

NOVEMBER 2024

J.P. Morgan Efficiente® Plus DS 5 Index (Net ER)

J.P.Morgan

Hypothetical and Actual Historical Monthly and Annual Returns

Backtested using proxies  Backtested  Actual

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>2007</b>											0.49%	0.01%	0.50%
<b>2008</b>	1.27%	1.61%	-0.76%	-0.57%	0.09%	0.65%	-1.25%	-0.79%	-1.94%	-3.78%	1.70%	4.85%	0.84%
<b>2009</b>	-2.55%	-0.64%	0.73%	0.97%	3.36%	-0.24%	3.79%	1.21%	3.50%	-0.38%	1.98%	0.12%	12.31%
<b>2010</b>	0.43%	0.61%	1.84%	1.88%	-2.44%	1.33%	2.22%	2.65%	0.98%	0.34%	-1.22%	1.01%	9.95%
<b>2011</b>	0.74%	2.12%	-0.14%	2.05%	-1.75%	-1.06%	2.49%	1.23%	-0.18%	1.01%	0.20%	1.20%	8.10%
<b>2012</b>	1.44%	0.53%	-0.69%	1.35%	-1.04%	1.56%	2.35%	0.23%	-0.07%	0.06%	-1.26%	0.25%	4.74%
<b>2013</b>	0.97%	0.23%	1.22%	1.75%	-3.15%	-0.89%	0.85%	-1.88%	1.59%	1.61%	1.07%	1.39%	4.71%
<b>2014</b>	-1.48%	2.11%	0.19%	0.84%	1.51%	2.10%	-0.76%	2.67%	-2.69%	1.15%	1.23%	0.30%	7.27%
<b>2015</b>	2.65%	-0.75%	-0.07%	-1.96%	-0.57%	-1.79%	0.21%	-3.83%	-0.27%	0.73%	-0.56%	-0.54%	-6.67%
<b>2016</b>	-0.23%	1.59%	1.26%	1.39%	-0.88%	3.80%	1.53%	-0.92%	-0.72%	-1.63%	-2.12%	0.71%	3.68%
<b>2017</b>	0.94%	1.60%	-0.94%	1.09%	0.68%	-0.06%	1.68%	0.74%	-0.47%	0.65%	0.21%	1.87%	8.26%
<b>2018</b>	2.70%	-2.70%	-0.56%	-0.31%	0.24%	-1.04%	-0.46%	1.66%	-1.64%	-4.64%	0.53%	-2.94%	-9.00%
<b>2019</b>	2.11%	-0.57%	0.67%	-1.04%	0.33%	2.94%	0.05%	2.22%	-1.47%	0.49%	-0.46%	1.42%	6.79%
<b>2020</b>	0.79%	-3.42%	-5.48%	0.44%	0.85%	0.42%	3.77%	-1.26%	-0.98%	-1.73%	3.06%	2.12%	-1.78%
<b>2021</b>	-0.36%	1.08%	0.29%	1.46%	1.51%	0.73%	-0.12%	0.73%	-1.97%	2.45%	-0.80%	1.68%	6.81%
<b>2022</b>	-1.74%	0.77%	1.59%	-1.01%	0.44%	-3.21%	1.09%	-0.99%	-3.44%	0.86%	1.07%	-1.39%	-5.95%
<b>2023</b>	1.91%	-2.04%	1.42%	0.44%	-2.68%	1.57%	1.24%	-1.33%	-2.24%	-1.17%	2.55%	0.44%	-0.06%
<b>2024</b>	0.42%	1.36%	1.69%	-2.28%	1.37%	0.65%	-0.39%	-0.54%	0.81%	-1.77%			1.26%

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

Historical performance measures for the J.P. Morgan Efficiente® Plus DS 5 Index (Net ER) (the "Index") represent hypothetical backtested performance using alternative performance for some constituents of the Index (the "Basket Constituents") from November 1, 2007 to January 18, 2013, hypothetical backtested performance using the actual performance of each Basket Constituent from January 22, 2013 to December 30, 2014, and actual performance from December 31, 2014 to October 31, 2024. Please see the "Use of hypothetical backtested returns" and "Use of alternative performance" at the end of this presentation for additional information related to backtesting and the use of alternative performance.

The Index targets an annualized volatility of 5% on a daily basis by dynamically adjusting its exposure to the notional portfolio of Basket Constituents, subject to certain specified constraints. To and including December 20, 2017, no maximum daily exposure change was applied; however, with effect from but excluding December 20, 2017, a maximum daily exposure change of 50% has also been applied as an additional constraint. This change may adversely affect the performance of the Index, and this change should be borne in mind when evaluating the hypothetical backtested and actual historical performance of the Index through December 20, 2017. Had a maximum daily exposure change of 50% been applied to and including December 20, 2017, that constraint would have been triggered in the calculation of the closing levels of the Index for October 7, 2008, April 21, 2009 and September 9, 2015.

Except as noted above and in the sections entitled "Use of alternative performance" and "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 using proxies  Backtested  Actual

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (IPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNQ)	MLPs (AMLP)	Comdty (DBC)	Gold (IAU)	
<b>Oct 24</b>	-	-	10%	-	-	-	15%	-	-	10%	15%	10%	-	-	-	10%	-	-	10%	20%	
<b>Sep 24</b>	-	-	-	-	-	-	-	-	-	10%	10%	-	-	-	10%	-	-	-	10%	50%	
<b>Aug 24</b>	20%	-	-	-	-	-	-	-	-	-	-	10%	-	-	5%	-	10%	-	10%	45%	
<b>Jul 24</b>	20%	-	10%	-	-	-	-	-	-	-	-	5%	-	-	-	-	10%	10%	10%	35%	
<b>Jun 24</b>	20%	10%	-	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	5%	10%	35%	
<b>May 24</b>	20%	15%	-	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	-	10%	35%	
<b>Apr 24</b>	20%	5%	-	-	-	-	-	-	-	-	-	5%	10%	5%	-	-	10%	-	10%	35%	
<b>Mar 24</b>	20%	-	-	-	-	-	-	-	-	5%	10%	10%	10%	-	-	-	10%	-	5%	25%	

The Basket Constituents are identified above by their respective tickers. Please refer to the "Selected Risks" and "Disclaimer" at the end of this presentation and to the section entitled "Use of alternative performance" on the last page for information related to the Basket Constituents and the use of alternative performance in the backtest.

The hypothetical and actual historical monthly weights set forth above represent the monthly reference portfolio weights applied to hypothetical backtested performance using alternative performance for some Basket Constituents from November 1, 2007 to January 18, 2013, hypothetical backtested performance using the actual performance of each Basket Constituent from January 22, 2013 to December 30, 2014, and actual performance from December 31, 2014 to October 31, 2024.

While the monthly reference portfolio weights applied to the hypothetical backtested performance of the Index after January 18, 2013 were allocated to the actual Basket Constituents, alternative performance information for certain Basket Constituents may have been considered in determining the weights for such Basket Constituents after this date.

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.

Except as noted above and in the section entitled "Use of alternative performance" at the end of this document, the hypothetical and actual historical monthly weights set forth above were determined using the methodology currently used to calculate the Index. PAST ALLOCATIONS TO BASKET CONSTITUENTS, HYPOTHETICAL OR ACTUAL, ARE NOT INDICATIVE OR PREDICTIVE OF FUTURE ALLOCATIONS.

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLP)	Cmdty (DBC)	Gold (IAU)	
Feb 24	20%	-	-	-	-	-	-	-	-	-	15%	10%	10%	5%	-	-	-	10%	-	5%	25%
Jan 24	15%	-	-	-	-	-	-	-	-	5%	20%	10%	10%	-	-	-	-	10%	-	10%	20%

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLP)	Cmdty (DBC)	Gold (IAU)	
Dec 23	20%	-	-	-	-	-	-	-	-	-	5%	10%	10%	-	-	-	-	10%	10%	10%	25%
Nov 23	20%	-	-	-	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	10%	-	50%
Oct 23	20%	-	-	-	-	-	-	-	-	-	-	10%	10%	-	-	-	-	10%	10%	-	40%
Sep 23	20%	-	-	-	-	-	-	-	-	-	10%	-	10%	-	-	5%	-	10%	-	10%	35%
Aug 23	20%	10%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10%	-	10%	50%
Jul 23	20%	15%	-	-	-	-	-	-	-	-	-	-	10%	-	-	-	-	-	-	5%	50%
Jun 23	20%	10%	-	-	-	-	-	-	-	-	-	-	10%	-	-	-	-	-	-	10%	50%
May 23	-	10%	-	-	-	-	5%	5%	-	10%	-	-	10%	-	-	5%	-	-	-	5%	50%
Apr 23	-	15%	-	-	-	-	-	5%	-	10%	-	-	10%	-	-	-	-	-	-	10%	50%
Mar 23	-	10%	-	-	-	-	-	5%	-	10%	-	10%	10%	-	-	-	-	-	-	5%	50%
Feb 23	-	-	5%	-	-	-	-	-	-	10%	-	10%	10%	-	-	-	-	5%	-	10%	50%
Jan 23	-	-	-	-	-	-	-	-	5%	10%	-	10%	10%	-	-	-	-	10%	-	5%	50%

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLP)	Cmdty (DBC)	Gold (IAU)	
Dec 22	-	-	-	-	-	-	5%	5%	-	10%	5%	10%	10%	-	-	-	-	5%	-	-	50%
Nov 22	-	-	-	-	-	-	5%	-	-	10%	10%	10%	10%	-	-	-	-	5%	-	-	50%
Oct 22	-	-	-	-	-	-	15%	-	-	10%	-	10%	10%	-	-	-	-	5%	-	-	50%
Sep 22	-	-	-	-	-	-	-	-	10%	10%	-	10%	10%	-	-	-	-	10%	-	-	50%
Aug 22	-	-	-	-	-	-	15%	-	-	10%	-	-	10%	-	-	-	-	5%	10%	-	50%
Jul 22	-	-	-	-	-	-	-	-	5%	10%	-	5%	10%	-	-	-	-	5%	10%	5%	50%
Jun 22	-	-	-	-	-	-	5%	-	-	10%	-	5%	10%	-	-	-	-	10%	10%	-	50%
May 22	-	-	-	-	-	-	-	-	-	10%	-	5%	10%	-	-	-	-	10%	10%	5%	50%
Apr 22	5%	-	-	-	-	-	-	-	-	-	-	10%	10%	-	-	5%	-	5%	10%	5%	50%
Mar 22	-	-	-	-	-	-	-	-	5%	-	-	-	10%	-	-	5%	-	10%	10%	10%	50%
Feb 22	5%	-	-	-	-	-	-	-	-	-	-	5%	10%	-	-	-	-	10%	10%	10%	50%
Jan 22	20%	-	-	-	-	15%	-	-	10%	-	-	-	5%	-	-	-	-	10%	-	10%	30%

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLP)	Cmdty (DBC)	Gold (IAU)	
Dec 21	20%	-	-	-	-	20%	5%	5%	10%	-	-	-	5%	-	-	-	-	10%	-	10%	15%
Nov 21	20%	-	-	-	-	20%	-	-	10%	-	-	-	10%	5%	-	-	-	10%	-	10%	15%
Oct 21	20%	-	-	-	-	20%	-	5%	10%	-	-	10%	10%	-	-	-	-	10%	-	10%	5%
Sep 21	20%	-	-	-	-	10%	-	20%	10%	-	-	10%	10%	5%	-	-	-	10%	-	5%	-
Aug 21	20%	-	-	-	-	-	-	-	10%	10%	-	5%	-	5%	-	-	-	10%	-	10%	30%
Jul 21	-	-	-	-	-	-	-	-	10%	-	-	10%	-	-	-	-	-	10%	10%	10%	50%
Jun 21	-	-	-	5%	5%	-	-	-	-	5%	-	10%	5%	-	-	-	-	10%	5%	10%	45%
May 21	5%	-	-	-	5%	-	-	-	10%	-	-	5%	-	-	-	-	-	10%	5%	10%	50%
Apr 21	-	-	-	5%	5%	-	-	-	-	10%	5%	10%	-	-	-	-	-	5%	10%	-	50%
Mar 21	-	-	5%	10%	5%	-	-	-	-	10%	5%	10%	-	-	-	-	-	-	-	10%	45%

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	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPUSCAFB)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLPL)	Cmdty (DBC)	Gold (IAU)	
Feb 21	-	-	5%	10%	10%	-	-	-	10%	10%	-	10%	5%	-	-	-	-	5%	-	-	35%
Jan 21	-	-	-	10%	10%	-	-	-	10%	10%	10%	10%	5%	10%	-	-	-	-	-	-	25%

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (AMLPL)	Cmdty (DBC)	Gold (IAU)	
Dec 20	-	-	15%	5%	-	15%	-	-	10%	10%	-	10%	-	5%	-	-	-	5%	-	-	25%
Nov 20	-	-	15%	-	-	5%	-	20%	10%	10%	-	10%	-	5%	5%	-	-	-	-	-	20%
Oct 20	-	-	5%	-	10%	5%	20%	-	-	10%	-	-	-	10%	-	5%	-	-	-	-	35%
Sep 20	-	-	-	-	-	-	20%	-	5%	-	15%	-	-	-	-	-	-	-	-	10%	50%
Aug 20	-	-	-	-	-	5%	20%	-	-	-	15%	-	-	-	-	-	-	-	-	10%	50%
Jul 20	-	-	-	-	-	5%	20%	-	-	-	5%	-	10%	-	-	-	-	-	-	10%	50%
Jun 20	-	-	-	-	-	5%	20%	-	-	-	5%	-	10%	-	-	-	-	-	-	10%	50%
May 20	-	-	-	-	-	5%	20%	-	-	-	5%	-	10%	-	-	-	-	-	-	10%	50%
Apr 20	-	-	-	-	-	5%	20%	-	5%	-	10%	-	5%	-	-	-	-	-	-	10%	45%
Mar 20	-	-	20%	-	-	20%	10%	20%	-	-	-	-	-	-	10%	-	-	-	-	10%	10%
Feb 20	20%	20%	-	-	10%	5%	-	20%	-	5%	-	-	-	10%	-	-	-	-	-	10%	-
Jan 20	20%	5%	-	-	10%	5%	-	20%	-	-	5%	-	10%	10%	-	5%	-	-	-	10%	-

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)	
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)		
Dec 19	20%	5%	-	-	10%	15%	-	20%	-	-	-	-	-	-	-	-	-	5%	10%	10%	15%	
Nov 19	15%	-	-	-	-	10%	-	20%	-	10%	-	-	-	10%	-	5%	5%	-	-	-	10%	15%
Oct 19	20%	-	-	-	-	20%	10%	20%	-	-	-	-	-	10%	5%	-	-	-	-	10%	5%	
Sep 19	20%	-	-	-	-	20%	10%	20%	-	-	-	-	-	10%	10%	5%	-	-	-	5%	-	
Aug 19	20%	-	-	-	-	15%	10%	20%	-	-	5%	-	-	10%	10%	10%	-	-	-	-	-	
Jul 19	20%	-	-	-	-	10%	-	20%	-	-	20%	-	-	5%	10%	5%	10%	-	-	-	-	
Jun 19	-	-	-	-	-	20%	10%	20%	-	-	20%	-	-	10%	10%	10%	-	-	-	-	-	
May 19	-	-	20%	-	-	20%	10%	20%	-	-	-	-	-	10%	10%	-	10%	-	-	-	-	
Apr 19	-	-	-	-	-	20%	20%	10%	-	-	5%	-	-	10%	10%	10%	10%	-	-	5%	-	
Mar 19	-	-	-	-	-	-	15%	-	-	10%	-	-	10%	-	10%	15%	5%	-	-	10%	25%	
Feb 19	-	-	-	-	-	20%	20%	-	-	10%	-	-	-	10%	10%	10%	10%	-	-	10%	10%	
Jan 19	-	-	-	-	-	-	20%	-	-	5%	-	5%	-	-	10%	-	-	-	-	10%	50%	

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 18	-	-	-	-	-	-	15%	-	-	10%	-	5%	10%	-	-	-	-	-	-	-	50%
Nov 18	20%	-	-	-	-	-	-	-	-	10%	-	-	10%	-	-	-	10%	-	-	-	50%
Oct 18	20%	-	-	10%	-	-	-	-	-	5%	10%	10%	5%	-	-	-	10%	10%	-	-	20%
Sep 18	5%	-	-	10%	-	20%	-	-	5%	-	5%	10%	-	10%	-	-	10%	10%	5%	-	10%
Aug 18	15%	-	-	10%	-	-	-	-	-	-	-	-	-	10%	-	-	10%	-	-	-	45%
Jul 18	-	-	-	10%	-	-	-	-	-	-	-	-	10%	10%	-	-	10%	-	-	-	50%
Jun 18	-	-	-	10%	10%	-	-	-	-	-	-	-	10%	-	-	5%	-	5%	10%	5%	45%
May 18	5%	-	-	10%	10%	-	-	-	-	-	-	10%	10%	-	-	-	-	-	10%	10%	35%
Apr 18	-	-	15%	-	10%	-	-	-	-	-	-	-	10%	-	-	-	-	-	10%	10%	45%
Mar 18	20%	-	-	5%	10%	-	-	-	-	-	-	10%	10%	-	-	-	-	-	10%	-	35%

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The hypothetical and actual historical monthly weights set forth above represent the monthly reference portfolio weights applied to hypothetical backtested performance using alternative performance for some Basket Constituents from November 1, 2007 to January 18, 2013, hypothetical backtested performance using the actual performance of each Basket Constituent from January 22, 2013 to December 30, 2014, and actual performance from December 31, 2014 to October 31, 2024.

While the monthly reference portfolio weights applied to the hypothetical backtested performance of the Index after January 18, 2013 were allocated to the actual Basket Constituents, alternative performance information for certain Basket Constituents may have been considered in determining the weights for such Basket Constituents after this date.

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.

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	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Feb 18	20%	–	15%	5%	10%	–	–	–	–	–	–	10%	–	–	5%	–	–	10%	10%	15%	
Jan 18	20%	–	15%	5%	10%	10%	–	5%	–	–	–	–	–	10%	10%	–	–	10%	5%	–	

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 17	10%	–	20%	10%	10%	5%	–	20%	–	–	–	–	5%	5%	–	5%	–	10%	–	–	
Nov 17	10%	10%	20%	–	10%	20%	–	20%	–	–	–	–	–	–	–	–	–	10%	–	–	
Oct 17	–	20%	20%	–	10%	15%	–	20%	–	–	15%	–	–	–	–	–	–	–	–	–	
Sep 17	–	20%	15%	–	10%	20%	15%	5%	–	–	–	–	10%	–	–	–	–	–	5%	–	
Aug 17	5%	20%	15%	–	10%	15%	–	20%	–	–	5%	–	10%	–	–	–	–	–	–	–	
Jul 17	5%	20%	15%	–	10%	10%	–	15%	–	–	5%	–	10%	–	–	–	–	–	10%	–	
Jun 17	15%	20%	5%	–	10%	5%	–	–	–	–	10%	5%	–	10%	10%	–	–	–	10%	–	
May 17	20%	10%	–	10%	10%	–	–	–	–	–	–	5%	10%	10%	–	10%	–	–	–	15%	
Apr 17	20%	20%	–	10%	–	–	–	–	–	–	–	10%	10%	–	–	–	–	5%	–	25%	
Mar 17	20%	–	–	10%	–	–	–	–	–	–	20%	10%	5%	–	–	–	–	10%	–	25%	
Feb 17	20%	–	–	10%	–	–	–	–	–	–	15%	10%	10%	–	–	–	–	10%	–	25%	
Jan 17	20%	–	–	10%	–	–	–	–	–	–	20%	10%	10%	–	–	–	–	5%	–	25%	

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 16	10%	–	–	10%	–	–	–	–	–	–	20%	10%	10%	–	–	–	–	–	–	40%	
Nov 16	–	–	10%	–	–	–	–	20%	10%	10%	20%	10%	10%	–	10%	–	–	–	–	–	
Oct 16	–	–	–	–	–	10%	–	10%	–	10%	20%	10%	10%	–	10%	–	–	10%	–	5%	
Sep 16	–	–	–	5%	–	20%	–	20%	–	–	20%	10%	–	5%	10%	–	5%	5%	–	–	
Aug 16	10%	–	–	–	–	15%	–	20%	–	–	10%	10%	10%	10%	–	5%	5%	–	–	5%	
Jul 16	–	–	–	–	–	20%	5%	10%	–	10%	15%	10%	10%	–	10%	5%	5%	–	–	–	
Jun 16	–	–	–	–	–	20%	10%	10%	–	5%	–	10%	10%	10%	10%	5%	10%	–	–	–	
May 16	–	–	–	–	–	5%	20%	20%	–	5%	–	–	10%	5%	10%	5%	5%	–	–	5%	
Apr 16	5%	–	–	–	–	20%	10%	–	–	10%	–	–	–	10%	10%	5%	10%	–	–	20%	
Mar 16	5%	–	–	–	–	20%	15%	–	–	–	–	–	–	10%	5%	10%	–	–	–	35%	
Feb 16	–	–	–	–	–	20%	20%	–	–	10%	–	–	–	10%	5%	–	–	–	–	10%	
Jan 16	10%	–	–	–	10%	20%	5%	–	–	–	–	–	–	10%	–	–	10%	–	–	35%	

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 15	10%	–	–	–	–	20%	20%	5%	–	5%	–	–	–	10%	10%	–	10%	–	–	10%	
Nov 15	15%	–	–	–	–	15%	20%	–	–	10%	–	–	–	10%	–	–	10%	–	–	20%	
Oct 15	–	–	–	–	–	–	20%	–	–	5%	–	–	10%	10%	5%	–	–	–	–	50%	
Sep 15	–	–	–	–	10%	–	20%	–	–	10%	–	–	–	10%	5%	–	–	–	–	45%	
Aug 15	20%	10%	–	–	10%	–	–	–	–	–	–	–	5%	5%	–	–	–	–	–	50%	
Jul 15	–	20%	–	–	10%	–	–	–	–	10%	5%	10%	10%	–	10%	–	–	–	–	25%	
Jun 15	–	10%	–	10%	10%	–	20%	–	–	5%	15%	10%	5%	10%	–	–	–	–	–	5%	
May 15	–	15%	–	10%	10%	15%	20%	–	–	10%	–	–	–	10%	–	–	–	–	–	10%	
Apr 15	10%	–	–	10%	–	20%	15%	–	–	–	–	–	–	10%	–	–	10%	–	–	25%	
Mar 15	20%	–	–	10%	–	20%	20%	5%	–	5%	–	–	–	10%	–	–	10%	–	–	–	

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While the monthly reference portfolio weights applied to the hypothetical backtested performance of the Index after January 18, 2013 were allocated to the actual Basket Constituents, alternative performance information for certain Basket Constituents may have been considered in determining the weights for such Basket Constituents after this date.

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	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Feb 15	20%	-	-	10%	-	20%	20%	10%	-	-	-	-	-	10%	-	-	10%	-	-	-	-
Jan 15	20%	-	-	10%	-	20%	20%	10%	-	-	-	-	-	10%	-	-	10%	-	-	-	-

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 14	20%	-	-	10%	-	20%	20%	5%	-	-	-	-	-	10%	-	-	10%	5%	-	-	-
Nov 14	20%	-	5%	-	-	20%	20%	-	-	-	-	-	-	10%	5%	-	10%	10%	-	-	-
Oct 14	20%	-	15%	-	-	20%	10%	-	-	-	-	-	-	10%	10%	-	5%	10%	-	-	-
Sep 14	10%	-	20%	-	-	20%	-	10%	-	-	-	-	-	10%	10%	-	10%	10%	-	-	-
Aug 14	20%	-	20%	-	-	20%	-	-	-	-	-	-	-	10%	10%	-	10%	10%	-	-	-
Jul 14	10%	-	5%	-	-	20%	-	-	10%	-	5%	-	-	10%	10%	10%	10%	10%	-	-	-
Jun 14	20%	-	-	-	5%	20%	-	10%	-	-	-	-	-	10%	10%	5%	10%	10%	-	-	-
May 14	20%	-	-	-	5%	20%	-	-	-	20%	15%	-	-	10%	-	-	10%	10%	10%	-	-
Apr 14	20%	-	-	5%	5%	10%	-	20%	-	-	20%	5%	-	10%	-	-	5%	-	-	-	-
Mar 14	10%	-	-	10%	10%	10%	-	20%	-	-	20%	10%	-	10%	-	-	-	-	-	-	-
Feb 14	10%	-	-	10%	10%	-	-	20%	-	5%	20%	10%	10%	5%	-	-	-	-	-	-	-
Jan 14	20%	10%	-	-	10%	-	-	-	-	10%	15%	10%	10%	-	-	-	-	-	-	-	15%

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 13	15%	-	-	10%	10%	-	-	-	-	5%	5%	10%	10%	-	-	-	-	-	-	-	35%
Nov 13	20%	-	-	10%	5%	-	-	-	-	5%	-	5%	-	-	-	-	-	5%	-	-	50%
Oct 13	15%	-	-	10%	10%	-	-	-	-	-	-	10%	5%	-	-	-	-	-	-	-	50%
Sep 13	20%	-	-	10%	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	-	-	50%
Aug 13	20%	-	-	10%	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	-	-	50%
Jul 13	20%	-	-	10%	-	-	-	-	-	-	-	-	10%	-	-	-	-	10%	-	-	50%
Jun 13	20%	-	-	10%	-	5%	-	-	-	10%	5%	10%	10%	10%	-	-	5%	10%	-	-	5%
May 13	-	20%	-	-	10%	20%	5%	-	-	-	10%	10%	-	5%	-	-	10%	10%	-	-	-
Apr 13	-	5%	-	10%	10%	5%	5%	5%	-	-	20%	10%	-	10%	-	-	10%	10%	-	-	-
Mar 13	-	15%	-	-	10%	-	-	20%	-	5%	20%	10%	-	10%	-	-	-	10%	-	-	-
Feb 13	-	20%	-	-	10%	5%	5%	-	-	-	20%	10%	10%	10%	-	-	-	10%	-	-	-
Jan 13	-	20%	-	-	10%	5%	-	20%	-	-	20%	10%	5%	-	10%	-	-	-	-	-	-

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 12	-	10%	-	-	-	-	-	20%	-	-	20%	10%	-	10%	10%	-	-	10%	10%	-	-
Nov 12	-	-	-	-	-	10%	-	20%	-	10%	5%	10%	10%	10%	10%	15%	-	-	-	-	-
Oct 12	-	-	-	-	-	20%	5%	20%	-	-	20%	-	-	10%	10%	10%	-	-	-	5%	-
Sep 12	-	-	-	-	-	20%	-	20%	-	-	20%	10%	-	10%	10%	-	10%	-	-	-	-
Aug 12	10%	-	-	-	-	20%	10%	20%	-	-	-	10%	-	10%	10%	-	10%	-	-	-	-
Jul 12	-	-	-	-	-	20%	-	20%	-	-	20%	10%	-	10%	10%	-	10%	-	-	-	-
Jun 12	20%	-	-	-	-	20%	-	20%	-	-	10%	10%	-	10%	-	-	10%	-	-	-	-
May 12	20%	-	-	-	-	15%	15%	-	-	-	-	10%	10%	10%	-	-	10%	10%	-	-	-
Apr 12	15%	-	-	-	-	15%	-	5%	5%	-	5%	10%	10%	10%	10%	-	5%	10%	-	-	-
Mar 12	20%	-	-	5%	-	20%	5%	5%	10%	-	-	10%	10%	5%	-	-	-	10%	-	-	-

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	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Feb 12	15%	-	-	-	-	20%	10%	-	-	-	5%	10%	10%	5%	-	-	-	10%	-	-	15%
Jan 12	10%	-	-	-	-	20%	15%	-	-	-	-	-	-	10%	-	-	5%	-	-	-	40%

  

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 11	5%	-	-	-	-	20%	5%	-	-	-	-	-	5%	-	-	-	10%	-	-	5%	50%
Nov 11	15%	-	-	-	-	15%	20%	-	5%	10%	-	-	-	-	-	-	-	-	-	10%	25%
Oct 11	5%	-	-	-	-	20%	20%	-	-	-	10%	-	-	10%	-	-	-	-	-	-	35%
Sep 11	10%	-	-	-	-	15%	20%	-	10%	5%	-	-	-	10%	-	-	-	-	-	10%	20%
Aug 11	-	-	-	-	-	20%	20%	-	10%	-	10%	-	-	10%	-	-	10%	-	10%	10%	-
Jul 11	-	-	-	10%	-	20%	20%	-	10%	-	-	-	-	10%	-	-	10%	-	10%	10%	-
Jun 11	10%	-	-	5%	-	10%	-	5%	-	20%	10%	5%	10%	-	-	10%	-	10%	10%	5%	-
May 11	5%	-	-	10%	-	-	-	-	5%	5%	-	10%	10%	-	-	-	10%	10%	10%	10%	15%
Apr 11	10%	-	-	10%	-	-	-	-	5%	-	-	10%	10%	-	-	-	10%	10%	-	-	25%
Mar 11	10%	-	-	10%	-	-	-	-	5%	10%	10%	10%	-	-	-	-	10%	10%	-	-	15%
Feb 11	-	-	-	10%	-	-	-	5%	5%	10%	20%	10%	10%	-	-	-	10%	10%	-	-	10%
Jan 11	-	-	-	10%	-	-	5%	-	-	10%	10%	10%	10%	-	-	-	10%	5%	10%	10%	10%

  

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 10	-	-	5%	-	10%	-	20%	5%	-	-	10%	10%	10%	10%	-	-	10%	-	-	-	-
Nov 10	-	-	5%	-	-	-	20%	20%	-	-	10%	10%	-	10%	10%	-	-	10%	-	5%	-
Oct 10	-	-	-	-	-	20%	20%	10%	-	-	-	10%	-	5%	10%	-	5%	10%	-	10%	-
Sep 10	-	-	-	-	-	20%	20%	10%	-	-	-	10%	-	5%	10%	-	5%	10%	-	10%	-
Aug 10	-	-	-	-	-	20%	20%	5%	-	-	5%	10%	-	-	10%	-	10%	10%	-	10%	-
Jul 10	-	-	-	-	-	20%	20%	10%	-	-	-	10%	-	-	10%	-	10%	10%	-	10%	-
Jun 10	-	-	-	10%	-	20%	20%	-	-	5%	-	10%	10%	10%	-	-	5%	10%	-	-	-
May 10	-	-	-	5%	-	-	5%	15%	-	10%	5%	10%	10%	10%	10%	-	10%	10%	-	-	-
Apr 10	-	-	-	-	-	-	-	15%	10%	10%	10%	10%	10%	5%	-	10%	10%	-	-	-	-
Mar 10	-	-	-	-	-	-	15%	-	10%	10%	20%	10%	10%	-	-	5%	10%	-	-	-	-
Feb 10	-	-	-	-	-	-	-	10%	10%	10%	20%	10%	10%	-	10%	-	10%	-	-	10%	-
Jan 10	5%	-	-	-	-	-	-	15%	5%	10%	15%	10%	10%	5%	10%	-	10%	-	-	5%	-

  

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 09	-	-	-	-	5%	5%	-	20%	5%	10%	5%	10%	10%	-	10%	-	-	10%	-	10%	-
Nov 09	-	-	-	-	5%	-	-	20%	10%	10%	5%	10%	10%	5%	10%	-	-	5%	-	5%	5%
Oct 09	-	-	-	-	10%	-	-	20%	-	10%	5%	10%	10%	5%	10%	-	-	-	-	-	20%
Sep 09	-	-	-	-	5%	-	5%	-	-	10%	-	10%	10%	10%	-	-	-	-	-	-	50%
Aug 09	-	-	5%	-	5%	-	-	-	5%	10%	5%	10%	10%	-	10%	-	-	-	-	-	40%
Jul 09	-	-	5%	-	-	-	-	-	10%	10%	-	10%	10%	-	10%	-	-	5%	-	-	35%
Jun 09	-	-	-	-	-	-	-	-	-	10%	5%	10%	10%	-	10%	5%	-	-	-	5%	45%
May 09	-	-	-	-	-	-	10%	15%	-	10%	-	10%	10%	-	10%	-	-	-	-	10%	25%
Apr 09	-	-	-	-	-	5%	20%	-	-	-	-	10%	5%	-	-	-	-	5%	-	5%	50%

The Basket Constituents are identified above by their respective tickers. Please refer to the "Selected Risks" and "Disclaimer" at the end of this presentation and to the section entitled "Use of alternative performance" on the last page for information related to the Basket Constituents and the use of alternative performance in the backtest.

The hypothetical and actual historical monthly weights set forth above represent the monthly reference portfolio weights applied to hypothetical backtested performance using alternative performance for some Basket Constituents from November 1, 2007 to January 18, 2013, hypothetical backtested performance using the actual performance of each Basket Constituent from January 22, 2013 to December 30, 2014, and actual performance from December 31, 2014 to October 31, 2024.

While the monthly reference portfolio weights applied to the hypothetical backtested performance of the Index after January 18, 2013 were allocated to the actual Basket Constituents, alternative performance information for certain Basket Constituents may have been considered in determining the weights for such Basket Constituents after this date.

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.

Except as noted above and in the section entitled "Use of alternative performance" at the end of this document, the hypothetical and actual historical monthly weights set forth above were determined using the methodology currently used to calculate the Index. PAST ALLOCATIONS TO BASKET CONSTITUENTS, HYPOTHETICAL OR ACTUAL, ARE NOT INDICATIVE OR PREDICTIVE OF FUTURE ALLOCATIONS.

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Mar 09	-	-	-	-	-	5%	20%	-	-	-	-	10%	5%	-	5%	-	-	-	-	5%	50%
Feb 09	-	-	-	-	-	10%	15%	-	-	-	-	10%	5%	-	-	-	-	5%	-	5%	50%
Jan 09	5%	-	-	-	-	20%	5%	-	-	-	-	10%	5%	-	-	-	-	-	-	5%	50%

  

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 08	-	-	-	5%	-	20%	10%	-	-	-	-	10%	-	-	5%	-	-	-	-	5%	45%
Nov 08	-	-	-	-	-	20%	5%	-	-	-	-	10%	10%	-	-	-	-	-	-	5%	50%
Oct 08	-	-	-	-	-	20%	10%	-	-	-	-	5%	10%	-	-	-	-	-	-	10%	45%
Sep 08	-	-	-	10%	-	20%	-	-	-	-	-	-	10%	-	-	-	10%	-	-	-	50%
Aug 08	-	-	-	5%	-	-	-	-	10%	-	-	-	10%	-	-	-	10%	-	10%	5%	50%
Jul 08	-	-	-	-	-	-	10%	-	10%	-	-	-	-	-	-	-	10%	-	10%	10%	50%
Jun 08	-	-	-	-	-	-	-	-	10%	-	15%	-	-	5%	-	-	-	-	10%	10%	50%
May 08	-	-	-	-	-	10%	20%	-	10%	-	-	-	-	-	-	-	10%	-	10%	10%	30%
Apr 08	-	-	-	-	-	5%	20%	-	10%	5%	-	-	-	-	5%	-	-	-	10%	10%	35%
Mar 08	-	-	5%	-	-	10%	20%	-	10%	5%	-	-	-	-	10%	-	-	-	10%	10%	20%
Feb 08	-	-	-	-	-	15%	20%	-	10%	5%	-	-	-	-	10%	-	-	-	10%	10%	20%
Jan 08	-	-	5%	-	-	20%	20%	-	10%	-	-	-	-	-	10%	-	-	-	10%	10%	15%

  

	Equities					Investment-Grade Fixed Income					Other Fixed Income					Alternatives					Cash Index (JPCAUS3M)
	US Large (VOO)	Dev Intl (VEA)	Em Mkts (VWO)	US Small (VB)	Intl Small (SCZ)	20Y+ Treas (TLT)	7-10Y Treas (IEF)	IG Corps (LQD)	TIPS (TIP)	ST IG Corps (VCSH)	HY Corps (JNK)	ST HY Corps (HYS)	Lev Loans (BKLN)	Pref Shares (PFF)	EM Bonds (EMB)	Gold Miners (GDX)	Real Estate (VNO)	MLPs (MLPI)	Cmdty (DBC)	Gold (IAU)	
Dec 07	-	-	10%	-	-	20%	20%	-	10%	-	-	-	-	-	5%	-	-	-	5%	10%	20%
Nov 07	-	-	15%	-	-	10%	20%	-	10%	-	-	-	-	-	-	-	-	-	10%	-	35%
Oct 07	-	-	15%	-	-	10%	20%	-	10%	-	-	-	-	-	-	-	-	-	10%	5%	30%

The Basket Constituents are identified above by their respective tickers. Please refer to the "Selected Risks" and "Disclaimer" at the end of this presentation and to the section entitled "Use of alternative performance" on the last page for information related to the Basket Constituents and the use of alternative performance in the backtest.

The hypothetical and actual historical monthly weights set forth above represent the monthly reference portfolio weights applied to hypothetical backtested performance using alternative performance for some Basket Constituents from November 1, 2007 to January 18, 2013, hypothetical backtested performance using the actual performance of each Basket Constituent from January 22, 2013 to December 30, 2014, and actual performance from December 31, 2014 to October 31, 2024.

While the monthly reference portfolio weights applied to the hypothetical backtested performance of the Index after January 18, 2013 were allocated to the actual Basket Constituents, alternative performance information for certain Basket Constituents may have been considered in determining the weights for such Basket Constituents after this date.

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.

Except as noted above and in the section entitled "Use of alternative performance" at the end of this document, the hypothetical and actual historical monthly weights set forth above were determined using the methodology currently used to calculate the Index. PAST ALLOCATIONS TO BASKET CONSTITUENTS, HYPOTHETICAL OR ACTUAL, ARE NOT INDICATIVE OR PREDICTIVE OF FUTURE ALLOCATIONS.

## Selected Risks

- Our affiliate, J.P. Morgan Securities plc ("JPMS plc"), is the Index Sponsor and may adjust the Index in a way that affects its level. The 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 is under no obligation to consider your interest as an investor with returns linked to the Index.
- The level of the Index is calculated on an excess return basis (net of a notional financing cost) and reflects the daily deduction of 0.85% per annum.
- The Index was established on December 31, 2014, and has a limited operating history.
- There are risks associated with a momentum-based investment strategy. If market conditions do not represent a continuation of prior observed trends, Index performance may be adversely impacted.
- 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, may not outperform any alternative strategy and may not approximate its target volatility of 5%.
- The investment strategy used to construct the Index involves monthly rebalancing and weighting constraints that are applied to the Basket Constituents, and daily adjustments to the exposure to the monthly reference portfolio, which may adversely impact performance.
- The Index will be partially uninvested when the cash index is included in the monthly reference portfolio and when the Index's exposure to the monthly reference portfolio is less than 100%. Any uninvested portion will earn no return.
- Changes in the values of the Basket Constituents may offset each other.
- There are risks associated with correlation between the Basket Constituents. If the performances of the Basket Constituents become highly correlated during periods of negative performance, Index performance may be adversely impacted.
- Each Basket Constituent composing the Index may be replaced by a substitute constituent upon the occurrence of certain extraordinary events.
- 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 securities of our parent company, JPMorgan Chase & Co., are held by several of the Basket Constituents.
- The commodity futures contracts underlying the Invesco DB Commodity Index Tracking Fund are subject to uncertain legal and regulatory regimes.
- The performance of an ETF, particularly during periods of market volatility, may not correlate with the performance of its reference index.
- SOFR has a limited history and its future performance cannot be predicted based on historical performance. SOFR may be volatile and may be more volatile than other benchmark or market interest rates.
- The Index is subject to risks associated with non-U.S. securities markets (including emerging market risks, and currency exchange risk), small capitalization stocks, preferred stocks, fixed income securities and loans (including interest-rate related risks and credit risk), risks associated with the real estate industry and MLPs, and risks associated with investments in commodity futures contracts and gold.

The selected risks set forth above pertain to the Index identified on the cover of this document and 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 constituents and proxy constituents may not have traded together 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 use of alternative "proxy" information may create additional differences between hypothetical backtested and actual performance and allocations.

The results obtained from backtesting information should not be considered indicative of the actual results that might be obtained from an investment or participation in a financial instrument or transaction referencing the Index. J.P. Morgan provides no assurance or guarantee that investments 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 1/22/13, the Index's hypothetical backtested performance relies on, and its weights are applied to, alternative "proxy" performance for some of the Basket Constituents identified above. Additionally, alternative performance information for certain Basket Constituents may have been considered in determining hypothetical weight allocations for such Basket Constituents after this date. Prior to each such Basket Constituent's launch and satisfaction of a minimum liquidity standard, the backtesting uses (in lieu of actual performance) alternative performance derived from the reference index tracked by that Basket Constituent as of the Index's live date, after deduction of hypothetical fund expenses (in each case, as specified in the accompanying parenthetical) equal to that Basket Constituent's expense ratio as of the Index's live date, as follows: the S&P 500 Total Return Index was used as a proxy for VOO through 3/30/11 (-0.05% p.a.); MSCI US Small Cap 1750 Gross Return USD Index was used as a proxy for VB through 4/27/2007 (-0.09% p.a.); the FTSE Developed ex North America Net Tax (US RIC) Index was used as a proxy for VEA through 11/28/07 (-0.09% p.a.); the MSCI EAFE Small Cap Net Total Return USD Index was used as a proxy for SCZ through 10/8/09 (-0.4% p.a.); the Bloomberg Barclays US Corporate 1-5 years Total Return Index Value Unhedged USD was used as a proxy for VCSH through 9/14/10 (-0.12% p.a.); the Bloomberg Barclays VLI: High Yield Total Return Index Value Unhedged USD was used as a proxy for JNK through 9/4/08 (-0.4% p.a.); the ICE BofA Merrill Lynch 0-5 Year US High Yield Constrained Index was used as a proxy for HYS through 1/18/13 (-0.55% p.a.); the S&P/LSTA U.S. Leveraged Loan 100 Index was used as a proxy for BKLN through 5/11/12 (-0.65% p.a.); the S&P U.S. Preferred Stock Index was used as a proxy for PFF through 10/20/08 (-0.47% p.a.); the J.P. Morgan EMBISM Global Core Index was used as a proxy for EMB through 11/17/09 (-0.6% p.a.); and the Alerian MLP Infrastructure Total Return Index was used as a proxy for MLP1 through 1/2/13 (-0.85% p.a.). Prior to the relevant date of last use of proxy specified above for a particular Basket Constituent, the hypothetical allocation to such Basket Constituent in the hypothetical and actual historical monthly weights tables above was actually made to the relevant proxy identified in the preceding paragraph. Prior to February 25, 2020, the Basket Constituent providing exposure to Master Limited Partnerships was the ETRACS Alerian MLP Infrastructure Index ETN, but on that date it was replaced with the Alerian MLP ETF, an ETF which tracks the same reference index. Prior to December 31, 2021, the Cash Constituent (referred to as "Cash Index" in the table) was the JPMorgan Cash Index USD 3 Month.

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.

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