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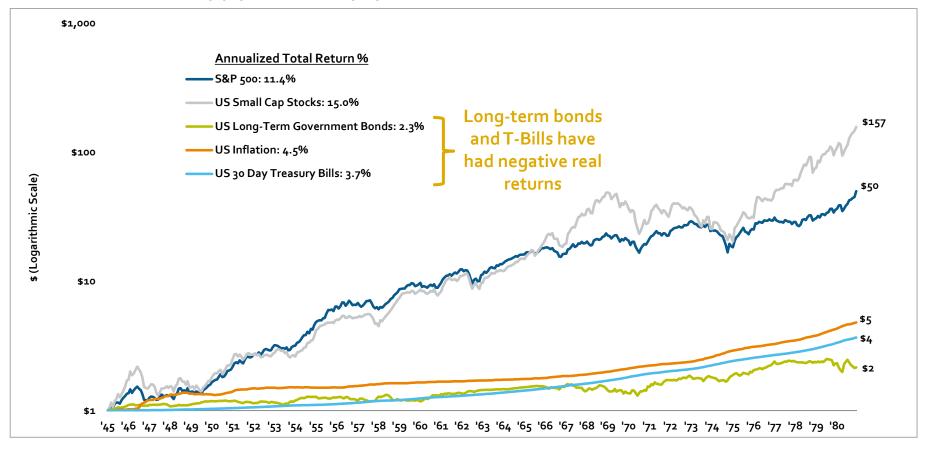
Asset Class Map

					Cas	h					
		Cash	Alternative	es		LIS Car	sh Danos	rite	Non-L	SD Dan	osits
CI	Os	Mo	oney Market	U	S T-Bill	- US Cash Deposits Non-USD Depo					USILS
Fixed Income											
			Inve	stment Grade			Non	Investment	Grade	ible	
Treasuries	Agencie	s Corpora	Inflat Protec	I Non-He	Mortgages	Municipals	Floating Rates	US High Yield	Emerging Markets Debt	Municiț High Yie	
					Equit	ies					
	l	JS		D	eveloped Mar	ket		Emerging Markets			
Large Cap	Mid	d Cap	Small Cap	Large Cap	Small/Mid Cap	EAFE	ВІ	RIC Be	yond BRIC	Frontier	Preferred Stocks
	Alternatives										
		Real	Private	Precious	MLPs/	Manad	ned	Art/	Нє	edge Fui	nds
Commod	dities	Estate	Equity	Metals	Infrastructur			ollectibles	Single Man	ager	Fund of Funds

Source: Morgan Stanley Wealth Management GIC.

Stocks Have Been a Better Inflation Hedge Than Bonds in Periods of Rising Interest Rates (1945-'80)

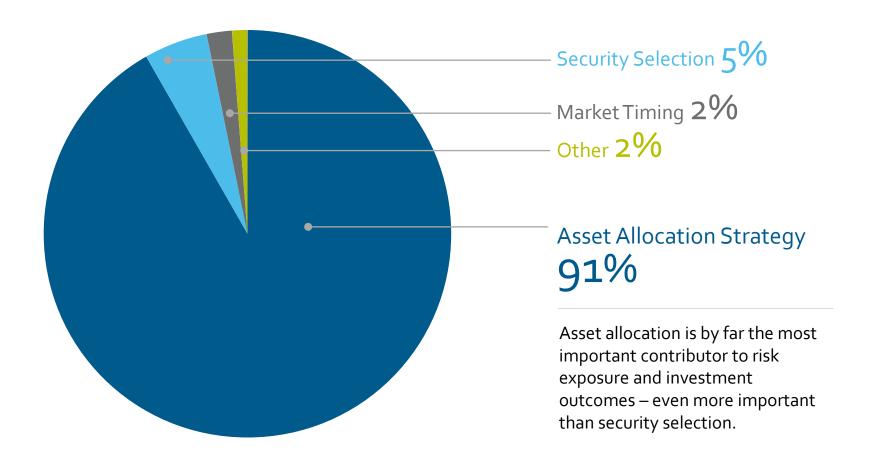
Cumulative Total Return of \$1 from 1945-1980 as of December 31, 1980



Source: Calculated by Morgan Stanley Wealth Management GIC using data provided by Morningstar. (c) 2017 Morningstar, Inc. All rights reserved. Used with permission. This information contained herein: (i) is proprietary to Morningstar and/or its content providers; (ii) may not be copied or distributed; and (iii) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Aside from the S&P 500, all indices shown above are lbbotson indices. The hypothetical \$1 investment is for illustrative purposes only. It does not represent the performance of any specific investment.



Asset Allocation: A Key Contributor to Performance

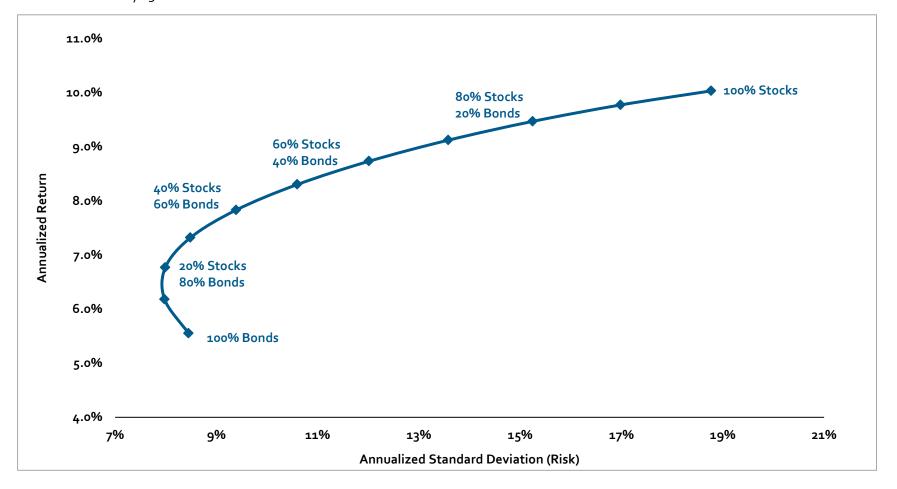


Source: Roger G. Ibbotson. *Does Asset Allocation Policy Explain 10, 90 or 100 Percent of Performance?* Financial Analyst Journal, January/February 2000; Brinson, Singer and Beebower. *Determination of Performance II: An Update*, Financial Analyst Journal, May/June 1991. Based on US pension-fund data from 1977 to 1987.

Added Value Through Diversification

Historical Stock and Bond Blends

Data as of January 1926 – December 2016



Source: Calculated by Morgan Stanley Wealth Management GIC using data provided by Morningstar, Inc. All rights reserved. Used with permission. This information contained herein: (i) is proprietary to Morningstar and/or its content providers; (ii) may not be copied or distributed; and (iii) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Stocks are represented by the S&P 500 Index, and bonds are represented by the Ibbotson Long Government Bond Index. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

We Think About Asset Allocation on Three Levels

Secular Forecasts

20-year time horizon based on long-term mean reversion

Strategic Forecasts

7-year time horizon based on current macro regime (business cycle, relative valuations, volatility and correlation trends)

Tactical Outlook

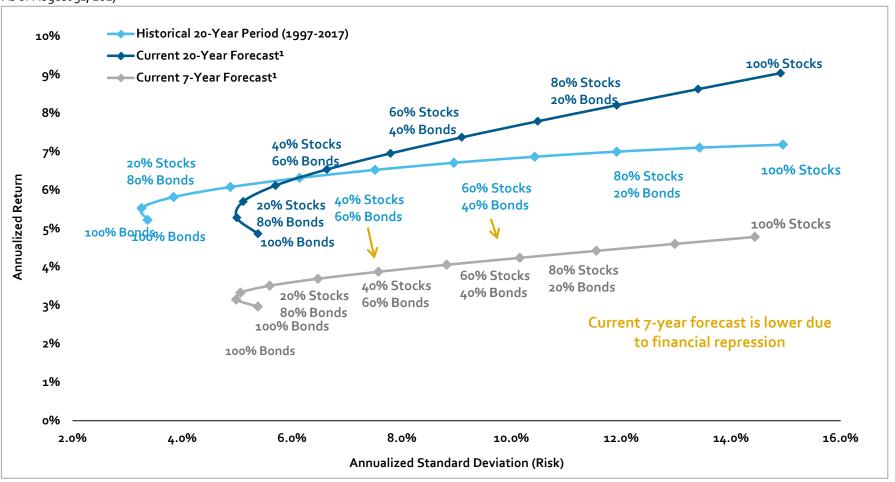
1-year outlook based on marginal changes in economic, geopolitical, fundamental, technical and near-term risk indicators

Source: Morgan Stanley Wealth Management GIC

Diversification Benefits Have Waned: Forecasted Efficient Frontiers

Stock and Bond Blends

As of August 31, 2017



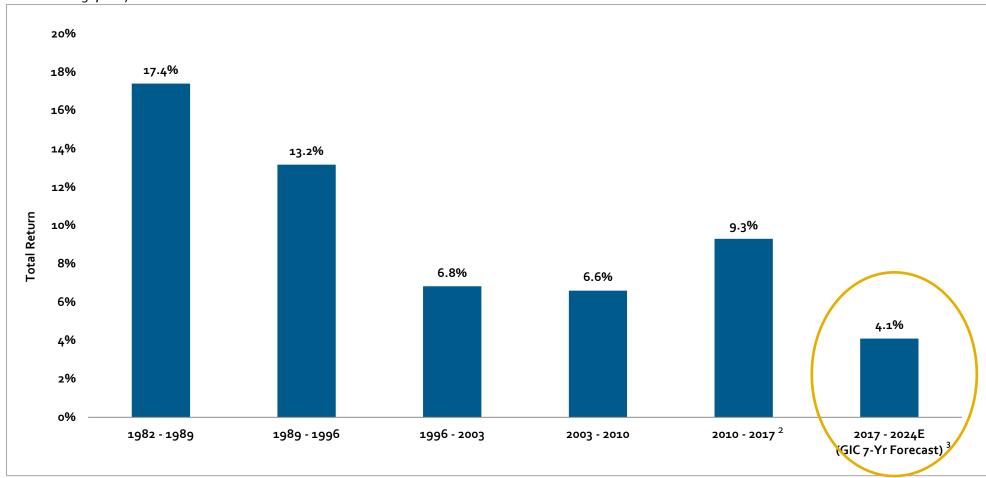
Source: FactSet, Morgan Stanley Wealth Management GIC. For illustrative purposes only. Stocks are represented by the S&P 500 and bonds are represented by the Bloomberg Barclays US Aggregate Index. (1) Forecasts are based on capital market assumptions as published in the GIC's Strategic Asset Allocation Capital Markets Update, March 31, 2017. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.



Our Seven-Year Estimates Also Suggest a 4.1% Return in a 60% Stock / 40% Bond Portfolio

Annualized Total Return for 60% US Stock / 40% US Bond Portfolio1

As of March 30, 2017

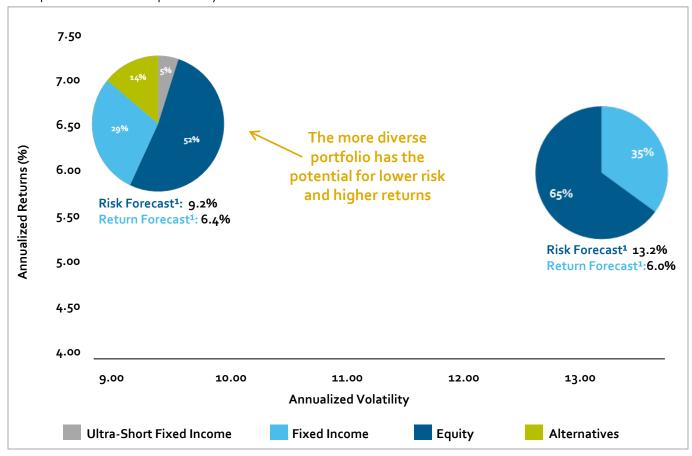


Source: Bloomberg, Morgan Stanley Wealth Management GIC. (1) US stocks represented by the Russell 1000 Index and US bonds represented by the Barclays US Aggregate Index. (2)Through March 30, 2017. (3) Forecasts are based on capital market assumptions as published in the GIC's Inputs for GIC Asset Allocation: Annual Update of Capital Market Assumptions, March 31, 2017. 2017E begins with January 2017 data.

Asset Allocation Can Positively Impact Portfolios

Diversified Portfolios Can Provide Better Risk and Return Opportunities

Example for Illustrative Purposes Only



Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC. Global Equities: MSCI AC World Index. US Bonds: Bloomberg Barclays US Aggregate Index. Ultrashort Fixed Income: Citigroup 3-Month Treasury Bill Index. Alternatives consist of REITs, MLPs, Absolute Return Assets and Equity Hedge Assets as found in GIC Model 3. (1)Forecasts are based on capital market assumptions as published in the GIC's Inputs for GIC Asset Allocation: Annual Update of Capital Market Assumptions, March 31,2015.



GIC Forecasts of Capital Market Returns

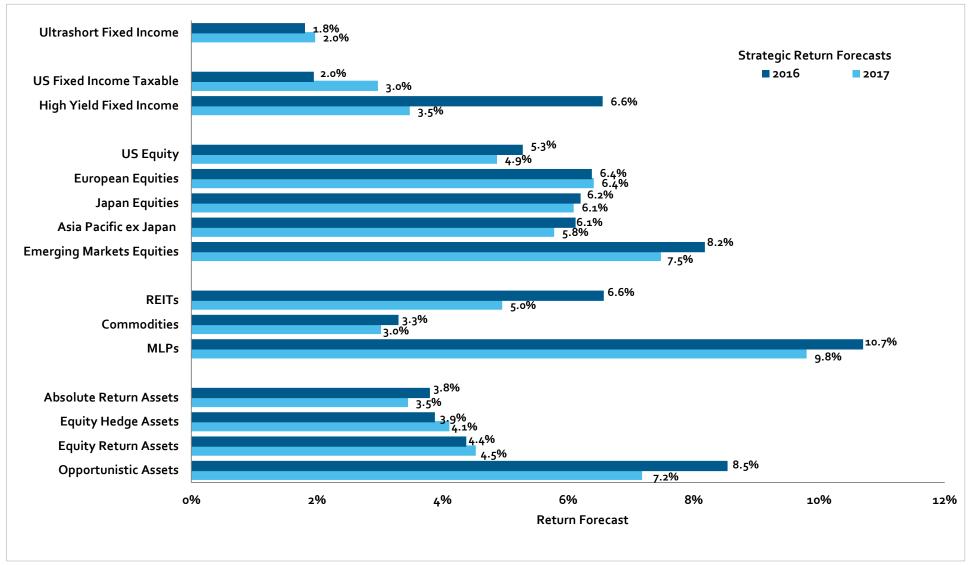
As of March 30, 2017

- Annually, the GIC updates its estimates of annual expected returns, correlations, and volatility for asset classes over two time horizons (20-year and 7-year).
- These forecasts are integrated into scenario-based planning tools, asset-liability studies and used to drive our asset allocation models.
- The seven-year strategic forecasts are only modestly changed from last year, as much of the improvement is already reflected in current asset prices. The notable changes are a slight reduction in our US equity forecast and a decline in our Emerging Markets return forecasts.
- Given the recent rise in rates and the improving long-term outlook for continued interest rate normalization from recent lows, both our broad fixed income forecast and our ultrashort fixed income forecast have risen.



2016 versuss2017 7-Year Strategic Return Forecasts

As of March 30, 2017



Source: Morgan Stanley Wealth Management GIC. Data as of March 10, 2017 Ultrashort Fixed Income represented by 90-day T-bills, US Fixed Income Taxable by Bloomberg Barclays US Aggregate Index, High Yield Fixed Income by Barclays US Corporate High Yield Index. All other others are based on proprietary models.

Capital Markets Assumptions

Various Firms



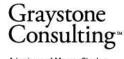
Industry- Wide Forecasted Returns

5-10 Year Forecasts (Arithmetic)

J = 0	Morgan						Expected	25 Year
	Stanley	JPMorgan	Blackrock	UBS	BNY	Mercer	Return Average	Historical
US Equity	4.9%	7.3%	5.4%	7.1%	7.2%	5.8%	6.3%	9.8%
Developed International Equity	6.3%	8.0%	7.3%	9.4%	6.9%	7.6%	7.6%	6.0%
Emerging Markets Equity	7.5%	11.5%	8.4%	8.8%	8.9%	8.9%	9.0%	8.6%
US Core Fixed Income (BBC Agg.)	3.0%	3.1%	2.8%	2.8%	2.5%	3.0%	2.9%	6.2%
High Yield Fixed Income	3.5%	6.1%	3.4%	4.8%	5.9%	4.8%	4.8%	9.0%
Private Equity	7.6%	9.9%	7.8%	12.0%	9.1%	9.9%	9.4%	NA
Hedge Funds	4.5%	5.0%	3.0%	5.5%			4.5%	NA
6o / 4o Traditional Portfolio (US)	4.1%	5.6%	4.4%	5.4%	5.3%	4.7%	4.9%	8.4%
Inflation	2.0%	2.3%	2.4%	2.0%	2.5%	2.0%	2.2%	2.0%
Real Return	2.1%	3.3%	2.0%	3.4%	2.8%	2.7%	2.7%	6.4%
Forecast Range (Years)	7	10	5	10	10	10		
Forecast Date	Mar-17	Jan-17	Jan-17	Feb-17	2016	Jan-16		

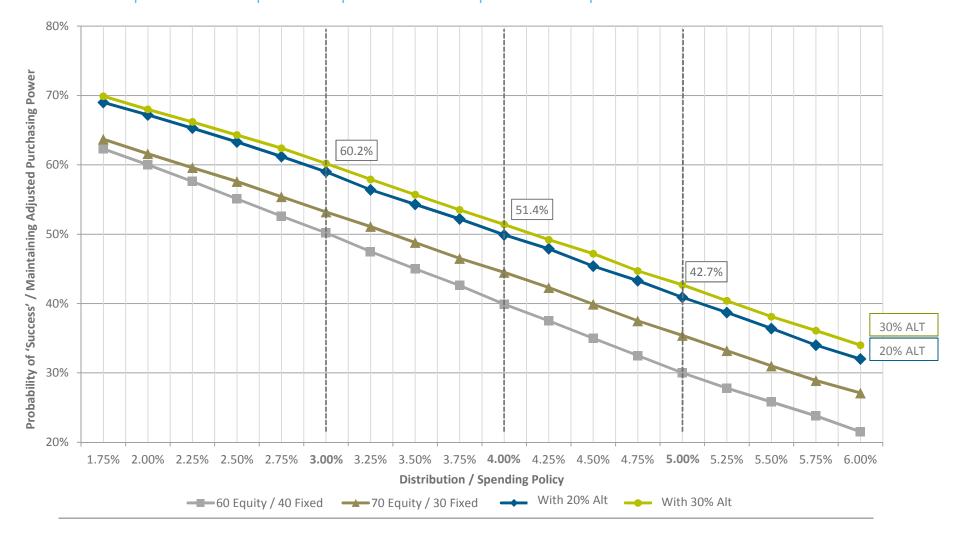
Source: Morgan Stanley: CIE, JPMorgan, UBS, BNY, Blackrock, Mercer

Probability of "Success" at Various Spending Levels



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Reduced capital markets expectations place distribution policies under pressure...



IMPORTANT: Assumed inflation rate of 2.00%. Please see the Appendix for important disclosures about this presentation.



STRATEGIC ASSET ALLOCATION - SUMMARY

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	ASSET ALLOCATI	ION SUMMARY			
	Cash Management		Cons Mod	Moderate	Growth
Cash & Cash Equivalents	50.0%		9.0%	5.0%	2.0%
Total Cash	50.0%		9.0%	5.0%	2.0%
Investment Grade Bonds	50.0%		37.0%	26.0%	14.0%
High Yield Bonds			4.0%	4.0%	2.0%
Emerging Market Bonds			1.0%	1.0%	
Global Bonds		35.0%			
Total Bonds	50.0%	35.0%	42.0%	31.0%	16.0%
US Equity			14.0%	18.0%	26.0%
International Equity			13.0%	18.0%	23.0%
Emerging Markets Equity			4.0%	5.0%	6.0%
Global Equity		65.0%			
Total Equities		65.0%	31.0%	41.0%	55.0%
Absolute Return Assets			4.0%	2.0%	1.0%
Equity Hedge Assets				4.0%	4.0%
Equity Return Assets					3.0%
Private Equity			5.0%	8.0%	9.0%
Total Alternatives			9.0%	14.0%	17.0%
Real Assets			6.0%	6.0%	6.0%
Private Real Estate			3.0%	3.0%	4.0%
Total Real Assets			9.0%	9.0%	10.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

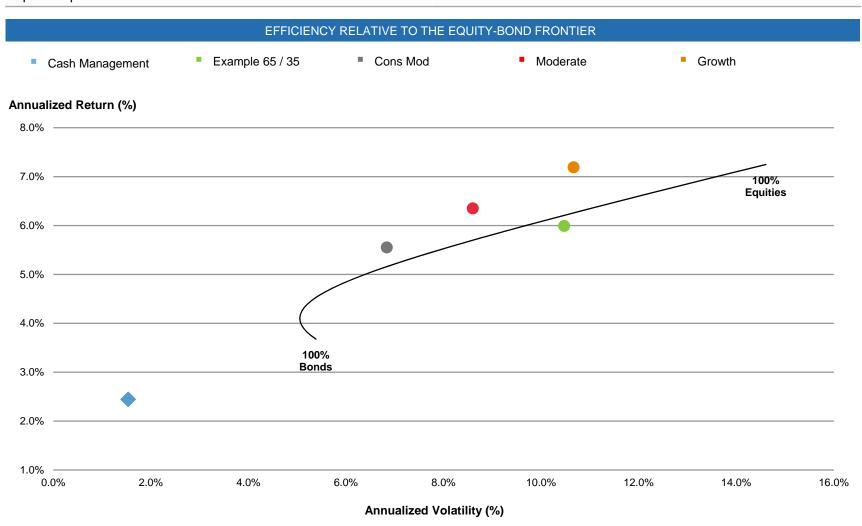
	FORECASTED STATISTICS									
Cash Management Example 65 / 35 Cons Mod Moderate										
Return	2.4%	6.0%	5.6%	6.4%	7.2%					
Volatility	1.5%	10.5%	6.8%	8.6%	10.7%					
Sharpe Ratio	0.03	0.34	0.46	0.46	0.45					
Probability < 0%	5.3%	28.1%	20.5%	22.6%	24.6%					
Yield	2.3%	2.4%	2.6%	2.5%	2.2%					

Please refer to page 1 of the Appendix for a breakdown of the above portfolios into more granular asset classes. The Model Portfolios on page 3 of the Appendix are disclosed for comparison with the above and vary by risk profile from lowest (Model 1) to highest (Model 5). The forecasts of risk and return used in this analysis are detailed in pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of the risk and return metrics depicted throughout this presentation. Please see the Appendix for important disclosures about this presentation.



STATISTICAL COMPARISON - HYPOTHETICAL EFFICIENCY ANALYSIS*

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Notes: The 'Equity-Bond Frontier', plotted here for comparison, represents the efficiency of a full spectrum of bond and equity portfolios that vary by their proportion of each from 100% bonds to 100% equities. *All figures based on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.



STATISTICAL COMPARISON - HYPOTHETICAL RANGE OF RETURNS AT 3 HORIZONS

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Source: Global Investment Committee

All figures above arebased on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.



Distribution Policy Analyis

5.0% Annual Spending
CPI = 2.0%
Example \$100,000,000 Portfolio



SIMULATION ANALYSIS - PORTFOLIO VALUE: CASH MANAGEMENT

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END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION POLICY
5th Percentile	\$74,334,837	Rebalancing Policy	 Annual Rebalancing to Target.
Median	\$69,625,965		
ith Percentile	\$65,318,082	Planned Distributions & Contributions	 5.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.
Probability>Target*	0.0%		
		HYPOTHETICA	AL RANGE OF PORTFOLIO VALUES BY YEAR (\$MI
<2% robability	2% 4% 6%	8% 10%	● Target End of Horizon Value: \$100,000,0
			\$98.00
			\$93.0N
			\$88.0N
			\$83.0M
			\$83.0M
			\$78.00
Initial Value		Year 2	\$78.0N

Graphic depicts the hypothetically plausible range of the Current Portfolio's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: EXAMPLE 65 / 35

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END OF HORIZ	ZON VALUE		REBALANCING & DISTRIBUTION PC	PLICY
5th Percentile	\$127,444,722	Rebalancing Policy	Annual Rebalancing to Target.	
ledian	\$84,504,750	Planned Distributions & Contributions		
th Percentile	\$53,310,977		 5.0% of Portfolio Value per annum. It is assumed portfolio at the end of each year. 	that Distributions are taken from the
Probability>Target*	25.5%			
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR	(\$MM)
<2% robability	2% 4% 6%	8% 10%	Current Portfolio Value 99th Percentile Median 1st Percentile	Farget End of Horizon Value: \$100,000,000
				\$143.0MI
				\$123.0MI
——				\$103.0M
				\$83.0MM
				\$63.0MM
Initial Value		Year 2	Year 4	\$43.0MM Year 6

Graphic depicts the hypothetically plausible range of the Example 65 / 35's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



Values Adjusted for assumed inflation

SIMULATION ANALYSIS - PORTFOLIO VALUE: CONS MOD

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Source: Global Investment Committee

END	OF HOR	IZON	VALUE					REBALANCING & DISTRIBUTION POLICY				
5th Percent	ile	;	\$110,99	9,590	Rebal Policy	ancing /	٠	Annual Rebalancing to Target.				
l ledian			\$84,227	7,969								
th Percentile \$62,950,392 robability>Target* 15.3%),392	Planned Distributions & Contributions		٠	5.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.						
		%										
					HYF	POTHETICA	AL R	NGE OF PORTFOLIO VALUES BY YEAR	(\$MM)			
robability	<2%	2%	4%	6%	8%	10%	Ţ	Wedian	Horizon Value: \$100,000,00			
								1st Percentile	\$125.0M			
									\$115.0M			
									\$105.0M			
		I							\$95.0MN			
									\$85.0MN			
									\$75.0MN			
									\$65.0MN			
									\$55.0MN			

Graphic depicts the hypothetically plausible range of the Cons Mod's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: MODERATE

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END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION P	OLICY
5th Percentile	\$124,239,774	Rebalancing Policy	Annual Rebalancing to Target.	
ledian	\$88,064,903			
th Percentile	\$60,754,019	Planned Distributions & Contributions	 5.0% of Portfolio Value per annum. It is assumed portfolio at the end of each year. 	d that Distributions are taken from the
Probability>Target*	27.5%	Contributions		
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR	(\$MM)
<2% robability	2% 4% 6%	8% 10%	Current Portfolio Value 99th Percentile Median 1st Percentile	Target End of Horizon Value: \$100,000,00
				\$141.0M
				\$131.0N
				\$121.0M
				\$111.0M
	<u> </u>			\$101.0M
		I		\$81.0MN
			1	\$71.0MN
				\$61.0MN
			,	\$51.0MN
Initial Value Source: Global Investment		Year 2	Year 4	Year 6 Values Adjusted for assumed inflatio

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



Values Adjusted for assumed inflation

SIMULATION ANALYSIS - PORTFOLIO VALUE: GROWTH

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Source: Global Investment Committee

END	OF HOR	IZON '	VALUE					R	EBALANCING	& DISTRIBUTION	ON POLICY	
5th Percent	ile	Ç	\$139,60	4,440	Rebal Policy	ancing /	٠	Annual Reba	lancing to Targ	et.		
Median			\$91,776	6,118								
th Percentile \$57,926,449		6,449	Planned Distributions & Contributions		٠	5.0% of Portf portfolio at th	umed that Distributions are tak	are taken from the				
robability>Target* 37.2%			%									
					HYF	POTHETICA	AL R	ANGE OF POR	TFOLIO VALU	ES BY YEAR		(\$MM)
robability	<2%	2%	4%	6%	8%	10%	Cu	rrent Portfolio V 99 th Percentile Median	alue		Target End of Horizon Val	ue: \$100,000,000
							<u> </u>	1st Percentile				\$166.0M
												\$146.0M
												\$126.0M
•												\$106.0M
					1					Ţ		\$86.0MM
											İ	\$66.0MM

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - SUMMARY

Report Prepared for San Bernardino

END OF HORIZON VALUE										
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth					
95th Percentile	\$74,334,837	\$127,444,722	\$110,999,590	\$124,239,774	\$139,604,440					
Median	\$69,625,965	\$84,504,750	\$84,227,969	\$88,064,903	\$91,776,118					
5th Percentile	\$65,318,082	\$53,310,977	\$62,950,392	\$60,754,019	\$57,926,449					
Probability>Target*	0.0%	25.5%	15.3%	27.5%	37.2%					

^{*} Target End of Horizon Value = \$100,000,000

	AVERAGE ANNUAL DISTRIBUTIONS											
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth							
95th Percentile	\$4,479,262	\$6,247,636	\$5,695,545	\$6,099,189	\$6,574,269							
Median	\$4,303,598	\$4,808,636	\$4,787,068	\$4,914,083	\$5,031,546							
5th Percentile	\$4,134,174	\$3,629,298	\$3,984,705	\$3,897,062	\$3,776,786							

		AVERAGE RI	ETURN		
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	2.9%	11.2%	9.0%	10.7%	12.6%
Median	2.0%	4.8%	4.8%	5.4%	6.1%
5th Percentile	1.0%	-1.9%	0.5%	-0.0%	-0.7%

Return Calculated on a Time-Weighted basis.

Results adjusted for assumed inflation. For assumptions underlying these projections, please refer to the "Simulation Analysis; Purpose and Methodology" and "Simulation Analysis; Assumptions" slides, and pages 4-6 of the Appendix.

^{*} Targets reflect client stated goals, rather than GIC investment criteria



Distribution Policy Analysis

4.0% Annual Spending
CPI = 2.0%
Example \$100,000,000 Portfolio



SIMULATION ANALYSIS - PORTFOLIO VALUE: CASH MANAGEMENT

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END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION POLICY
5th Percentile	\$79,988,175	Rebalancing Policy	Annual Rebalancing to Target.
Median	\$74,921,182		
th Percentile	\$70,285,674	Planned Distributions & Contributions	 4.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.
Probability>Target*	0.0%		
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR (\$M
<2%	2% 4% 6%	8% 10%	• Target End of Horizon Value: \$100,000,
			\$98.01
			\$88.0
			\$83.0
			\$78.0
			\$73.01
			ψ1 0.01
Initial Value		Year 2	\$68.0I Year 4 Year 6

Graphic depicts the hypothetically plausible range of the Current Portfolio's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: EXAMPLE 65 / 35

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END	OF HOR	RIZON	VALUE					REBALANCING & DISTRIBUTION POLICY		
95th Percen	tile	;	\$137,13	37,191	Reba Polic	ancing /	٠	Annual Rebalancing to Target.		
Median			\$90,93	1,533						
5th Percenti	ile		\$57,36	5,402	Distri			Distributions & 4.0% of Po		4.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.
Probability>	Target*		35.5	5%	Conti					
					HYF	POTHETICA	AL R	RANGE OF PORTFOLIO VALUES BY YEAR (\$1		
Probability	<2%	2%	4%	6%	8%	10%	<u> </u>	Current Portfolio Value 99th Percentile Median 1st Percentile Target End of Horizon Value: \$100,000		
								\$146		
								\$126		
———								\$106		
		Y						\$86.0		
								\$66.0		
Initial Value					Year 2			Year 4 Year 6		
Source: Globa	al Investm	ent Con	nmittee					Values Adjusted for assumed infl		

Graphic depicts the hypothetically plausible range of the Example 65 / 35's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: CONS MOD

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<u> </u>																					
END C	OF HOF	RIZON '	VALUE					REBALANCING & DISTR	RIBUTION	N POLICY											
95th Percenti	le	(\$119,44	11,368	Reba Polic	lancing y	٠	Annual Rebalancing to Target.													
Median			\$90,63	3,703																	
5th Percentile	ercentile \$6		\$67,737,916		Distri	• 4.0% of Portfolio Value per annum. It is assume portfolio at the end of each year		ibutions &				Distributions &		Distributions &		nortfolio at the end of each year				med that Distributions are taken f	rom the
Probability>T	arget*		28.4	! %																	
					HYI	POTHETICA	AL R	ANGE OF PORTFOLIO VALUES BY Y	/EAR		(\$MM)										
Probability	<2%	2%	4%	6%	8%	10%	Ţ	rrent Portfolio Value 99 th Percentile Median 1 st Percentile		Target End of Horizon Value:	\$100,000,000										
											\$129.0M										
											\$119.0M										
											\$109.0M										
					==						\$99.0MN										
					I						\$89.0MM										
								1	Ţ		\$79.0MM										
										Τ	\$69.0MM										
Initial Value					Year 2			Year 4		Year 6	\$59.0MM										
Source: Global	Investm	ent Con	nmittee							Values Adjusted for ass	umed inflatior										

Graphic depicts the hypothetically plausible range of the Cons Mod's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: MODERATE

Report Prepared for San Bernardino

oport repared for o	a aa. aa			
END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION POLICY	
5th Percentile	\$133,688,499	Rebalancing Policy	Annual Rebalancing to Target.	
ledian	\$94,762,445			
th Percentile	\$65,374,504	Planned Distributions & Contributions	 4.0% of Portfolio Value per annum. It is assumed that Distrib portfolio at the end of each year. 	utions are taken from the
robability>Target*	pility>Target* 40.0%			
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR	(\$M
<2% robability	2% 4% 6%	8% 10%	Current Portfolio Value 99 th Percentile Median 1st Percentile Target End of	of Horizon Value: \$100,000,
			— 1-1 elcenne	\$155.0
				\$145. \$135.
				\$135
				\$115
				\$105
				\$95.0
				\$85.0
				\$75.0
				\$65.0
nitial Value		Year 2	Year 4 Year	\$55.0
ource: Global Investment	Committee	10012		es Adjusted for assumed infla

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: GROWTH

Report Prepared for San Bernardino

END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION POLICY	
5th Percentile	\$150,221,684	Rebalancing Policy	Annual Rebalancing to Target.	
ledian	\$98,755,906			
th Percentile	\$62,331,891	Planned Distributions & Contributions	 4.0% of Portfolio Value per annum. It is assumed that Distributi portfolio at the end of each year. 	ions are taken from the
Probability>Target*	47.9%	Contributions		
		HYPOTHETICA	RANGE OF PORTFOLIO VALUES BY YEAR	(\$MM)
<2% robability	2% 4% 6%	8% 10%	Portfolio Value 99th Percentile Median 1st Percentile Target End of	Horizon Value: \$100,000,000
				\$169.0MI
				\$149.0M
				\$129.0M
				\$109.0M
		<u> </u>	<u> </u>	\$89.0MM
			T I	\$69.0MM
Initial Value		Year 2	Year 4 Year 6	\$49.0MM

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - SUMMARY

Report Prepared for San Bernardino

END OF HORIZON VALUE									
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth				
95th Percentile	\$79,988,175	\$137,137,191	\$119,441,368	\$133,688,499	\$150,221,684				
Median	\$74,921,182	\$90,931,533	\$90,633,703	\$94,762,445	\$98,755,906				
5th Percentile	\$70,285,674	\$57,365,402	\$67,737,916	\$65,374,504	\$62,331,891				
Probability>Target*	0.0%	35.5%	28.4%	40.0%	47.9%				

^{*} Target End of Horizon Value = \$100,000,000

		AVERAGE ANNUAL D	DISTRIBUTIONS		
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	\$3,692,028	\$5,160,429	\$4,706,489	\$5,040,102	\$5,437,233
Median	\$3,545,868	\$3,966,953	\$3,948,764	\$4,054,759	\$4,152,506
5th Percentile	\$3,405,584	\$2,988,240	\$3,281,332	\$3,210,849	\$3,110,795

		AVERAGE RI	ETURN		
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	2.9%	11.2%	9.0%	10.7%	12.6%
Median	2.0%	4.8%	4.8%	5.4%	6.1%
5th Percentile	1.0%	-1.9%	0.5%	-0.0%	-0.7%

Return Calculated on a Time-Weighted basis.

Results adjusted for assumed inflation. For assumptions underlying these projections, please refer to the "Simulation Analysis; Purpose and Methodology" and "Simulation Analysis; Assumptions" slides, and pages 4-6 of the Appendix.

^{*} Targets reflect client stated goals, rather than GIC investment criteria



Distribution Policy Analysis

3.0% Annual Spending
CPI = 2.0%
Example \$100,000,000 Portfolio



SIMULATION ANALYSIS - PORTFOLIO VALUE: CASH MANAGEMENT

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	ON VALUE		REBALANCING & DISTRIBUTION POLICY
95th Percentile	\$86,006,108	Rebalancing Policy	Annual Rebalancing to Target.
Median	\$80,557,899		
ith Percentile	\$75,573,637	Planned Distributions & Contributions	 3.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.
Probability>Target*	0.0%		
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR (\$MM
<2% Probability	2% 4% 6%	8% 10%	• Target End of Horizon Value: \$100,000,00
			\$93.0MI
			\$88.0MI
			\$88.0MI \$83.0MI

Graphic depicts the hypothetically plausible range of the Current Portfolio's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: EXAMPLE 65 / 35

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toport repared for o							
END OF HORIZ	ON VALUE			REBALANCING	& DISTRIBUTION	POLICY	
5th Percentile	\$147,454,74	Rebalancing Policy	Annual	Rebalancing to Tarç	get.		
ledian	\$97,772,79	3					
th Percentile	\$61,681,30		Planned Distributions & Contributions 3.0% of Portfolio Value per annum. It is assumed portfolio at the end of each year.		.0% of Portfolio Value per annum. It is assumed that Distributions are taken from tortfolio at the end of each year.		
Probability>Target*	46.6%						
		HYPOTHETI	CAL RANGE OF	PORTFOLIO VALU	JES BY YEAR		(\$MN
<2%	2% 4% 6	% 8% 10%	Current Porti	entile		Target End of Horizon	Value: \$100,000,0
							\$170.0
							\$150.0
							\$130.0
							\$110.0
				Ī			\$90.00
							\$70.0
Initial Value		Year 2		Year 4		Year 6	\$50.0M
fource: Global Investment	t Committee	i cai Z		ı cai 4			for assumed inflat

Graphic depicts the hypothetically plausible range of the Example 65 / 35's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: CONS MOD

Report Prepared for San Bernardino

END OF HORIZ	ZON VALUE		REBALANCING & DISTRIBUTION POLICY
5th Percentile	\$128,427,574	Rebalancing Policy	Annual Rebalancing to Target.
ledian	\$97,452,555		
th Percentile	\$72,834,198	Planned Distributions & Contributions	 3.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.
robability>Target*	44.2%	Contributions	
		HYPOTHETICA	AL RANGE OF PORTFOLIO VALUES BY YEAR (\$M
<2% robability	2% 4% 6%	8% 10%	Current Portfolio Value 99th Percentile Median 1st Percentile Target End of Horizon Value: \$100,000,000,000,000,000,000,000,000,000
			\$143.0
			\$133.0
			\$123.0
			\$113.0
			\$103.0
	Y		\$93.00
			\$83.01

Graphic depicts the hypothetically plausible range of the Cons Mod's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: MODERATE

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END OF HORIZ	ON VALUE		REBALANCING & DISTRIBUTION POLICY	
95th Percentile	\$143,746,592	Rebalancing Policy	Annual Rebalancing to Target.	
l ledian	\$101,891,924			
5th Percentile \$70,292,973 Probability>Target* 53.2%		Planned Distributions & Contributions	 3.0% of Portfolio Value per annum. It is assumed that Distributions are taken from portfolio at the end of each year. 	the
		HYPOTHETICA	AL RANGE OF PORTFOLIO VALUES BY YEAR	(\$MI
<2% Probability	2% 4% 6%	8% 10%	Current Portfolio Value ☐ 99 th Percentile Median 1st Percentile Target End of Horizon Value: \$100	0,000,(
				\$159.0
				\$139.
				\$119.
	- -	<u> </u>		\$99.01
				\$79.0
Initial Value		Year 2	Year 4 Year 6	\$59.0
ource: Global Investment	t Committee		Values Adjusted for assumed	d infla

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - PORTFOLIO VALUE: GROWTH

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END OF HORIZ	ZON VALUE		REBALANCING & DISTRIBUTION POLICY		
95th Percentile	\$161,523,655	Rebalancing Policy	Annual Rebalancing to Target.		
Median	\$106,185,835				
5th Percentile \$67,021,449 Probability>Target* 58.8%		Planned Distributions & Contributions	 3.0% of Portfolio Value per annum. It is assumed that Distributions are taken f portfolio at the end of each year. 		
		HYPOTHETICA	L RANGE OF PORTFOLIO VALUES BY YEAR	(\$MM)	
<2% Probability	2% 4% 6%	8% 10%	Current Portfolio Value 99th Percentile Median 1st Percentile Target	End of Horizon Value: \$100,000,000	
				\$173.0MN	
				\$153.0MN	
				\$133.0MM	
				\$113.0MM	
		<u> </u>	<u> </u>	\$93.0MM	
				\$73.0MM	
				\$53.0MM	

Graphic depicts the hypothetically plausible range of the Moderate's value over the course of the investment horizon based on assumptions of risk and return detailed on pages 4-6 of the Appendix and assumptions as per the "Simulation Analysis; Assumptions" slide. More darkly shaded areas imply a greater likelihood that the portfolio's value will lie in that range at that point in the horizon than more lightly shaded ones. Please see the Glossary in the Appendix for definitions of certain terms used above.



SIMULATION ANALYSIS - SUMMARY

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END OF HORIZON VALUE					
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	\$86,006,108	\$147,454,747	\$128,427,574	\$143,746,592	\$161,523,655
Median	\$80,557,899	\$97,772,793	\$97,452,555	\$101,891,924	\$106,185,835
5th Percentile	\$75,573,637	\$61,681,304	\$72,834,198	\$70,292,973	\$67,021,449
Probability>Target*	0.0%	46.6%	44.2%	53.2%	58.8%

^{*} Target End of Horizon Value = \$100,000,000

AVERAGE ANNUAL DISTRIBUTIONS					
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	\$2,853,178	\$3,999,871	\$3,644,482	\$3,904,509	\$4,215,308
Median	\$2,739,211	\$3,068,036	\$3,054,550	\$3,135,846	\$3,213,517
5th Percentile	\$2,630,157	\$2,305,179	\$2,534,144	\$2,480,411	\$2,402,576

AVERAGE RETURN					
	Cash Management	Example 65 / 35	Cons Mod	Moderate	Growth
95th Percentile	2.9%	11.2%	9.0%	10.7%	12.6%
Median	2.0%	4.8%	4.8%	5.4%	6.1%
5th Percentile	1.0%	-1.9%	0.5%	-0.0%	-0.7%

Return Calculated on a Time-Weighted basis.

Results adjusted for assumed inflation. For assumptions underlying these projections, please refer to the "Simulation Analysis; Purpose and Methodology" and "Simulation Analysis; Assumptions" slides, and pages 4-6 of the Appendix.

^{*} Targets reflect client stated goals, rather than GIC investment criteria



SIMULATION ANALYSIS - PURPOSE AND METHODOLOGY

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The Global Investment Committee forecasts long-term asset class returns and volatilities, as well as the asymmetries and extreme events that characterize their return profiles¹. Estimates of the risk and return of asset classes are not, however, sufficient to estimate the tradeoff between competing strategies. The purpose of Simulation Analysis is to provide such a basis for comparison. Simulation analysis generates thousands of potential evolutions of future capital market outcomes based on risk and return forecasts. These will tend *on average* to adhere to the forecasts of return, but will also depict divergences from the average both up and down with a frequency and to a degree consistent with the chosen model and forecasts of market risk.

Simulation analysis evaluates what happens to the portfolio across this projected range of future capital market scenarios taking into account planned withdrawals/contributions and rebalancing policy². As cash flows and allocation drift can magnify the impact of market risk, (due to the former's tendency to reduce the effective length of the investment horizon, and the latter's tendency to increase the allocation to risk assets), this step is critical to a deeper understanding of how market risk can affect outcomes.

The results can be used to address³ questions such as: What post-distribution, net-of-expenses outcomes am I *likely* to experience? What are the upside potential and downside risks to that outcome for a given level of confidence, (i.e. what are the most extreme up- and downside outcomes we would consider materially plausible)? How viable is a given spending policy (do the most frequently observed portfolio values arc downward over the horizon and, if so, how rapidly)? What is the portfolio's sensitivity to changes in the allocation or rebalancing approach?

NOTES ON THE TERMINOLOGY IN THIS SIMULATION ANALYSIS SECTION: Portfolio Value refers to the portfolio/trust value during the simulation. *Median End of Horizon Portfolio Value/Remainder Value* lies in the middle of the two halves of simulated values and thus represents the 'most likely' given the analysis assumptions. *95th Percentile End of Horizon Portfolio Value/Remainder Value* represents the 'upside' potential of a given proposal at 95% confidence (i.e., an end-horizon value better than 95% of outcomes), while *5th Percentile End of Horizon Portfolio Value/Remainder Value* represents the 'downside' risk to the proposal at 95% confidence (i.e., an end-horizon value better than 5% of outcomes). *Probability > Target* is the probability that the end-horizon portfolio value/remainder value will be greater than the investor's target portfolio/remainder value. Information about the trajectory of the portfolio over the course of the investment horizon is summarized on the final **Hypothetical Range of Portfolio Value** charts, with darkly shaded areas depicting the most likely path of portfolio value and lightly shaded areas less-likely extreme divergences to the up- and downside.

The following terms are associated with optional reports that may or may not apply to your case: The "Current Portfolio Value Overlay" depicts the range of Current Portfolio Values, and the median Current Portfolio value over the simulated range of the respective Proposed Portfolio Values. Its purpose is to provide a basis of comparison between the Current and Proposed Portfolios. **Distributions** depicts both the amount distributed from a portfolio over the horizon *on average* in the Median, 95th, and 5th percentile of simulated outcomes, as well as the *range* of distributions at the beginning, middle and end of the investment horizon, in the median, 95th, 75th, 25th and 5th percentiles of simulated outcomes. **Hypothetical Average Return** depicts the portfolio's time- or dollar-weighted return on average over the horizon in the Median, 95th, and 5th percentile of simulated outcomes. *Probability > Target/7520* is the probability that the portfolio return will exceed the investor's target value or the trust's 7520 rate.

¹The methodology used in this analysis entails a more sophisticated modeling of downside or 'event' risk than is commonly applied to simulation analysis in the industry, including the specification of 'fat-tailed' non-normal return distributions. ² Rebalancing does not assure a profit or protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy. ³ The pertinence of the foregoing analysis to these questions depends significantly on the accuracy of the risk, return, tax and other assumptions detailed on the next slide and on pages 4-6of the Appendix. It also depends on the degree to which the returns to selected securities are different from the returns to a portfolio of similarly allocated asset classes. This source of return differences can be very substantial and is not taken into account in either the preceding or the foregoing analysis.



SIMULATION ANALYSIS - ASSUMPTION

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SIMULATION SUMMARY

The following analysis of the four portfolios outlined on page 4, is based on 10,000 simulations and the following additional assumptions:

Initial Portfolio Value	\$100,000,000
Target Value/Return	■ Target End of Horizon Value: \$100,000,000.
Investment Horizon	■ Ten (10) year horizon
Inflation Assumptions	Results adjusted for assumed inflation. Assumed inflation rate: 2.0%
Assumed Rebalancing Policy ¹	Annual Rebalancing to Target.
Planned Distributions & Contributions	 4.0% of Portfolio Value per annum. It is assumed that Distributions are taken from the portfolio at the end of each year.

¹ Rebalancing does not assure a profit or protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy. Morgan Stanley, its affiliates, and its Financial Advisors and Private Wealth Advisors do not provide legal or tax advice. Please see the Appendix for important disclosures about this presentation.

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FundFire Survey, February 2011. This survey by FundFire included responses from more than 40 managed account managers who work with various separately managed account (SMA) program sponsors. Managers were asked to rate a number of SMA sponsors on the thoroughness of their manager review process on a scale of one (weakest) to five (toughest).

Plan Sponsor, September 2011. Includes both Graystone Consulting and Morgan Stanley Consulting Group. Plan Sponsor magazine submitted questionnaires to 150 retirement plan consulting firms in July 2011. A total of 86 retirement plan consulting firms completed the questionnaire. The top ten consultants are listed by various criteria as reported in the survey. For more information, go to www.plansponsor.com. For the purposes of this survey, "institutional" is defined as any type of retirement plan, including foundations and endowments and other nonprofits. The ranking is not indicative of a firm's future performance. Neither Morgan Stanley Smith Barney LLC nor its affiliated Financial Advisors pay a fee to Plan Sponsor in exchange for this report.

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- loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;
- lack of liquidity in that there may be no secondary market for the fund and none is expected to develop;
- volatility of returns;
- restrictions on transferring interests in a fund;
- potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;
- absence of information regarding valuations and pricing;
- complex tax structures and delays in tax reporting;
- less regulation and higher fees than mutual funds;
- fund of funds often have a higher fee structure than single manager funds as a result of an additional layer of fees; and risks associated with the operations, personnel and processes of the manager

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