%	25%	5%	-
Jun 04	10%	-5%	5%	5%	-10%	25%	30%	35%	10%	-5%
May 04	15%	-	-	15%	-10%	20%	15%	40%	5%	-
Apr 04	-10%	15%	-	10%	-5%	35%	5%	40%	5%	5%
Mar 04	10%	5%	5%	10%	-10%	30%	15%	30%	5%	-
Feb 04	-5%	20%	5%	-	-5%	40%	20%	15%	5%	5%
Jan 04	5%	10%	5%	-	-10%	35%	20%	15%	5%	15%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 03	–	15%	5%	-5%	-5%	40%	20%	15%	5%	10%
Nov 03	5%	10%	5%	–	–	40%	5%	20%	5%	10%
Oct 03	–	15%	–	5%	-10%	40%	10%	25%	5%	10%
Sep 03	-5%	10%	5%	5%	-10%	40%	10%	25%	10%	10%
Aug 03	5%	5%	–	5%	-10%	40%	–	40%	5%	10%
Jul 03	5%	5%	5%	5%	40%	30%	15%	-10%	5%	–
Jun 03	5%	10%	–	-5%	40%	5%	15%	20%	–	10%
May 03	15%	–	–	-5%	40%	30%	-5%	15%	5%	5%
Apr 03	15%	–	-5%	–	35%	25%	-10%	30%	–	10%
Mar 03	5%	–	–	5%	–	40%	15%	20%	15%	–
Feb 03	5%	–	–	5%	5%	25%	10%	25%	10%	15%
Jan 03	5%	5%	–	–	20%	40%	-10%	20%	10%	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 02	5%	10%	-5%	–	15%	35%	-10%	35%	5%	10%
Nov 02	15%	-5%	–	–	40%	10%	-10%	40%	5%	5%
Oct 02	–	5%	–	5%	20%	40%	5%	15%	5%	5%
Sep 02	10%	–	–	–	25%	30%	-10%	35%	5%	5%
Aug 02	–	5%	–	5%	25%	35%	-10%	30%	–	10%
Jul 02	-5%	15%	–	–	10%	40%	-10%	35%	–	15%
Jun 02	-10%	15%	–	5%	5%	40%	-10%	40%	–	15%
May 02	-10%	20%	–	–	–	40%	–	40%	5%	5%
Apr 02	-5%	10%	5%	–	-5%	40%	-5%	40%	5%	15%
Mar 02	-5%	15%	–	–	10%	40%	-10%	40%	–	10%
Feb 02	-10%	20%	–	–	–	40%	–	40%	–	10%
Jan 02	-10%	20%	–	–	-5%	40%	5%	40%	–	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 01	–	10%	–	–	-10%	15%	35%	40%	–	10%
Nov 01	–	10%	–	–	15%	15%	15%	35%	–	10%
Oct 01	15%	-10%	5%	–	-10%	40%	10%	40%	5%	5%
Sep 01	-10%	20%	–	–	30%	25%	-5%	30%	5%	5%
Aug 01	-10%	20%	–	–	30%	25%	-10%	35%	5%	5%
Jul 01	-10%	15%	–	5%	5%	40%	-5%	40%	10%	–
Jun 01	-10%	15%	5%	–	10%	35%	-5%	40%	5%	5%
May 01	–	–	5%	5%	-10%	40%	15%	35%	10%	–
Apr 01	–	5%	5%	–	40%	–	5%	35%	10%	–
Mar 01	–	5%	5%	–	40%	-10%	10%	40%	10%	–
Feb 01	–	5%	5%	–	40%	-10%	10%	40%	10%	–
Jan 01	-5%	5%	10%	–	40%	20%	-10%	30%	5%	5%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 00	-	-	10%	-	25%	15%	-	40%	10%	-
Nov 00	5%	-	5%	-	40%	10%	-10%	40%	10%	-
Oct 00	-5%	5%	5%	5%	10%	40%	-	30%	10%	-
Sep 00	5%	-	5%	-	15%	40%	-10%	35%	10%	-
Aug 00	-	-	5%	5%	10%	35%	-5%	40%	10%	-
Jul 00	-	-	5%	5%	5%	40%	-5%	40%	10%	-
Jun 00	10%	-5%	-	5%	5%	40%	-	35%	10%	-
May 00	-	-	5%	5%	-5%	40%	10%	35%	10%	-
Apr 00	5%	-	-	5%	-	30%	10%	40%	10%	-
Mar 00	-	5%	5%	5%	-	40%	-	40%	5%	-
Feb 00	-5%	5%	5%	5%	-10%	40%	10%	40%	5%	5%
Jan 00	-5%	5%	5%	10%	-	40%	10%	25%	5%	5%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 99	-	5%	-	10%	-10%	40%	20%	25%	5%	5%
Nov 99	5%	-5%	-	10%	-5%	40%	15%	30%	5%	5%
Oct 99	10%	-5%	-	5%	-10%	40%	10%	35%	5%	10%
Sep 99	5%	-	-	5%	-	40%	10%	30%	5%	5%
Aug 99	10%	-5%	-	5%	-10%	40%	20%	30%	5%	5%
Jul 99	5%	-	-	10%	-10%	40%	25%	25%	-	5%
Jun 99	5%	-	-	5%	-10%	15%	40%	35%	5%	5%
May 99	10%	-5%	-	5%	-10%	40%	25%	20%	5%	10%
Apr 99	10%	-5%	-	5%	15%	40%	5%	20%	-	10%
Mar 99	15%	-10%	5%	-	10%	10%	40%	20%	-5%	15%
Feb 99	15%	-5%	5%	-	-10%	35%	40%	15%	-5%	10%
Jan 99	15%	-5%	-	-	-10%	40%	35%	15%	-	10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 98	15%	-10%	-	5%	-10%	25%	25%	40%	-	10%
Nov 98	20%	-10%	-	-	-10%	15%	35%	40%	-5%	15%
Oct 98	15%	-10%	-	5%	30%	-5%	30%	25%	-	10%
Sep 98	20%	-10%	5%	-	25%	-10%	40%	25%	-5%	10%
Aug 98	15%	-10%	10%	-	-10%	20%	35%	35%	-	5%
Jul 98	10%	-10%	10%	-	10%	-10%	40%	40%	-	10%
Jun 98	10%	-5%	10%	-	-10%	15%	35%	40%	-	5%
May 98	-	15%	5%	-5%	-10%	30%	30%	30%	-5%	10%
Apr 98	5%	5%	5%	-	5%	-5%	40%	40%	-5%	10%
Mar 98	-	5%	10%	-	-10%	15%	35%	40%	-	5%
Feb 98	10%	-5%	5%	5%	-10%	30%	40%	20%	-5%	10%
Jan 98	5%	-5%	10%	-	-5%	5%	40%	40%	5%	5%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 97	5%	10%	-	-5%	5%	5%	30%	40%	5%	5%
Nov 97	-5%	20%	-	-	-10%	40%	15%	35%	10%	-5%
Oct 97	-10%	25%	5%	-	-5%	30%	15%	40%	5%	-5%
Sep 97	-	15%	5%	-	-5%	15%	30%	40%	-	-
Aug 97	-	10%	10%	5%	-10%	15%	25%	40%	5%	-
Jul 97	10%	-10%	15%	-	-5%	35%	10%	40%	5%	-
Jun 97	10%	-10%	10%	-	-10%	35%	20%	35%	10%	-
May 97	5%	-10%	10%	5%	-10%	15%	35%	40%	5%	5%
Apr 97	15%	-10%	10%	-	-10%	20%	30%	40%	5%	-
Mar 97	10%	-10%	10%	-	-10%	20%	30%	40%	5%	5%
Feb 97	10%	-	10%	-5%	-10%	40%	5%	40%	5%	5%
Jan 97	10%	-10%	15%	-5%	-5%	30%	-	40%	5%	20%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 96	25%	-10%	5%	5%	-10%	15%	25%	35%	5%	5%
Nov 96	15%	-	10%	5%	-10%	-	20%	40%	10%	10%
Oct 96	10%	-	5%	-	-10%	5%	20%	40%	15%	15%
Sep 96	20%	-10%	-	10%	-10%	-10%	40%	40%	10%	10%
Aug 96	15%	-10%	-5%	10%	-10%	-	35%	40%	15%	10%
Jul 96	10%	10%	-	15%	-10%	-	25%	40%	5%	5%
Jun 96	-5%	30%	-	10%	-10%	-	20%	40%	5%	10%
May 96	-5%	30%	5%	10%	-10%	20%	5%	30%	5%	10%
Apr 96	5%	15%	10%	10%	-10%	5%	5%	40%	10%	10%
Mar 96	15%	15%	-	10%	-10%	20%	5%	40%	5%	-
Feb 96	30%	-10%	5%	5%	10%	-10%	40%	25%	-	5%
Jan 96	25%	-	-10%	5%	15%	-10%	30%	40%	15%	-10%

	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
Dec 95	40%	-10%	-5%	5%	-10%	15%	25%	40%	10%	-10%
Nov 95	25%	-	-10%	5%	15%	-	25%	40%	10%	-10%
Oct 95	15%	15%	-10%	5%	-10%	20%	35%	35%	5%	-10%
Sep 95	-10%	40%	-10%	5%	-5%	15%	30%	30%	10%	-5%
Aug 95	-10%	35%	-	-5%	-5%	30%	5%	40%	5%	5%
Jul 95	-10%	35%	-5%	-	30%	10%	-10%	35%	5%	10%
Jun 95	15%	5%	-5%	-5%	-	40%	-	40%	10%	-
May 95	40%	-10%	-5%	-	-	20%	-	35%	10%	10%
Apr 95	30%	-10%	-10%	-	-5%	25%	15%	40%	10%	5%
Mar 95	30%	-10%	-	-5%	-10%	35%	-	40%	10%	10%
Feb 95	25%	-10%	-	-5%	-10%	25%	10%	40%	10%	15%
Jan 95	25%	-10%	-5%	15%	-10%	15%	20%	40%	5%	5%

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	Equities				Fixed Income				Alternatives	
	United States (S&P 500 Futures)	United States (Russell 2000 Futures)	Germany (DAX Futures)	Japan (TOPIX Futures)	United States (Long-term U.S. Treasury Note Futures)	United States (Medium-term U.S. Treasury Note Futures)	Germany (Euro-Bund Futures)	Japan (10-year JGB Futures)	Oil (Brent Crude Oil Futures)	Precious Metals (Gold Futures)
<b>Dec 94</b>	15%	-10%	5%	–	-10%	30%	5%	40%	10%	15%
<b>Nov 94</b>	40%	-10%	-5%	5%	-10%	25%	–	35%	–	20%
<b>Oct 94</b>	25%	–	5%	–	-10%	30%	-10%	40%	–	20%
<b>Sep 94</b>	25%	–	5%	5%	-10%	40%	-10%	30%	–	15%
<b>Aug 94</b>	20%	-10%	5%	5%	-10%	30%	10%	35%	10%	5%
<b>Jul 94</b>	10%	-10%	5%	10%	-5%	40%	-5%	40%	5%	10%
<b>Jun 94</b>	5%	-5%	10%	5%	-10%	40%	–	40%	–	15%
<b>May 94</b>	10%	-10%	5%	5%	–	40%	–	35%	–	15%
<b>Apr 94</b>	-5%	15%	5%	5%	5%	40%	-5%	20%	–	20%
<b>Mar 94</b>	-5%	5%	5%	5%	25%	40%	-10%	25%	-5%	15%

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### Selected Risks

- Our affiliate, J.P. Morgan Securities LLC ("JPMS"), is the sponsor and the calculation agent of the Index and may adjust the Index in a way that affects its level.
- The Index is an "excess return" index and not a "total return" index because the Constituents do not reflect interest that could be earned on funds notionally committed to the trading of futures contracts.
- The Index is subject to a 1.00% per annum daily deduction.
- The Index may not be successful or outperform any alternative strategy that might be employed in respect of the Constituents. The Index may not approximate its initial volatility threshold.
- The Index was established on November 18, 2022 and has a limited operating history.
- There are risks associated with the Index's momentum investment strategy. The Index may perform poorly at times when the phase of the market cycle is changing or during periods characterized by short-term volatility.
- 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 investment strategy used to construct the Index involves regular rebalancing and weighting constraints that are applied to the Constituents. No assurance can be given that the investment strategy used to construct the Index will outperform any alternative investment in the Constituents.
- A significant portion of the Index's exposure may be allocated to the Bond Constituents.
- Concentration risks associated with the Index may adversely affect the value of investments linked to the Index.
- Each Constituent is subject to significant risks associated with the underlying futures contracts.
- There are risks associated with correlation between the performances of the Constituents. If the performances of the Constituents become highly correlated during periods of negative performance, Index performance may be adversely impacted.
- Because the Index may include notional short positions, there may be additional risks.
- Each Constituent composing the Index may be replaced by a substitute constituent upon the occurrence of certain extraordinary events.
- Suspensions or disruptions of market trading in the underlying futures contracts may adversely affect the value of investments linked to the Index.
- The Index is subject to risks associated with non-U.S. securities markets (including currency exchange risk), fixed income securities (including interest-rate related risks), small capitalization stocks and risks associated with investments in futures contracts (which, particularly in the case of commodities futures contracts, may be subject to legal and regulatory uncertainty).
- An increase in the margin requirements for the underlying futures contracts included in the Constituents may adversely affect the level of that Constituent.
- The Index may in the future include underlying futures contracts that are not traded on regulated futures exchanges.
- Negative roll returns associated with the underlying futures contracts constituting the Constituents may adversely affect the performance of the Constituents and the value of investments linked to the Index.
- The Index should not be compared to any other index or strategy sponsored by any of our affiliates and cannot necessarily be considered a revised, enhanced or modified version of any other J.P. Morgan 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.

#### Use of alternative performance

The information provided herein uses "backtesting" and considers other hypothetical circumstances to estimate how the Index may have performed and how Basket Constituents may have been allocated prior to the actual existence of the Index. Prior to the availability of the WM/Reuters Closing Spot Rates, alternative prices were used for FX rates. For the U.S. Equity Constituents, prior to the existence of the current relevant equity index futures contract series, alternative relevant equity index futures contract series with the same equity reference index were used.

Investment suitability must be determined individually for each investor, and investments linked to the Index may not be suitable for all investors. This material is not a product of J.P. Morgan Research Departments.

The WM/Reuters Closing Spot Rates provided by Thomson Reuters ("TR"). TR shall not be liable for any errors in or delays in providing or making available the data contained within this service or for any actions taken in reliance on the same, except to the extent that the same is directly caused by its or its employees' negligence.

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