

Global Equity Annual Program Review

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Review Outline

Section	Pages	Investment Beliefs Map									
		1	2	3	4	5	6	7	8	9	10
Review Outline	2										
Investment Beliefs Key	3										
Executive Summary	4										
I. Program Overview	5-9										
Program Role	6	Yellow	Yellow							Yellow	
Program Investment Philosophy	7					Green	Green	Green			
Policy Benchmark	8			Yellow		Green					
Program Characteristics	9							Green	Green		
II. Investment Review	10-25										
GE Performance Summary	11					Green					
Global Equity Rolling 3-Year Excess Return	12		Yellow			Green					
Global Equity Annual Returns	13	Yellow				Green					
One-Year Excess Return Contributors	14							Green			Green
ALM Assumptions Validation	15	Yellow	Yellow								
Global Equity Risk Profile	16									Yellow	
Portfolio Active Risk	17-19							Green		Yellow	
Context and Positioning	20-25		Yellow					Green			Green
III. Business Review	26-33										
Business Philosophy / Investment Model Elements	27-28		Yellow		Yellow		Green				Green
Functional Organizational Chart	29						Green				Green
Staffing Overview	30										Green
Program Expenses / AUM Mix	31-32								Green		Green
Strategic Initiatives	33				Yellow						Green
Conclusion	34										

- 1** Liabilities
- 2** Long-Term Horizon
- 3** Stakeholders
- 4** Three Forms of Capital
- 5** Accountability
- 6** Strategic Allocation
- 7** Risk Reward
- 8** Costs Matter
- 9** Multi-faceted Risk
- 10** Resources/Process

Investment Beliefs Key

	Short Name	Investment Belief
1	Liabilities	Liabilities must influence the asset structure.
2	Long Term Horizon	A long time investment horizon is a responsibility and an advantage.
3	Stakeholders	CalPERS investment decisions may reflect wider stakeholder views.
4	Three Forms of Capital	Long-term value creation requires effective management of three forms of capital: financial, physical, and human.
5	Accountability	CalPERS must articulate its investment goals and performance measure and ensure clear accountability for their execution.
6	Strategic Allocation	Strategic asset allocation is the dominant determinant of portfolio risk and return.
7	Risk Reward	CalPERS will take risk only where we have a strong belief we will be rewarded.
8	Costs Matter	Costs matter and need to be effectively managed.
9	Multi-faceted Risk	Risk of CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.
10	Resources / Process	Strong processes and teamwork and deep resources are needed to achieve CalPERS' goals and objectives.

Executive Summary¹

- Global Equity had a strong year in absolute and relative returns:
 - +24.8% total return
 - +0.5% relative to policy benchmark, delivering information ratio of 1.9
- Active risk has come down, as visibility into risks has improved. As Global Equity's research and allocation methodology improves, active risk is expected to increase, supported by informed decision making and intentional positioning.
- Business model continues to evolve:
 - “One Portfolio, One Team”
 - Focus on strategy and integration
 - Greater visibility into holistic portfolio's exposures
 - Greater use of technology

I. Program Overview

Program Role

- Primary role
 - “The role of equities is total return oriented and to capture the equity risk premium (ERP), defined as the excess return over risk-free government bonds, by means of ownership risk in companies and exposure to corporate earnings growth.” (2014 Asset Liability Management (ALM) Workshop)
- Drivers of total performance
 - Price appreciation
 - Cash yield
- Risks
 - Economic: High sensitivity to global economic growth variability
 - Liquidity: Portfolio expected to remain highly liquid

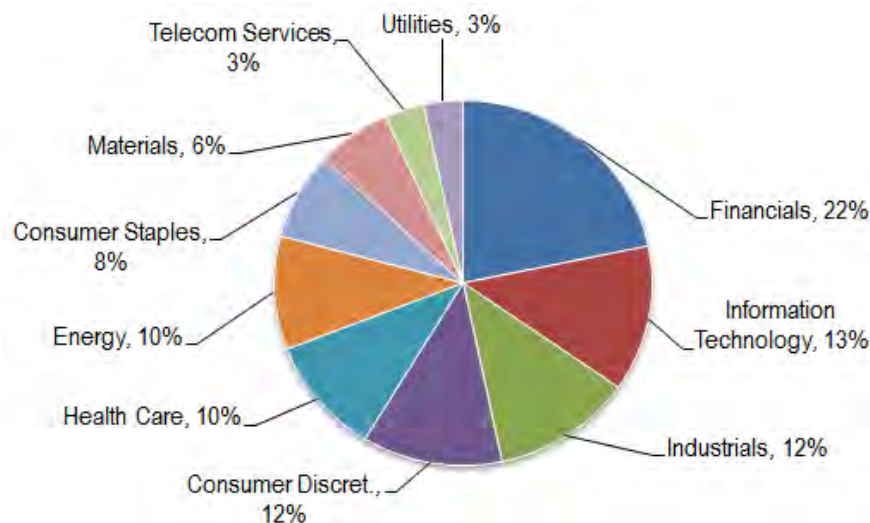
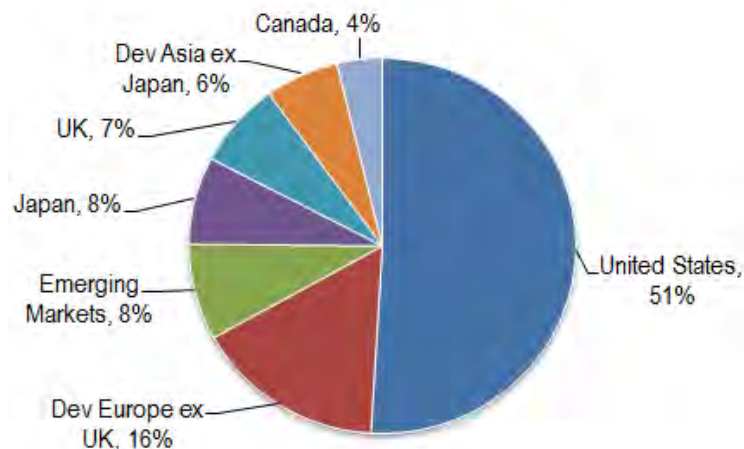
Program Investment Philosophy

- Global equity markets are unpredictable
 - Priority on the efficient delivery of the ERP through a risk-managed combination of traditional and “smart” beta
- Sources and levels of alpha vary over time and across geographies
 - Stock selection strategies where we have conviction in the presence of skill
 - Dynamic and opportunistic timing in taking informed factor exposures
- Resulting Characteristics:
 - 67% of portfolio invested in low-cost, internally managed index-oriented strategies
 - 33% of portfolio invested in active strategies, both internally and externally managed, to capture factor and stock selection alpha
 - Low and time-varying levels of active risk in the 0-50 basis points (bps) range

Policy Benchmark

CalPERS Custom FTSE All World, All Capitalization

- Excludes tobacco, firearms, Iran/Sudan
- Complies with emerging market principles
- Covers 47 countries, 37 currencies
- Holds approximately 10,000 securities, weighted by market-capitalization



Program Characteristics

- Total assets: \$159 billion
- Assets mix:
 - Geographic exposure: 51% U.S., 41% international developed, 8% emerging
 - 83% internally managed, 17% externally managed

	Index Oriented	Traditional Active		Activists	Emerging Managers	Total
		Internal	External			
% of Assets Under Management (AUM)	67%	16%	13%	2%	2%	\$159 B
Active Risk (ln bps) Contribution (ln %)	2 (10%)	3 (15%)	9 (45%)	5 (25%)	1 (5%)	20

DOLLAR ALLOCATIONS

U.S.	\$55 B	\$15 B	\$ 7 B	\$ 2 B	\$ 2 B	\$81 B
International Developed	\$48 B	\$ 7 B	\$ 8 B	\$ 1 B	\$ 1 B	\$65 B
Emerging Markets	\$ 4 B	\$ 3 B	\$ 5 B	\$458 MM	\$309 MM	\$13 B

FEES¹

One-Year Fees Paid	\$ 7 MM	\$ 2 MM	\$ 54 MM	\$ 78 MM	\$ 19 MM	\$160 MM
Cost / AUM (bps)	< 1	< 1	26	206	59	10

II. Investment Review

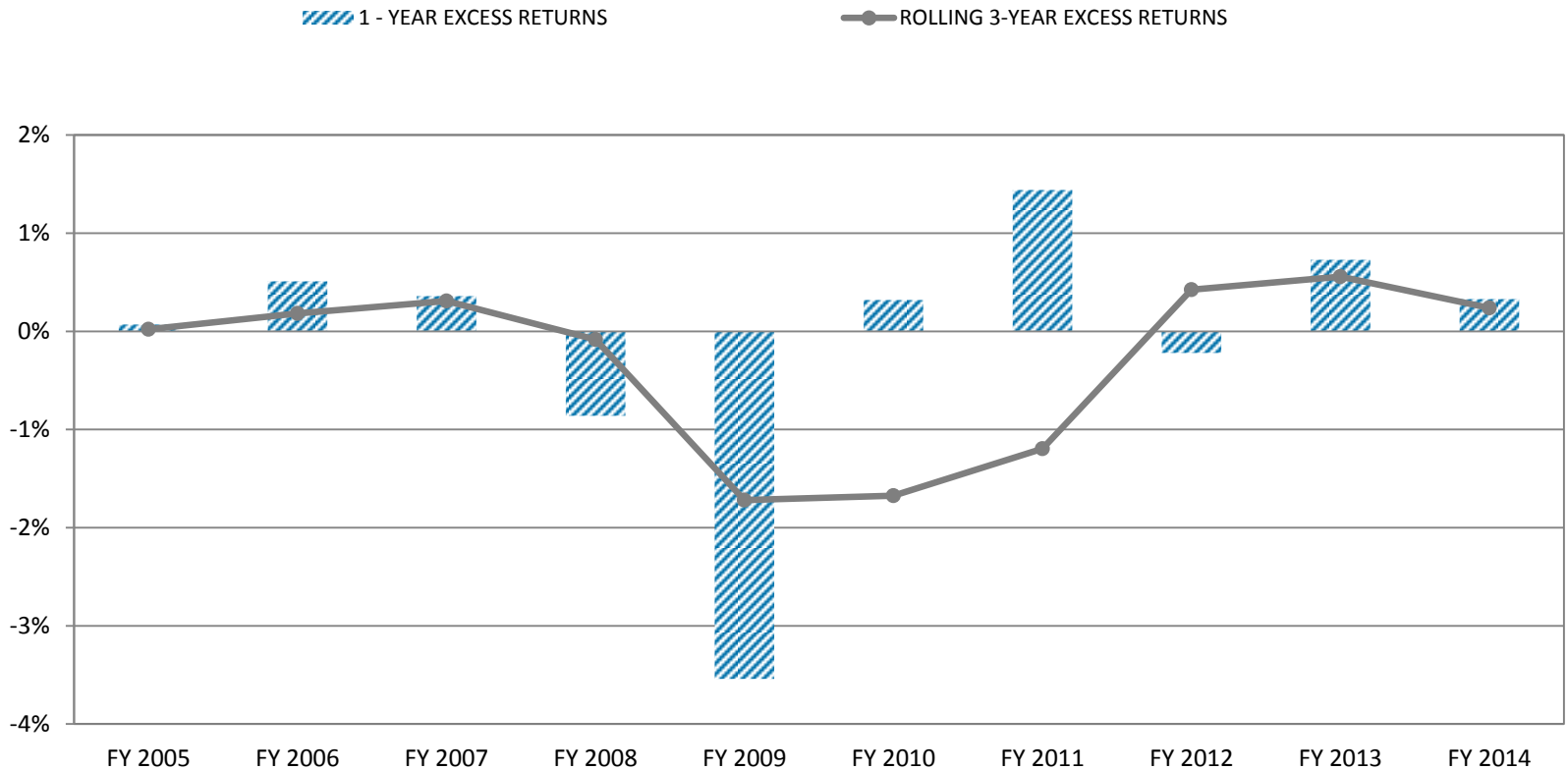
Global Equity Performance Summary

- Strong year in absolute and relative returns:
 - +24.8% total return
 - +0.5% relative to policy benchmark, delivering information ratio of 1.9

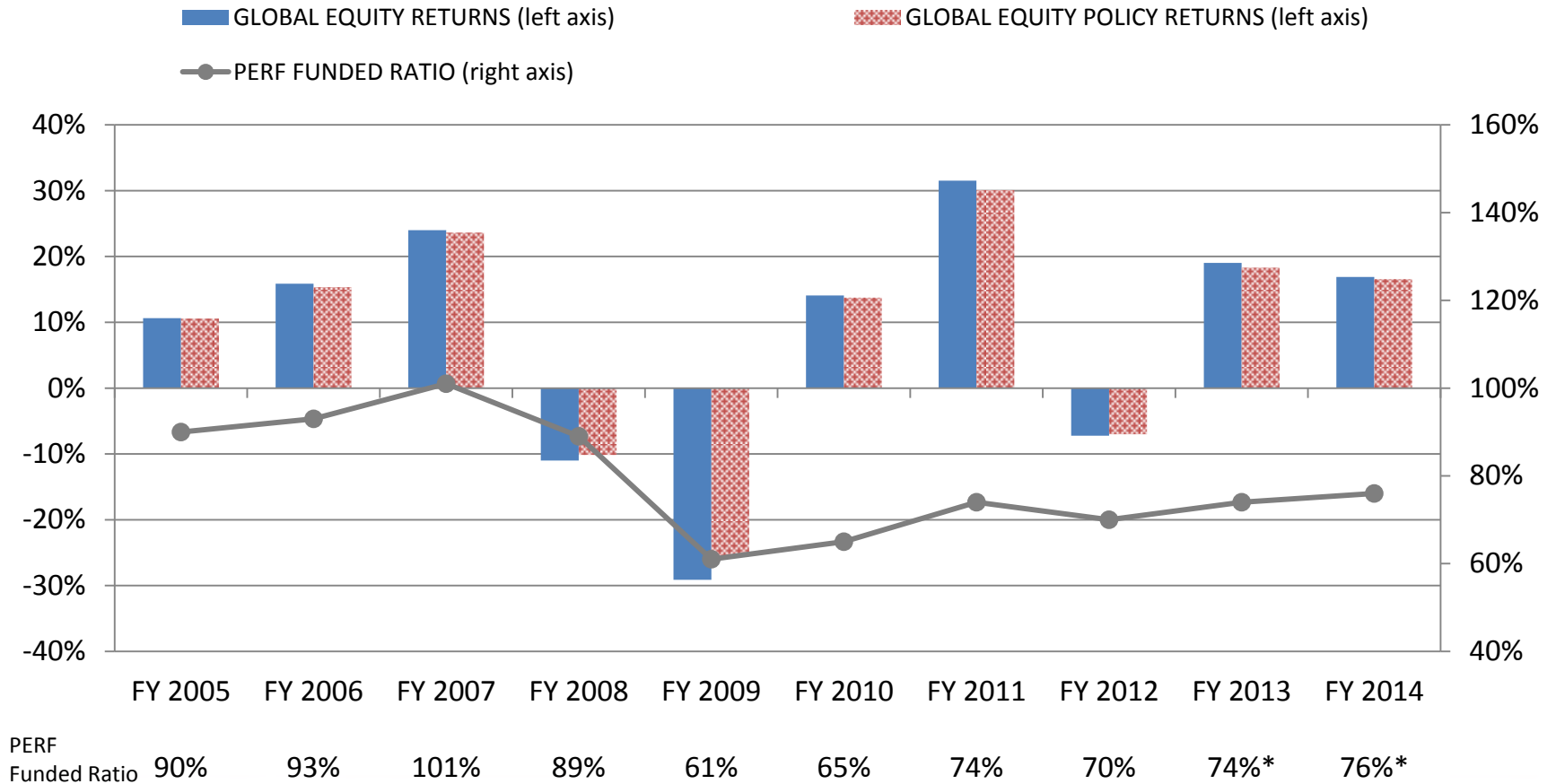
	One-Year Net Return	Three-Year Net Return	Five-Year Net Return	Ten-Year Net Return
Global Equity	24.8%	11.3%	15.6%	7.6%
Policy Benchmark	24.3%	11.0%	15.1%	7.9%
Excess Return	0.5%	0.3%	0.5%	(0.3%)

Active Risk (Realized)	0.27%	0.30%	0.50%	0.79%
Information Ratio	1.91	0.98	0.99	(0.39)

Global Equity Rolling 3-Year Excess Return

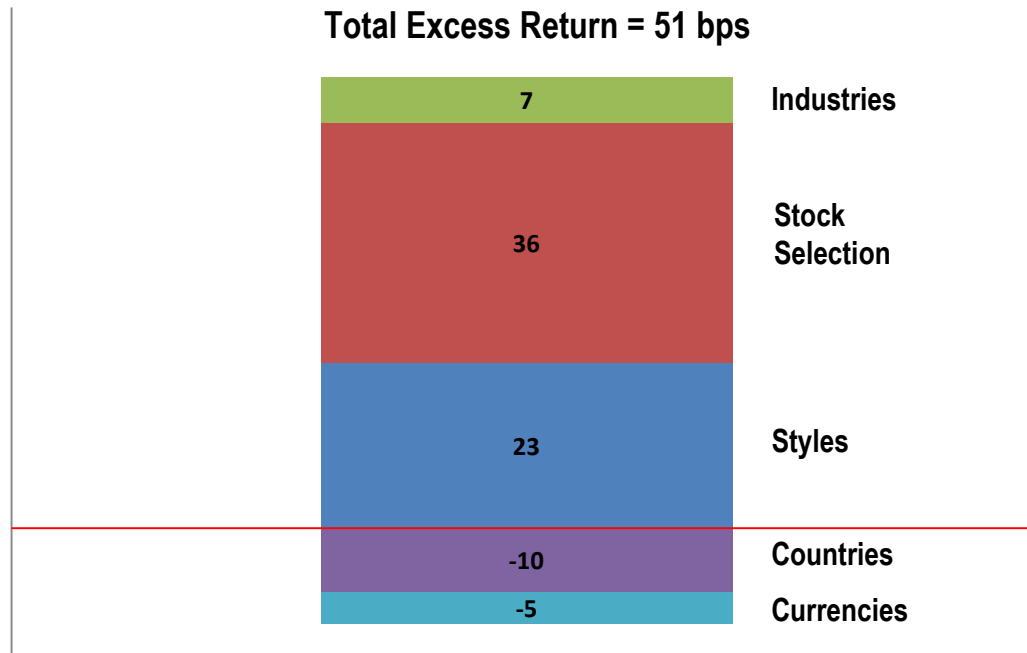


Global Equity Annual Returns



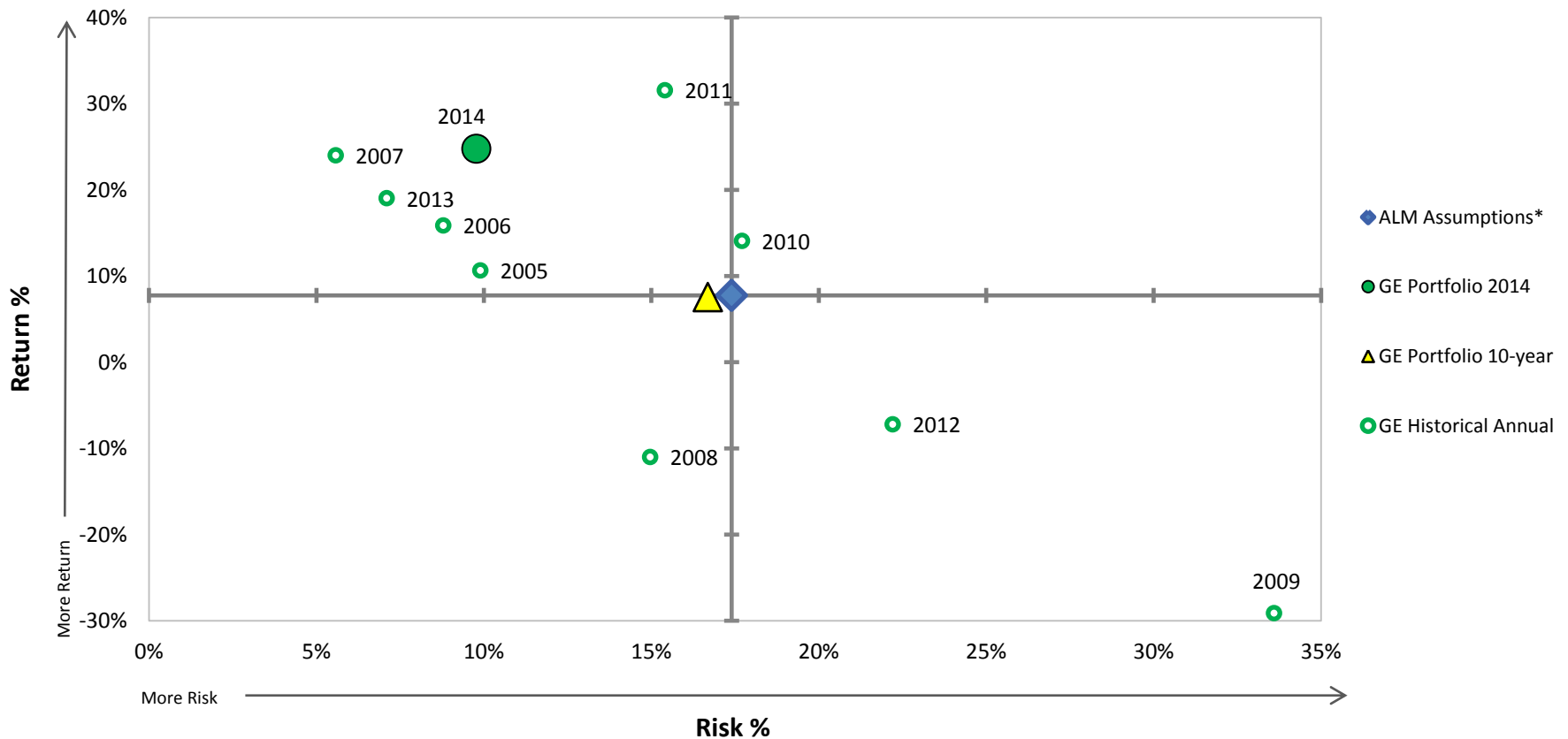
One-Year Excess Return Contributors

- 69% of Global Equity strategies outperformed their benchmarks



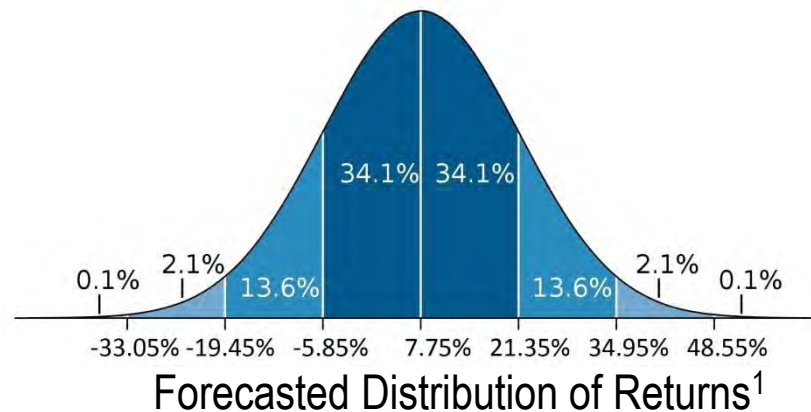
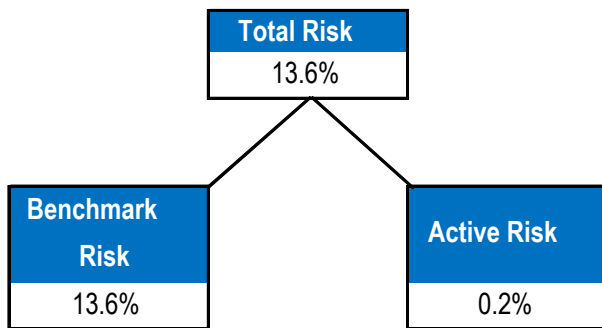
ALM Assumptions Validation

Global Equity Risk vs. Return



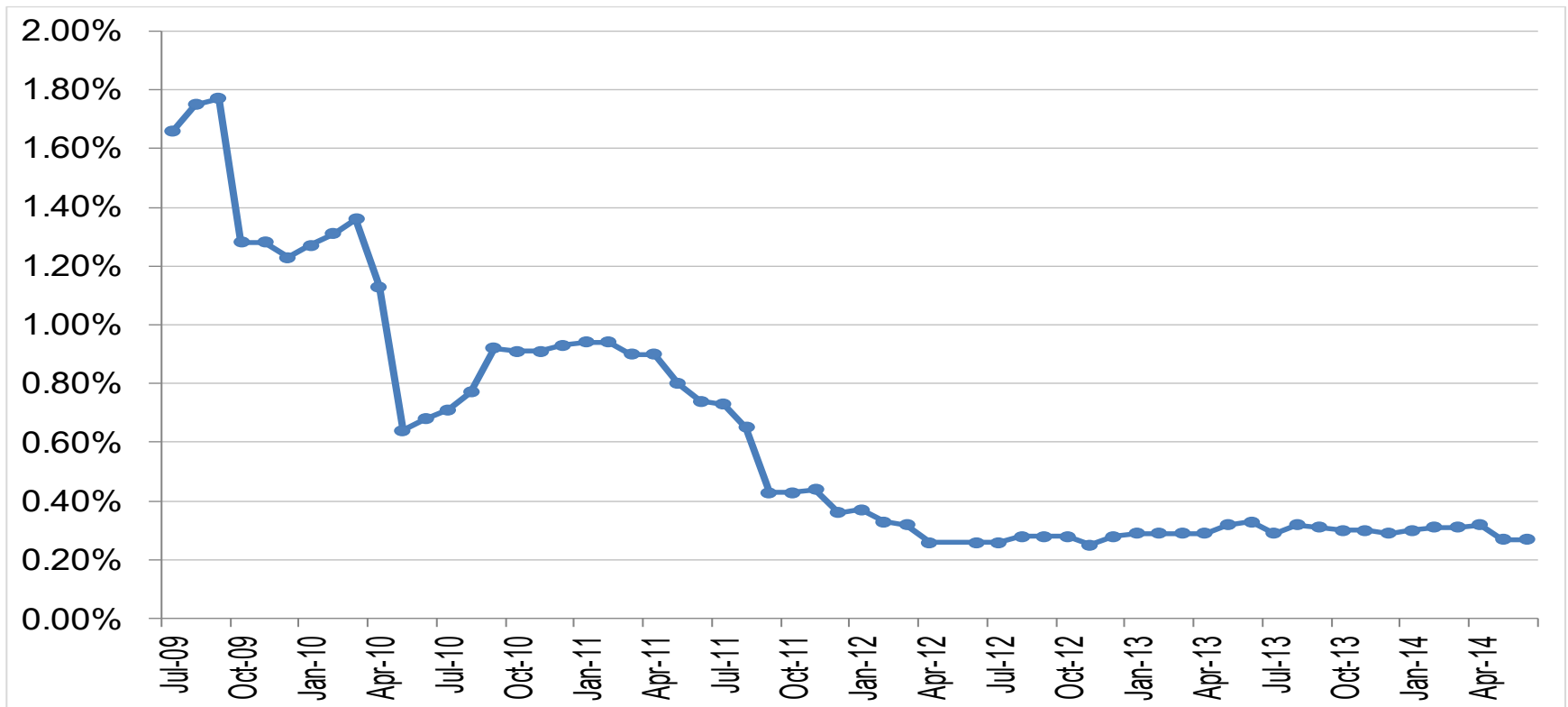
Global Equity Risk Profile

- Global Equity Forecasted Risk is 13.6%
- Forecasted Tracking Error is 0.2% and is within guidelines
- 10-day value-at-risk: \$7.3 billion
- 10-day expected shortfall: \$9.0 billion

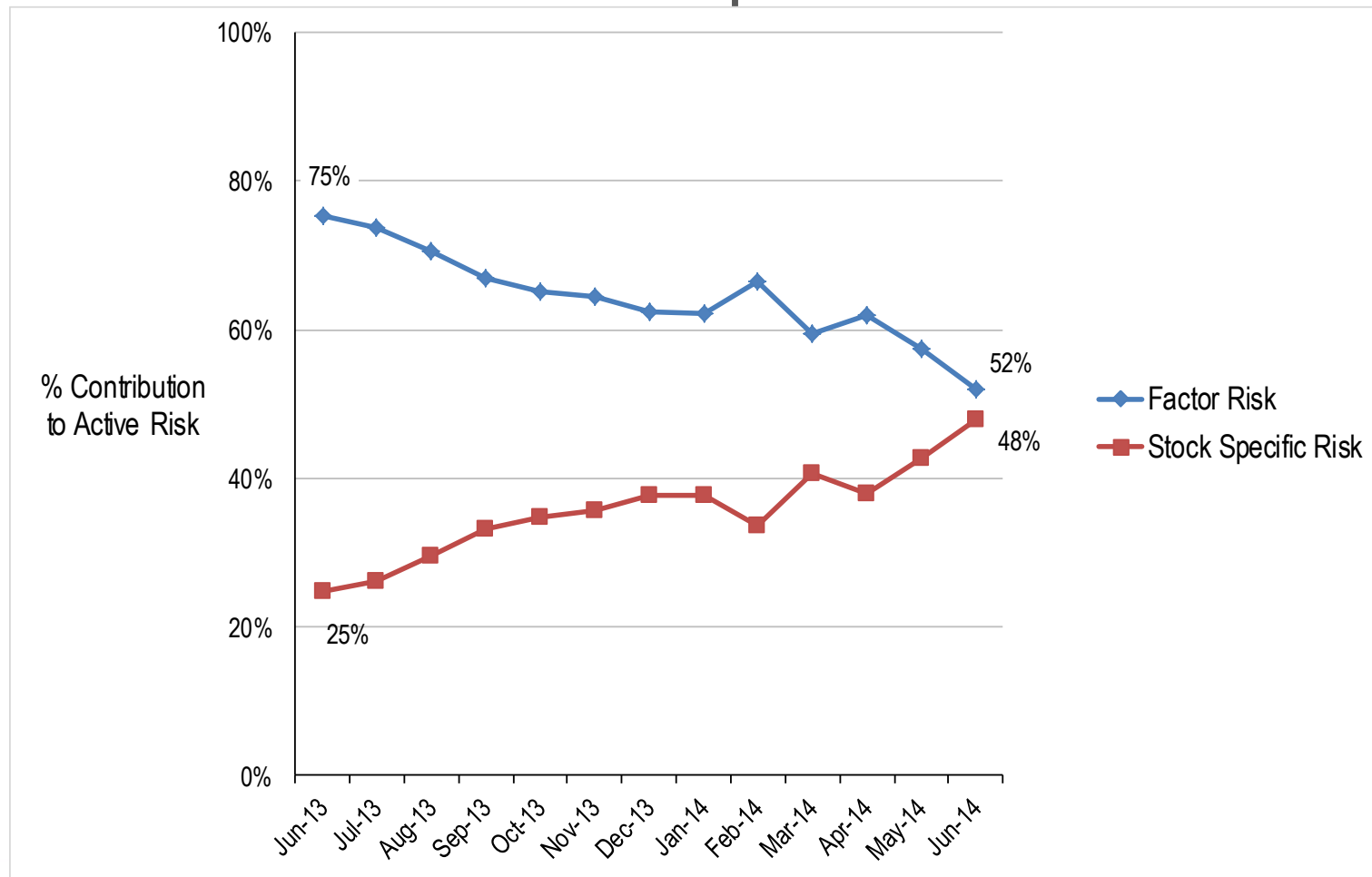


Portfolio Active Risk

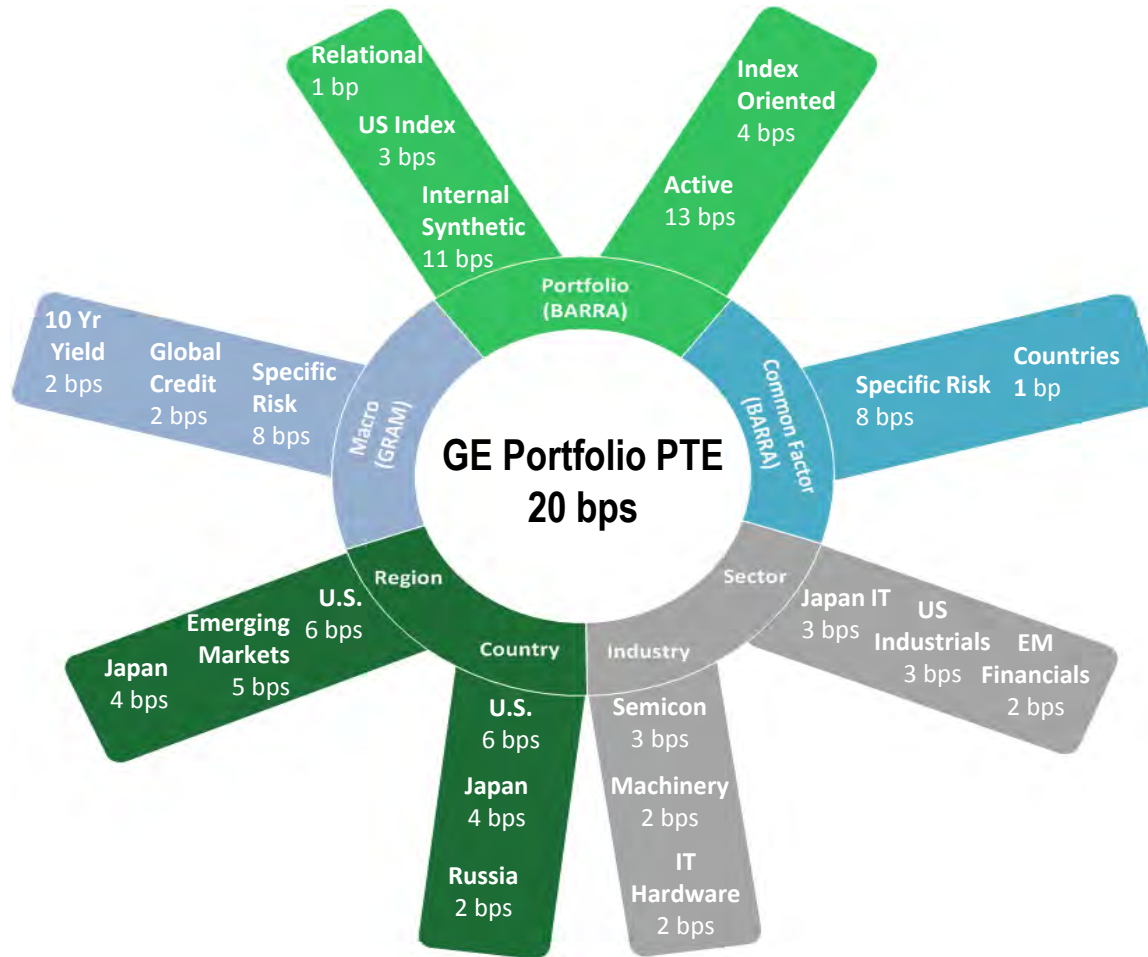
Five-Year Trend in Realized Active Risk



Portfolio Active Risk Composition

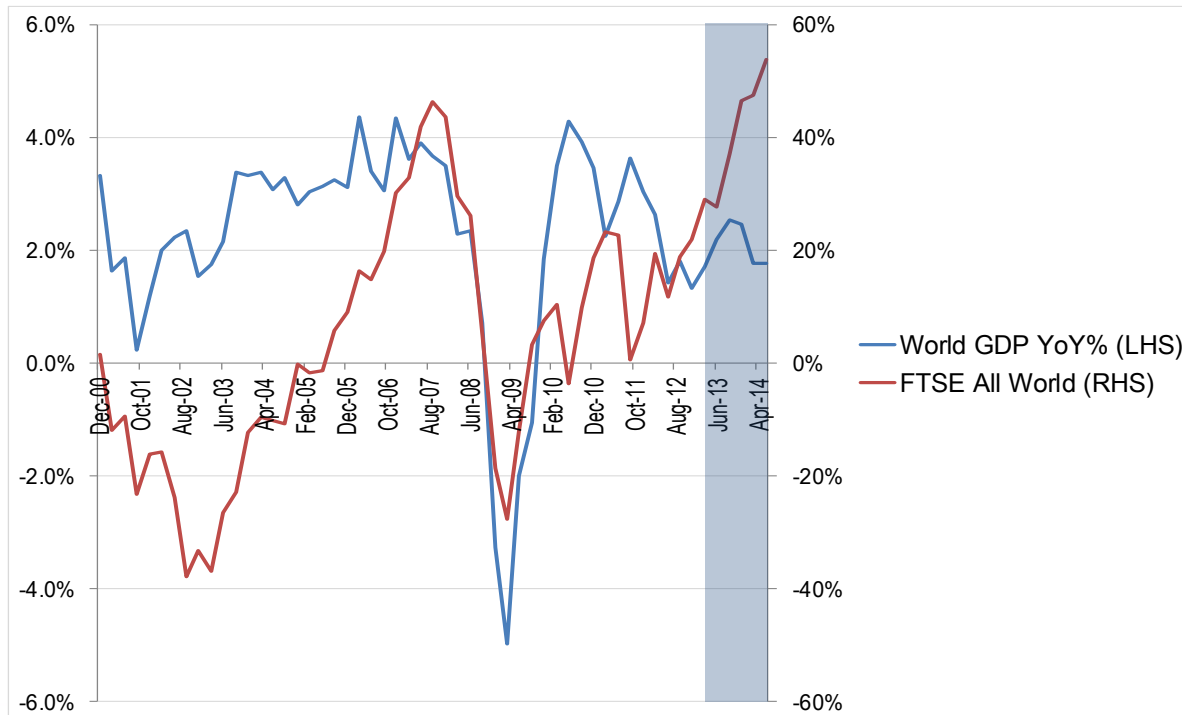


Portfolio Positioning – Active Risk Hub



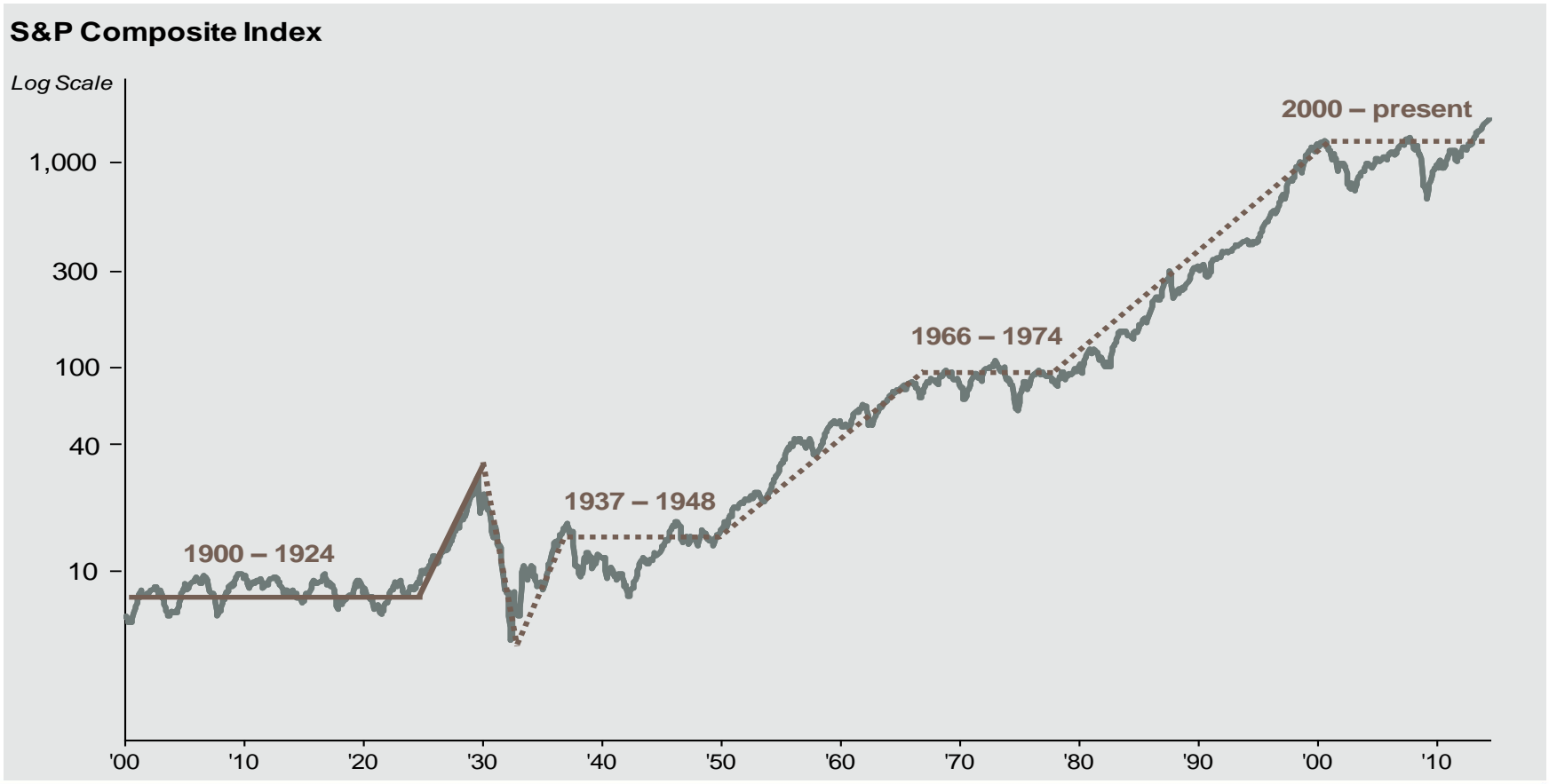
Context and Positioning

- Economic and Equity Markets
 - Strong global equity market rally contrasts with global economic growth, expanding below trend through Fiscal Year 2013-14 and further decelerating since 2013 Quarter 4



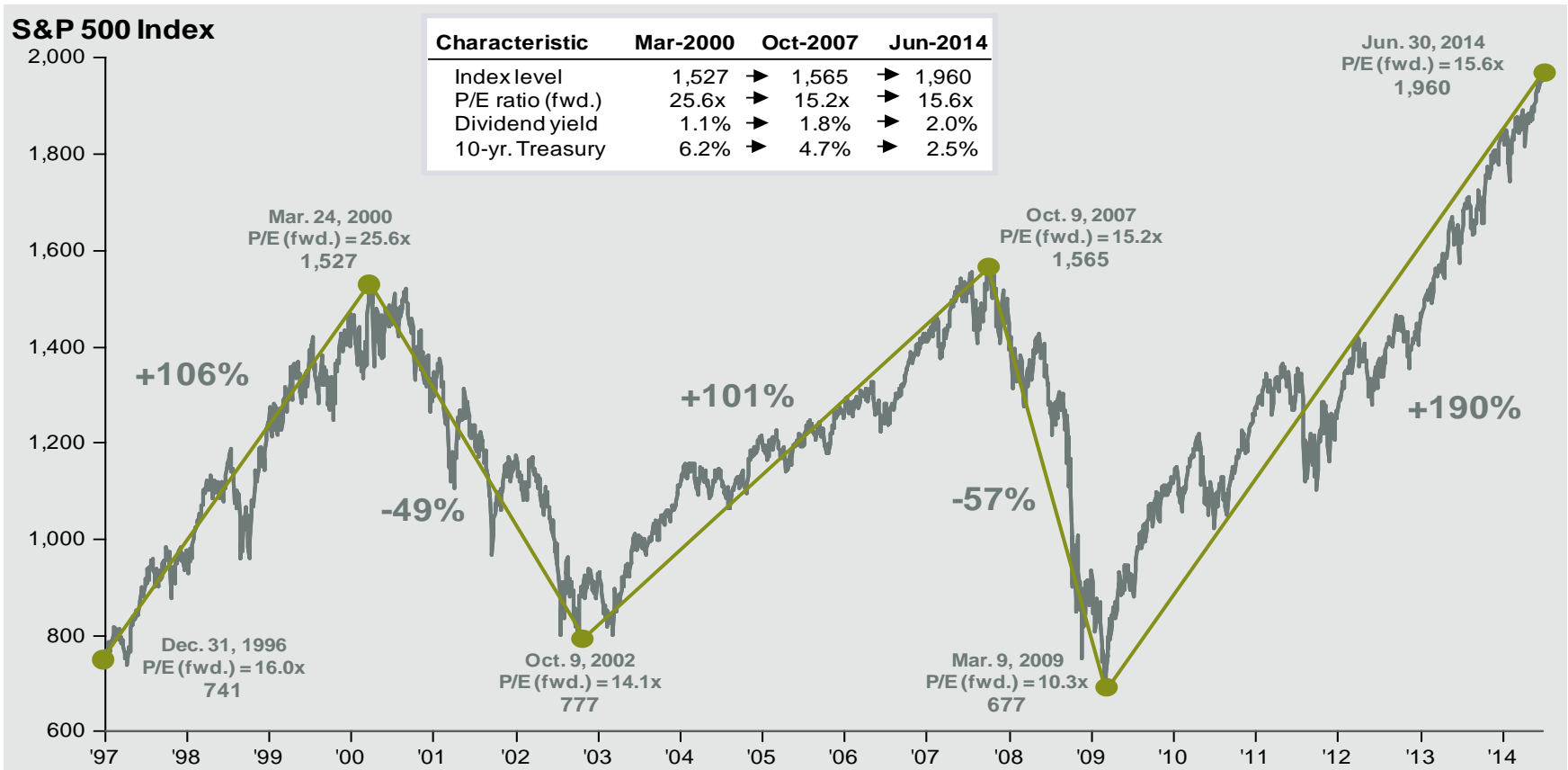
Context and Positioning (continued)

- Long-term Perspective



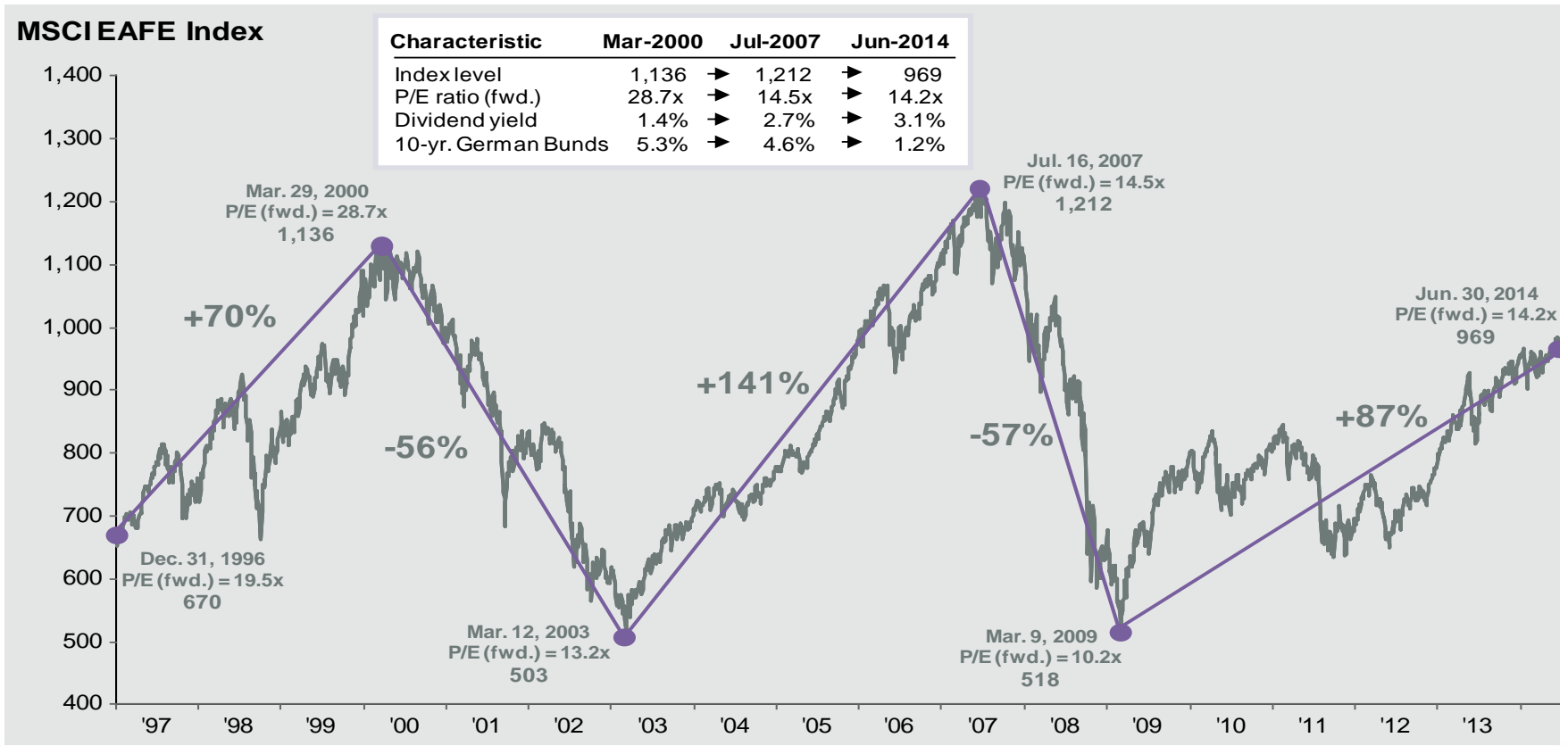
Context and Positioning (continued)

- In the U.S. the past 15 years have been volatile



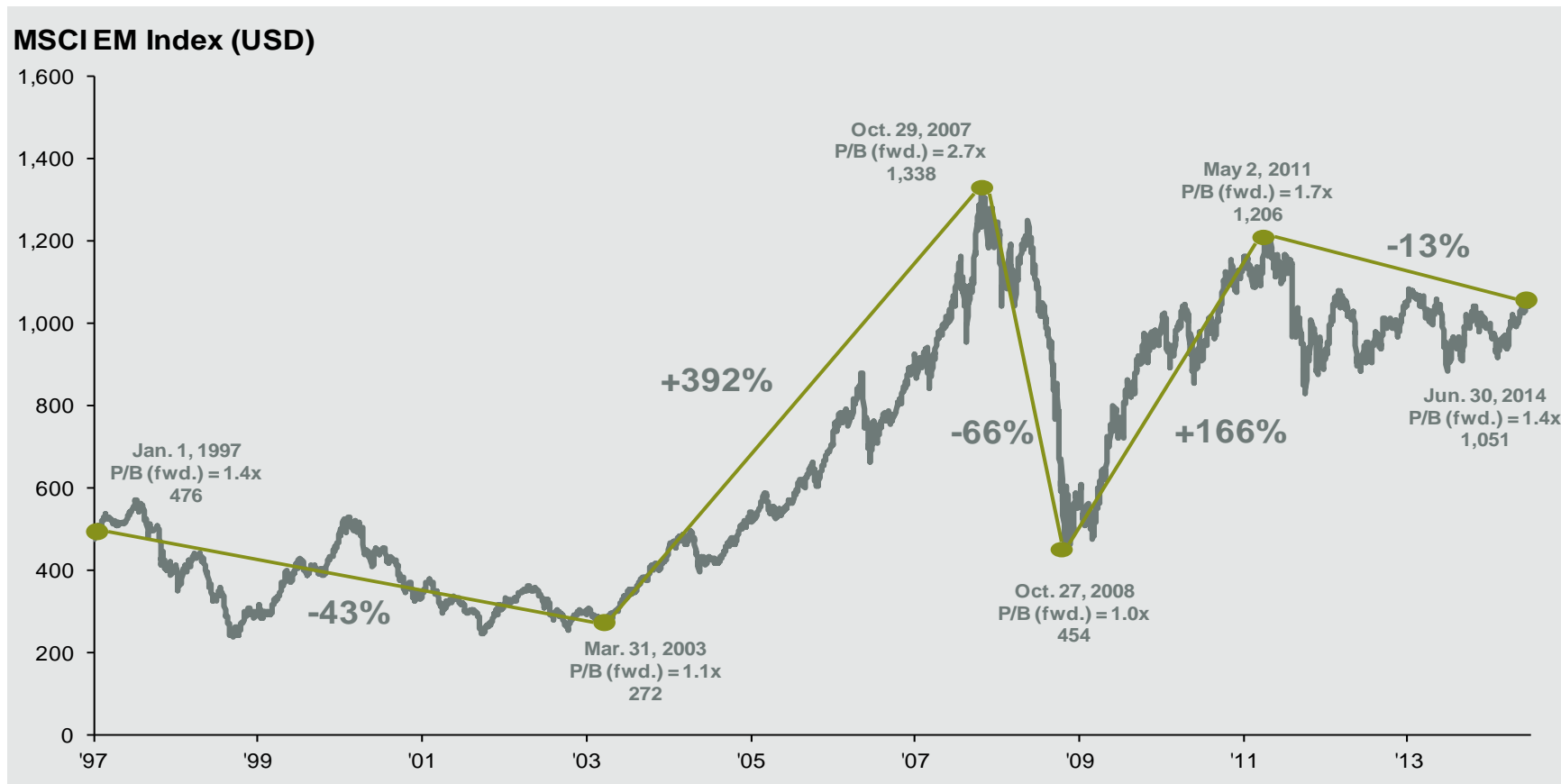
Context and Positioning (continued)

- Similar story in international developed markets, though most recent recovery tempered



Context and Positioning (continued)

- A different picture among emerging markets, but they have lost their homogeneity



Context and Positioning (continued)

- Belief in global economy's ability to deliver moderate growth for a sustained period
 - Watching carefully given year-to-date economic data, geopolitical events, and global monetary policy shifts
- Large Global Equity risk premium signals attractiveness of asset class, but absolute valuations call for moderate and selective risk taking
- In spite of volatility being low, the range of earnings estimates around the globe is wider than usual, which should be a good time for stock selection

III. Business Review

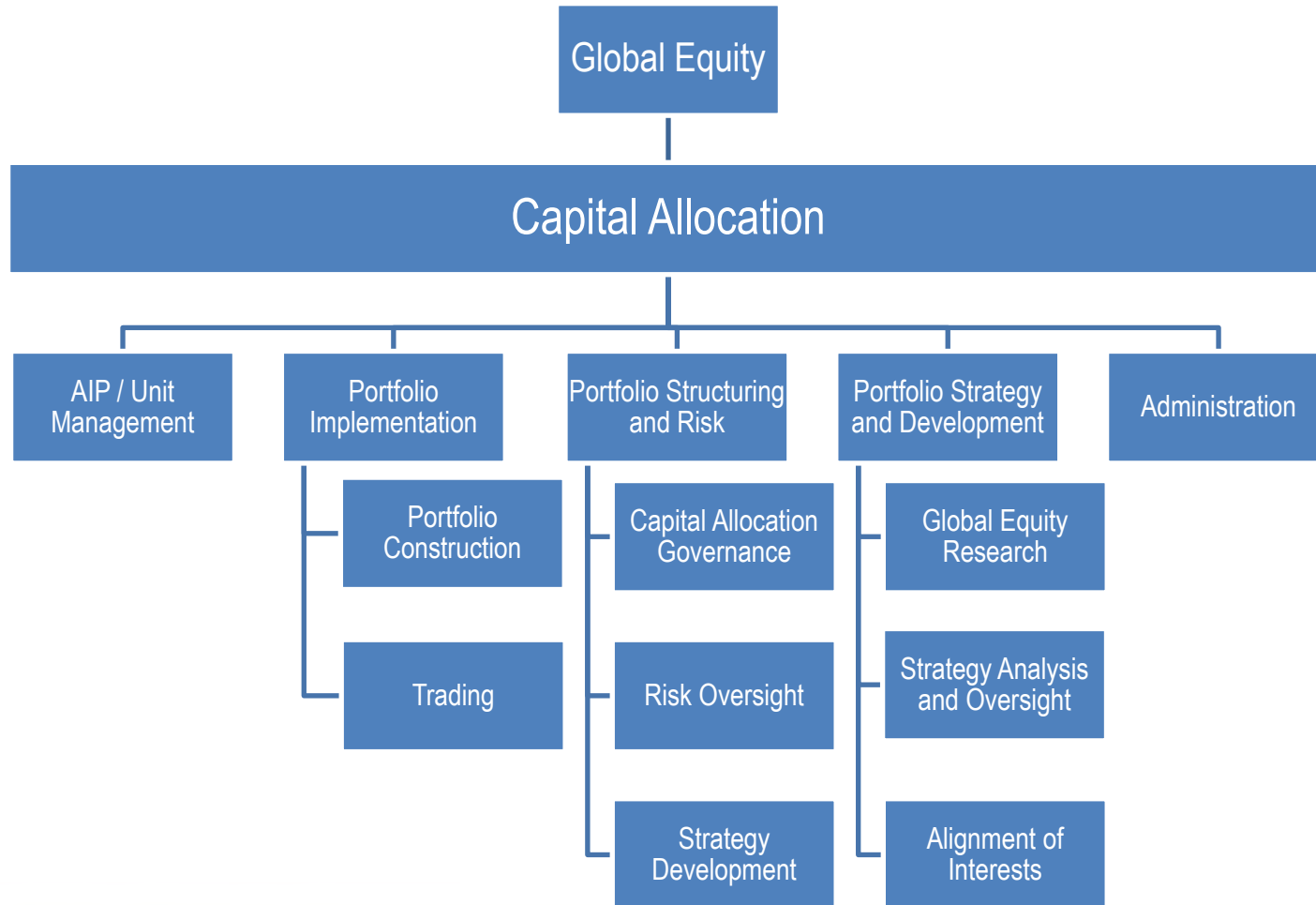
Business Philosophy

- Management of the holistic portfolio
 - Disciplined capital allocation process
 - Rigorous risk management
- Capitalize on strengths
 - Long horizon investor
 - Natural “long” positioning
 - Systematic harvesting of market anomalies
- Efficient deployment of the business model
 - “One Team, One Mission” culture
 - Heavy use of technology and automation
 - Continuous improvement

Investment Model Elements



Functional Organizational Chart



Staffing Overview

TOTAL PROGRAM

- 46 total positions within Global Equity compared to 41 positions in FY 2012-13 (addition of Affiliate Investment Programs (AIP))

STAFFING UPDATES

- Filled Senior Investment Officer Position
- Hired 1 Portfolio Manager
- Hired 3 Investment Officers

CURRENT VACANCIES

- 2 Senior Portfolio Manager
- 2 Portfolio Managers
- 2 Investment Officers
- 1 Staff Services Analyst

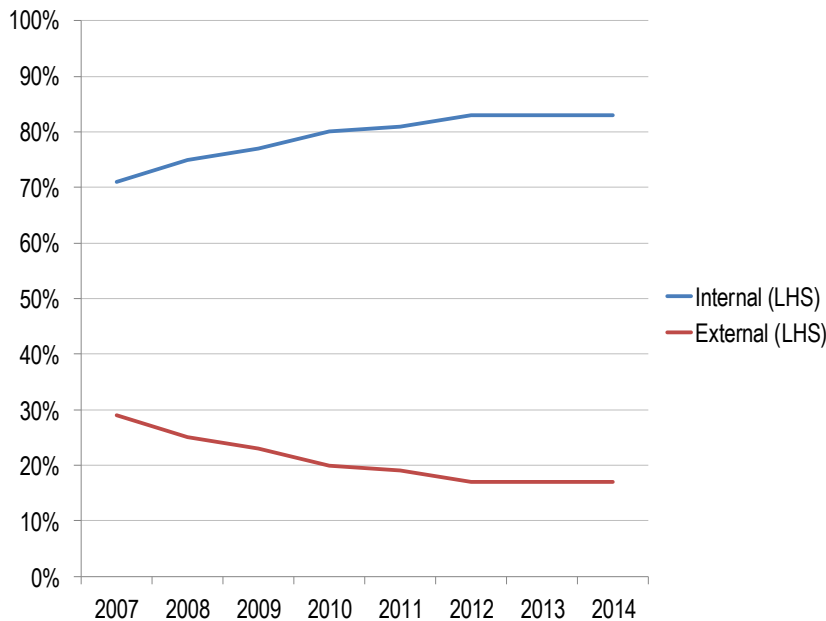
Program Expenses

	FY 2013 -14			FY 2012-13		
	AUM (\$billions)	Fees Paid (\$millions)	Fees Paid ² (bps)	AUM (\$billions)	Fees Paid (\$millions)	Fees Paid ² (bps)
Index Oriented	\$107	\$ 7	1	\$ 81	\$ 6	1
Traditional Active ¹	\$ 45	\$ 56	12	\$ 45	\$ 65	14
Activist Managers ¹	\$ 4	\$ 78	205	\$ 5	\$ 56	125
Emerging Managers ¹	\$ 3	\$ 19	59	\$ 2	\$ 16	61
Consultants Expense	N/A	\$ 2	N/A	N/A	\$ 2	N/A
Technology & Operating Expense	N/A	\$ 11	N/A	N/A	\$ 7	N/A
Total Program	\$159	\$173	11	\$133	\$152	11

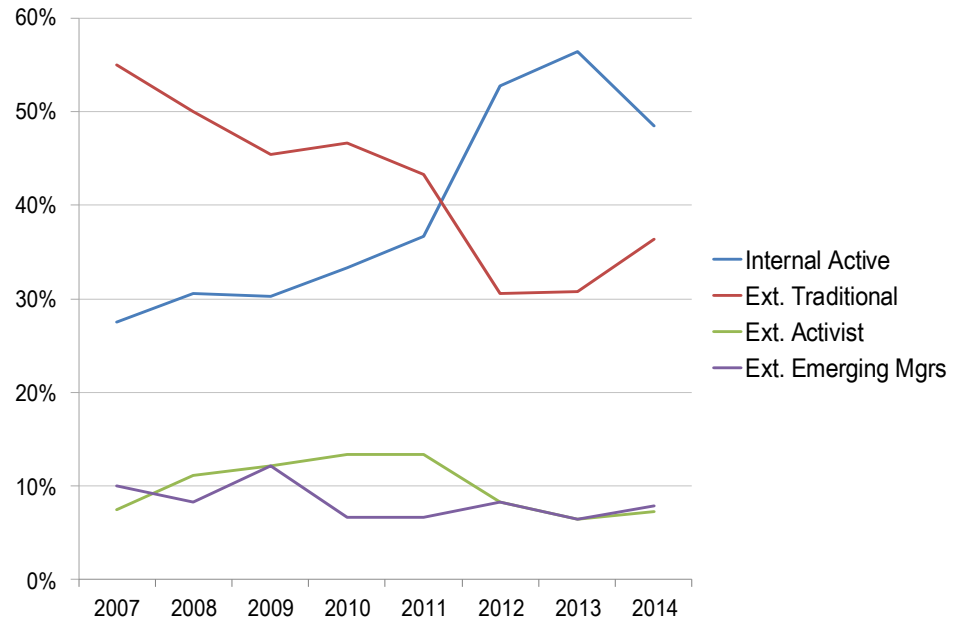
Trend in Assets Under Management Mix

- The percentage of assets managed in-house (83% today) has increased over time
- 48% of Global Equity’s active strategies are now managed in-house vs. 28% in 2007

Internal vs. External



Internal Active vs. External Active



Strategic Initiatives

INITIATIVES	GOALS
Evolve Capital Allocation Methodology	<ul style="list-style-type: none"> • Determine strategic and tactical exposures and weights • Develop levers for execution of desired exposures • Improve visibility into capital allocation, attribution, and risk “mosaic”
Simplify GE Portfolio	<ul style="list-style-type: none"> • Emerging manager restructuring • Traditional manager renegotiation and rationalization • Activist manager rationalization (continued)
Develop Infrastructure and Organization	<ul style="list-style-type: none"> • Culture: one team, one portfolio, one business model • Technology: PM2, unit management (AIP), capital allocation, risk • Staffing: attract, retain, develop

Conclusion

- Solid absolute and benchmark-relative performance from Global Equity for Fiscal Year 2013-14 (+24.8% portfolio, +24.3% benchmark)
- Key business successes in Fiscal Year 2013-14:
 - Program reorganization: one team with clearer functional responsibilities
 - Greater visibility into holistic portfolio exposures
 - Activist manager rationalization (\$15 MM+ in expected annual cost savings)
 - Capitalization of volatility anomaly strategies
- In Fiscal Year 2014-15, focus will be on:
 - Further development of capital allocation methodology
 - Simplification of the Global Equity portfolio
 - Business model evolution with a focus on culture, technology, and people