

**New Client**

Prepared for:  
**New Client**

Prepared by:  
**MICHAEL BOGDAN**  
**Woodbury Financial Services, Inc.**

**September 28, 2018**



Member of Advisor Group

**proposal title:**

New Client

Proposal Number : 324782 : 329359

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Please inform your financial advisor of any changes in your financial situation or investment objectives, or if you wish to modify or impose a reasonable restriction on your account. Please contact your financial advisor if you would like to request a current copy of the ADV Part II, Schedule H, or equivalent brochure, as applicable, for any of the following: Financial Advisor, Money Manager(s) and/or Envestnet.

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## Contact Information



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Member of Advisor Group

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## Investment Solution Overview

Beginning Wealth:

**\$500,000**

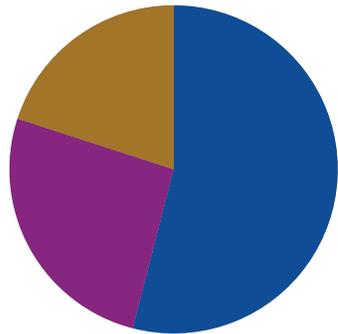
Investment Objective:

**Capital Growth**

Risk Assessment Method:

**Questionnaire**

### Target Asset Allocation <sup>1</sup>



**Domestic Equity**      \$ 270,000      54.0 %

**International Equity**      130,000      26.0

**Fixed Income**      100,000      20.0

**Total**      \$ 500,000      100.0 %

## Executive Summary

This profile developed for you serves as the foundation for a long-term investment strategy designed to suit your specific needs and goals.

The starting point is the analysis of these needs.

What are your basic investment objectives? What are your personal preferences with respect to risk-taking and potential return on your investments? What is your overall financial situation? How do all of these factors work together to create an overall investment strategy?

The answers to these fundamental questions provide the main building blocks for professionally managing your assets.

After analyzing your requirements and goals, an investment strategy is developed that is tailored to your specific situation.

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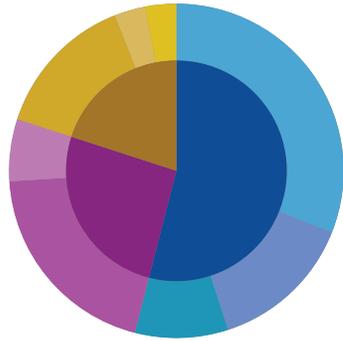
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## Target Asset Allocation <sup>1</sup>

Proposed Allocation



<b>Domestic Equity</b>	<b>\$ 270,000</b>	<b>54.0 %</b>
● Large-Cap Core	<b>155,000</b>	<b>31.0</b>
● Mid-Cap Core	<b>70,000</b>	<b>14.0</b>
● Small-Cap Core	<b>45,000</b>	<b>9.0</b>
<b>International Equity</b>	<b>130,000</b>	<b>26.0</b>
● Int'l Developed Mkts	<b>100,000</b>	<b>20.0</b>
● Int'l Emerging Mkts	<b>30,000</b>	<b>6.0</b>
<b>Fixed Income</b>	<b>100,000</b>	<b>20.0</b>
● Intermediate Bond	<b>70,000</b>	<b>14.0</b>
● Short Bond	<b>15,000</b>	<b>3.0</b>
● High Yield	<b>15,000</b>	<b>3.0</b>
<b>Total</b>	<b>\$ 500,000</b>	<b>100.0</b>

## Asset Allocation <sup>1</sup>

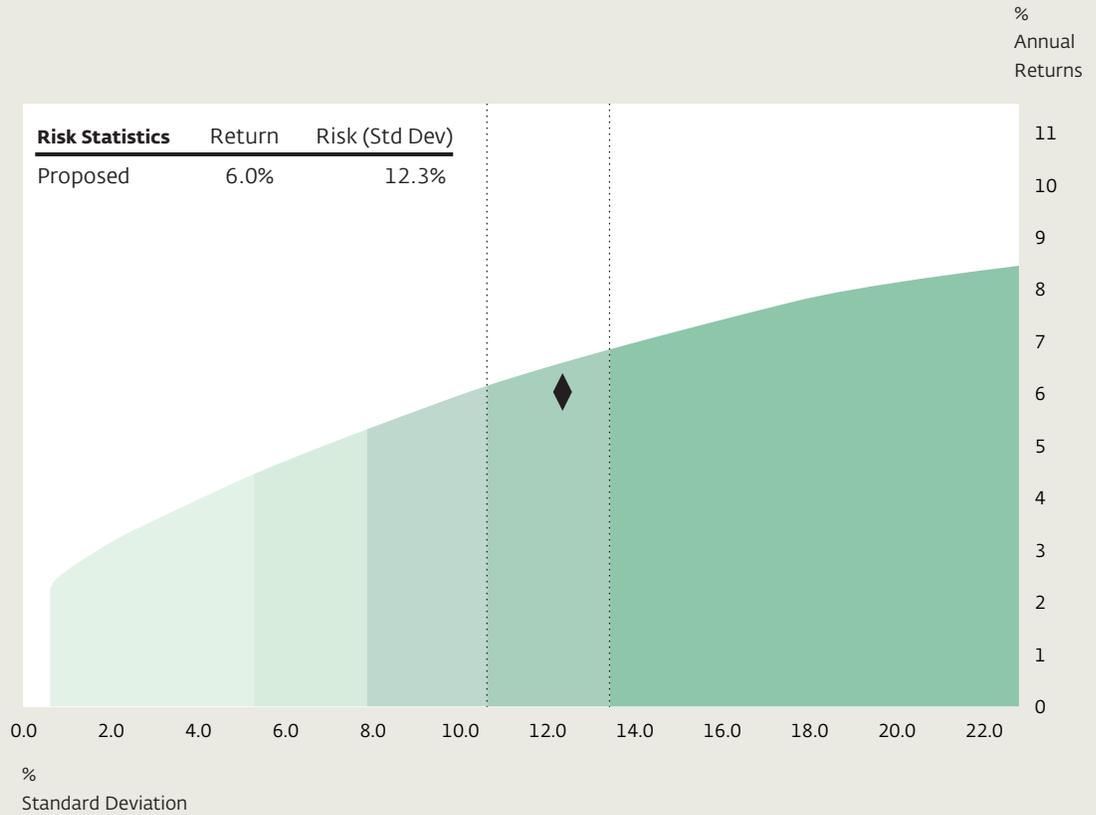
The weighting of the various asset categories in a portfolio can be one of the most important factors in the implementation of any investment strategy.

Spreading risk among asset classes and investment vehicles is a common tactic used to help reduce the overall risk of a portfolio, although a diversified asset allocation does not ensure investment gains or protect against losses.

*The asset mixes are based on historical risk characteristics of the benchmark indices for each separate asset class. The asset classifications are as of the date listed below and are subject to change at any time.*

## Efficient Frontier Analysis <sup>2</sup>

Efficient portfolios are expected to provide the highest return for a given level of risk or the lowest risk for a given return. Those outcomes that are closest to the edge of the curve represent outcomes that are more efficient.



*IMPORTANT: The projections or other information generated by the Efficient Frontier tool regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Please note that results may vary with each use and over time.*

*Results are based on capital market assumptions at the asset class level. All investment decisions involve risk, or the possibility that your investment will lose value. The value of an investment will fluctuate over time and may be worth less than its original cost. For a more complete description of the Efficient Frontier, including the criteria, methodology and asset classes used and the Efficient Frontier tool's limitations and key assumptions see the Notes section <sup>2</sup>*

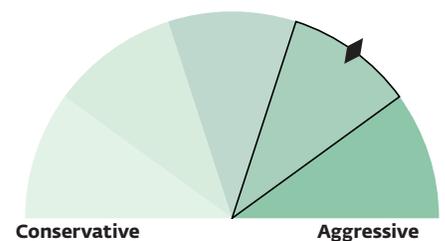
## Asset Allocation <sup>2</sup>

The chart illustrates the efficient frontier analysis of your proposed asset allocation. The efficient frontier chart can be used to identify efficient portfolios that are expected to provide the highest return for a given level of risk or the lowest risk for a given return.

The risk assessment dial shows the range of risk an investor with your profile would be willing to assume. Your suitable range is represented by the outlined area.

Your proposed portfolio is indicated by the black marker; your current portfolio is indicated in gray. Depending on whether this proposal represents some or all of your investment assets, the risk rating of the portfolio may be more or less than your risk profile, but should be consistent with your overall objectives and risk profile.

Based on the information you have provided, you have been classified in the **Capital Growth** risk category.



## Investments

	Type	\$	%
<span style="color: orange;">■</span> <i>Asset Allocated</i> <b>80/20 Capital Growth</b>	AMP	500,000	100.0

## Proposed Investment Solution

Based on the information gathered during the goal-setting phase and a thorough assessment of your needs, the following portfolio has been identified for consideration.

The proposed portfolio consists of both new investments and investments retained from your current portfolio. New holdings represent 100% of the proposed portfolio, and retained investments represent 0%.

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## Hypothetical Portfolio: Past Performance Analysis

The following charts in pages 8 through 8 show the hypothetical value of the combined performance returns ("Model Portfolio Returns") for each investment strategy or product included in this proposal for the time periods indicated. These Model Portfolio Returns do not reflect the actual investment results of any client portfolio, but represent the hypothetical performance of this proposal, which is calculated by weighting the performance of each investment strategy or product included in this proposal at the allocation percentages detailed in this proposal. The allocation percentage of each investment strategy or product included in this proposal is fixed for the time periods indicated for the Model Portfolio Returns.

The performance information for each of the investment strategies or products included in this proposal is located in the "Investment Data Sheets" located towards the end of this proposal.

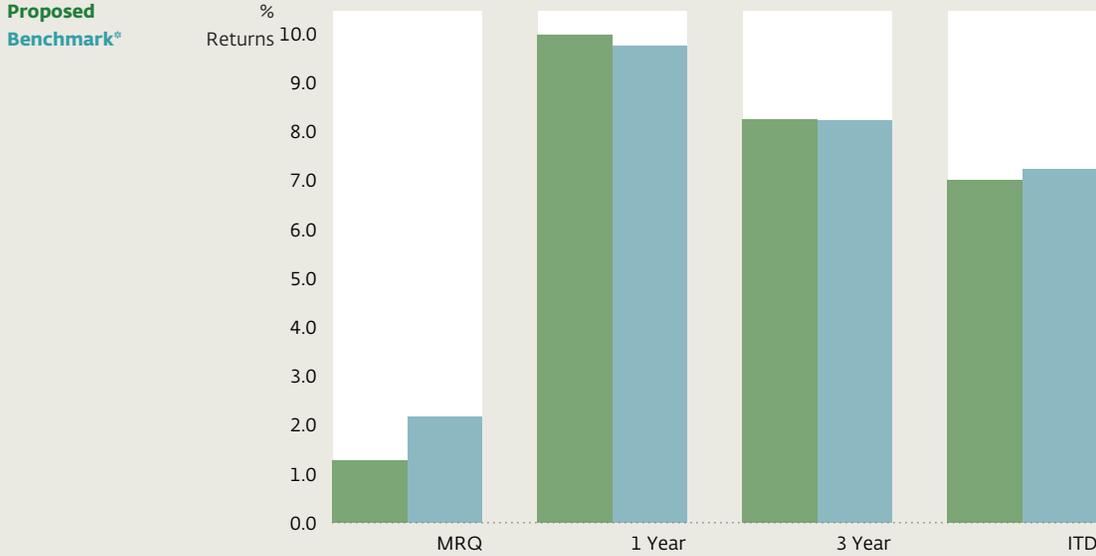
Model results have certain inherent limitations, particularly that such results do not represent actual trading and that they may not reflect the impact that material economic and market factors might have had on the asset manager's decision-making if the asset manager were actually managing clients' money. Performance results for clients invested pursuant to this proposal will vary due to market conditions and other factors, including cash flows, fund allocations, frequency and precision of rebalancing, cash balances, varying custodial fees, and the timing of fee deductions. As a result, actual performance for client accounts may differ materially from, and may be lower than, that of a model portfolio.

The performance results of the underlying investment strategies or products in the Model Portfolio Returns assume the reinvestment of dividends and other earnings. Model Portfolio Returns represent past performance and are not indicative of any specific investment. The model portfolio's current performance may be lower or higher than the performance data quoted as it represents past performance. An investment pursuant to this portfolio is subject to market risk and an investor may experience loss of principal. The information is based on data received from the investment strategy manager and/or other sources, such as reporting service providers, but has not been independently verified.

The Model Portfolio Returns are compared to a selected benchmark, indicated in each chart. The reported benchmarks are not intended as direct comparisons to the performance of the portfolio. Instead, they are intended to represent the performance of certain sectors of the overall securities market (e.g. equities, bonds, etc), so that an investor may compare the effects of material market or economic conditions on the results portrayed (e.g. the Model Portfolio Returns may show a 5% investment appreciation, but those sectors of the overall securities market appreciated 7% over the same time period). Respectively, the volatility and performance of the reported benchmark may be greater than or less than the volatility and performance of the investment portfolio.

## Annualized Returns

**Annualized Returns Analysis** (July 1, 2014 - June 30, 2018)



	MRQ	1 Year	3 Year	ITD
Proposed	1.27%	9.96%	8.25%	7.01%
Benchmark *	2.17	9.75	8.22	7.22

## Performance Analysis

This chart shows the hypothetical value of the combined annualized total returns for this proposal compared to selected benchmarks.

The performance quoted represents past performance. Past performance is not indicative of future results. Please see the individual "Investment Data Sheets" located towards the end of this proposal for important information on the performance returns for each investment strategy or product included in this proposal.

Benchmark indices reflect the reinvestment of dividends and income and not deductions for fees, expenses or taxes. Indices are unmanaged and not available for direct investment.<sup>3</sup>

Performance is shown gross of fees, except for the internal expenses of any investment products and does not reflect the effect of income taxes on the investment returns. Actual performance results will be reduced by fees including, but not limited to, investment management fees and other costs such as custodial, reporting, evaluation and advisory services. Performance reflects the reinvestment of dividends, income and capital appreciation. For more information on fees, see the Notes section.<sup>4</sup>

\*Growth Blend indicates a blend composed of 60% Russell 3000 TR, 25% Bloomberg Barclays Capital U.S. Aggregate Bond TR, 15% MSCI EAFE GR.

## Investment Holdings Performance

	Incp. Date	Latest Qtr	1 Year	3 Year	5 Year	10 Year	ITD
<b>80/20 Capital Growth</b>	Jul 1, 2014	1.27	9.96	8.25	n/a	n/a	7.01 %
Benchmark: 60% Russell 3000/15% EAFE/25% BarCap Aggregate		2.17	9.75	8.22	9.60	7.91	7.22

The performance quoted represents past performance. Past performance is not indicative of future results. Performance data quoted represents past performance. Investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. <sup>5</sup>

## Holdings Analysis

This chart lists the individual investments in your proposed portfolio and the annualized total returns of those investments.

The figures presented in the charts displayed are as of 06/30/18 and may change at any time.

Total returns do not reflect the fund's sales charge. If sales charges were included, total returns would have been lower. Other fees and expenses applicable to continued investment are described in the fund's prospectus.

Performance is shown gross of fees, except for the internal expenses of any investment products and does not reflect the effect of income taxes on the investment returns. Actual performance results will be reduced by fees including, but not limited to, investment management fees and other costs such as custodial, reporting, evaluation and advisory services.

Performance reflects the reinvestment of dividends, income and capital appreciation. For more information on fees, see the Notes section. <sup>4</sup>

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## Investment Holdings Statistics

	% Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Info. Ratio
<b>80/20 Capital Growth</b>	6.72	1.13	-0.98	1.13	97.16	1.37	0.02

The performance quoted represents past performance. Past performance is not indicative of future results. Performance data quoted represents past performance. Investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost.<sup>5</sup>

## Holdings Analysis

This chart lists the individual investments in your proposed portfolio and select performance statistics of those investments.

The figures presented in the charts displayed are based on 3 year returns as of 06/30/18 and may change at any time.

Total returns do not reflect the fund's sales charge. If sales charges were included, total returns would have been lower. Other fees and expenses applicable to continued investment are described in the fund's prospectus.

Performance is shown gross of fees, except for the internal expenses of any investment products and does not reflect the effect of income taxes on the investment returns. Actual performance results will be reduced by fees including, but not limited to, investment management fees and other costs such as custodial, reporting, evaluation and advisory services. Performance reflects the reinvestment of dividends, income and capital appreciation. For more information on fees, see the Notes section.<sup>4</sup>

# Risk Return Worksheet

The information provided in this questionnaire is not intended to be investment advice and does not constitute a recommendation to buy or sell securities.

## Risk Assessment

1. For these funds, which of the following closely aligns with your current financial goal?

- Sustaining current income and account preservation
- Sustaining current income with possible growth opportunity
- Growing account value, not tied to current income needs
- Aggressive growth, maximizing accumulation

2. How long do you plan to keep these funds invested in order to achieve your financial goal?

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 20 years
- Greater than 20 years

3. Every investment has an opportunity for both risk and reward. The chart below represents a one-year hypothetical risk and reward scenario for five portfolios with incremental levels of risk and reward for a hypothetical initial investment of \$100,000. Select the option with which you are most comfortable. Note: these numbers are not representative of your potential target portfolios. *Please select one.*



- Portfolio #1
- Portfolio #2
- Portfolio #3
- Portfolio #4
- Portfolio #5

## Risk Return Worksheet

4. How would you react to a significant fall in the value of the stock market?



- Sell All, Avoid Further Risk
- Sell Some, Reduce Exposure to Risk
- Sell Nothing, Remain Invested
- Buy More, Opportunity is Present

5. How soon would you need these funds to recover after experiencing a sudden meaningful loss in value?

- 0 to 6 months
- 6 months to 1 year
- 1 to 3 years
- 3 years or more

6. How would you respond to the following statement:

I am comfortable investing during times of uncertainty

- Strongly disagree
- Disagree
- Agree
- Strongly agree

## Investment Data Sheets

## 80/20 Capital Growth

### Performance: Growth of \$100



	2014	2015	2016	2017	2018
Product (Gross)	0.61	-0.64	9.41	18.95	0.79
Benchmark	2.21	0.50	8.51	17.20	1.16
Relative Returns	-1.60	-1.14	0.91	1.75	-0.38
Risk Benchmark	0.50	-0.18	7.72	17.36	0.73

### Performance Highlights (%)

Total Annualized Return for Periods Ending 06/30/18



	MRQ	YTD	1 Yr	3 Yr	5 Yr	ITD
Product (Gross)	1.27	0.79	9.96	8.25	n/a	7.01
Benchmark	2.17	1.16	9.75	8.22	n/a	7.22
Relative Returns	-0.91	-0.38	0.22	0.03	n/a	-0.21
Risk Benchmark	1.43	0.73	9.08	7.54	n/a	6.32

### Risk-Return Statistics

	Product		Bench
	3 Yr	5 Yr	5 Yr
Std. Deviation (%)	6.72	n/a	5.58
Sharpe Ratio	1.13	n/a	1.65
Alpha (%)	-0.98	n/a	--
Information Ratio	0.02	n/a	--
Capture (%)	1.03	n/a	--
Down Capture (%)	1.13	n/a	--
Total Return (%)	Product		Bench
Best Qtr(01/17-03/17)	5.39		4.76
Worst Qtr(07/15-09/15)	-6.92		-5.57
Best Year (2017)	18.95		17.20
Worst Year (2015)	-0.64		0.50

### Risk Statistics

	3 Yr	5 Yr
Active Return (%)	0.03	n/a
Batting Average (%)	58.33	n/a
Beta	1.13	n/a
Tracking Error	1.37	n/a
R Squared	97.16	n/a
Q-Score		
Q-Risk		
Q-Return		
Q-Rank		

### Quick Facts ( as of Jun 30, 2018)

Style Classification :	Asset Allocated
Benchmark :	Blend <sup>1</sup>
Risk Benchmark <sup>2</sup> :	Blend <sup>3</sup>
Risk Rating :	Capital Growth
Risk Score :	70 (out of 100)
Product AUM(MM) :	
Portfolio Inception :	n/a
Current # Holdings :	10
Avg. Annual Turnover :	

The performance quoted represents past performance. Past performance is not indicative of future results. Performance and performance related statistics presented are as of Jun 30, 2018. <sup>4</sup>

The value of an investment and the return on invested capital will fluctuate over time and, when sold or redeemed, may be worth less than its original cost.

Performance is shown gross of fees, except for the internal expenses of any investment products and does not reflect the effect of income taxes on the investment returns. Actual performance results will be reduced by fees including, but not limited to, investment management fees and other costs such as custodial, reporting, evaluation and advisory services. Performance reflects the reinvestment of dividends, income and capital appreciation. For more information on fees, see the Notes section. <sup>5</sup>

Benchmark indices reflect the reinvestment of dividends and income and not deductions for fees, expenses or taxes. Indices are unmanaged and not available for direct investment. <sup>6</sup>

The information is based on data received from the investment strategy manager and/or other sources, such as reporting service providers, but has not been independently verified. All performance results are composite returns as of the date noted showing total returns that are calculated assuming reinvestment of dividends, income and capital appreciation.

## 80/20 Capital Growth, Continued

Portfolio Characteristics <sup>7</sup>		Asset Allocation	
( Actual investor holdings will vary )			
Average Market Cap (MM)	52,694		
Median Market Cap (MM)	—		
Adjusted Price/Earnings Ratio	16.43		
Price/Book Ratio	2.42		
Return On Equity (1yr)	n/a		
EPS Growth-Past 5 yrs	n/a		
Debt to Total Capital	n/a		
Current Yield (%)	2.18 <sup>8</sup>		
Weight. Avg Gross Expense Ratio <sup>9</sup>	0.10%		
Weight. Avg Net Expense Ratio <sup>10</sup>	0.10%		

Equity Sector Distribution		Holdings	
	0.0 %      20.0      40.0	Security	%
Energy	5.6	SPDR® S&P 500 ETF	31.00
Fin. Services	16.8	Vanguard Mid-Cap ETF	14.00
Industrials	12.4	iShares Core MSCI Europe ETF	10.00
Technology	18.6	Vanguard FTSE Pacific ETF	10.00
Cons. Cyclical	13.1	Vanguard S&P Small-Cap 600 ETF	9.00
Basic Materials	5.4	Schwab US Aggregate Bond ETF™	7.00
Comm. Svcs.	2.8	Vanguard Total Bond Market ETF	7.00
Healthcare	11.2	iShares Core MSCI Emerging Markets ETF	6.00
Real Estate	4.1	Vanguard Short-Term Bond ETF	3.00
Cons. Defense	7.0	Ishares Inc Global High Yield Corp Bd Fd	3.00
Utilities	3.1		

The data presented is based on a snapshot of the holdings in the portfolio as of Sep 27, 2018 and may change at any time. Other data is calculated based on the reported holdings and data received from third party data sources, as of the most recent date provided to Envestnet. The information is believed to be accurate, however Envestnet cannot guarantee the accuracy, completeness, or timeliness of the data as it has not been independently verified. Specific securities identified and described do not represent all of the securities purchased, sold or recommended for advisory clients, and may not reflect any restriction a client may have placed on a portfolio. The portfolio holdings may vary depending on strategy employed by the investment manager. Holdings information should not be considered a recommendation to buy or sell a particular security. It should not be assumed that any investments in securities identified and described were or will be profitable, and diversification does not ensure a profit or protect against loss.

<sup>1</sup> Blend represents a benchmark composed of 60% Russell 3000 TR, 25% Bloomberg Barclays Capital U.S. Aggregate Bond TR, 15% MSCI EAFE GR

<sup>2</sup> The secondary risk benchmark is shown for informational purposes only. It is based on the overall risk score of the product only.

<sup>3</sup> 46% Russell 1000 TR, 19% MSCI EAFE GR, 18% Bloomberg Barclays Capital Intermediate U.S. Government/Credit TR, 5.5% Bloomberg Barclays Capital Global Aggregate Bond TR, 4.5% Russell 2000 TR, 3.5% MSCI EM TRG USD, 3.5% Bloomberg Barclays Capital 1-3 Govt/Credit Bond TR

<sup>4</sup> Note: **Performance Inception** Jul 1, 2014

Performance returns & statistics are calculated using quarterly returns data as of date noted and is the most recent data made available by the asset manager. Unless otherwise noted, portfolio performance returns are provided by a third-party data provider or the asset manager directly.

<sup>5</sup> Actual fees will vary depending on, among other things, the applicable fee schedule, the time period, investment performance and account size. For example, if \$100,000 were invested and experienced a 10% annual return compounded monthly for 10 years, its ending value, without giving effect to the deduction of advisory fees, would be \$270,704 with annualized compounded return of 10.47%. If an advisory fee of 0.95% of the average market value of the account were deducted monthly for the 10-year period, the annualized compounded return would be 9.43% and the ending dollar value would be \$246,355. For a description of all fees, costs and expenses, please refer to your financial advisor's Disclosure Brochure. Past performance is not indicative of future results.

<sup>6</sup> Reported benchmarks are not intended as direct comparisons to the performance of the portfolio. Instead, they are intended to represent the performance of certain sectors of the overall securities market (e.g. equities, bonds, etc.). Respectively, the volatility and performance of the reported benchmark may be greater than or less than the volatility and performance of the investment portfolio.

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## 80/20 Capital Growth, Continued

<sup>8</sup> Yield is an indication of the current estimated dividends and interest vs. the current market value of the holdings. The yield represents the current amount of income that is being generated from the portfolio without liquidating the principal or capital gains on the portfolio. However, the yield will fluctuate daily and current or past performance is not a guarantee of future results

<sup>9</sup> The weighted average of the gross expense ratios of the funds and/or ETFs used in the portfolio.

<sup>10</sup> The weighted average of the net expense ratios of the funds and/or ETFs used in the portfolio. The fund net expense ratios reflect fee waivers by the underlying fund management companies, which may not be permanent.

For Use in a One-On-One Presentation to Advisory Client Only

## Notes

**1 Asset Style Description:** Asset style generally describes a specific group of assets or investments. All investments contain risk and there is no assurance the money you invest will appreciate over time and may be worth less than the original cost. Diversification does not guarantee a profit or guarantee protection against losses.

**All Cap:** A stock mutual fund that invests in equity securities without regard to whether a company is characterized as having a small, medium or large market capitalization. The securities of small and medium companies may be more volatile and less liquid than the securities of larger companies. While larger companies tend to be less volatile than small or mid cap companies, an investment in large cap companies can still lose money.

**Alternative:** An investment that is not one of the three traditional asset types (stocks, bonds and cash) and generally has low correlations to stocks and bonds. Alternative investments include hedge funds, managed futures, market neutral/ long-short funds and derivatives contracts. The term "alternative investment" is a broad term that can describe an investment product other than traditional stocks, bonds, mutual funds, etc. Alternative Investments may have complex terms and features that are not easily understood and are not suitable for all investors. Risks that may be associated with liquid alternative investments include: (1) Leverage - Leverage may enhance a fund's returns in up markets but exacerbate returns in a bad market. Some firms with leverage inherent in their portfolios may experience "margin call" types of actions in the event of liquidity dry-ups or if certain counterparties cannot provide the leverage needed. (2) Shorting - Certain securities may be difficult to sell short at the price that the manager would wish to execute a trade. A short position may have the possibility of an infinite loss if a security continues to go up in price and the manager does not cover. (3) Security valuation - Certain securities held in alternative mutual funds, such as derivatives or thinly traded stocks, bonds or swaps may not have a market in which the money manager may need to trade it quickly in case of fund redemptions. High Bid/Ask spreads or the lack of another buyer/seller to take the opposite position of a thinly traded security could cause inaccurate estimates in underlying security valuation by the administrator. (4) Nightly reconciliation - The use of thinly traded securities, shorting and leverage may make it difficult for some alternative funds, based on their investment strategy, to provide accurate nightly NAVs for the mutual fund.

**Alternative Fixed Income:** A strategy that seeks to exploit inefficiencies in the fixed income markets. Strategies can include long/short credit, long/short duration, long/short interest rates and other uncorrelated fixed income strategies (credit strips, non-traditional bonds). Portfolios will tend to have fixed income market betas in the range of -0.2 to 0.5 compared to the BarCap Aggregate Bond index. Fixed Income Investments are subject to interest rate risk which is the risk that debt securities in a fund's portfolio will decline in value because of increases in market interest rates.

**Balanced:** A portfolio allocation and management method aimed at balancing risk and return. Such portfolios are generally divided roughly equally between equities and fixed-income securities. The securities of small and medium companies may be more volatile and less liquid than the securities of larger companies. While larger companies tend to be less volatile than small or mid cap companies, an investor can still lose money when investing in stocks with large cap companies. Fixed Income Investments are subject to interest rate risk which is the risk that debt securities in a fund's portfolio will decline in value because of increases in market interest rates.

**Bear Market:** A strategy that seeks to exploit a view of securities or markets that are overvalued by having a relative high net short beta to equity market betas or implement a tactical view to potentially profit from a declining equity market. Portfolios will tend to have equity market betas in the range of -0.4 to -1.5 to the S&P 500. Some managers invest the proceeds from their short positions in low-risk assets, while others dedicate a portion to long stock positions in order to hedge against broad market rallies. In the event of a broad market rally, these funds will lose money on their short positions but should experience a gain on their long positions.

**Cash:** Cash can be cash in the bank, certificates of deposit, currency, money market holdings, fixed-income securities that mature in less than 12 months, commercial paper and repurchase agreements. While investing in cash or cash equivalents is generally considered to be a safe investment, it is still subject to inflation risk; the risk that inflation will outpace the performance on your investment as inflation shrinks the purchasing power of your cash investment.

**Commodity:** A generic term for any item or product that can be traded by investors on a market. More specifically, it refers to natural materials and their derived products such as metals, agricultural products and energy products. Investing in commodities or equity securities of commodity-related companies may have greater volatility than investments in traditional securities. The commodities market may fluctuate widely and the value of the investment can experience periods of significant movements up and down.

**Equity Arbitrage:** A strategy that seeks to benefit from differences in pricing differences between related securities. Example of this include merger arbitrage, pairs trading, sector arbitrage, capital structure arbitrage. Portfolios will tend to have equity market betas in the range of 0.2 to 0.5 compared to the S&P 500. There is no guarantee that a benefit will be realized on the spread in pricing and the investment can lose money.

**Foreign Large Cap Core:** This asset class represents stocks that are domiciled outside of the US with market capitalization in the top 70% of each economically integrated market around the world. A core portfolio invests in a combination of growth and value stocks. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Foreign Large Cap Growth:** This asset class represents stocks that are domiciled outside of the US with market capitalization in the top 70% of each economically integrated market around the world. The growth style is defined as stocks that are fast growing with higher valuations than other large international stocks. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Foreign Large Cap Value:** This asset class represents stocks that are domiciled outside of the US with market capitalization in the top 70% of each economically integrated market around the world. The value style is defined as stocks that are trading at low valuations compared to their industry and peers. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Foreign Small Mid Cap Core:** Foreign Small Mid Core portfolios generally invest in the stock of companies which are domiciled outside of the US and are small from a market capitalization standpoint. These portfolios generally invest in stocks that land in the bottom 30% of the capitalization range of each economically integrated market (Asia ex-Japan, Europe). The core style will have a combination of traits of both growth and value styles. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Foreign Small Mid Cap Growth:** Foreign Small Mid Growth portfolios generally invest in the stock of companies which are domiciled outside of the US and are small from a market capitalization standpoint. These portfolios generally invest in stocks that land in the bottom 30% of the capitalization range of each economically integrated market (Asia ex-Japan, Europe). The growth style is generally defined as stocks which are experiencing higher growth (based on earnings, sales, cash flow, etc.) and are generally trading at higher valuations due to that higher growth. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Foreign Small Mid Cap Value:** Foreign Small Mid Value portfolios generally invest in the stock of companies which are domiciled outside of the US and are small from a market capitalization standpoint. These portfolios generally invest in stocks that land in the bottom 30% of the capitalization range of each economically integrated market (Asia ex-Japan, Europe). The value style is generally defined as stocks which are trading at low valuations. While these portfolios can invest in US domiciled stocks, they typically make up less than 20% of the portfolio.

**Global Equity:** This asset class represents investments in companies that operate in any market in the world. Investing overseas involves special risks, including the volatility of currency exchange rates and, in some cases, limited geographic focus, political and economic instability, and relatively illiquid markets.

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**Global Macro:** Macro managers invest in a broad range of securities and indices including, but not limited to, equities, fixed income, rates, currencies, commodities, credit, etc. and can use derivatives and economic leverage to express these views. The majority of macro strategies have a top down view and are trying to determine if broad asset classes are under or overvalued. Managers can use both discretionary as well as systematic techniques to find opportunities.

**Hedged Equity:** Strategy that seeks to reduce overall equity portfolio volatility by hedging and varying net equity market exposure by going long and short individual equities, equity ETFs and derivative products. Money managers will tend to have equity market betas in the range of 0.4-0.8 compared to the S&P 500. Strategies include long/short equity or using options to hedge equity market risk. Some funds that fall into this category will shift their exposure to long and short positions depending on their macro outlook or the opportunities they uncover through bottom-up research. By hedging downside risk, upside potential may be limited.

**High Yield:** A collective investment strategy that invests in bonds with low credit ratings. Because of the risky nature of high yield bonds, high-yield funds have greater volatility than the average bond fund and have a greater risk of default. Fixed Income Investments are subject to interest rate risk which is the risk that debt securities in a fund's portfolio will decline in value because of increases in market interest rates.

**Inflation-Protected Bond:** A special type of Treasury note or bond that offers protection from inflation. Like other Treasuries, an inflation-indexed security pays interest every six months and pays the principal when the security matures. The difference is that the coupon payments and underlying principal are automatically increased to compensate for inflation as measured by the consumer price index (CPI). Inflation Protected bonds are still subject to interest rate risk which is the risk that debt securities in a fund's portfolio will decline in value because of increases in market interest rates. Income distributions may fluctuate considerably more than a typical bond fund when the CPI fluctuates.

**International Developed Markets:** This asset class invests in companies located in foreign countries with developed economies and market such as Japan, Western Europe and Australia. Funds that invest in international securities involve special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards.

**International Emerging Markets:** This asset class represents companies that operate in industrializing or emerging regions of the world. Funds that invest in international securities involve special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

**Intermediate Bond:** This asset class represents fixed income securities with typical average maturity of 4 to 10 years. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**Intermediate Muni:** This asset class represents municipal bond securities with typical average maturity of 5 to 12 years. See "Fixed Income Sectors" for more information on Municipal Bonds. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**International Bond:** Bonds that are issued in a country by a non-domestic entity. International bonds include Eurobonds, foreign bonds and global bonds. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa. Investing overseas involves special risks, including the volatility of currency exchange rates and, in some cases, limited geographic focus, political and economic instability, and relatively illiquid markets.

**Inverse:** These funds seek to generate returns equal to an inverse fixed multiple of short-term returns of an associated index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. Many of these portfolios seek to generate a multiple typically negative 1 to negative 3 times the daily or weekly return of the reference index. Some strategies employ derivatives to obtain this exposure.

**Large-Cap Core:** This asset class represents companies with market capitalizations above approximately \$10 billion that may demonstrate above average consistency in earnings growth and reasonable market valuations. The market capitalization of large cap companies may change over time and is not authoritatively defined. While larger companies tend to be less volatile than small or mid cap companies, an investor can still lose money when investing in the stocks of large cap companies.

**Large-Cap Growth:** This asset class represents companies with market capitalizations above approximately \$10 billion that may exhibit above average growth potential, often demonstrated by accelerating revenue and earnings growth. While larger companies tend to be less volatile than small or mid cap companies, an investor can still lose money when investing in the stocks of large cap companies.

**Large-Cap Value:** This asset class represents companies with market capitalizations above approximately \$10 billion that often exhibit relatively low P/E ratios or are undervalued by other objective measures, such as price-to-book ratios. The market capitalization of large cap companies may change over time and is not authoritatively defined. While larger companies tend to be less volatile than small or mid cap companies, an investor can still lose money when investing in the stocks of large cap companies.

**Leveraged:** Leveraged portfolios seek to achieve overall exposure to the market consistently larger than the sum of fund assets. This exposure may be 1 to 3 times a reference index. This is achieved through borrowed cash invested in securities that can provide income or capital appreciation in excess of the borrowing costs. Some strategies employ derivatives to obtain this exposure.

**Long Bond:** This asset class represents fixed income securities with typical average maturity greater than 10 years. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**Long Muni:** This asset class represents municipal bond securities with typical average maturity greater than 12 years. See "Fixed Income Sectors" for more information on Municipal Bonds. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**Long/Short Credit:** Long-short portfolios hold sizable stakes in both long and short positions in bonds and related derivatives. Some funds that fall into this category will shift their exposure to long and short positions depending on their macro outlook or the opportunities they uncover through bottoms up research. Funds in this institutional category use individual short positions rather than derivatives to obtain short exposure.

**Managed Futures:** Portfolio investments made directly into derivatives contracts such as futures, forwards and options. Many managers will position investment in trend following or momentum based trading strategies. Managed futures generally manage their clients assets using a proprietary trading system or discretionary method that may involve going long or short in futures contracts in areas such as metals, grains, equity indexes, soft commodities, as well as foreign currency and U.S government bond futures. Managed Futures portfolios can have both volatile and uncorrelated returns to equity and fixed income markets but have positive correlation to volatility in general (i.e. the VIX). Portfolios will tend to have market betas in the range of -0.3 to 0.3 to both fixed income and equity market indexes.

**Market Neutral:** Seeks to construct a portfolio of long and short equities market by balancing out net long and net short equity exposure across the portfolio. Some managers implement this by singling out stock picking ability and targeting zero equity beta. Portfolios will tend to have equity market betas in the -0.2 to 0.2 range. Techniques used include

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statistical arbitrage, quantitative trading strategies and relative value trades. In attempting to reduce systematic risk, these funds put the emphasis on issue selection, with profits dependent on their ability to sell short and buy long the correct securities.

**Mid-Cap Core:** This asset class represents companies with market capitalizations typically between \$2 to \$10 billion that may demonstrate above average consistency in earnings growth and reasonable market valuations. The market capitalization of mid cap companies may change over time and is not authoritatively defined. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

**Mid-Cap Growth:** This asset class represents companies with market capitalizations typically between \$2 to \$10 billion that often exhibit above average growth potential, often demonstrated by accelerating revenue and earnings growth. The market capitalization of mid cap companies may change over time and is not authoritatively defined. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

**Mid-Cap Value:** This asset class represents companies with market capitalizations typically between \$2 to \$10 billion that often exhibit relatively low P/E ratios or are undervalued by other objective measures, such as price-to-book ratios. The market capitalization of mid cap companies may change over time and is not authoritatively defined. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

**Multi-Strategy:** A strategy whereby a money manager is diversifying across multiple alternative investment strategies within a portfolio to seek different sources of returns. Portfolios will tend to have equity market betas in the range of 0.3 to 0.7 compared to the S&P 500. An investor's exposure to different tactics may change slightly over time in response to market movements. Funds in this category include both funds with static allocations to alternative strategies and funds tactically allocating among alternative strategies and asset classes.

**REITS:** A security that sells like a stock on the major exchanges and invests in real estate directly, either through properties or mortgages or in companies that are involved in the real estate industry, either directly or indirectly. The investment can fluctuate over short or even long periods and over a long period of time like the stock market and can be effected by additional risks such as interest rate risks, REITS share price may decline because of adverse developments affecting the real estate market including changes in interest rates or general economic and market conditions. Additional risks associated with investment in securities of companies in the real estate industry can include declines in the value of real estate, local economic conditions, increases in property taxes, changes in zoning laws, casualty or property damage, or changes to the rental market.

**Short Bond:** This asset class represents fixed income securities with typical average maturity of less than 4 years. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**Short Muni:** This asset class represents municipal bond securities with typical average maturity less than 5 years. See "Fixed Income Sectors" for more information on Municipal Bonds. In general, the bond market is volatile and such funds are subject to interest rate risk and the inherent credit risk related to the underlying credit worthiness of the various issuers. Investors should be aware that bond prices and interest rates have an inverse relationship, when interest rates rise bond prices fall and vice versa.

**Small-Cap Core:** This asset class represents companies with market capitalizations typically of up to \$2 billion that may demonstrate above average consistency in earnings growth and reasonable market valuations. The market capitalization of small cap companies may change over time and is not authoritatively defined. Funds that invest in stocks of small companies involve additional risks, including relatively low trading volumes, a greater degree of change in earnings, and greater short-term volatility. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies.

**Small-Cap Growth:** This asset class represents companies with market capitalizations typically of up to \$2 billion that may exhibit above average growth potential, often demonstrated by accelerating revenue and earnings growth. The market capitalization of small cap companies may change over time and is not authoritatively defined. Funds that invest in stocks of small companies involve additional risks, including relatively low trading volumes, a greater degree of change in earnings, and greater short-term volatility. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies.

**Small-Cap Value:** This asset class represents companies with market capitalizations typically of up to \$2 billion that often exhibit relatively low P/E ratios or are undervalued by other objective measures, such as price-to-book ratios. The market capitalization of small cap companies may change over time and is not authoritatively defined. Funds that invest in stocks of small companies involve additional risks, including relatively low trading volumes, a greater degree of change in earnings, and greater short-term volatility. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies.

**Fixed Income Sectors:** The fixed-income securities in an investment's portfolio are mapped into one of 14 sectors, which in turn roll up to five super sectors. These sectors help investors and investment professionals compare and understand the sector exposure of each investment. This data is especially useful for comparing two investments that may be in the same category.

<sup>2</sup> An "efficient" portfolio can indicate the maximum return for a given level of risk. It represents the set of investments in a portfolio that has the lowest expected Standard Deviation for given expected Annual Returns. Forward-looking forecasts of asset class returns are based on published research, historical data, current market conditions and investment judgment. The published statistical methodologies used are reverse-optimization returns [Sharpe (1974) and Black-Litterman (1992)], expected returns of Bayesian predictive density function [Stanbaugh (1997)]. The capital market assumptions used are strategic or long term expectations and therefore only reviewed and updated on a 12 to 24 month basis. The efficient frontier is calculated using a means-variance optimization that presents an optimized portfolio by analyzing the expected Annual Returns for each asset class, expected Standard Deviation of each asset class and expected "Correlation" between each of the asset classes. Correlation considers the relatedness of return patterns between two investments. It is measured using a correlation coefficient, which summarizes the relationship between two return series.

The limitations of the Efficient Frontier tool include the fact that the output is based on expected/estimated assumptions. Using the Efficient Frontier tool to create an "efficient" portfolio may also produce portfolios that are heavily weighted in one or a few asset classes if the assumptions regarding those asset classes are relatively more favorable than the other asset classes. For that reason, constraints may be placed on either the minimum or maximum exposure that the Efficient Frontier tool can make recommendations for each asset class in order to prevent concentrated asset allocations.

The following table shows the asset class categories and the associated benchmark indexes used in calculating estimates of Return, Risk and Correlation.

Asset Class	Benchmark
High Yield	Bloomberg Barclays Capital U.S. Corporate High Yield TR
Int'l Developed Mkts	MSCI EAFE GR
Int'l Emerging Mkts	MSCI EM TRG USD
Intermediate Bond	Bloomberg Barclays Capital Intermediate U.S. Government/Credit TR

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Asset Class	Benchmark
Large-Cap Core	Russell 1000 TR
Mid-Cap Core	Russell Midcap TR
Short Bond	Bloomberg Barclays Capital 1-3 Govt/Credit Bond TR
Small-Cap Core	Russell 2000 TR

<sup>3</sup> Reported benchmarks are not intended as direct comparisons to the performance of the portfolio. Instead, they are intended to represent the performance of certain sectors of the overall securities market (e.g. equities, bonds, etc.). Respectively, the volatility and performance of the reported benchmark may be greater than or less than the volatility and performance of the investment portfolio.

<sup>4</sup> Actual fees will vary depending on, among other things, the applicable fee schedule, the time period, investment performance and account size. For example, if \$100,000 were invested and experienced a 10% annual return compounded monthly for 10 years, its ending value, without giving effect to the deduction of advisory fees, would be \$270,704 with annualized compounded return of 10.47%. If an advisory fee of 0.95% of the average market value of the account were deducted monthly for the 10-year period, the annualized compounded return would be 9.43% and the ending dollar value would be \$246,355. For a description of all fees, costs and expenses, please refer to your financial advisor's Disclosure Brochure. Past performance is not indicative of future results.

<sup>5</sup> Total returns are historical and include change in share value and reinvestment of dividends and capital gains, if any. Cumulative total returns are reported as of the period indicated. Life of fund figures are reported as of the commencement date to the period indicated. The information is based on data received from reporting service providers, but has not been independently verified.

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**Active Return:** The difference between the actual return on an investment and the benchmark against which it is measured.

**Adjusted Price/Earnings Ratio:** The current price of stocks in the portfolio divided by their respective average inflation-adjusted earnings over several years to account for the effect on profits of the economic cycle.

**Annualized Returns:** The return an investment provides each year over a period of time, expressed as a time-weighted percentage. The rate of annual return is measured against the initial amount of the investment and represents a geometric mean rather than a simple arithmetic mean.

**Asset Allocation:** Describes how an investment portfolio is divided between investments such as stocks, bonds and money market securities.

**Average Annual Turnover:** The percentage rate at which the portfolio replaces its investment holdings on an annual basis.

**Average Coupon:** A number calculated by weighting each bond's coupon by its relative size in the portfolio.

**Average Credit Quality:** Average Credit Quality gives a snapshot of the portfolio's overall credit quality. A bond's average quality is a reflection of the amount of risk a manager is willing to incur, and management style in general. It is an average of each bond's credit rating, adjusted for its relative weighting in the portfolio.

**Average Effective Duration:** Average Effective Duration is a measure of a portfolio's interest-rate sensitivity - the longer a fund's duration, the more sensitive the portfolio is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between portfolios with different durations is straightforward: A portfolio with a duration of 10 years is twice as volatile as a portfolio with a five-year duration.

**Average Effective Maturity:** Average Effective Maturity is the weighted average of all the maturities of the bonds in the portfolio, computed by weighting each maturity date, which is the date the security comes due, by the market value of the security.

**Average Market Cap:** The simple mathematical average of the market capitalization of each stock in the portfolio.

**Average Price/Book:** Average P/B is the weighted average of the price/book ratios of all the stocks in a portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain.

**Average Price/Earnings:** Average P/E is the weighted average of the price/earnings ratios of the stocks in a portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' earnings per share. In computing the average, each portfolio holding is weighted by the percentage of equity assets it represents, so that larger positions have proportionately greater influence on the final P/E.

**Average Return (Positive/Negative Quarters):** The simple mathematical average of the set of returns for calendar quarters over which the portfolio had a positive (negative) return.

**Batting Average:** Batting Average is a measure of a manager's ability to consistently beat the market. It is calculated by dividing the number of quarters in which the manager beat or matched an index by the total number of quarters in the period. For example, a manager who meets or outperforms the market every quarter in a given period would have a batting average of 100. A manager who beats the market half of the time would have a batting average of 50.

**Benchmark:** A standard against which the performance of a security or group of securities can be measured. For example, the Nasdaq may be used as a benchmark against which the performance of a technology stock is compared.

**Best Quarter (Worst Quarter):** Best Quarter (Worst Quarter) is the best (worst) portfolio performance for any quarter over the most recent five years of reported performance.

**Best Year (Worst Year):** The highest (lowest) return of an investment for any full, calendar year over the life of the investment.

**Beta:** Beta is a measure of a portfolio's sensitivity to market movements. The beta of the market is 1.00 by definition. A beta of 1.10 shows that the portfolio has performed 10% better than its benchmark in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the portfolio's excess return is expected to perform 15% worse than the benchmark's excess return during up markets and 15% better during down markets.

**Blended Average Return (Positive/Negative Quarter):** The simple mathematical average of the set of blended benchmark returns for calendar quarters over which the portfolio had a positive (negative) return.

**Debt to Capital Ratio:** A measurement of the financial leverage of the stocks held in the portfolio, calculated by dividing each stock's long-term debt by its total capitalization.

**Debt to Total Capital:** A measure of the financial leverage of the companies held in the portfolio. A company's debt-to-capital ratio is calculated by dividing its long-term debt by its total capitalization.

**Deferred Load:** Deferred Load is a percentage of an investor's assets that mutual fund may charge as a fee at time of redemption.

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**Diversification:** A portfolio strategy designed to reduce exposure to risk by combining a variety of investments, such as stocks, bonds, and real estate. Diversification does not ensure a profit or protect against loss.

**Down Capture Ratio:** Down Capture Ratio is a measure of a portfolio's performance relative to the benchmark in a down market. The lower the number, the better the manager did at protecting the portfolio's investment during a down market period. If the portfolio's returns go down less than the benchmark during a down market, the down capture ratio will be less than one. If the returns are down more than the benchmark, the down capture ratio will be more than one.

**EPS Growth-Past 5 Years:** Change in a company's earnings per share over the past five year time period.

**Equity:** Interest or ownership in a corporation in the form of stock, either common or preferred.

**Exchange Traded Fund (ETF):** Similar to mutual funds, ETFs are baskets of securities that can be bought and sold; however, unlike mutual funds, shares of the ETF can be traded at any time during the day that the host exchange is open.

**Fixed Income Sectors:** The fixed-income securities in an investment's portfolio are mapped into one of 14 sectors, which in turn roll up to five super sectors. These sectors help investors and investment professionals compare and understand the sector exposure of each investment. This data is especially useful for comparing two investments that may be in the same category.

**Asset-backed :** Asset-backed securities are based on the expected cash flow from such things as auto loans, credit card receivables, and computer leases. The cash flows for asset-backed securities can be fixed (e.g. auto loans have a defined payment schedule and a fixed maturity) or variable (credit card debt is paid at random intervals). These securities typically range in maturity from 2-7 years.

**Cash :** Cash can be bank deposits (e.g. checking and savings), certificates of deposit, currency, money market holdings, fixed-income securities that mature in less than 12 months, commercial paper and repurchase agreements.

**Convertible :** Convertible bonds give the owner an opportunity to convert the bond to a certain number of shares of common stock at a certain price.

**Foreign Corporate :** These securities are issued by corporations that are based outside of the United States. Foreign investing may involve special risks such as currency fluctuation, political uncertainty and different accounting standards.

**Foreign Government :** These securities are issued by governments that are based outside of the United States. Foreign investing may involve special risks such as currency fluctuation, political uncertainty and different accounting standards.

**Inflation Protected :** Inflation-protected securities are similar to TIPS, but they are issued by a private entity instead of the US government. These bonds are linked to an index of inflation, and the principal and coupon payments increase when inflation increases.

**Mortgage ARM :** ARMs are adjustable rate mortgages. These are fixed-income securities that are backed by residential home mortgages, where the interest rate is reset periodically in relation to a benchmark. Most ARMs are from government agencies, such as FNMA and GNMA.

**Mortgage CMO :** CMOs are collateralized mortgage obligations. They are similar to pass-thru mortgage securities, but investors have more control over whether they will be paid sooner or later. CMOs are structured by time, so that some investors can line-up for the first series of cash flow payments, while others may choose to put themselves at the end of the line. Most CMOs are based on mortgages from government agencies, such as FNMA and GNMA.

**Mortgage Pass-thru :** These bonds represent a claim to the cash flows associated with a pool of mortgages. The bondholders are entitled to a share of the principal and interest payments paid by the homeowners. The majority of these bonds are issued by a government agency like FNMA, GNMA, or FHLMC. A few private corporations and banks also securitize and package mortgages in this way and those are also included in this sector.

**Municipal :** Local and state governments issue municipal bonds in order to raise money for operations and development. This financing is sometimes used to build or upgrade hospitals, sewer systems, schools, housing, stadiums, or industrial complexes. Some municipal bonds are backed by the issuing entity while others are linked to a revenue stream, such as from a tollway or a utility. Municipal bonds are exempt from federal tax and often from state and local taxes, too. The tax break allows municipal governments to sell the bonds at a lower interest rate, because the investor gets an additional tax benefit.

**TIPS :** TIPS are inflation-indexed Treasuries. (The term TIPS derives from their former name, "Treasury Inflation-Protected Securities.") These bonds have principal and coupon payments that are linked to movements in the Consumer Price Index. They are a defensive measure against expectations of inflation (which typically erodes the real yield of conventional bonds). Even if inflation fears are in check, these bonds can benefit when the yields fall on traditional Treasuries.

**US Agency :** This sector includes the fixed-income securities that are issued by government agencies, such as the Federal National Mortgage Association (FNMA or Fannie Mae) or the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac), to raise capital and finance their operations. These "debentures" are not secured by physical assets, so they differ from most of the mortgage bonds that are issued by these agencies.

**US Corporate :** This sector includes all fixed-income securities that are issued by corporations domiciled in the United States. Corporate bonds are issued with a wide range of coupon rates and maturity dates.

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**US Treasury :** This sector includes all conventional fixed-rate debt issued by the US government's treasury (excluding TIPS). Some examples of government debt are Treasury bonds and Treasury notes. Treasury bills are included under Cash, because they mature in less than 12 months.

**Front Load:** Front Load is a sales charge paid at the time of purchase of an investment such as a mutual fund, limited partnership, annuity, or insurance policy.

**Gross Expense Ratio:** Gross Expense Ratio is a fund's operating expenses including management fees, transaction costs and other business costs before any expense reimbursement or fee waivers by the fund's management.

**ITD:** Acronym for Inception to Date

**Inception Date:** Inception Date is the date on which the portfolio was established and the performance track record was initiated.

**Income Yield:** Income Yield is the expected dividends and interest of an investment, expressed as a percentage of the current market value of the investment.

**Information Ratio:** Information Ratio measures the consistency with which a manager beats a benchmark. It is the quotient of the annualized excess return and the annualized standard deviation of excess return (tracking error).

**Investment Minimum:** Investment Minimum is the minimum amount required to initiate an investment in the product.

**Investment Objective:** Also known as Investment Risk Rating. Investment Objective refers to the outcome desired by an investor or a mutual fund.

**Balanced :** A strategy that seeks to provide portfolio appreciation and current income. This portfolio's allocation generally includes both equity and fixed-income securities, with greater weighting to equities. Investors should have mid-to long-term investment time horizon and be willing to take on some risk in pursuit of better returns.

**Capital Growth :** A strategy that seeks to provide appreciation with modest current income as a secondary objective. The portfolio's allocation is generally heavily weighted to equity securities with modest investment in fixed-income securities for portfolio diversification. Investors should have a long-term investment time horizon and be willing to take on risk in pursuit of better returns.

**Capital Preservation :** A strategy that seeks to provide portfolio stability and current income with modest portfolio appreciation by investing primarily in fixed-income securities. This strategy is designed for investors with a need for regular income in the form of dividends

**Current Income :** A strategy that seeks to provide portfolio growth with current income by investing in a combination of both equity and fixed-income securities in similar weights. This strategy is designed for investors who desire capital appreciation balances with income and portfolio stability.

**Maximum Growth :** A strategy that seeks to provide potentially above-average returns. Portfolios following this strategy are generally fully invested in equity securities. Investors in pursuit of maximizing capital appreciation over a long-term investment horizon should have the resources to withstand the volatility inherent in equity investing.

**Latest Quarter:** The most recently completed calendar quarter in the performance report.

**Longest Positive (Negative):** Longest Positive (Negative) is the greatest number of consecutive quarters with performance greater than (less than) zero over the most recent five years of reported performance.

**MRQ:** Acronym for Most Recent Quarter

**Managed Account:** Also known as discretionary accounts. These are accounts where a money manager has authority to trade and invest on a client's behalf.

**Maximum Drawdown:** The maximum loss incurred by a portfolio during a specified time period. It is used to measure the 'worst case scenario' of investing in a portfolio at the worst possible time.

**Median Market Cap:** The median market value of the companies held in the portfolio.

**Mo:** Abbreviation for Month

**Money Manager:** Includes mutual fund managers as well as professional independent managers hired by individuals or institutions to manage their own accounts.

**Money Market Fund:** A mutual fund that invests in short-term debt obligations such as certificates of deposit, commercial paper or government Treasury Bills.

**Multi-Manager Account:** An investment strategy that includes a portfolio of separately managed accounts, mutual funds and/or ETFs to match a preset asset allocation model.

**Mutual Fund:** An investment company that invests money from shareholders into stocks, bonds or other assets according to a stated objective.

**Mutual Fund Wrap:** An investment strategy that includes a portfolio of mutual funds selected to match a preset asset allocation model.

## Glossary

**NAV Total Return:** The change in the net asset value of an ETF or mutual fund over a given time period. The NAV return of an ETF can be different than the total return that investors realize because these products can trade at a premium or discount to the price of the fund and to the value of the assets held in the portfolio.

**Net Expense Ratio:** Net Expense Ratio is a fund's operating expenses including management fees, transaction costs and other business costs after any expense reimbursement or fee waivers by the fund's management.

**Portfolio:** A collection of stocks, bonds, mutual funds and interest bearing securities. Money managers develop model portfolios to achieve a specific goal with minimum risk.

**Positive Quarters (Negative Quarters):** Positive Quarters (Negative Quarters) is the total number of quarters with performance greater than (less than) zero over the most recent five years of reported performance.

**Price/Book Ratio:** The price/book ratio is a comparison of current market price to the book value for each company held in the portfolio.

**Q-Overall Rank:** The Q-Overall Rank incorporates the Q-Risk Rank and Q-Return Rank into a single measure. PMC's proprietary Quantitative Risk/Return Ranking model uses historical returns to measure an investment manager's ability to deliver consistent, active value with effective risk controls versus its style group peers. The Overall Q-Rank is a normalized percent value that represents a manager's Overall Q-Score versus his style category peers. A Q-Overall Rank of 99% designates a manager that has a higher Q-Overall Score than 99% of its style category peers in the entire investment manager universe.

**Q-Overall Score:** The Q-Overall Score incorporates the Q-Risk Score and Q-Return Score into a single measure. PMC's proprietary Quantitative Risk/Return Ranking model uses historical returns to measure an investment manager's ability to deliver consistent, active value with effective risk controls versus its style group peers. The Overall Q-Score is calculated based on a manager's style category, and is a number between 1.0 and 5.0.

**Q-Rank Statistics:** The Q-Rank Statistics measure a manager's ability to deliver consistent, active value with effective risk controls versus its style group peers.

**Q-Return Rank:** The Q-Return Rank is a measure of a manager's ability to out-perform the index it is tracking. The Q-Return Rank is a normalized percent value that represents a manager's Q-Return Score versus his style category peers. A Q-Return Rank of 99% designates a manager that has a higher Q-Return Score than 99% of its style category peers in the entire investment manager universe.

**Q-Return Score:** The Q-Return Score is a measure of a manager's ability to out-perform the index it is tracking. It is calculated using the product's annualized active returns, information ratio, and annual batting average. PMC's proprietary Quantitative Risk/Return Ranking model uses historical returns to measure an investment manager's ability to deliver consistent, active value with effective risk controls versus its style group peers. The Q-Return Score is calculated based on a manager's style category, and is a number between 1.0 and 5.0.

**Q-Risk Rank:** The Q-Risk Rank is a measure of a manager's ability to control risk while maximizing return. The Q-Risk Rank is a normalized percent value that represents a manager's Q-Risk Score versus his style category peers. A Q-Risk Rank of 99% designates a manager that has a higher Q-Risk Score than 99% of its style category peers in the entire investment manager universe.

**Q-Risk Score:** The Q-Risk Score is a measure of a manager's ability to control risk while maximizing return. It is calculated using the product's tracking error, beta, and R-squared. PMC's proprietary Quantitative Risk/Return Ranking model uses historical returns to measure an investment manager's ability to deliver consistent, active value with effective risk controls versus its style group peers. The Q-Risk Score is calculated based on a manager's style category, and is a number between 1.0 and 5.0.

**Qtr:** Abbreviation for Quarter

**R-Squared:** R-Squared reflects the percentage of a portfolio's movements that can be explained by movements in its benchmark. An R-squared of 100 indicates that all movements of a portfolio can be explained by movements in the benchmark. An R-squared measure of 35, for example, means that only 35% of the portfolio's movements can be explained by movements in the benchmark index.

**Relative Return:** The relative return is the difference between the return that an asset achieves over a certain period of time (absolute return) and the return achieved by the benchmark.

**Return On Equity:** Return on equity is the amount of net income returned as a percentage of shareholders' equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

**Risk Tolerance:** Risk tolerance represents an investor's ability to handle declines in the value of his/her portfolio. The risk tolerance levels available on the managed account platform are low, moderate, and high.

**ST Redemption Fees:** A fee collected by an investment company from traders practicing mutual fund timing. This stiff penalty is used to discourage short-term, in-and-out trading of mutual fund shares. Generally, the fee is in effect for a holding period from 30 days to one year, but it can be in place for longer periods.

**Separately Managed Account:** An individual investment or brokerage account managed by independent money managers, for a fee, and according to a stated objective.

## Glossary

**Sharpe Ratio:** Sharpe Ratio is a measure of risk-adjusted return calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the portfolio's historical risk-adjusted performance.

**Sortino Ratio:** Sortino Ratio is a measure of risk-adjusted return calculated by using the standard deviation of those returns which fall below a required rate of return and the excess return to determine reward per unit of downside risk. The higher the Sortino Ratio, the better the portfolio's historical risk-adjusted performance.

**Standard Deviation:** Standard Deviation is a statistical gauge used to measure risk, or volatility. It is a number indicating the variability of an investment's return around the arithmetic average. The lower the manager's standard deviation, the more stable the portfolio's performance. High standard deviation suggests a portfolio with more fluctuation and volatility.

**Total Return:** Total Return is the rate of return of an investment over a given period of time. Total return includes capital appreciation, interest, capital gains, dividends and distributions realized over this time period.

**Tracking Error:** Tracking Error indicates the degree to which a manager's performance has historically deviated from its benchmark return and is measured in standard deviations. High tracking error suggests a portfolio that performs significantly different from its benchmark.

**Trailing Earnings/Share Growth:** The annualized rate of net-income-per-share growth over the trailing one-year period for the stocks held in the portfolio.

**Treynor Ratio:** A measurement of the returns earned in excess of that which could have been earned on a risk-free investment, per each unit of market risk. The higher the Treynor Ratio, the better the portfolio's historical risk-adjusted performance.

**Up Capture Ratio:** Up Capture Ratio is a measure of a portfolio's performance relative to the benchmark in an up market. The higher the number, the better the manager did at capturing the upside climb of the market. If the portfolio's returns are greater than the benchmark when the market goes up, the portfolio will have an upside capture ratio greater than one. If the returns are less than the benchmark, the number will be less than one.

**YTD:** Acronym for Year To Date