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Asset Allocation Review

City of Jacksonville
Police & Fire Pension Fund

May 16, 2014

TODAY'S AGENDA

- Review 2013 Capital Market Developments
- Discuss Outlook for 2014
- Review Summit's Current Capital Market Assumptions
- Review Current Target Asset Allocation
- Evaluate changes to Current Target Asset Allocation
- Analyze liquidity
- Discuss need/desire for changes to Target Asset Allocation
- Answer follow-up questions from today's discussion

EXECUTIVE SUMMARY

- In 2013 Central Bank intervention on a global basis reduced investor uncertainty which, when combined with some improvement in global fundamentals, lead to equity markets performing much better than anticipated.
  - P/E Ratios expanded, especially in the US, resulting in modest overvaluation of the US equity market.
  - Emerging Market Debt and Equities and Relative Value hedge funds appear modestly cheap.
- Capital market assumptions remain low compared to historic averages.
  - Meeting the 7.75% actuarial assumed rate of return will be difficult.
  - Incremental return generated by increasing the allocation to equity has decreased while the incremental risk has increased.
- The current Target Allocation has an expected return of 7.0% with an 11.4% standard deviation for a 10 year investment time horizon, net of fees, based on current capital market assumptions.
  - While falling 75 basis points short of the actuarial assumed return assumption of 7.75%, the current Target Allocation can reasonably be considered to be "on track" to meeting goals.
- The majority of assets are invested in liquid asset classes. For the time being, the liquidity needs of the fund can be met from interest and dividend income generated from the portfolio.

2013 IN REVIEW

- What happened? Portfolios performed much better than anticipated:
  - US equities exceeded 33%, while international equities were up 15%.
  - Emerging Markets dramatically underperformed.
  - Fixed Income yields rose significantly in response to Tapering though inflation remains low.
- Why? Central banks' intervention reduced investor uncertainty.
  - The US Fed continued QE III which boosted equities.
  - Global growth improved despite earlier fears (Fiscal Cliff, China hard landing).
  - Japan instituted its version of QE resulting in an equity rally.
- Result? Fundamentally, there were some improvements over the year:
  - US unemployment fell to 6.7%, well off its recession peak of 10% in 2009, though mostly due to drop in participation.
  - Global economic surveys (Purchasing Manager Indices) showed moderate expansion.
  - The FOMC announced its decision to "taper" with a $10 Billion monthly decrease to $75 Billion/mo. with little market impact.
  - Low economic growth did not mean low returns as P/E multiples expanded.
  - Volatility remained at historically low levels.
  - Diversification was a drag on overall performance.

2014 INVESTMENT THEMES: LOOKING FORWARD

What We Believe	*What Investors Should Do*
Growth • Muted global growth. — Deleveraging/deflationary pressures continue. — Growth potential continues to decline.	• Conservatively position Growth portfolio. — Move equity allocations near lower end of range. — Decrease return expectations.
• Increasing divergence in global economies. — More varied policy maker responses. — Potential source for market volatility.	• Focus on active management and quality.
• Ongoing Central Bank interventions.	• Emphasize broad diversification.
• Valuation differences between domestic equities and other growth assets have increased, presenting opportunities.	• Overweight emerging market equities and emerging market debt.
Income • Low real returns for US Treasuries. — Though curve is steep and significant hikes priced in.	• Selectively overweight spread products relative to Treasuries. • Monitor valuations for potential exit of non-benchmark strategies such as bank loans or real estate.
Diversification • The cost of explicit insurance versus non-correlated assets has declined.	• Revisit dedicated tail hedging strategies versus inflation hedging needs.

GROWTH BUCKET

Growth Themes

- Muted global growth, ongoing deleveraging and demographic headwinds.
- Potential catalyst for market volatility as Central Banks exit accommodative policy.

Public Equity

- Overweight emerging market equity target on valuation, look to add on potential further weakness.
- Maintain MLP allocation on reasonable valuation and defensive positioning.
- Underweight developed equities, particularly US small cap, on expensive longer term earnings.

Private Assets

- Due to current pricing, dollar flows, and deals coming to market, fund to low end of 2014 allocation target.

Hedged Strategies

- Focus on event-driven strategies (e.g. distressed, activist equities) and less efficient market niches. Look for idiosyncratic risk – avoid beta plays.

Public Debt

- Valuation metrics are compelling for emerging market debt, though market technicals could cause further softening.
- No allocation to high yield due to premium dollar price and low absolute level of yield; poor risk/return versus stocks.

Risk Parity

- Strategic allocation with significant volatility reduction and diversification benefits.
- Diversified asset class risk premia is particularly interesting today relative to equities.

INCOME BUCKET

Income Themes

- Developed market interest rates remain low by historical standards with muted inflation.
- Hence at their current levels, credit spreads and interest rates offer limited upside potential.
- Divergences of global Central Banks policies.

Core and Core Plus Fixed Income

- Forward curves reflect market expectation of US interest rates and inflation normalizing over the next five years.
- Core plus sectors remain interesting with increased opportunities for active management.

Bank Loans

- Reasonable spread versus Barclays Aggregate, but limited appreciation due to near par dollar price.
- Look to limit new private bank loan allocations as credit underwriting standards have started to deteriorate.

Relative Value Hedge Funds

- Trading opportunities remain abundant, as managers provide additional drivers of return beyond interest rates and/or credit risk.

Core Real Estate

- Cap rates remain reasonably attractive relative to traditional core fixed income with continued upside from NOI growth.

DIVERSIFICATION BUCKET

Diversification Themes

- Below-average market volatility has decreased the cost of explicit diversification strategies (buying insurance).
- Continue to monitor alternatives to current diversifying assets.

Tactical Trading

- Managers have flexibility to benefit from both long- and short-term trends across various markets.
- Thus, these strategies continue to provide good diversification benefits.

Commodities

- High recent correlation to risk assets as inflation has been subdued.

Long Treasuries

- Despite extraordinary Central Bank policies, inflation continues to decline.
- Long treasury exposure continues to provide a hedge to a deflationary scenario and upside from flight to quality flows.

TIPS

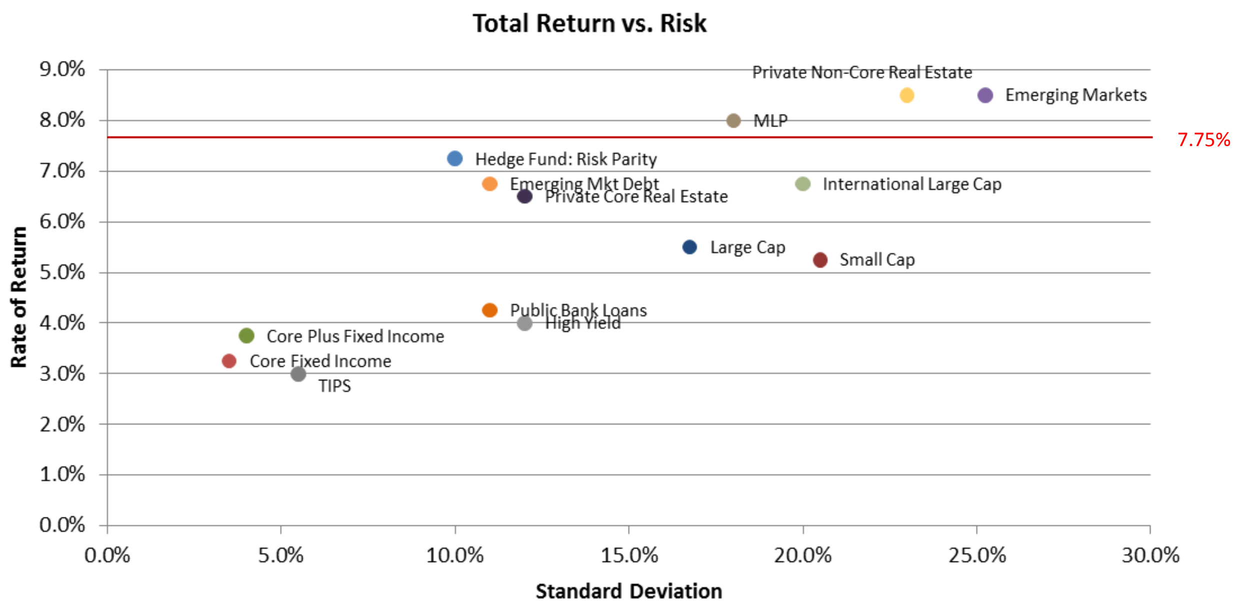
- Other investors with greater diversification needs should own short and intermediate maturities that will provide rapid reinvestment at higher real rates.

RELATIVE VALUATION

	GROWTH	INCOME	DIVERSIFICATION
Undervalued	Emerging Market Equities Emerging Market Debt	Relative Value Hedge Funds	
Fairly Valued	MLPs International Large Cap Equities International Small Cap Equities Risk Parity Growth Hedge Funds Private Assets High Yield	Core Real Estate Public Bank Loans Private Bank Loans Core Plus Fixed Income Core Fixed Income IG Corporates International Fixed Income	Tactical Trading Treasuries TIPS Cash Commodities
Overvalued	Domestic Large Cap Equities Domestic Small Cap Equities		

ASSET ALLOCATION REVIEW

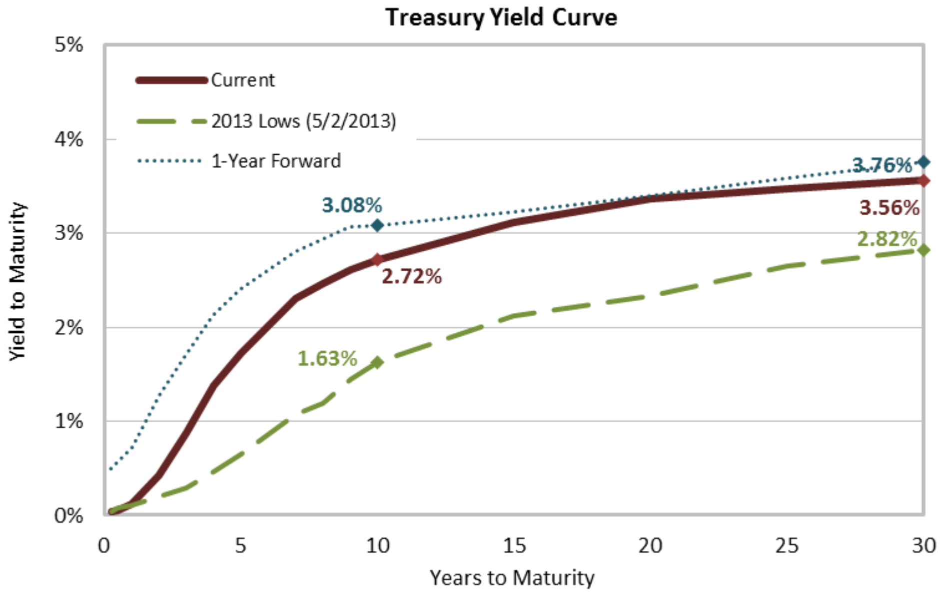
CAPITAL MARKET ASSUMPTIONS



- Summit's capital market assumptions are illustrated to the left and listed below.
- Asset class assumptions are geometric assumptions (shown net of volatility) using a 10-year investment time horizon and are net of fees.
- Changes in Summit's assumptions since last year are shown on the following page.

Asset Class	Expected Return	Expected Alpha	Standard Deviation	Comments Regarding Return Assumptions
Large Cap	5.5%	0.5%	16.8%	Long-term Expected, Fundamental Components
Small Cap	5.3%	0.8%	20.5%	Long-term Expected, Fundamental Components
International Large Cap	6.8%	0.8%	20.0%	Long-term Expected, Fundamental Components
Emerging Markets	8.5%	1.0%	25.3%	Long-term Expected, Fundamental Components
Emerging Mkt Debt	6.8%	0.8%	11.0%	Current Yield Curve + Sovereign Default Discount
High Yield	4.0%	0.5%	12.0%	Current Yield Curve + Default Discount
Private Non-Core Real Estate	8.5%	n/a	23.0%	Current Cap Rate + NOI Growth + Liquidity Premium + Leverage Adj
MLP	8.0%	n/a	18.0%	Distribution Yield + NOI Growth
Hedge Fund: Risk Parity	7.3%	n/a	10.0%	Cash + Diversified Risk Premium
Core Fixed Income	3.3%	0.3%	3.5%	Current Yield Curve
Core Plus Fixed Income	3.8%	0.5%	4.0%	Current Yield Curve
Private Core Real Estate	6.5%	n/a	12.0%	Current Cap Rate + NOI Growth + Leverage Adj
Public Bank Loans	4.3%	n/a	11.0%	Base Return (High Yield)
TIPS	3.0%	n/a	5.5%	Real Yield + Inflation Expectation

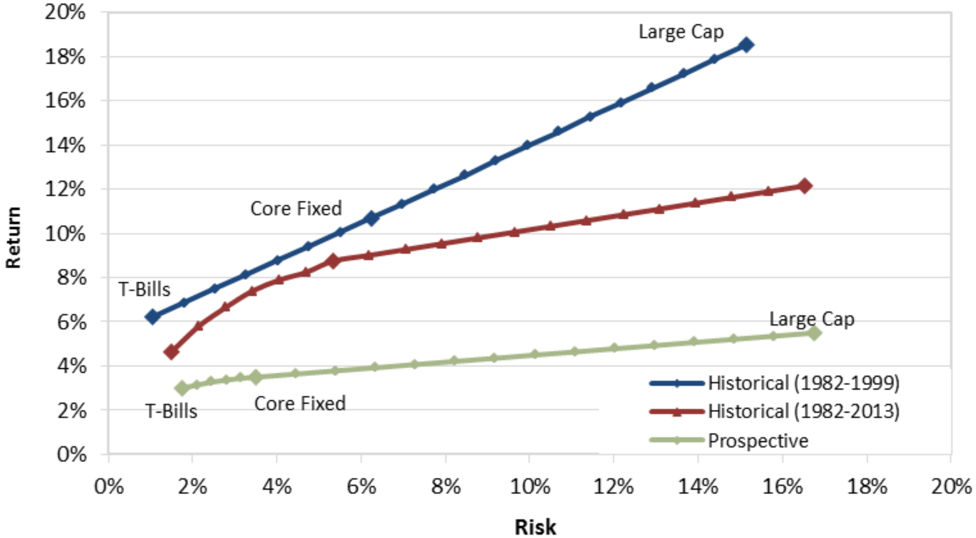
CHANGES IN CAPITAL MARKET ASSUMPTIONS

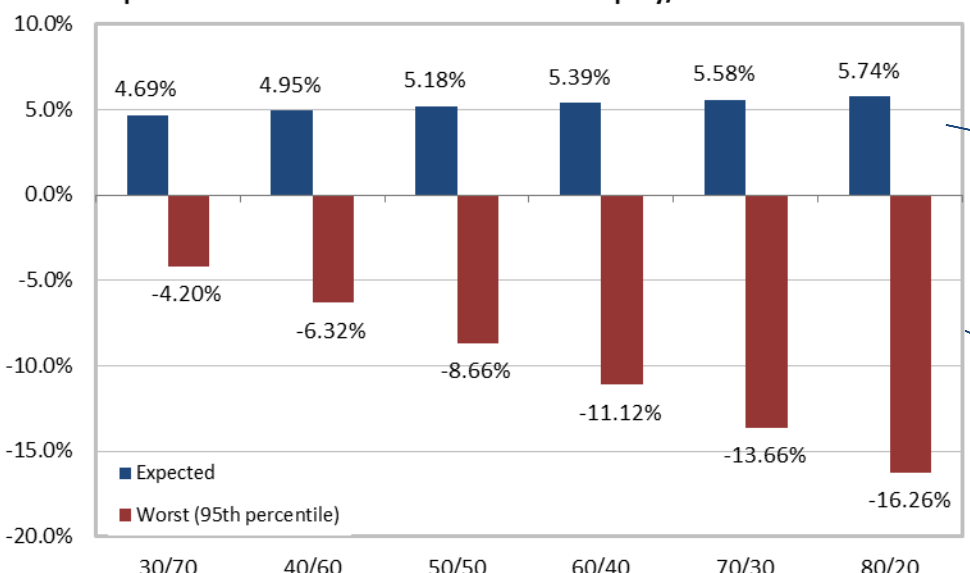


- The current yield curve is higher and steeper than the lows of 2013.
- Capital Market Assumptions were changed using Summit's "building block" approach to reflect the increase in equity multiples and interest rates last year.
- The 1-year forward curve has priced further increases in the curve.

Asset Class	2014 Expected Return	2013 Expected Return	Change
Large Cap	5.50%	6.25%	-0.75%
Small Cap	5.25%	6.00%	-0.75%
International Developed	6.75%	7.25%	-0.50%
Emerging Markets	8.50%	8.50%	0.00%
Emerging Mkt Debt	6.75%	5.50%	1.25%
Non-Core Real Estate	8.50%	9.50%	-1.00%
MLPs	8.00%	8.75%	-0.75%
Core Fixed Income	3.25%	2.25%	1.00%
Core Plus Fixed Income	3.75%	2.75%	1.00%
Core Real Estate	6.50%	7.00%	-0.50%
Bank Loans	4.25%	4.50%	-0.25%
TIPS	3.00%	1.50%	1.50%
High Yield	4.00%	4.50%	-0.50%
Hedge Fund: Risk Parity	7.25%	6.25%	1.00%

SUMMIT'S VIEW OF THE RISK PREMIUM



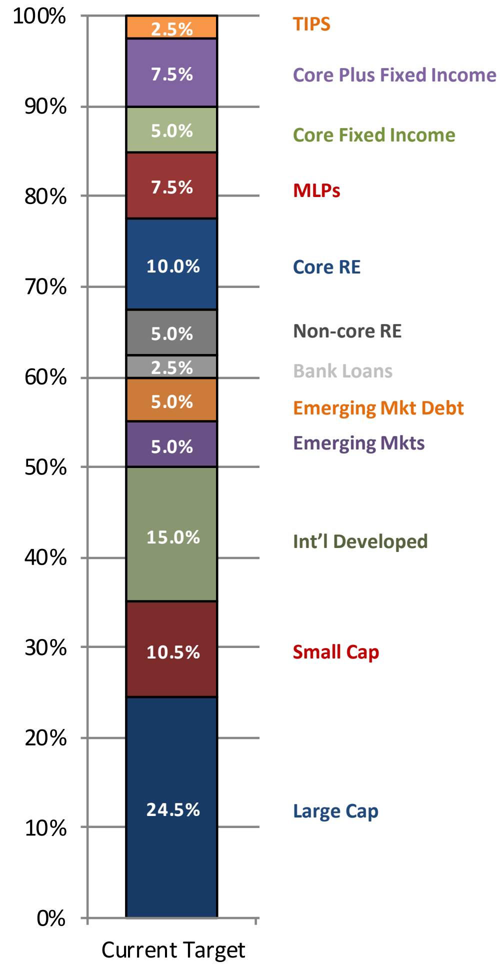


<u>Expected</u>
+20 bps for each 10% increase in stocks

<u>Downside</u>
-210 bps to -260 bps for each 10% increase in stocks

- Based on Summit's current capital market assumptions, expected returns are below historical levels while expected equity volatility has increased.
- In other words, Summit believes investors are no longer rewarded for taking risk to the extent they once were.
- Large cap equity risk-premiums have declined (comparison of 1982-1999 versus current):
  - Versus T-Bills: 12.3% down to 2.5%.
  - Versus Bonds: 7.8% down to 2.0%.
- As a result, the incremental return pick-up generated by increasing the equity allocation has decreased while the incremental risk has not.

CURRENT TARGET ALLOCATION



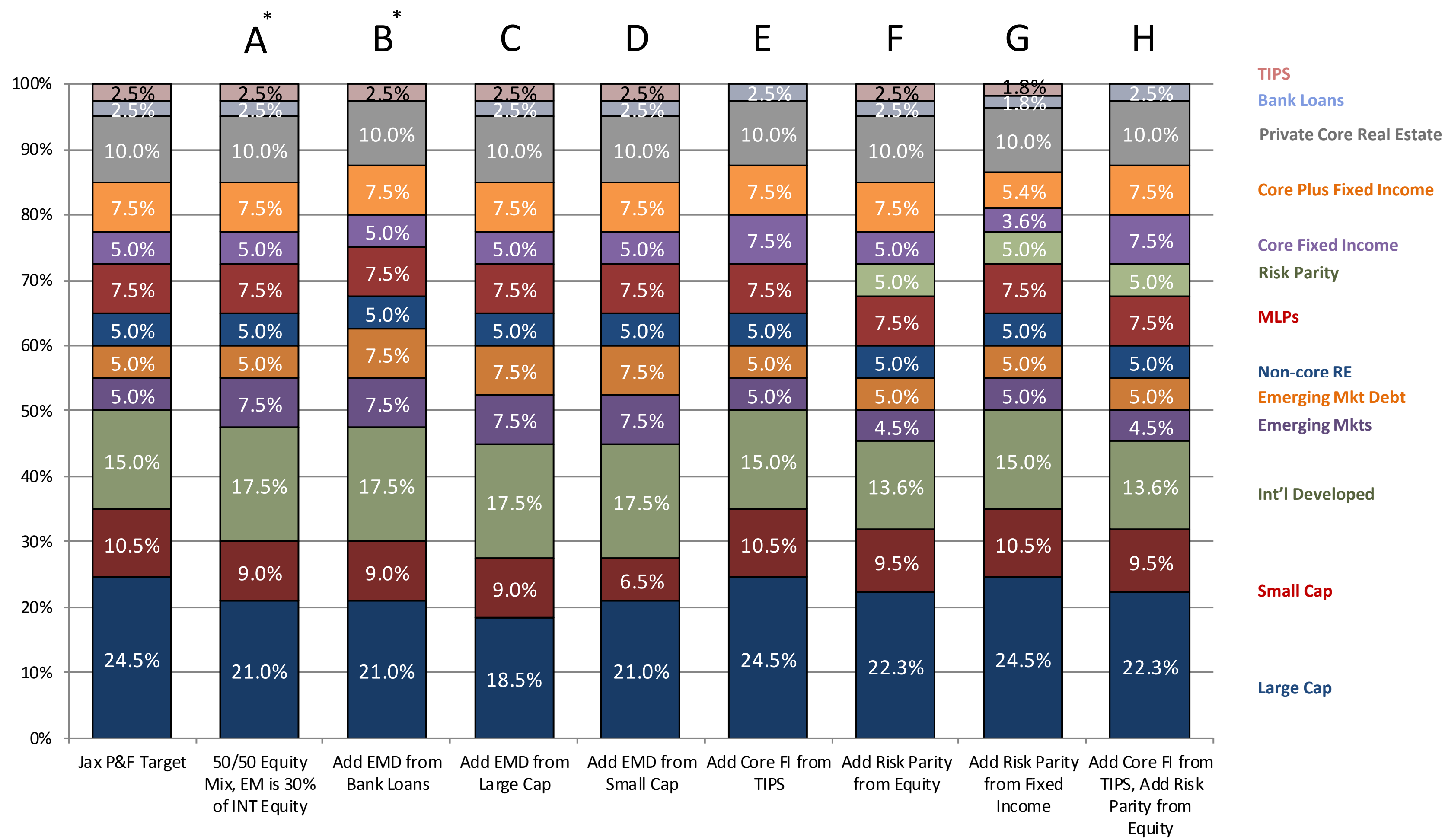
	Current Target
10 Year Expected Return	7.0%
Standard Deviation	11.4%
Return/Risk	0.62

- The graph to the left illustrates the current target allocation for the Pension's assets.
- The ten-year expected return for the current target is 7.0%, 75 bps lower than the target return of 7.75%, and generates .62 units of expected return for each unit of risk.
  - Note that the expected return is shown net of volatility, and uses a 10-year investment time horizon.

CONSIDERATIONS FOR IMPROVEMENT TO ASSET ALLOCATION

- Portfolio A
  - Reduce domestic equities and reallocate to maximum international equity weights
  - Allocation to Emerging Markets is increased to 30% of Total International Equity
- Portfolio B
  - 2.5% EMD is added from Bank Loans
  - Keep maximum international equity weights in Portfolio A
- Portfolio C
  - 2.5% EMD is added from Large Cap
  - Keep maximum international equity weights in Portfolio A
- Portfolio D
  - 2.5% EMD is added from Small Cap
  - Keep maximum international equity weights in Portfolio A
- Portfolio E
  - 2.5% Core Fixed Income is added from TIPS
- Portfolio F
  - Introduce Risk Parity at 5% pro -rata from current target equity allocation
- Portfolio G
  - Introduce Risk Parity at 5% pro -rata from Core FI, Core Plus, and TIPS
- Portfolio H
  - 2.5% Core Fixed Income is added from TIPS
  - Introduce Risk Parity at 5% pro -rata from current target equity allocation

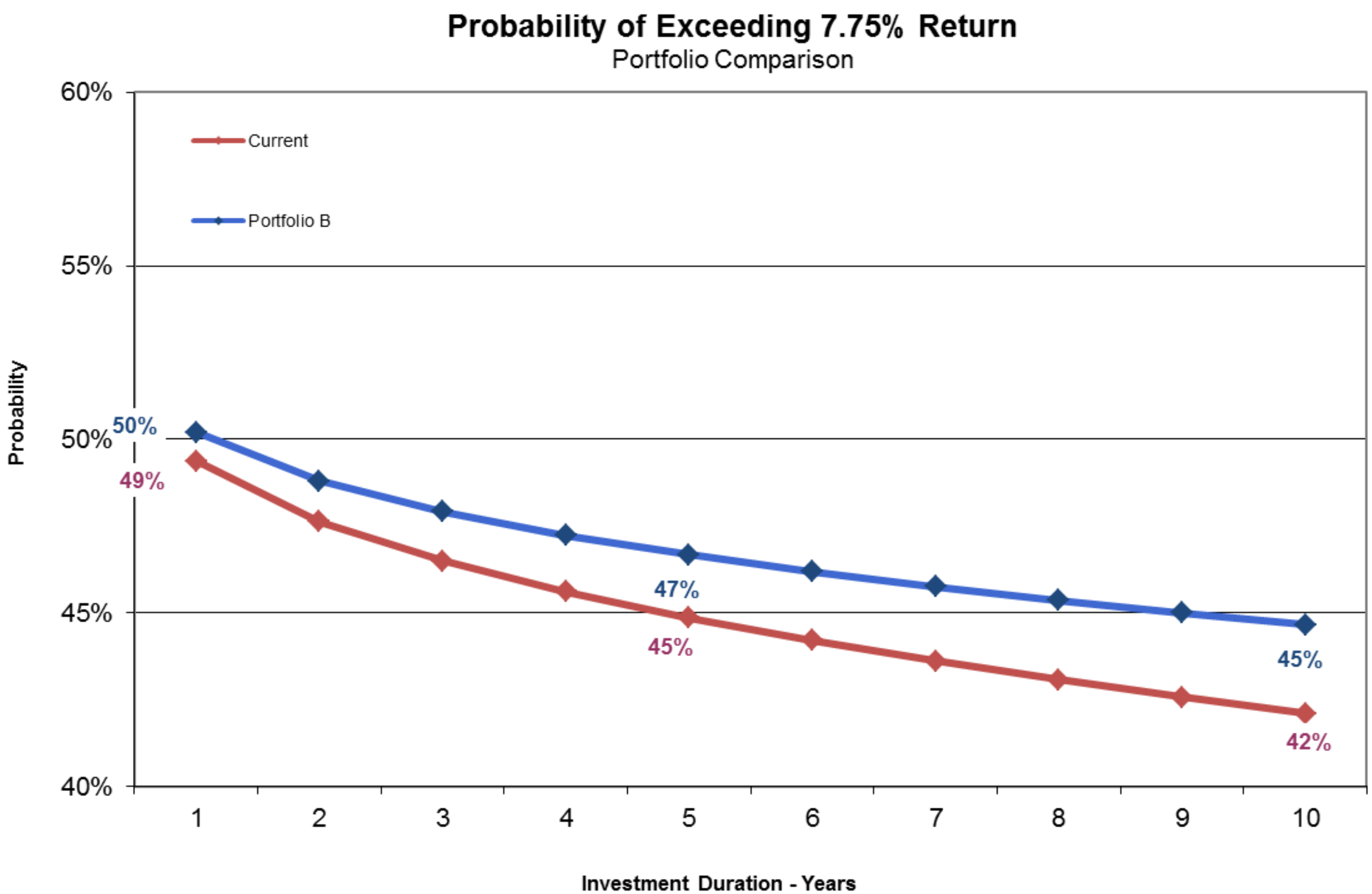
CONSIDERATIONS FOR IMPROVEMENT TO ASSET ALLOCATION



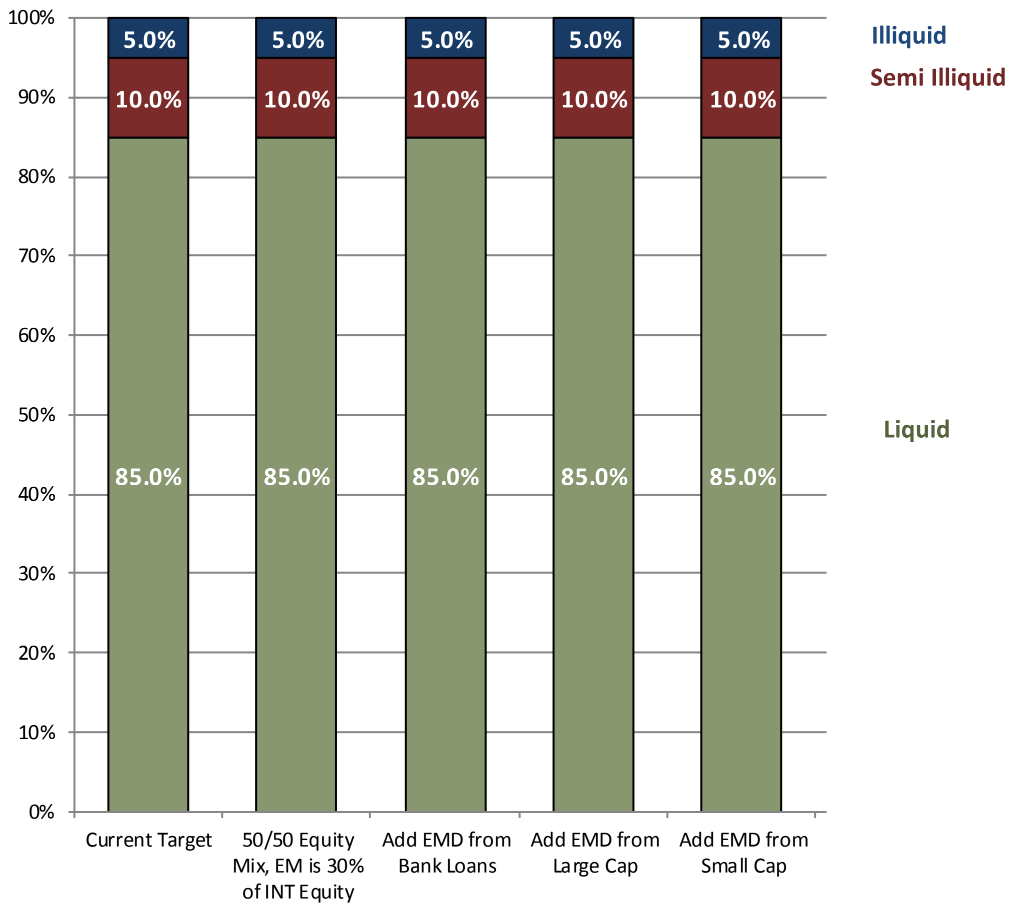
10 Year Expected Return	7.0%	7.2%	7.3%	7.2%	7.2%	7.0%	7.1%	7.2%	7.1%
Standard Deviation	11.4%	11.5%	11.5%	11.3%	11.2%	11.4%	10.8%	11.6%	10.8%
Return/Risk	0.62	0.63	0.63	0.64	0.64	0.62	0.65	0.62	0.65

*Assumes that EMD is 100% sovereign and Core Plus Fixed Income does not contain international bonds

PROBABILITY EXCEEDING LONG-TERM EXPECTED RETURN ON PLAN ASSETS



LIQUIDITY PROFILE



	Current Target	50/50 Equity Mix, EM is 30% of INT Equity	Add EMD from Bank Loans	Add EMD from Large Cap	Add EMD from Small Cap
10 Year Expected Return	7.0%	7.2%	7.3%	7.2%	7.2%
Standard Deviation	11.4%	11.5%	11.5%	11.3%	11.3%
Return/Risk	0.62	0.62	0.63	0.64	0.64

Illiquid

Non-Core Real Estate

Semi Illiquid

Private Core Real Estate

Liquid

Large Cap
Small Cap
Developed International
Emerging Markets
Emerging Market Debt
Bank Loans
MLP
Core Fixed Income
Core Plus Fixed Income
TIPS

APPENDIX

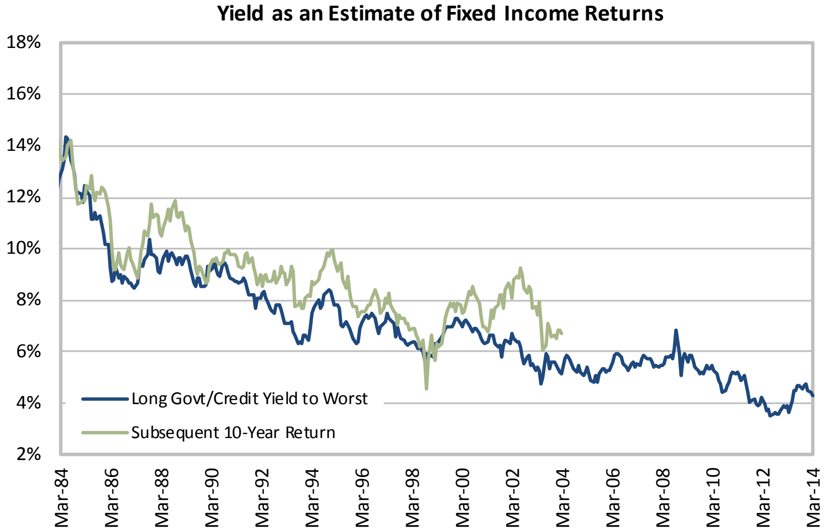
CAPITAL MARKET ASSUMPTIONS

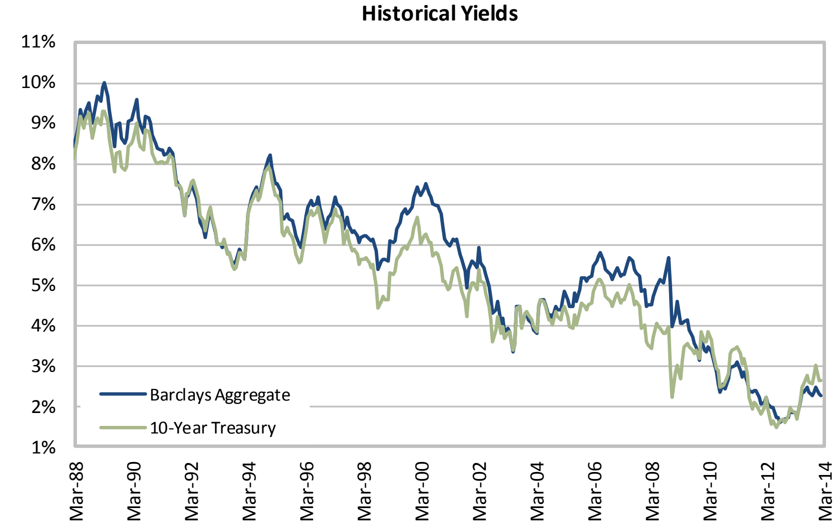
- The capital market assumptions section summarizes changes to Summit's long-term strategic capital market assumptions that have occurred since the beginning of the calendar year (Summit's full assumptions document is updated annually).
- While these assumptions are long-term by definition (one would not expect them to change frequently), there are times throughout the year when market fundamentals move dramatically, thereby altering the long-term expected performance for certain asset classes.
- The pages that follow provide brief supporting documentation for each of the asset classes in the table. For a complete rationale (for all assumptions) please refer to Summit's annual "Capital Market Assumptions" publication (available at www.summitstrategies.com).

Asset Class Returns and Standard Deviations

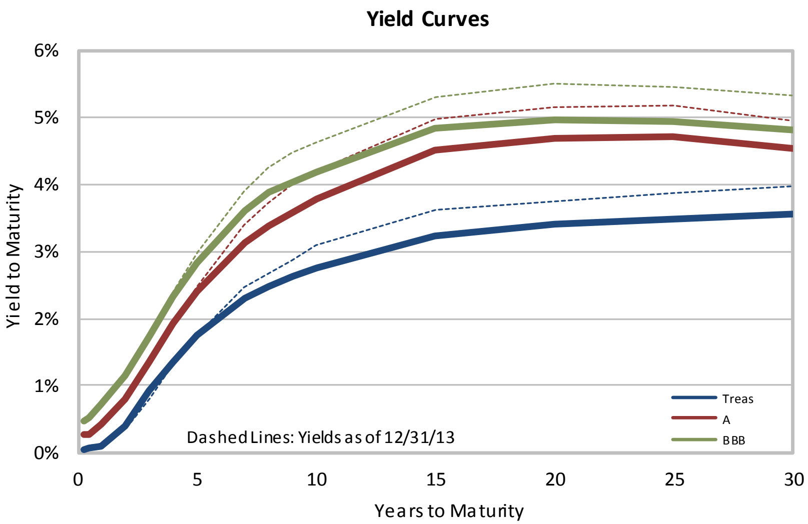
	Current Estimates		Beginning of Year 2014		
Asset Class	Expected Return	Standard Deviation	Expected Return	Standard Deviation	Alpha Assumptions
Inflation (CPI)	2.25%	1.75%	2.25%	1.75%	
GROWTH:					
Large Cap	5.50%	16.75%	5.50%	16.75%	0.50%
Small Cap	5.25%	20.50%	5.25%	20.50%	0.75%
International Large Cap	6.75%	20.00%	6.75%	20.00%	0.75%
International Small Cap	6.75%	23.25%	6.75%	23.25%	1.00%
Emerging Markets	8.50%	25.25%	8.50%	25.25%	1.00%
Master Limited Partnerships (MLP)	8.00%	18.00%	8.25%	18.00%	
Private Equity	9.25%	21.00%	9.25%	21.00%	
Growth Hedge Funds	6.25%	10.00%	6.50%	10.00%	
High Yield Bonds	4.00%	12.00%	4.25%	12.00%	0.50%
Emerging Market Debt	6.75%	11.00%	6.75%	11.00%	0.75%
Convertibles	4.25%	13.75%	4.50%	13.75%	0.50%
Private Debt	7.00%	15.00%	7.25%	15.00%	
Non-Core Real Estate	8.50%	23.00%	8.75%	23.00%	
Public Real Estate (REITs)	5.75%	15.00%	5.75%	15.00%	
Risk Parity	7.25%	10.00%	7.50%	10.00%	
INCOME:					
Public Debt					
Governments	2.75%	4.75%	3.00%	4.75%	
Corporates	3.75%	6.25%	4.25%	6.25%	0.50%
Mortgages (Agency)	3.00%	3.25%	3.25%	3.25%	0.25%
Intermediate Fixed Income	3.00%	3.50%	3.25%	3.50%	0.25%
Core Fixed Income	3.25%	3.50%	3.50%	3.50%	0.25%
Core Plus Fixed Income	3.75%	4.00%	4.00%	4.00%	0.50%
Long Gov/Credit Fixed Income	3.75%	9.75%	4.00%	9.75%	0.25%
International Fixed Income	3.25%	8.50%	3.50%	8.50%	0.50%
Public Bank Loans	4.25%	11.00%	4.25%	11.00%	
Private Bank Loans	5.50%	13.00%	5.50%	13.00%	
Relative Value Hedge Funds	5.25%	5.00%	5.50%	5.00%	
Core Real Estate	6.50%	12.00%	6.75%	12.00%	
DIVERSIFICATION:					
Cash	2.75%	1.75%	3.00%	1.75%	
TIPS	3.00%	5.50%	3.25%	5.50%	
Long Treasuries	3.00%	13.25%	3.00%	13.25%	
Commodities	5.00%	20.50%	5.25%	20.50%	
Tactical Trading	6.75%	10.00%	7.00%	10.00%	
Diversified Hedge Funds	5.75%	6.00%	6.00%	6.00%	

CAPITAL MARKET ASSUMPTIONS: FIXED INCOME





	Assumptions		Option-Adjusted Spread	
Asset Class	Current	BOY 2014	Current	BOY 2014
CPI	2.25%	2.25%	n/a	n/a
High Yield Bonds	4.00%	4.25%	359	382
Emerging Market Debt	6.75%	6.75%	n/a	n/a
Convertibles	4.25%	4.50%	n/a	n/a
Governments	2.75%	3.00%	2	3
Corporates	3.75%	4.25%	105	114
Mortgages (Agency)	3.00%	3.25%	38	35
Intermediate Fixed Income	3.00%	3.25%	31	35
Core Fixed Income	3.25%	3.50%	44	45
Core Plus Fixed Income	3.75%	4.00%	83	85
Long Gov/Credit Fixed Income	3.75%	4.00%	103	105
International Fixed Income	3.25%	3.50%	43	45
Cash	2.75%	3.00%	n/a	n/a
TIPS	3.00%	3.25%	20	19



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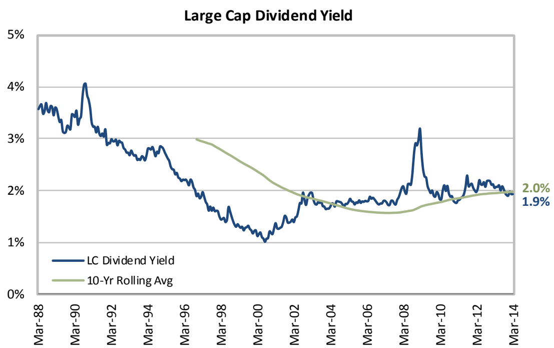
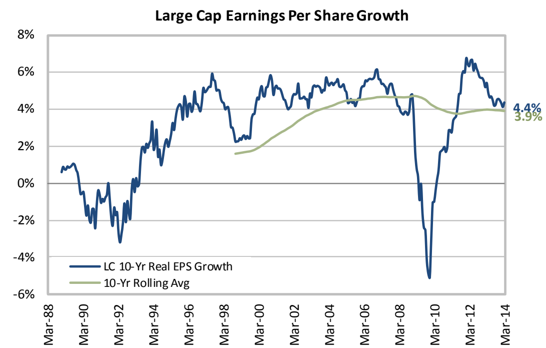
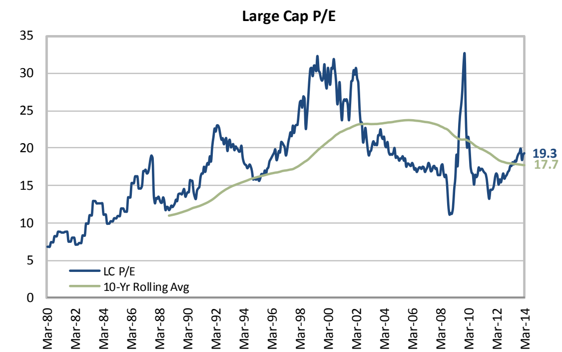
CAPITAL MARKET ASSUMPTIONS: DOMESTIC EQUITY

Large Cap Equity





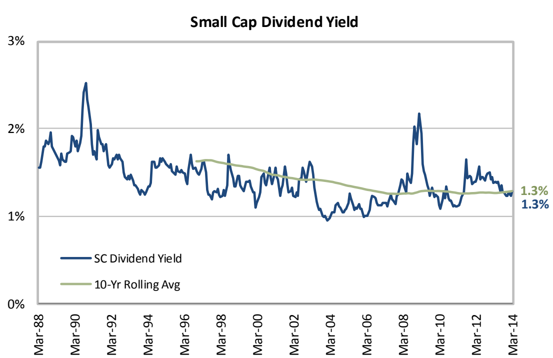


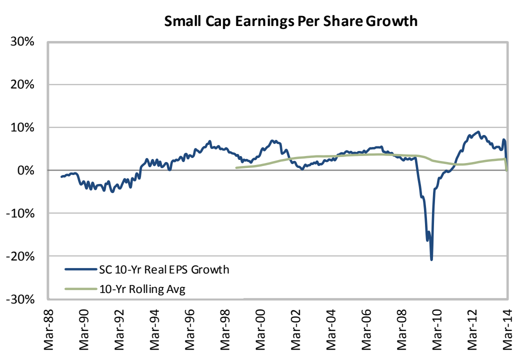
Inflation

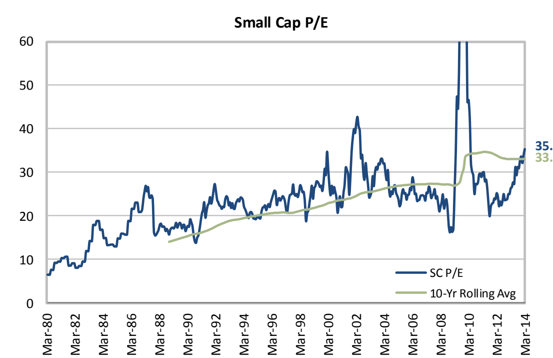
Dividend Yield: 2.00% + **Real EPS Growth: 1.75%** + **Change in P/E: -0.50%** + **2.25%**

5.50%

Small Cap Equity







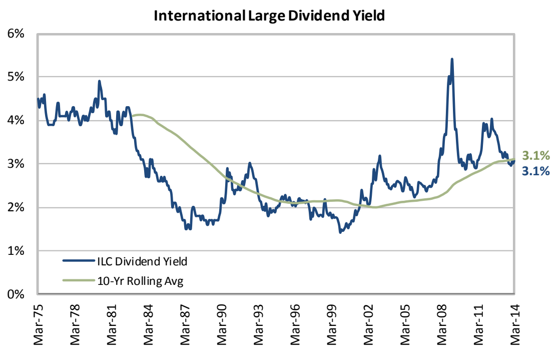
Inflation

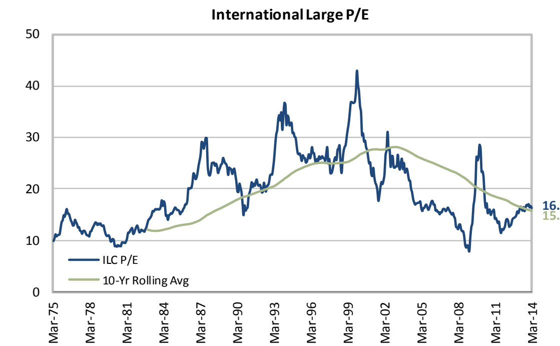
Dividend Yield: 1.25% + **Real EPS Growth: 2.25%** + **Change in P/E: -0.50%** + **2.25%**

5.25%

CAPITAL MARKET ASSUMPTIONS: DEVELOPED INTERNATIONAL EQUITY

International Large Cap Equity



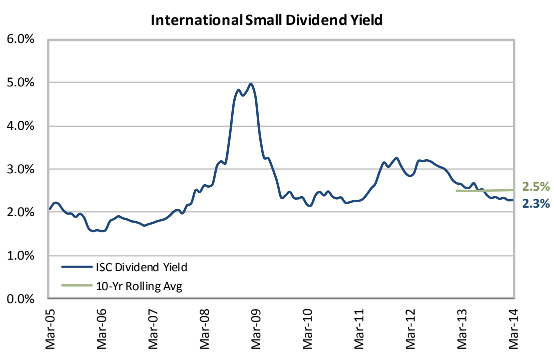


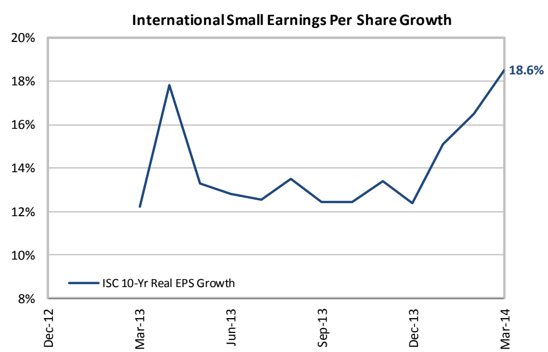
Inflation

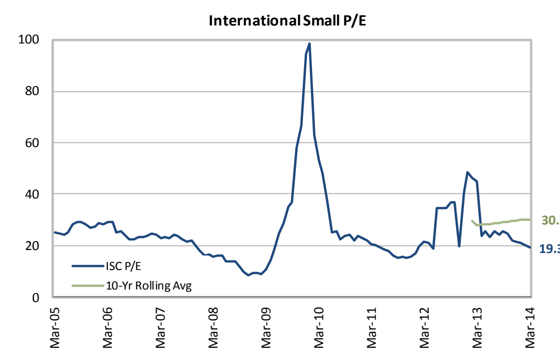
Dividend Yield: 3.00% + Real EPS Growth: 1.50% + Change in P/E: 0.00% + 2.25%

6.75%

International Small Cap Equity







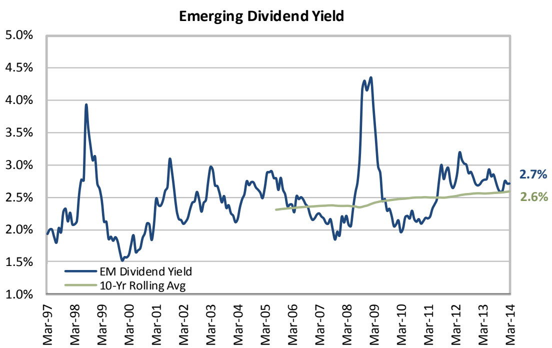
Inflation

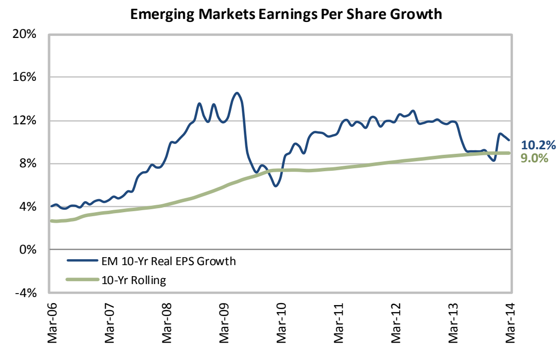
Dividend Yield: 2.50% + Real EPS Growth: 2.00% + Change in P/E: 0.00% + 2.25%

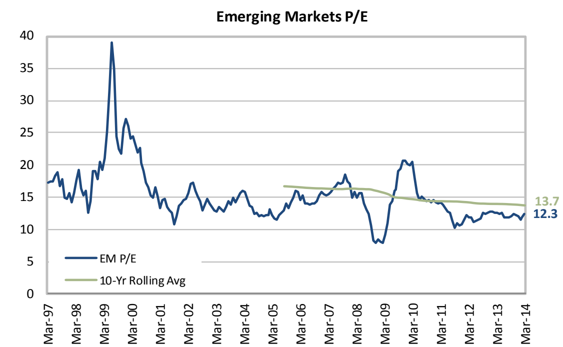
6.75%

CAPITAL MARKET ASSUMPTIONS: INTERNATIONAL EMERGING EQUITY

Emerging Markets Equity







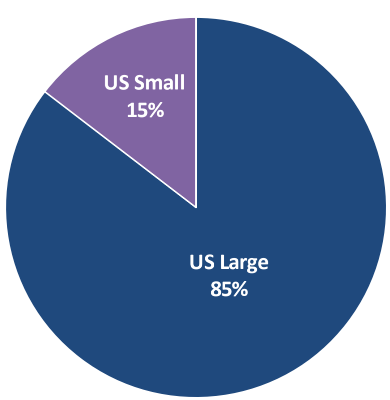
Inflation

Dividend Yield: 2.50% + Real EPS Growth: 3.25% + Change in P/E: 0.50% + 2.25%

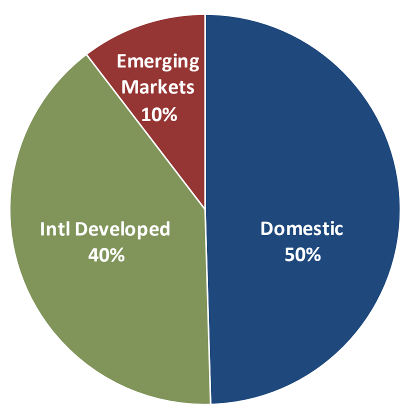
8.50%

Global Market Capitalization

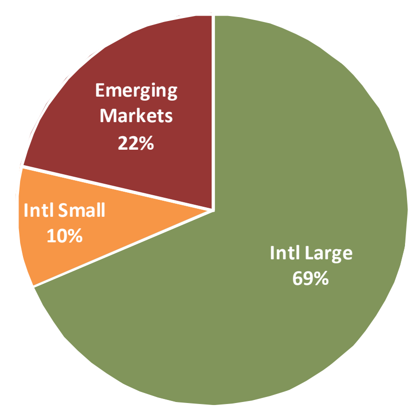
Domestic
$20.6 Trillion



Global
$41.6 Trillion



International
$21 Trillion



CAPITAL MARKET ASSUMPTIONS: ALTERNATIVES

GROWTH									
	Small Cap		*Liquidity Premium*		*Leverage Adjustment*		*Net Alpha*		*Expected*
Private Equity	5.25%	+	2.00%	+	1.00%	+	1.00%	=	9.25%
	Expected Sharpe Ratio				*Cash*		*Vol-Adj Excess Returns*		
Growth Hedge Funds	0.35				2.75%	+	3.50%	=	6.25%
			High Yield		*Liquidity Premium*		*Net Alpha*		
Private Debt			4.00%	+	2.00%	+	1.00%	=	7.00%
			Distribution Yield		*Growth*		*Valuation*		
Master Limited Partnerships			5.75%	+	2.25%	+	0.00%	=	8.00%
	Current Cap Rate		*Growth*		*Liquidity Premium*		*Leverage Adjustment*		
Non-Core Real Estate	5.50%	+	1.00%	+	2.00%	+	0.00%	=	8.50%
	Current Yield		*Growth*		*Valuation*		*Leverage Adjustment*		
Public Real Estate (REITS)	4.00%	+	1.00%	+	0.00%	+	0.75%	=	5.75%
	Expected Sharpe Ratio				*Cash*		*Risk-Adj Beta Exposure*		
Risk Parity	0.45				2.75%	+	4.50%	=	7.25%
INCOME									
			Public Bank Loans		*Private Spread*		*Net Alpha*		
Private Bank Loans			4.25%	+	0.75%	+	0.50%	=	5.50%
	Expected Sharpe Ratio				*Cash*		*Vol-Adj Excess Returns*		
Relative Value Hedge Funds	0.50				2.75%	+	2.50%	=	5.25%
	Current Cap Rate		*Growth*		*Valuation*		*Leverage Adjustment*		
Core Real Estate	5.50%	+	1.00%	+	0.00%	+	0.00%	=	6.50%
DIVERSIFICATION									
			Cash		*Inflation*		*Inflation Utility*		
Commodities			2.75%	+	2.25%	+	0.00%	=	5.00%
	Expected Sharpe Ratio				*Cash*		*Vol-Adj Excess Returns*		
Tactical Trading	0.40				2.75%	+	4.00%	=	6.75%
	Expected Sharpe Ratio				*Cash*		*Vol-Adj Excess Returns*		
Diversified Hedge Funds	0.50				2.75%	+	3.00%	=	5.75%

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