

# Half Caff Alternative Allocation

## Q2 Performance Update

Data as of 6/30/18

The following is a Q2 2018 performance update on the results of combining a fixed income diversifier—Calamos Market Neutral Income Fund (CMNIX)—and an equity hedge—Calamos Phineus Long/Short Fund (CPLIX) in an alternative allocation we call the Half Caff. The Half Caff is inspired by coffee drinkers who like the jolt that caffeine provides—such as the strong equity performance of a nine-year-old bull market—but want to dial back on the accompanying jumpiness.

At Calamos, our goal is the same as yours: to keep clients invested, with the goal of making progress toward their investment objectives.



### THE POWER OF THE HALF CAFF: STRONGER RISK-ADJUSTED RETURNS, IMPROVED PORTFOLIO METRICS

TIME PERIOD: 5/1/2002 TO 6/30/2018

	ANNUALIZED RETURN	BETA	STD DEV	GAIN DEVIATION	LOSS DEVIATION	SHARPE RATIO	UPSIDE DEVIATION	DOWNSIDE DEVIATION	SORTINO RATIO	GAIN/LOSS RATIO	EXCESS RETURN	ALPHA	CORRELATION	MAX DRAWDOWN
Calamos Phineus Long/Short Fund (CPLIX)	11.30	1.25	16.58	14.32	8.97	0.65	10.98	7.42	1.19	1.92	4.29	3.45	0.62	-35.99
Calamos Market Neutral Income Fund (CMNIX)	4.15	0.51	4.73	3.67	3.21	0.61	3.16	3.47	0.87	2.02	-2.86	-0.07	0.87	-18.02
<b>Half Caff: 50%CPLIX-50%CMNIX</b>	<b>7.94</b>	<b>0.88</b>	<b>9.95</b>	<b>8.57</b>	<b>5.52</b>	<b>0.69</b>	<b>5.53</b>	<b>4.21</b>	<b>1.22</b>	<b>2.04</b>	<b>0.93</b>	<b>1.72</b>	<b>0.72</b>	<b>-26.51</b>
<b>Twenty 50/50 Alternative Blend: 50% Stocks-30% Bonds-20% Alts</b>	<b>7.29</b>	<b>1.01</b>	<b>8.32</b>	<b>6.76</b>	<b>5.26</b>	<b>0.73</b>	<b>1.14</b>	<b>0.86</b>	<b>1.14</b>	<b>1.98</b>	<b>0.28</b>	<b>0.21</b>	<b>0.99</b>	<b>-30.57</b>
60% Stocks-40% Bonds	7.02	1.00	8.09	6.45	5.27	0.72	0.00	0.00	1.08	1.95	0.00	0.00	1.00	-30.75

Stocks (equities) are represented by the S&P 500 Index. Bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index. S&P 500 Index is generally considered representative of the U.S. stock market. Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

Performance data quoted represents past performance, which is no guarantee of future results. Current performance may be lower or higher than the performance quoted. You can obtain performance data current to the most recent month end by visiting [www.calamos.com](http://www.calamos.com). The performance shown for periods prior to 4/6/16 is the performance of a predecessor investment vehicle (the "Predecessor Fund"). See back page for complete performance statement.

### About the Half Caff: Twenty 50/50 Alternative Blend

The Half Caff is an alternative blend:

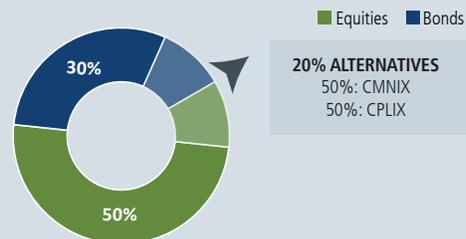
- » We take 10% from a traditional portfolio with 40% allocated to bonds (using the Bloomberg Barclays U.S. Aggregate Bond Index as proxy).
- » We take 10% from a traditional portfolio with 60% allocated to equities (using the S&P 500 as proxy).
- » From that 20%, we allocate half to CMNIX as the fixed income alternative and half to CPLIX as the equity alternative.

Also see archived blog posts:

- » [Jumpy Markets? This 'Half Caff' Blend Cuts Back on the Volatility While Pursuing Better Returns](#)
- » [Revisiting the Half Caff Alternative Allocation in a Dramatically Different Environment](#)

### USE THE HALF CAFF—50% OF CPLIX + 50% OF CMNIX AS AN ALTERNATIVE BLEND

HYPOTHETICAL ILLUSTRATION:  
TWENTY 50/50 ALTERNATIVE BLEND



Equities are represented by the S&P 500. Bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index.

## Correlations

The negative excess returns between CMNIX and CPLIX suggest that adding this pair of funds to a traditional 60/40 portfolio can be additive as these funds earned their excess returns during different market periods.

### CORRELATION MATRIX (EXCESS RETURNS VS. 60% S&P 500 - 40% BCAGG)

TIME PERIOD: 5/1/2002 TO 6/30/2018

	1	2	3	4	5
1 Calamos Phineus Long/Short Fund (CPLIX)	1.00				
2 Calamos Market Neutral Income Fund (CMNIX)	-0.04	1.00			
3 50% CPLIX – 50% CMNIX	0.94	0.29	1.00		
4 Twenty 50/50 Alternative Blend	0.98	0.10	0.97	1.00	
5 60% - 40% Bonds					1.00

■ 1.00 to 0.80      ■ 0.80 to 0.60      ■ 0.60 to 0.40      ■ 0.40 to 0.20      ■ 0.20 to 0.00  
■ 0.00 to -0.20      ■ -0.20 to -0.40      ■ -0.40 to -0.60      ■ -0.60 to -0.80      ■ -0.80 to -1.00

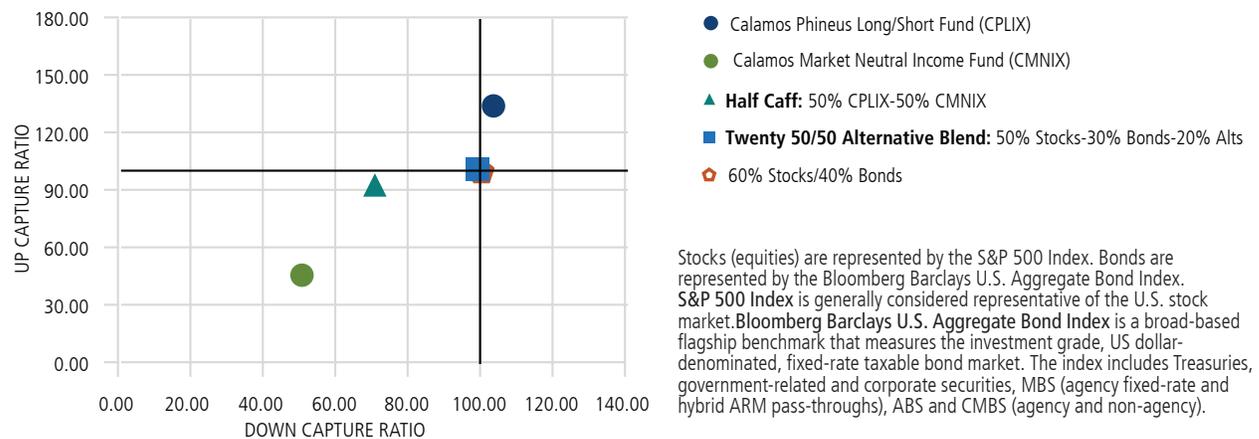
Stocks (equities) are represented by the S&P 500 Index. Bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index. Performance data quoted represents past performance, which is no guarantee of future results. Current performance may be lower or higher than the performance quoted. You can obtain performance data current to the most recent month end by visiting [www.calamos.com](http://www.calamos.com). The performance shown for periods prior to 4/6/16 is the performance of a predecessor investment vehicle (the "Predecessor Fund"). See back page for complete performance statement.

## Asymmetric Up/Down Capture Profile

The non-normal return distributions of the underlying alternative strategies used in the funds provide an innovative solution seeking to provide greater upside participation while protecting on the downside. These characteristics aim to create an asymmetrical up/down capture profile that leads to greater upside as the lower losses captured by these strategies have the potential to shorten the road to recovery.

### UP-DOWN CAPTURE (IN % TERMS)

TIME PERIOD: 5/1/2002 TO 6/30/2018



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## Over Market Cycles

Financial advisors know better than to build investment portfolios for perfect conditions (e.g., extended periods of high growth, low volatility, low interest rates and low inflation). For those periods a 60/40 portfolio might suffice and even outperform. Alternatives are used to diversify a portfolio with the goal of better shielding it from market volatility, toward the objective of more favorable risk-adjusted returns.

### PERFORMANCE OVER MARKET CYCLES

	INTERNET BUBBLE CRASH 5/1/2002- 3/31/2003	RECOVERY 4/1/2003- 10/31/2007	FINANCIAL CRISIS 11/1/2007- 2/28/2009	RECOVERY 3/1/2009- 6/30/2018
	ANNUALIZED RETURN	ANNUALIZED RETURN	ANNUALIZED RETURN	ANNUALIZED RETURN
Calamos Phineus Long/Short Fund (CPLIX)	-9.17%	21.68%	-24.39%	14.95%
Calamos Market Neutral Income Fund (CMNIX)	6.62	5.80	-13.84	5.89
<b>Half Caff: 50%CPLIX-50%CMNIX</b>	<b>-1.40</b>	<b>13.73</b>	<b>-18.93</b>	<b>10.60</b>
<b>Twenty 50/50 Alternative Blend: 50% Stocks-30% Bonds-20% Alts</b>	<b>-8.30</b>	<b>14.95</b>	<b>-25.24</b>	<b>12.03</b>
60% Stocks-40% Bonds	-7.91	11.31	-24.09	11.97

Stocks (equities) are represented by the S&P 500 Index. Bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index. S&P 500 Index is generally considered representative of the U.S. stock market. Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

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## OUR ALTERNATIVES WORK

**Calamos is the #5 manager of assets in the Alternatives category, as ranked by AUM by Morningstar (6/30/18), up from #10 the year prior.**

Financial advisors, talk to your Calamos Investment Consultant about how the Half Caff might make a difference in your portfolios.

Call **888-571-2567** or email [caminfo@calamos.com](mailto:caminfo@calamos.com).

## AVERAGE ANNUAL RETURNS

Data as of 6/30/18	1-YEAR	3-YEAR	5-YEAR	10-YEAR	SINCE A SHARE INCEPTION	SINCE I SHARE INCEPTION
<b>Calamos Market Neutral Income Fund</b>						
I shares – at NAV (Inception —5/10/00)	4.28%	3.95%	4.02%	3.90%	N/A	4.58%
A shares – at NAV (Inception —9/4/90) <sup>1</sup>	3.98	3.67	3.74	3.63	6.28%	N/A
A shares – Load adjusted	1.61	2.01	2.73	3.13	6.09	N/A
BBgBarc U.S. Government/Credit Bond Index	-0.63	1.83	2.29	3.78	5.96	5.01
Citigroup 30-Day T-Bill Index	1.27	0.60	0.37	0.26	2.51	1.50
Morningstar Market Neutral Category	1.24	1.14	0.88	1.37	3.86	1.87

Performance data quoted represents past performance, which is no guarantee of future results. You can obtain performance data current to the most recent month end by visiting [www.calamos.com](http://www.calamos.com). Current performance may be lower or higher than the performance quoted. The principal value of an investment will fluctuate so that your shares, when redeemed, may be worth more or less than their original cost. Load-adjusted returns take into account the Fund's maximum 2.25% front-end sales load. Returns for periods greater than 12 months are annualized.

Performance may reflect waivers or reimbursement of certain expenses. Calendar year returns measure net investment income and capital gain or loss from portfolio investments for each period specified. Average annual total return measures net investment income and capital gain or loss from portfolio investments as an annualized average. All performance shown assumes reinvestment of dividends and capital gains distributions. In calculating net investment income, all applicable fees and expenses are deducted from the returns. As of the prospectus dated 3/1/18, the Fund's total expense ratios for Class A shares is 1.28% and Class I Shares is 1.02%, respectively.

The offering price for Class I shares is the NAV per share with no initial sales charge. There are no contingent deferred sales charges or distribution or service fees with respect to Class I shares. The minimum initial investment required to purchase each Fund's Class I shares is \$1 million. Class I shares are offered primarily for direct investment by investors through certain tax-exempt retirement plans (including 401(k) plans, 457 plans, employer-sponsored 403(b) plans, profit sharing and money purchase pension plans, defined benefit plans and non qualified deferred compensation plans) and by institutional clients, provided such plans or clients have assets of at least \$1 million. Class I shares may also be offered to certain other entities or programs, including, but not limited to, investment companies, under certain circumstances.

<sup>1</sup>Prior to 2/28/17, the maximum front-end sales load was 4.75%.

## AVERAGE ANNUAL RETURNS

Data as of 6/30/18	1-YEAR	3-YEAR	5-YEAR	10-YEAR	SINCE A SHARE INCEPTION	SINCE I SHARE INCEPTION
<b>Calamos Phineus Long/Short Fund</b>						
I shares – at NAV (Inception —5/1/02)	2.60%	4.43%	6.82%	9.86%	N/A	11.30%
A shares – at NAV (Inception —5/1/02)	2.36	4.17	6.55	9.60	11.02%	N/A
A shares – Load adjusted	-2.46	2.50	5.52	9.08	10.68	N/A
S&P 500 Index	14.37	11.93	13.42	10.17	8.02	8.02
MSCI World Index	11.70	9.10	10.55	6.86	7.50	7.50
Morningstar Long/Short Equity Category	5.70	3.70	4.29	4.56	2.72	2.72

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*The principal value and return of an investment will fluctuate so that your shares, when redeemed, may be worth more or less than their original cost. Performance reflected at NAV does not include the Fund's maximum front-end sales load of 4.75%. Had it been included, the Fund's return would have been lower. For the most recent month-end fund performance information visit [www.calamos.com](http://www.calamos.com).*

\*The performance shown for periods prior to 4/6/16 is the performance of a predecessor investment vehicle (the "Predecessor Fund"). The Predecessor Fund was reorganized into the Fund on 4/6/16, the date upon which the Fund commenced operations. On 10/1/15 the parent company of Calamos Advisors, purchased Phineus Partners LP, the prior investment adviser to the Predecessor Fund ("Phineus"), and Calamos Advisors served as the Predecessor Fund's investment adviser between 10/1/2015 until it was reorganized into the Fund. Phineus and Calamos Advisors managed the Predecessor Fund using investment policies, objectives, guidelines and restrictions that were in all material respects equivalent to those of the Fund. Phineus and Calamos Advisors managed the Predecessor Fund in this manner either directly or indirectly by investing all of the Predecessor Fund's assets in a master fund structure. The Predecessor Fund performance information has been adjusted to reflect Class A and I shares expenses. However, the Predecessor Fund was not a registered mutual fund and thus was not subject to the same investment and tax restrictions as the Fund. If it had been, the Predecessor Fund's performance may have been lower.

Returns for periods greater than 12 months are annualized. Calendar year returns measure net investment income and capital gain or loss from portfolio investments for each period specified. Average annual total return measures net investment income and capital gain or loss from portfolio investments as an annualized average. All performance shown assumes reinvestment of dividends and capital gains distributions. In calculating net investment income, all applicable fees and expenses are deducted from the returns. The Fund also offers C Shares, the performance of which may vary. As of the prospectus dated 3/1/18, the Fund's total expense ratios for Class A shares is 2.80%; and Class I Shares is 2.54%. The total expense ratio excluding dividend & interest expense for Class A Shares is 1.82%, and Class I Shares is 1.56%.

**Before investing carefully consider the fund's investment objectives, risks, charges and expenses. Please see the prospectus and summary prospectus containing this and other information which can be obtained by calling 1-800-582-6959. Read it carefully before investing.**

Opinions and estimates offered constitute our judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The views and strategies described may not be suitable for all investors. This material has been prepared for informational purposes only, and is not intended to provide, and should not be relied on for, accounting, legal or tax advice. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. Any forecasts contained herein are for illustrative purposes only and are not to be relied upon as advice or interpreted as a recommendation.

Some of the risks associated with investing in alternatives may include hedging risk—hedging activities can reduce investment performance through added costs; derivative risk—derivatives may experience greater price volatility than the underlying securities; short sale risk - investments may incur a loss without limit as a result of a short sale if the market value of the security increases; interest rate risk—loss of value for income securities as interest rates rise; credit risk—risk of the borrower to miss payments; liquidity risk—low trading volume may lead to increased volatility in certain securities; non-U.S. government obligation risk—non-U.S. government obligations may be subject to increased credit risk; portfolio selection risk – investment managers may select securities that fare worse than the overall market. Alternative investments may not be suitable for all investors.

Class I shares are offered primarily for direct investment by investors through certain tax-exempt retirement plans (including 401(k) plans, 457 plans, employer-sponsored 403(b) plans, profit sharing and money purchase pension plans, defined benefit plans and non-qualified deferred compensation plans) and by institutional clients, provided such plans or clients have assets of at least \$1 million. Class I shares may also be offered to certain other entities or programs, including, but not limited to, investment companies, under certain circumstances.

An investment in the Fund(s) is subject to risks, and you could lose money on your investment in the Fund(s). There can be no assurance that the Fund(s) will achieve its investment objective. Your investment in the Fund(s) is not a deposit in a bank and is not insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC) or any other government agency. The risks associated with an investment in the Fund(s) can increase during times of significant market volatility. The Fund(s) also has specific principal risks, which are described below. More detailed information regarding these risks can be found in the Fund's prospectus.

The principal risks of investing in **Calamos Market Neutral Income Fund** include: equity securities risk consisting of market prices declining in general, convertible securities risk consisting of the potential for a decline in value during periods of rising interest rates and the risk of the borrower to miss payments, synthetic convertible instruments risk, convertible hedging risk, covered call writing risk, options risk, short sale risk, interest rate risk, credit risk, high yield risk, liquidity risk, portfolio selection risk, and portfolio turnover risk.

\*The performance shown for periods prior to 4/6/16 is the performance of a predecessor investment vehicle (the "Predecessor Fund"). The Predecessor Fund was reorganized into the Fund on 4/6/16, the date upon which the Fund commenced operations. On 10/1/15 the parent company of Calamos Advisors, purchased Phineus Partners LP, the prior investment adviser to the Predecessor Fund ("Phineus"), and Calamos Advisors served as the Predecessor Fund's investment adviser between 10/1/2015 until it was reorganized into the Fund. Phineus and Calamos Advisors managed the Predecessor Fund using investment policies, objectives, guidelines and restrictions that were in all material respects equivalent to those of the Fund. Phineus and Calamos Advisors managed the Predecessor Fund in this manner either directly or indirectly by investing all of the Predecessor Fund's assets in a master fund structure. The Predecessor Fund performance information has been adjusted to reflect Class A and I shares expenses. However, the Predecessor Fund was not a registered mutual fund and thus was not subject to the same investment and tax restrictions as the Fund. If it had been, the Predecessor Fund's performance may have been lower.

**Covered call writing:** As the writer of a covered call option on a security, the fund foregoes, during the option's life, the opportunity to profit from increases in the market value of the security, covering the call option above the sum of the premium and the exercise price of the call.

**Convertible securities risk:** The value of a convertible security is influenced by changes in interest rates, with investment value declining as interest rates increase and increasing as interest rates decline. The credit standing of the issuer and other factors also, may have an effect on the convertible security's investment value.

**Convertible hedging risk:** If the market price of the underlying common stock increases above the conversion price on a convertible security, the price of the convertible security will increase. The fund's increased liability on any outstanding short position would, in whole or in part, reduce this gain.

**Convertible securities risk:** The value of a convertible security is influenced by changes in interest rates, with investment value declining as interest rates increase and increasing as interest rates decline. The credit standing of the issuer and other factors also may have an effect on the convertible security's investment value.

The principal risks of investing in the **Calamos Phineus Long/Short Fund** include: equity securities risk consisting of market prices declining in general, short sale risk consisting of potential for unlimited losses, foreign securities risk, currency risk, geographic concentration risk, other investment companies (including ETFs) risk, derivatives risk, options risk, and leverage risk.

Active management does not guarantee investment returns or eliminate the risk of loss.

As a result of political or economic instability in foreign countries, there can be special risks associated with investing in foreign securities, including fluctuations in currency exchange rates, increased price volatility and difficulty obtaining information. In addition, emerging markets may present additional risk due to potential for greater economic and political instability in less developed countries.

The performance shown in this post is hypothetical in nature and does not represent the performance and/or investment risk characteristics of any specific client. While the performance listed for each respective Investment Professional is based on actual performance, the aggregate portfolio performance, allocations listed and account comparisons shown are hypothetical in nature, as no actual clients are invested in these blended strategies.

Hypothetical performance results have many inherent limitations, including those described below:

- » Hypothetical performance results are generally prepared with the benefit of hindsight.
- » There are limitations inherent in model results, such results do not represent actual trading and that they may not reflect the impact that material economic and market factors might have had on the advisor's decision making if the advisor were actually managing clients' money. In the hypothetical accounts shown actual 3rd party advisor performance has been blended in various allocations.
- » The hypothetical performance shown does not involve financial risk, and no hypothetical performance calculation can completely account for the impact of financial risk on an actual investment strategy.
- » The ability to withstand actual losses or to adhere to a particular investment strategy in spite of losses are material points which can adversely affect actual performance results.

There are distinct differences between hypothetical performance results and the actual results subsequently achieved by a particular investment portfolio. No representation is being made that an account will or is likely to achieve profits or losses similar to those shown, and any investment may result in loss of principal.

As with any hypothetical illustration there can be additional unforeseen factors that cannot be accounted for within the illustrations included herein. Hypothetical performance and index returns presented assume reinvestment of any and all earnings/distributions.

**Citigroup 30-Day T-Bill Index** is generally considered representative of the performance of short-term money market instruments.

**Bloomberg Barclays U.S. Government/Credit Index** comprises long-term government and investment grade corporate debt securities and is generally considered representative of the performance of the broad U.S. bond market. Unlike convertible bonds, U.S. Treasury bills are backed by the full faith and credit of the U.S. government and offer a guarantee as to the timely repayment of principal and interest.

**Bloomberg Barclays U.S. Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

**Morningstar Market Neutral Category** represents funds that attempt to eliminate the risks of the market by holding 50% of assets in long positions in stocks and 50% of assets in short positions.

**Morningstar Large Blend Category** funds are fairly representative of the overall U.S. stock market in size, growth rates, and price. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large-cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios tend to invest across the spectrum of U.S. industries, and owing to their broad exposure, the portfolios' returns are often similar to those of the S&P 500 Index.

**Morningstar Long/Short Equity Category** funds take a net long stock position, meaning the total market risk from the long positions is not completely offset by the market risk of the short positions. Total return, therefore, is a combination of the return from market exposure (beta) plus any value-added from stock picking or market-timing (alpha).

**S&P 500 Index** is generally considered representative of the U.S. stock market.

**MSCI World Index** is a market capitalization weighted index composed of companies representative of the market structure of 21 developed market countries in North America, Europe, and the Asia/Pacific region. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees, expenses or sales charges. Investors cannot invest directly in an index.

**Alpha** is a historical measure of risk-adjusted performance. Alpha measures how much of a portfolio's performance is attributable to investment-specific factors versus broad market trends. A positive alpha suggests that the performance of a portfolio was higher than expected given the level of risk in the portfolio. A negative alpha suggests that the performance was less than expected given the risk.

**Beta** is a historic measure of a fund's relative volatility, which is one of the measures of risk; a beta of 0.5 reflects 1/2 the market's volatility as represented by the Fund's primary benchmark, while a beta of 2.0 reflects twice the volatility.

**Correlation** is a statistical measure that shows how two securities move in relation to each other. A correlation of 1 implies that if one security moves up or down, the other security will move in lockstep, in the same direction. Alternatively, a correlation of 1 means that if one security moves in either direction, the other security will do the exact opposite.

**Credit ratings** is a measure of a company's credit worthiness and ability to service its debt. Ratings are relative, subjective and not absolute standards of quality. Ratings are measured using a scale that typically ranges from AAA (highest) to D (lowest). The security's credit rating does not eliminate risk.

**Duration** is a measure of interest rate sensitivity.

**Gain deviation:** Similar to standard deviation, except that this statistic calculates an average (mean) return for only the periods with a gain and then measures the variation of only the gain periods around this gain mean. This statistic measures the volatility of upside performance.

**Gain/loss ratio:** Measures a fund's average gain in a gain period divided by the fund's average loss in a losing period.

**Interest rate risk:** The value of fixed-income securities generally decreases in periods when interest rates are rising. In addition, interest rate changes typically have a greater effect on prices of longer-term fixed-income securities than shorter-term fixed-income securities. Recent events in the fixed-income market may expose the Fund to heightened interest rate risk and volatility.

**Kurtosis** is a statistical measure that's used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

**Loss deviation:** Similar to standard deviation, except that this statistic calculates an average (mean) return for only the periods with a loss and then measures the variation of only the losing periods around this loss mean. This statistic measures the volatility of downside performance.

**Max drawdown:** A statistical measure that shows the maximum loss that occurred during any subperiod over the time period listed.

**Sharpe ratio** is a measure of risk-adjusted performance, where higher values are indicative of better investment decisions rather than the result of taking on a higher level of risk. Sharpe ratio is calculated by the difference between a portfolio's return and a risk-free rate, often that of the 10-year Treasury bond, and dividing the result by the portfolio's standard deviation.

**Short-only equity:** The strategy may incur a loss without limit as a result of a short sale if the market value of the security increases.

**Short sale risk:** The Fund may incur a loss (without limit) as a result of a short sale if the market value of the borrowed security increases between the date of the short sale and the date the Fund replaces the security. The Fund may be unable to repurchase the borrowed security at a particular time or at an acceptable price.

**Standard deviation** measures the overall risk of a fund.

**Sortino ratio** is the excess return over the risk-free rate divided by the downside semi-variance, and so it measures the return to "bad" volatility. (Volatility caused by negative returns is considered bad or undesirable by an investor, while volatility caused by positive returns is good or acceptable.)

**Upside deviation** measures only deviations above a specified benchmark.

**Downside deviation** measures only deviations below a specified benchmark.

**Up-capture ratio** is the statistical measure of an investment manager's overall performance in up-markets.

**Down-capture ratio** is a statistical measure of an investment manager's overall performance in down-markets.



**CALAMOS**  
INVESTMENTS

Calamos Financial Services LLC, Distributor  
2020 Calamos Court | Naperville, IL 60563-2787  
800.582.6959 | www.calamos.com | caminfo@www.calamos.com  
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