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July 20, 2010

City of LA 457 Plan Plan Structure Review International Equity

Susan Dalton, Los Angeles



Contents

- Overview
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 - International: Developed + Emerging + Small Cap
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Overview



Overview

Investment Portfolio Structure

- City of LA is considering moving to a fund structure where investment options would be generically rebranded to City of LA DCP
 - Create investment options by asset class using a single or multi-manager approach; result is a style neutral portfolio
 - Mutual funds are the primary investment vehicle
 - Goal is not to exceed 10-12 investment options

- Rationale for moving towards this fund structure is to:
 - Reduce the number of investment options within the Plan structure
 - Promote investor focus on diversification and risk tolerance

- The investment committee has met and reviewed the structures available for consideration. The following slide outline the decisions made and those pending

Overview

Decision Review

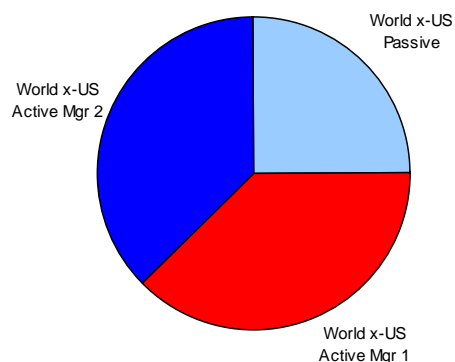
NEW DCP INVESTMENT MENU DESIGN		
Investment Option	Structure	Status
Bank-Deposit Account	Blend of 3 Underlying Bank Providers	Implemented
Stable Value Fund	Single vendor with broadly diversified holdings	Implemented
DCP Bond Fund	50% Active / 50% Passive	Approved
DCP Ultra-Conservative Asset Allocation Fund	Blend of Stable Value & passive funds	Implemented
DCP Conservative Asset Allocation Fund	Blend of Stable Value & passive funds	Implemented
DCP Moderate Asset Allocation Fund	Blend of Stable Value & passive funds	Implemented
DCP Aggressive Asset Allocation Fund	Blend of Stable Value & passive funds	Implemented
DCP Ultra-Aggressive Asset Allocation Fund	Blend of Stable Value & passive funds	Implemented
DCP Large-Cap Stock Fund	100% Passive Management (S&P 500 Index)	Approved
DCP Mid-Cap Stock Fund	50% Passive / 25% Value Active / 25% Growth Active	Approved
DCP Small-Cap Stock Fund	34% Passive / 33% Value Active / 33% Growth Active	Approved
DCP International Fund	TBD	Board Discussion Pending
Self-Directed Brokerage Option	Broad universe of funds, stocks and bonds	Implemented



International Equity Structures

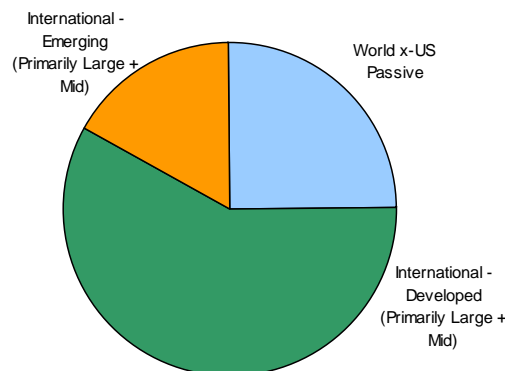
Potential International Equity Structures

World x-US



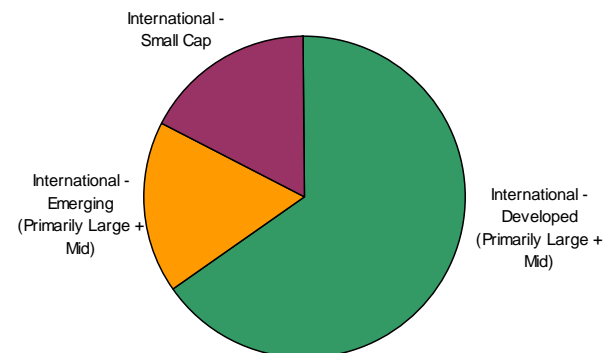
E.g. ACWI x-US (Passive and Active)

Developed + Emerging



E.g. ACWI x-US (Passive only), MSCI EAFE, MSCI EM

Developed + Emerging + Int'l Small Cap



E.g. MSCI EAFE, MSCI EM, MSCI EAFE Small Cap

Objectives and considerations when selecting a structure:

1. Represent full universe and exposure to “international” markets
2. Meaningful list of managers to select from
3. Reasonable expenses
4. Reduce risk of overlapping exposures
5. Reduce complexity of ongoing management

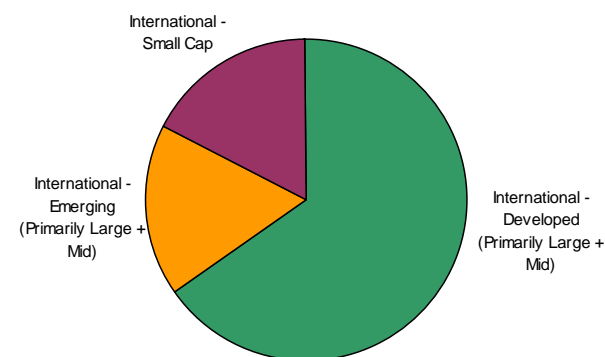
Recommended International Equity Structure

Developed + Emerging + International Small Cap Structure

Rationale:

1. Represent full universe and exposure to “international” markets
 - Cover full investable int’l universe, including int’l small cap
2. Meaningful list of managers to select from*
 - Emerging Markets: 319 strategies, 42 mutual funds
 - International Small Cap: 78 strategies, 30 mutual funds
3. Reasonable expenses (median of Mercer Universe**):
 - International Developed (and Global Equity) both at 120 bps
 - Emerging Markets at 131 bps and International Small Cap at 125 bps
4. Reduce risk of overlapping exposures
 - Developed Market Managers: Primarily large and mid cap; may invest in emerging markets
 - Emerging Market Managers: Typically large cap emerging markets
 - Int’l Small Cap Managers: Typically developed small cap
5. Reduce complexity of ongoing management
 - Trade-off of having no passive strategy means higher relative fees

Developed + Emerging + Int’l Small Cap



*Based on GIMD screen on July 9th, 2010

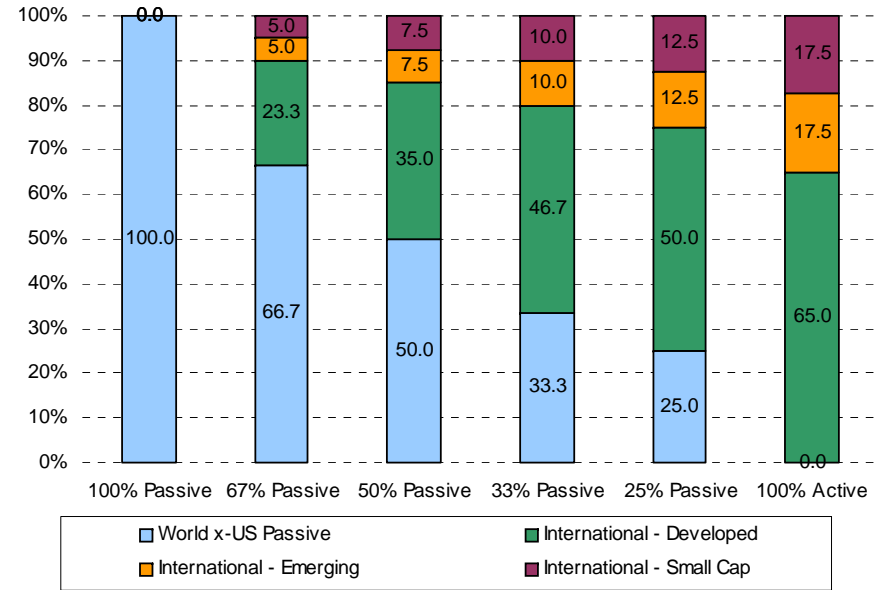
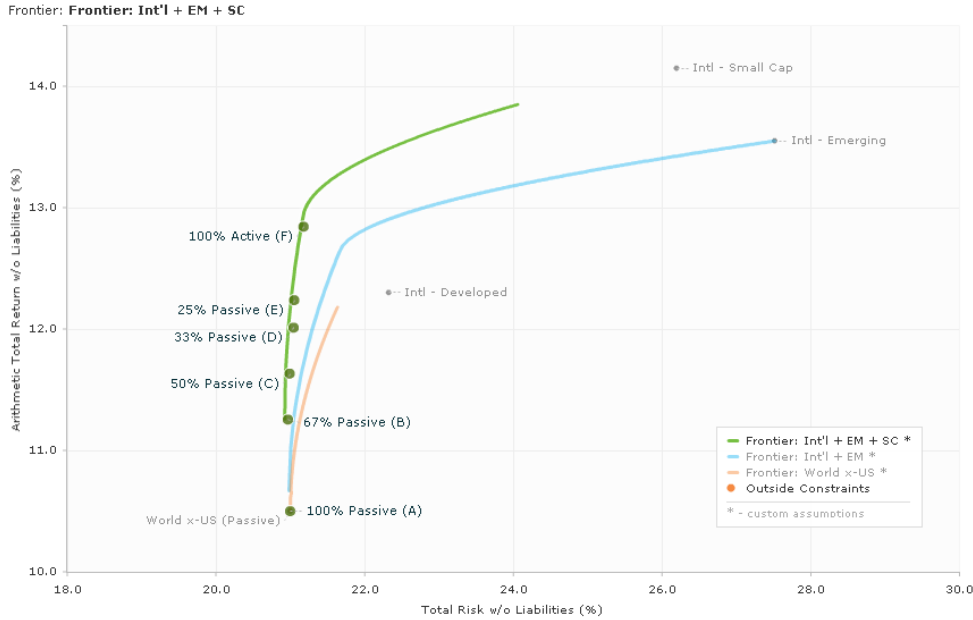
**Based on the median institutional share classes as defined by the respective Mercer Mutual Fund Universes



**Developed + Emerging +
Small Cap Structure**

International Equity Structures

International: Developed, Emerging & Small Cap

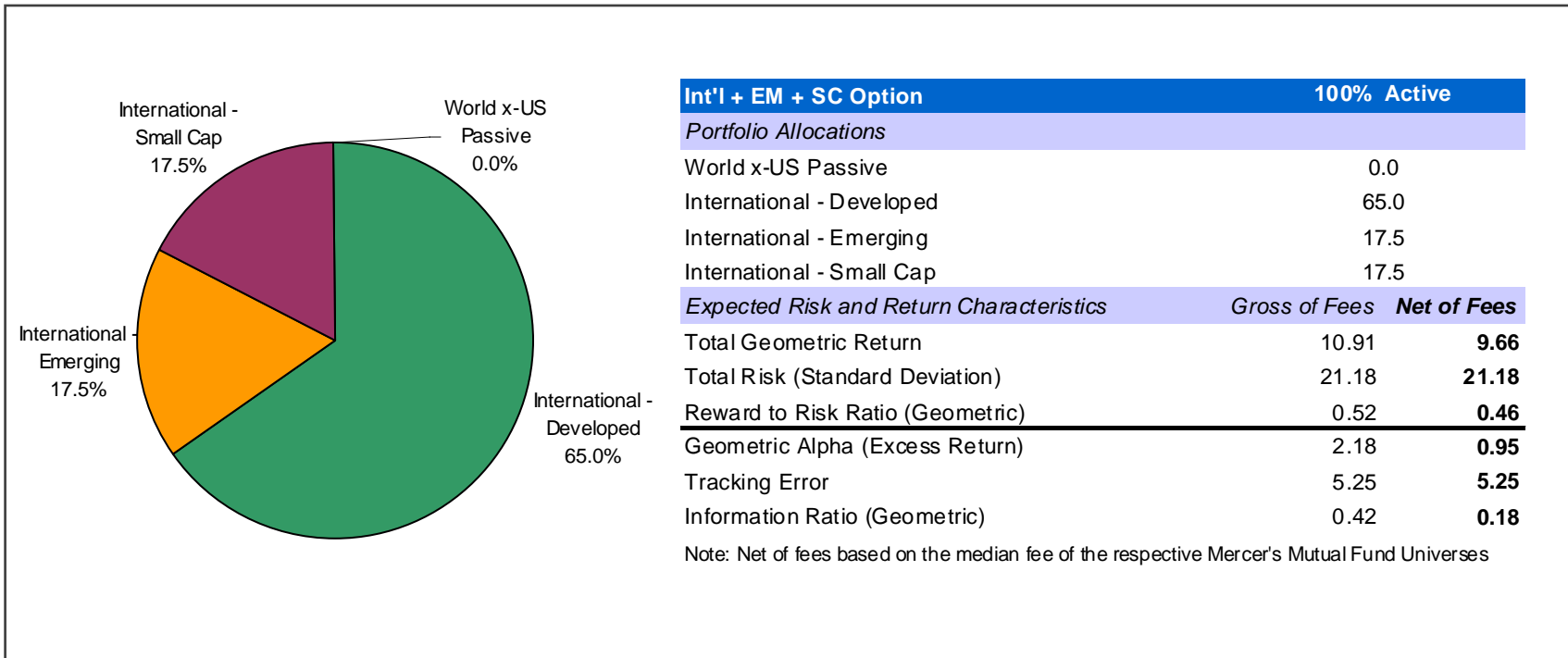


Int'l + EM + SC Option	100% Passive	67% Passive	50% Passive	33% Passive	25% Passive	100% Active
<i>Portfolio Allocations</i>						
World x-US Passive	100.0	66.7	50.0	33.3	25.0	0.0
International - Developed	0.0	23.3	35.0	46.7	50.0	65.0
International - Emerging	0.0	5.0	7.5	10.0	12.5	17.5
International - Small Cap	0.0	5.0	7.5	10.0	12.5	17.5
<i>Expected Risk and Return Characteristics - Gross of Fees</i>						
Total Arithmetic Return	10.5	11.3	11.6	12.0	12.2	12.8
Total Geometric Return	8.6	9.3	9.7	10.1	10.3	10.9
Total Risk (Standard Deviation)	21.0	21.0	21.0	21.0	21.1	21.2
Reward to Risk Ratio (Geometric)	0.41	0.44	0.46	0.48	0.49	0.52
Arithmetic Alpha (Excess Return)	0.0	0.8	1.1	1.5	1.7	2.3
Geometric Alpha (Excess Return)	0.0	0.7	1.1	1.5	1.7	2.2
Tracking Error	0.0	1.8	2.6	3.5	3.9	5.3
Information Ratio (Geometric)	NA	0.42	0.42	0.41	0.42	0.42

International Equity Structures

Proposed Portfolio with Developed + Emerging + Small Cap Structure

NEW DCP INVESTMENT MENU DESIGN		
Investment Option	Structure	Rationale
DCP International Equity	Select 65% Active Developed, 17.5% Active Emerging, 17.5% Active Int'l Small Cap	Goal is for participants to focus on asset allocation

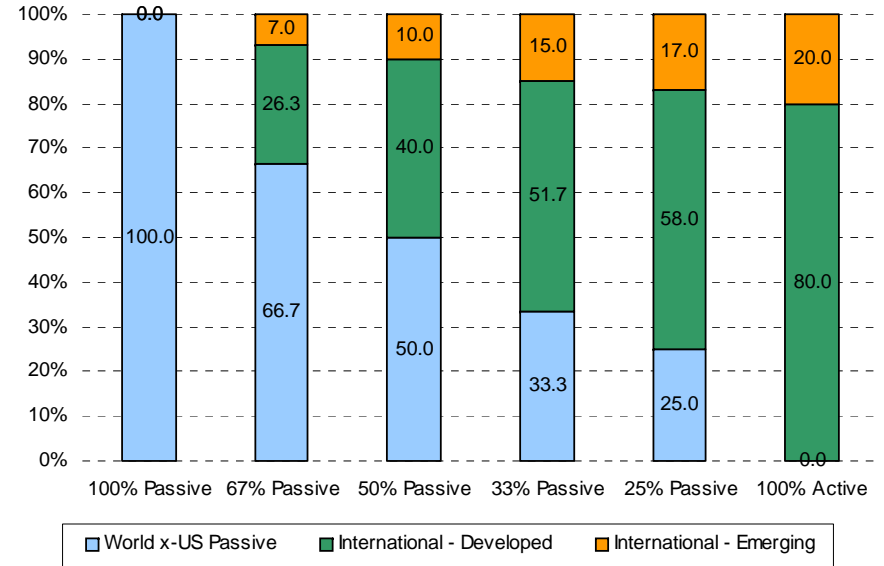
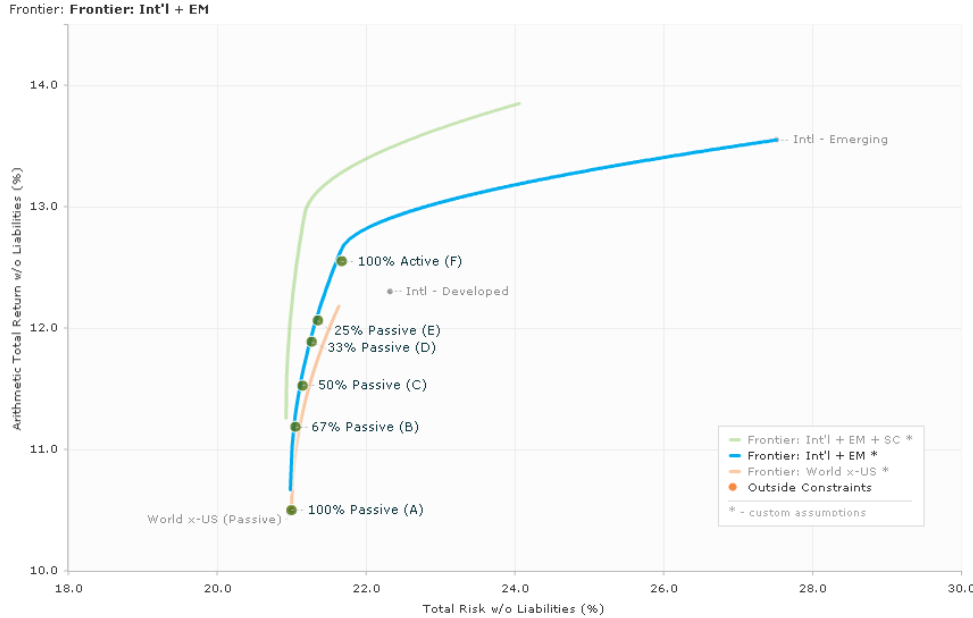




**Developed + Emerging
Structure**

International Equity Structures

International: Developed & Emerging

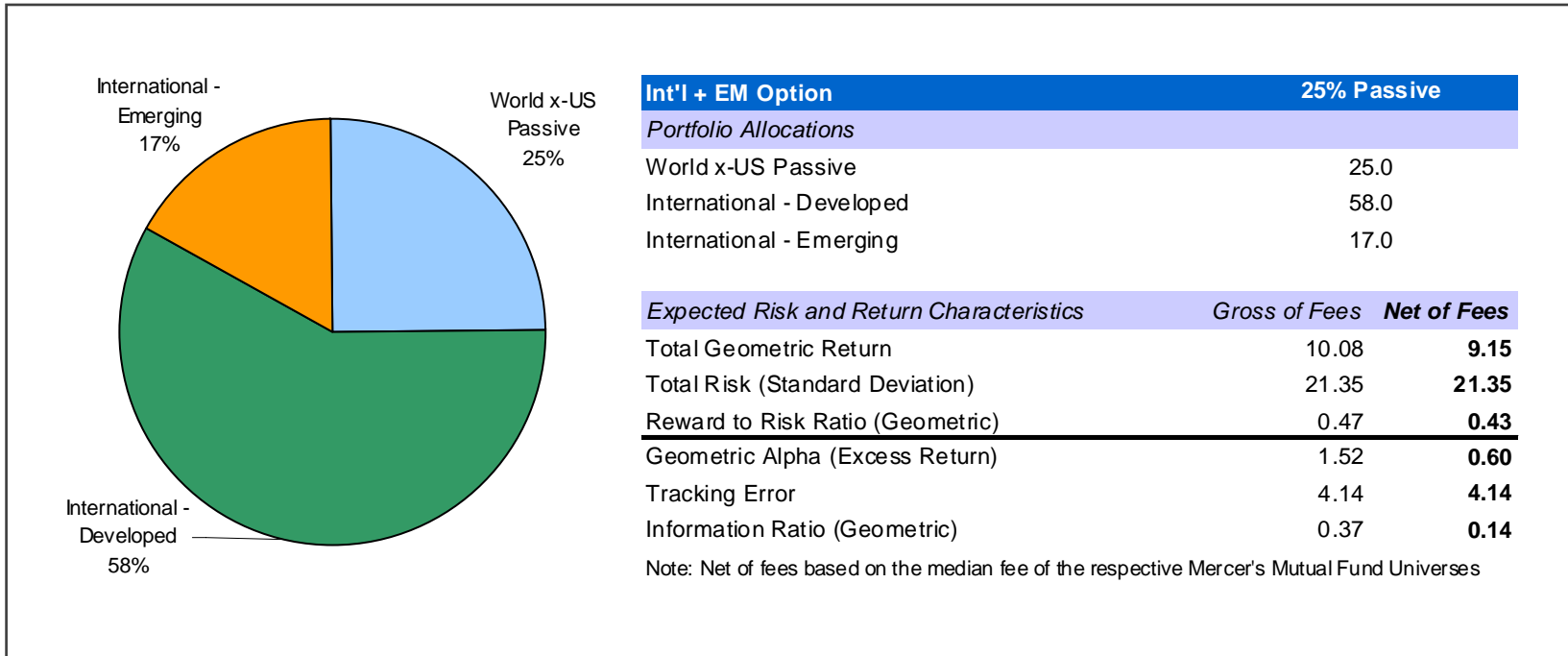


Int'l + EM Option	100% Passive	67% Passive	50% Passive	33% Passive	25% Passive	100% Active
Portfolio Allocations						
World x-US Passive	100.0	66.7	50.0	33.3	25.0	0.0
International - Developed	0.0	26.3	40.0	51.7	58.0	80.0
International - Emerging	0.0	7.0	10.0	15.0	17.0	20.0
Expected Risk and Return Characteristics - Gross of Fees						
Total Arithmetic Return	10.5	11.2	11.5	11.9	12.1	12.6
Total Geometric Return	8.6	9.3	9.6	9.9	10.1	10.5
Total Risk (Standard Deviation)	21.0	21.1	21.2	21.3	21.4	21.7
Reward to Risk Ratio (Geometric)	0.41	0.44	0.45	0.47	0.47	0.49
Arithmetic Alpha (Excess Return)	0.0	0.7	1.1	1.4	1.6	2.1
Geometric Alpha (Excess Return)	0.0	0.7	1.0	1.4	1.5	2.0
Tracking Error	0.0	1.8	2.8	3.7	4.1	5.5
Information Ratio (Geometric)	NA	0.38	0.37	0.37	0.37	0.36

International Equity Structures

Proposed Portfolio with International (Developed + Emerging) Structure

NEW DCP INVESTMENT MENU DESIGN		
Investment Option	Structure	Rationale
DCP International Equity	Select 25% Passive, 58% Active Developed, 17% Active Emerging	Goal is for participants to focus on asset allocation

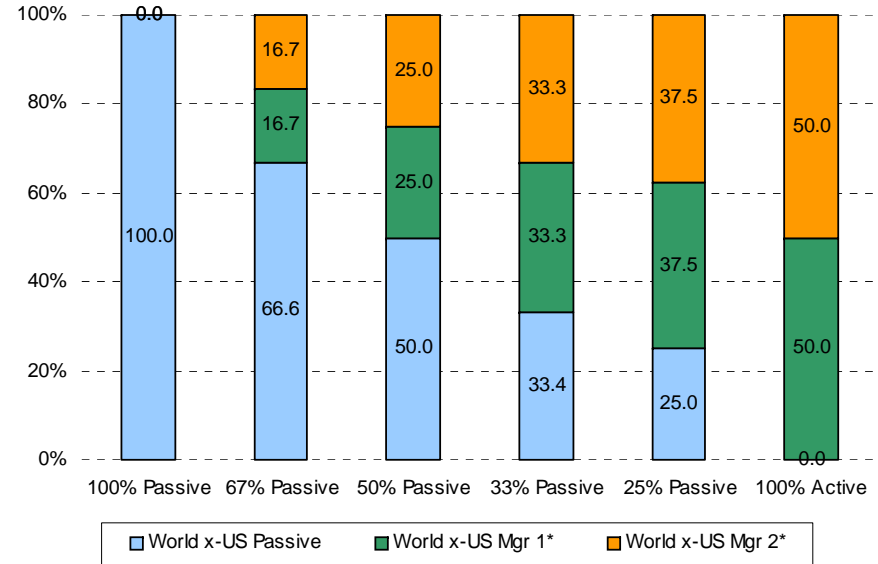
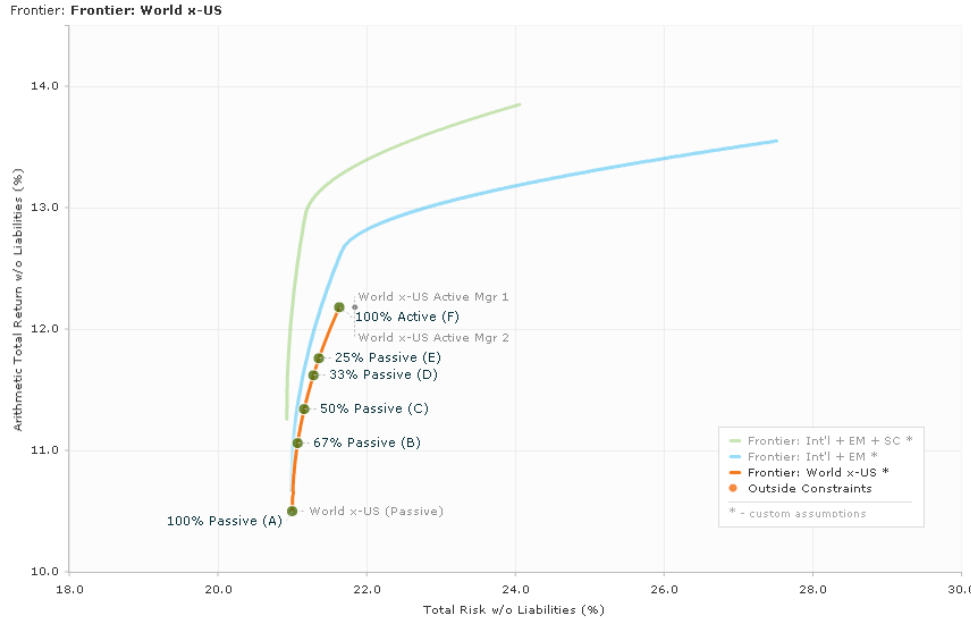




World x-US Structure

International Equity Structures

World x-US



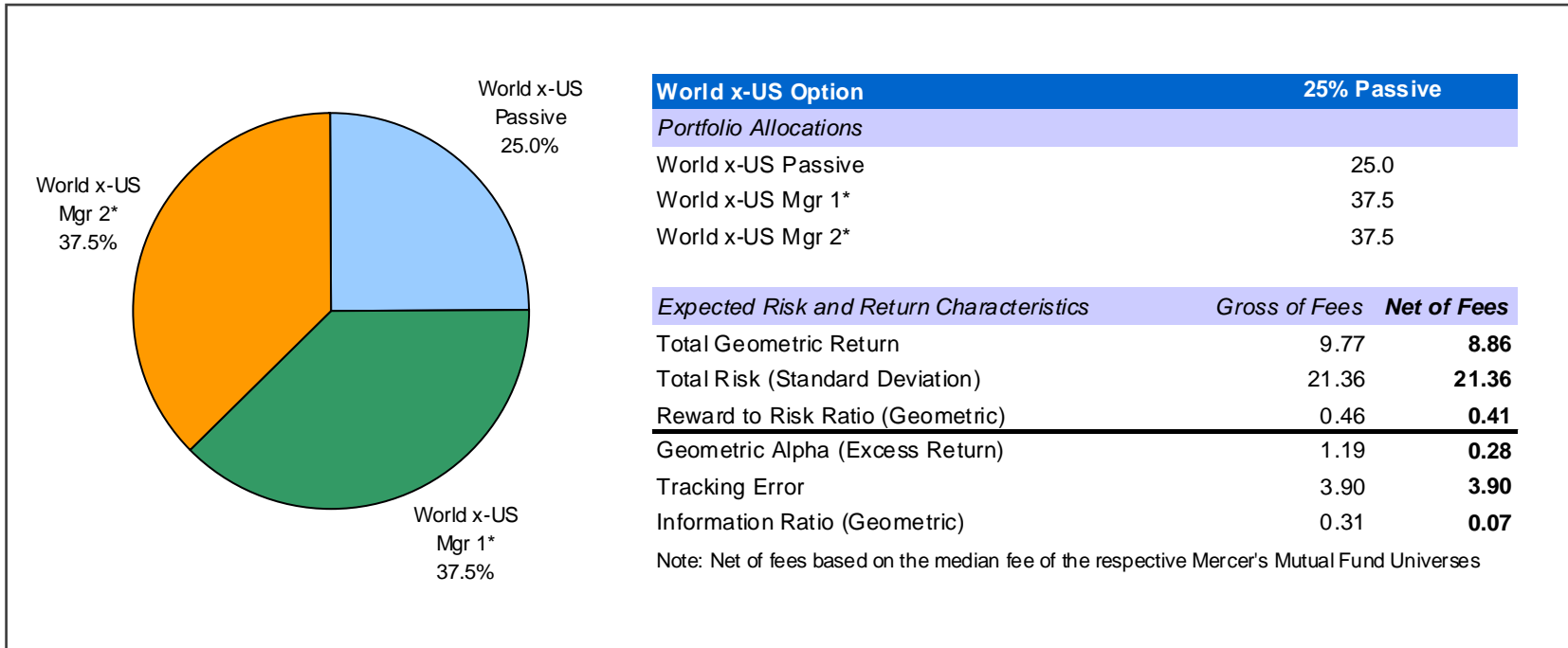
World x-US Option	100% Passive	67% Passive	50% Passive	33% Passive	25% Passive	100% Active
Portfolio Allocations						
World x-US Passive	100.0	66.6	50.0	33.4	25.0	0.0
World x-US Mgr 1*	0.0	16.7	25.0	33.3	37.5	50.0
World x-US Mgr 2*	0.0	16.7	25.0	33.3	37.5	50.0
Expected Risk and Return Characteristics - Gross of Fees						
Total Arithmetic Return	10.5	11.1	11.3	11.6	11.8	12.2
Total Geometric Return	8.6	9.1	9.4	9.6	9.8	10.2
Total Risk (Standard Deviation)	21.0	21.1	21.2	21.3	21.4	21.6
Reward to Risk Ratio (Geometric)	0.41	0.43	0.44	0.45	0.46	0.47
Arithmetic Alpha (Excess Return)	0.0	0.6	0.8	1.1	1.3	1.7
Geometric Alpha (Excess Return)	0.0	0.6	0.8	1.1	1.2	1.6
Tracking Error	0.0	1.7	2.6	3.5	3.9	5.2
Information Ratio (Geometric)	NA	0.32	0.31	0.31	0.31	0.30

* As part of the manager selection/implementation, we would recommend hiring complementary managers (such as Value/Growth, Fundamental/Quant, etc.) to diversify firm and style/factor risks

International Equity Structures

Proposed Portfolio with World x-US Structure

NEW DCP INVESTMENT MENU DESIGN		
Investment Option	Structure	Rationale
DCP International Equity	Select 25% Passive, 37.5% Active Mgr 1*, 37.5% Active Mgr 2*	Goal is for participants to focus on asset allocation

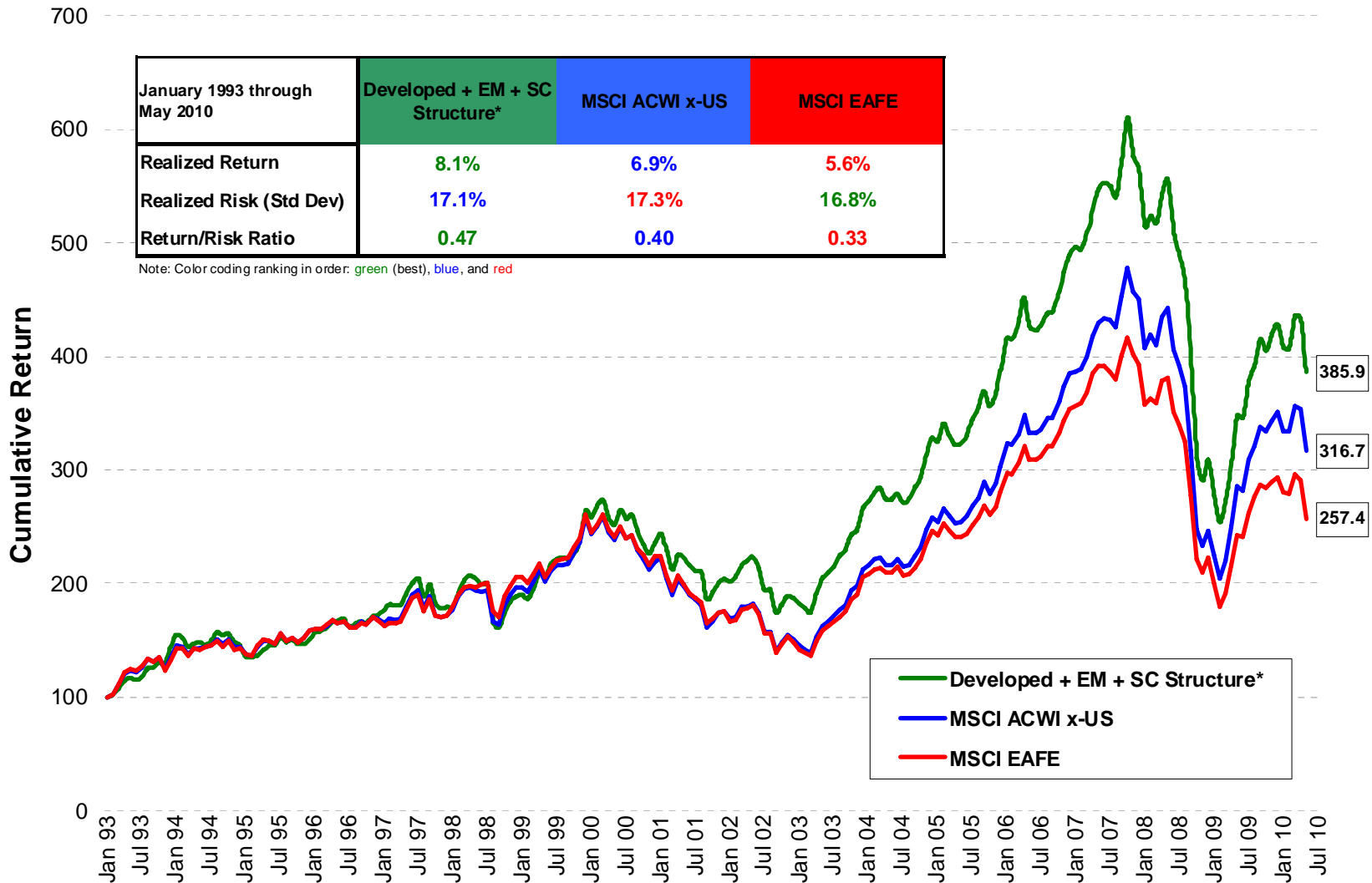


* As part of the manager selection/implementation, we would recommend hiring complementary managers (such as Value/Growth, Fundamental/Quant, etc.) to diversify firm and style/factor risks

**Appendix:
Backtest Analysis,
Supporting Data
and Assumptions**

Backtest Analysis

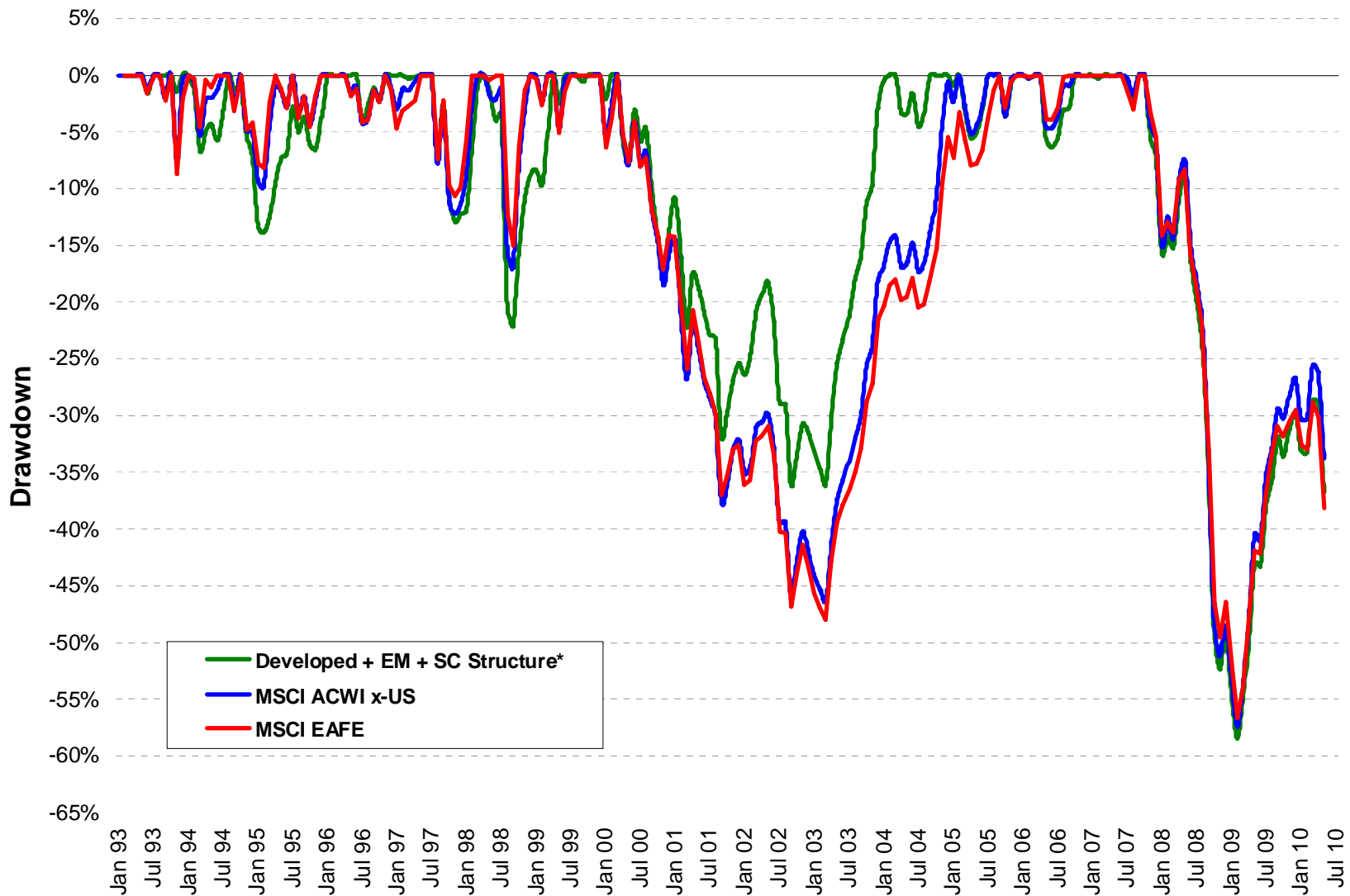
Developed + EM + SC Structure – Cumulative Returns



* Structure represents 100% Active (65% Developed, 17.5% Emerging, 17.5% Int'l Small Cap) invested in the "median" of the respective Mercer A-rated managers

Backtest Analysis

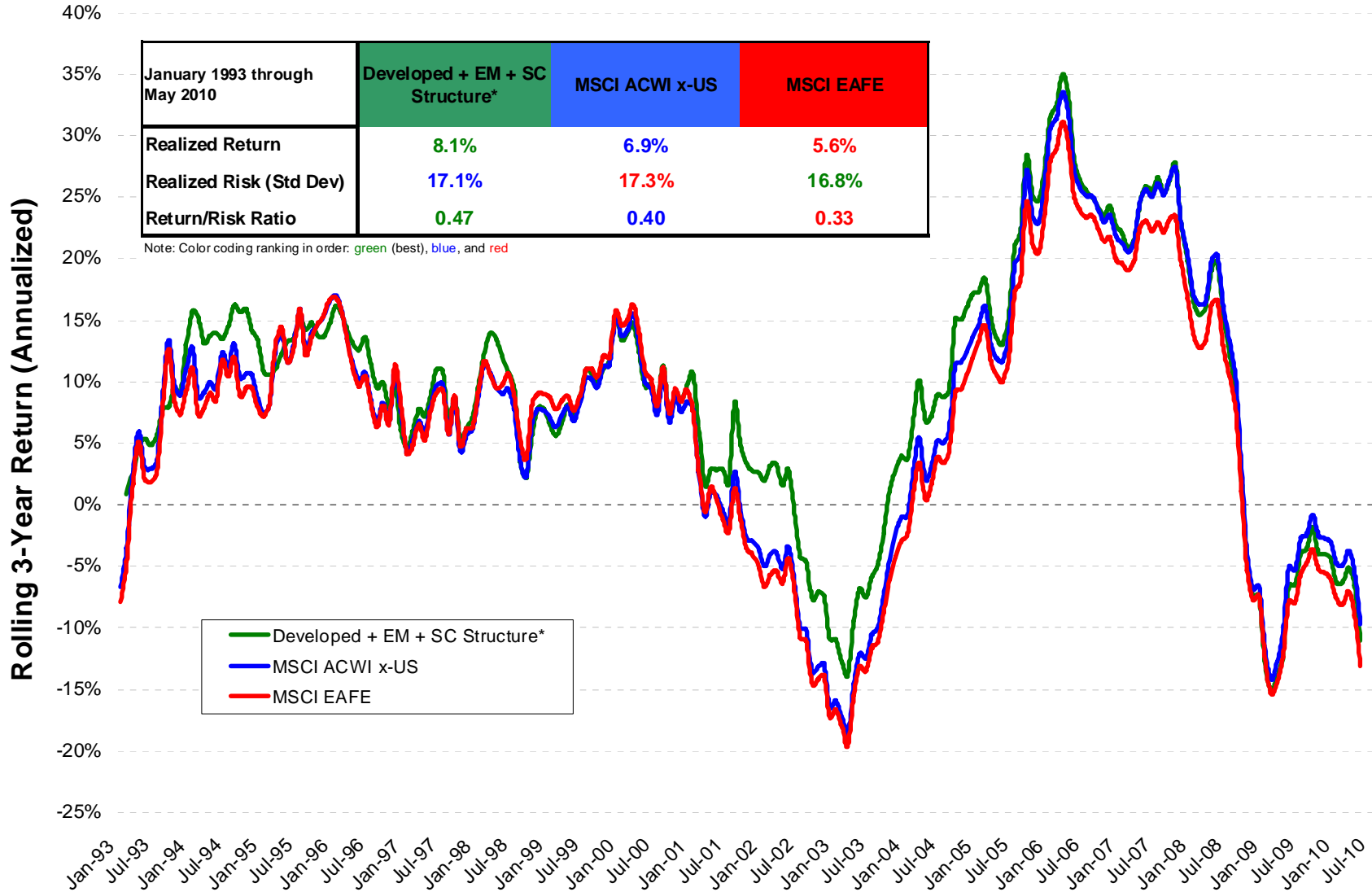
Developed + EM + SC Structure – Drawdown Analysis



* Structure represents 100% Active (65% Developed, 17.5% Emerging, 17.5% Int'l Small Cap) invested in the "median" of the respective Mercer A-rated managers

Backtest Analysis

Developed + EM + SC Structure – Rolling 3 Year Returns

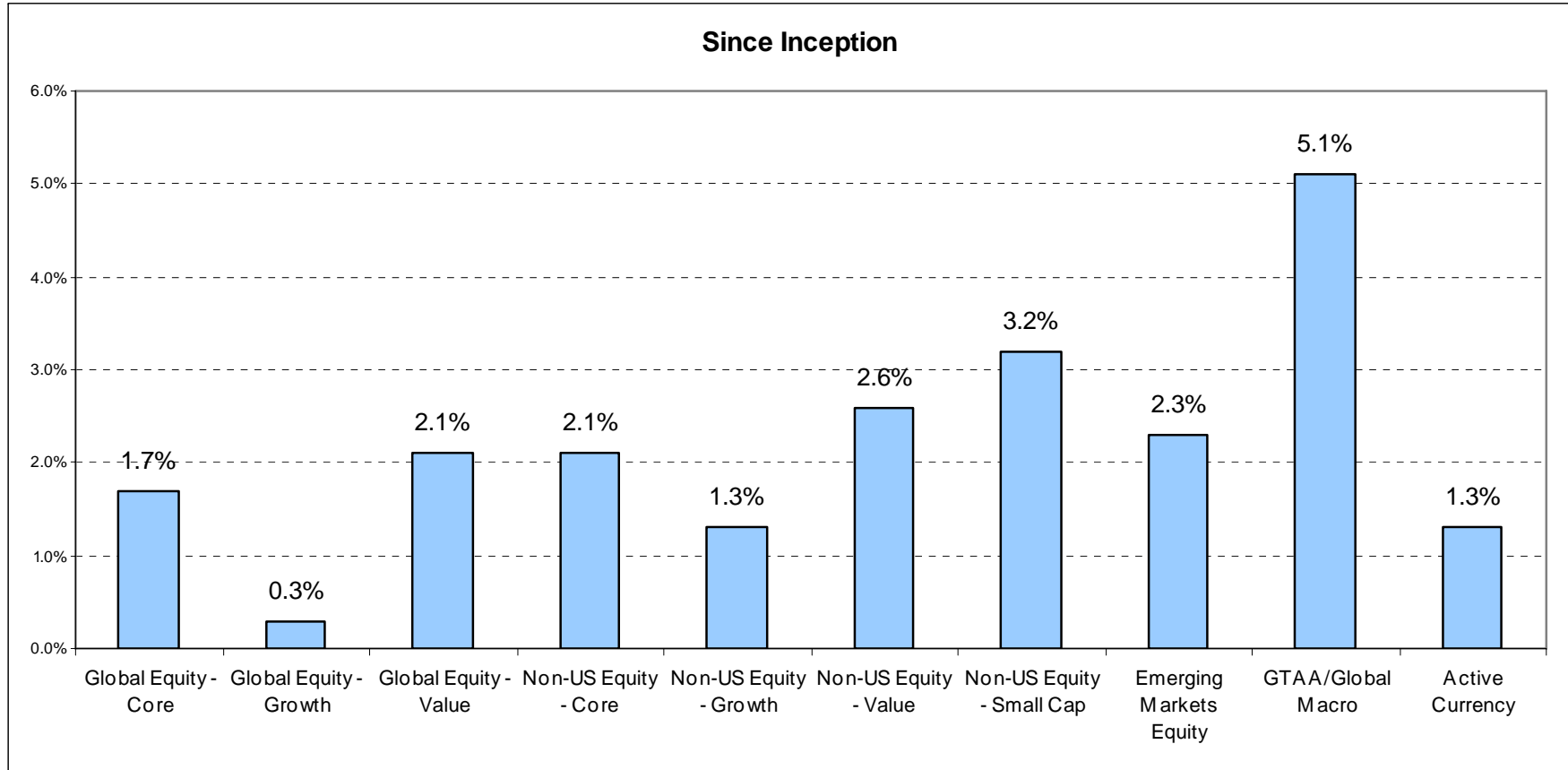


* Structure represents 100% Active (65% Developed, 17.5% Emerging, 17.5% Int'l Small Cap) invested in the "median" of the respective Mercer A-rated managers

Supporting Data

Alpha Opportunities Exist Through Manager Research/Selection

Value Added Through Mercer Manager Research Recommendations ending March 31, 2010

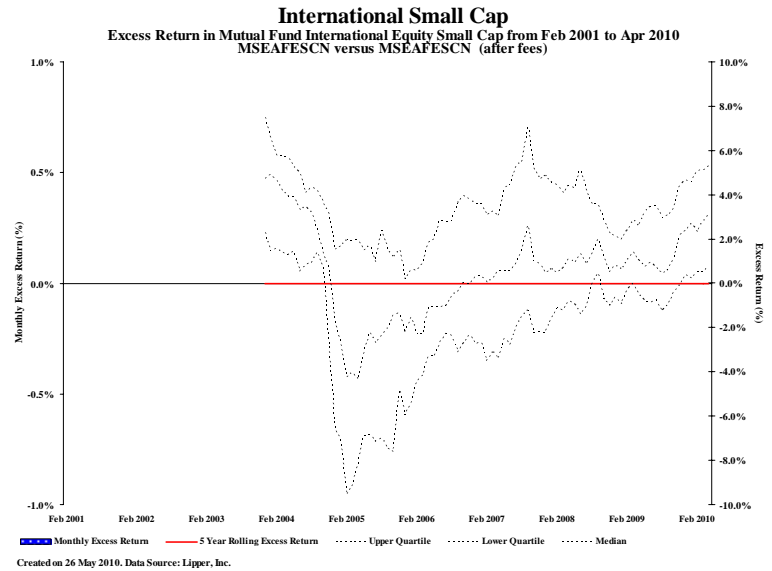
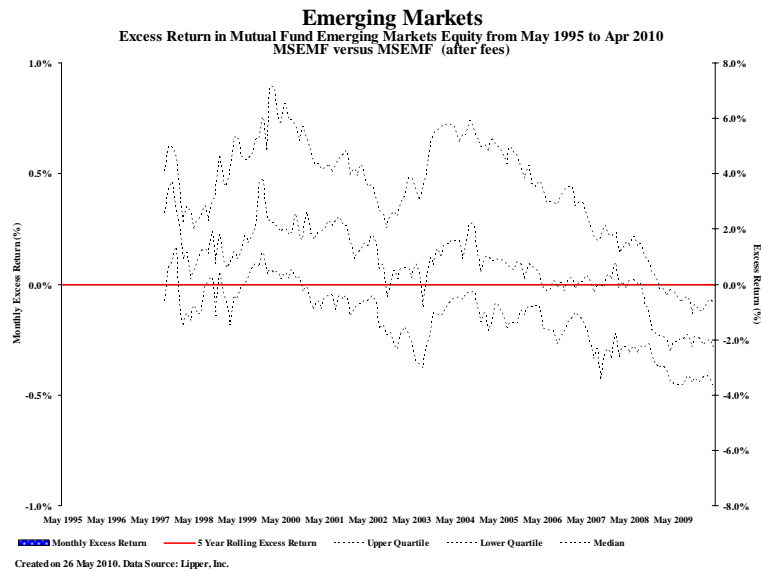
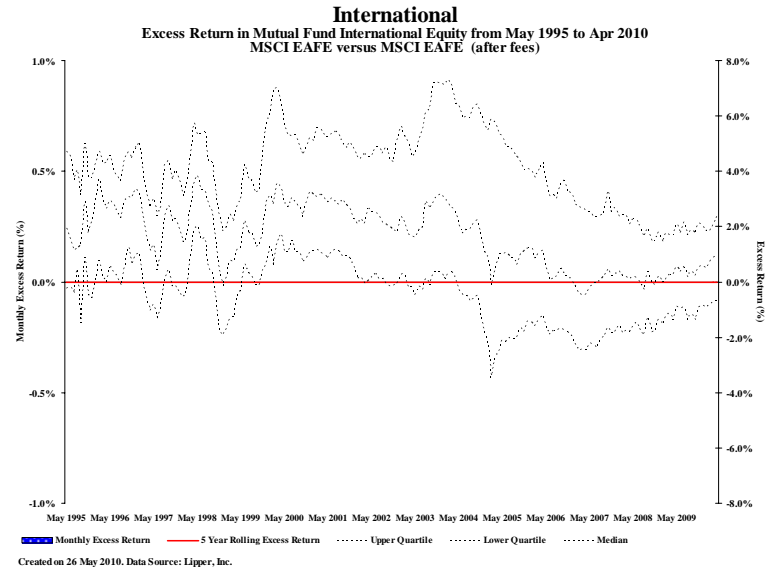
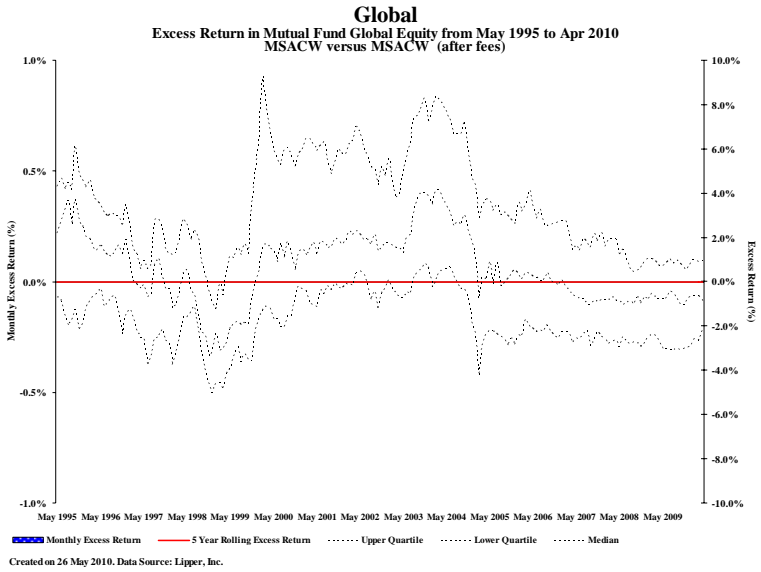


Note: As of March 31, 2010. Value added is calculated as the average return per annum for the A rated strategies since inception less the average return of the style specific benchmark



Supporting Data

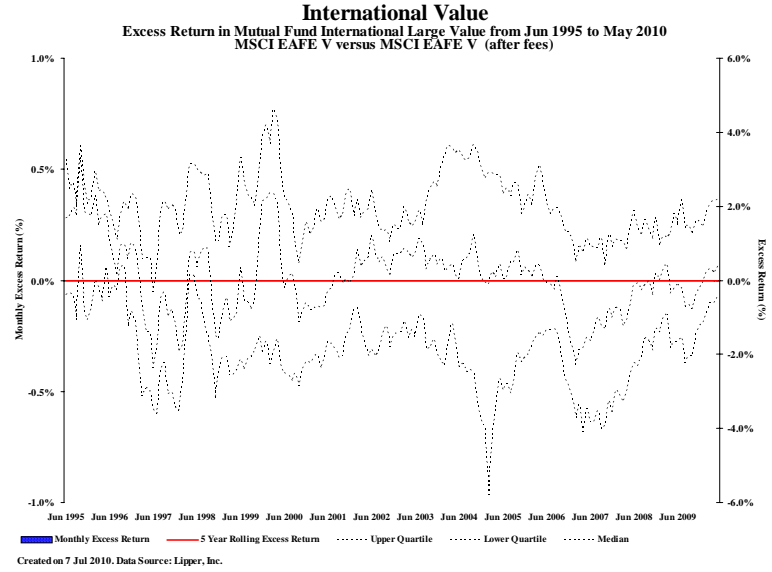
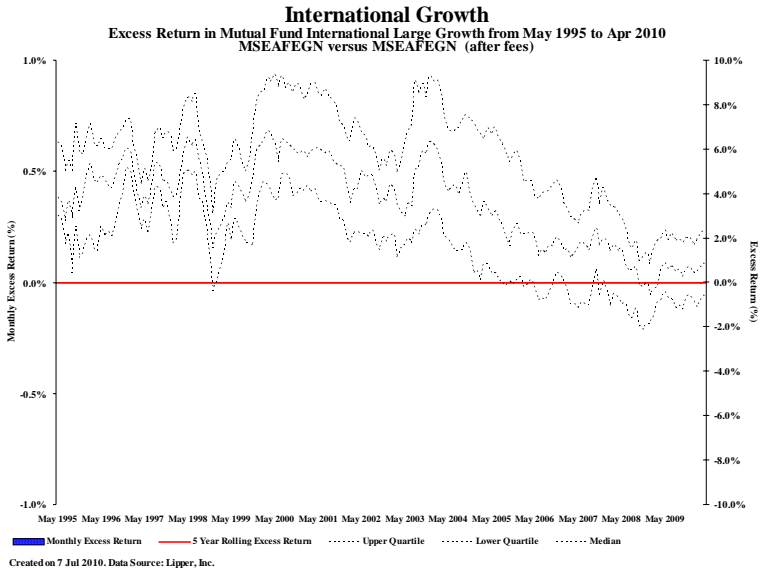
International Equity Excess Return Quartiles





Supporting Data

International Equity Excess Return Quartiles



Assumptions

Portfolio Modeling Inputs

Asset Class	Mean-Variance Assumptions									Factor Scores					
	20-Yr Assumptions			Shorter Geometric Returns					Equil	Equity			T-	Infl	
	GRR	ARR	STD	1-Yr	2-Yr	3-Yr	5-Yr	10Yr	Return	Beta	Dur	Liq	Inc	Costs	Hedg
Domestic Equity															
All Cap	8.3%	10.2%	20.5%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	1	0	93	2	30	50
Large Cap	8.1%	9.9%	20.0%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	0.97	0	95	2.2	25	50
Mid Cap	8.2%	10.6%	23.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	1.06	0	92	1.4	30	50
Small Cap	8.4%	11.1%	25.1%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	1.1	0	90	1.1	50	50
Micro Cap	8.0%	12.8%	31.8%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	1.27	0	85	0.5	70	50
Smid Cap	8.4%	10.8%	23.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	1.08	0	91	1.3	40	50
International Equity															
Developed All Cap Unhedged	8.3%	10.3%	21.5%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	1.00	0	89	2.3	55	50
Developed All Cap Hedged	8.2%	10.0%	20.5%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	1.00	0	89	2.3	57	50
Developed Large Cap Unhedged	8.2%	10.2%	21.5%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	0.99	0	90	2.6	50	50
Developed Large Cap Hedged	8.0%	9.9%	20.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	0.99	0	90	2.6	50	50
Developed Small Cap Unhedged	8.4%	11.0%	24.6%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	1.15	0	87	1.4	60	50
Developed Small Cap Hedged	8.4%	10.8%	23.5%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	1.15	0	87	1.4	62	50
Emerging Mkts Unhedged	8.4%	11.3%	26.0%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	1.27	0	83	2	75	50
World x-U.S. All Cap Unhedged	8.0%	10.5%	21.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	1.00	0	88	2.6	63	50
World x-U.S. All Cap Hedged	8.5%	10.3%	20.3%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	1.00	0	88	2.6	64	50
World x-U.S. Large Unhedged	8.5%	10.5%	20.9%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	0.99	0	89	2.4	55	50
World x-U.S. Large Hedged	8.4%	10.2%	20.2%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	0.99	0	89	2.4	57	50
Global All Cap Unhedged	8.7%	10.3%	19.5%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	1.00	0	90	2.2	62	50
Global All Cap Hedged	8.6%	10.2%	19.2%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	1.00	0	90	2.2	64	50
Global Large Cap Unhedged	8.6%	10.2%	19.3%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	0.99	0	91	2.2	55	50
Global Large Cap Hedged	8.5%	10.1%	19.1%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	0.99	0	91	2.3	56	50
Global Small Cap Unhedged	8.8%	11.1%	22.6%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	1.08	0	83	1.2	75	50
Global Small Cap Hedged	8.8%	11.0%	22.2%	8.8%	8.8%	8.8%	8.8%	8.8%	8.8%	1.08	0	83	1.2	77	50
Domestic Fixed Income															
Gov/Corp	4.8%	5.0%	6.5%	0.9%	1.2%	1.5%	3.0%	4.2%	5.3%	0.1	5.3	94	4.1	30	20
Aggregate	4.9%	5.1%	6.0%	1.0%	1.3%	1.6%	3.1%	4.3%	5.4%	0.1	4.4	93	4.5	35	20
Short G/C	4.3%	4.4%	3.5%	0.2%	0.3%	0.7%	2.4%	3.6%	4.4%	0	1.9	95	3	20	55
Intermediate G/C	4.7%	4.8%	5.0%	0.5%	0.9%	1.2%	2.8%	4.7%	5.0%	0	3.9	94	3.8	30	40
Long G/C	5.3%	6.0%	12.0%	2.4%	2.5%	2.7%	4.0%	4.9%	5.9%	0.1	12.2	95	5.8	25	20
Very Long Bonds	4.5%	6.2%	19.0%	1.4%	1.5%	1.5%	3.0%	4.1%	5.1%	0	20	96	4.9	20	10
Government	4.3%	4.5%	7.0%	0.4%	0.6%	0.8%	1.8%	3.7%	4.6%	0	4.7	99	3.2	10	20
Corporate/Credit	5.5%	5.7%	7.0%	1.9%	2.2%	2.5%	3.9%	5.6%	6.0%	0.2	6.3	90	5.5	50	30
Intrmd Gov	4.1%	4.2%	5.5%	-0.1%	0.3%	0.6%	2.3%	3.5%	4.2%	0	3	99	3	10	40
Long Government	4.7%	5.4%	12.0%	1.3%	1.5%	1.7%	3.1%	4.1%	5.1%	0	12.4	99	5.1	10	10
Intrmd Credit	5.3%	5.4%	5.5%	1.3%	1.6%	1.9%	3.5%	4.7%	5.4%	0.2	4.4	89	5.2	50	40
Long Credit	6.0%	6.7%	12.0%	3.3%	3.4%	3.5%	4.7%	5.6%	6.5%	0.2	12	89	6.3	60	30
Mortgage-Backed	5.0%	5.2%	6.3%	3.7%	3.7%	3.8%	4.8%	4.9%	6.0%	0	3.1	88	5.1	60	30
High Yield	6.3%	6.8%	10.5%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	0.5	4.3	70	8.7	120	60
Muni Bonds	4.3%	4.6%	8.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	0	5.7	70	5	120	30
Infl Indexed Bonds	4.6%	4.7%	4.5%	4.5%	4.5%	4.5%	4.5%	4.7%	4.8%	0	2.4	96	3.7	20	85
Intermediate IIBs	4.2%	4.2%	3.0%	4.2%	4.2%	4.2%	4.2%	4.2%	4.6%	0	1.8	95	3.5	25	85
Long IIBs	4.9%	5.1%	7.0%	4.9%	4.9%	4.9%	4.9%	4.9%	5.0%	0	4.8	95	4.1	25	85
Cash	3.4%	3.4%	1.3%	0.5%	1.2%	1.8%	2.6%	3.1%	3.8%	0	0.1	100	0.3	4	85

Source: Mercer Capital Market Outlook Summary, April 2010

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