



California Public Employees' Retirement System

Performance Review – September 30, 2013

*Michael Schlachter, CFA
Managing Director & Principal*

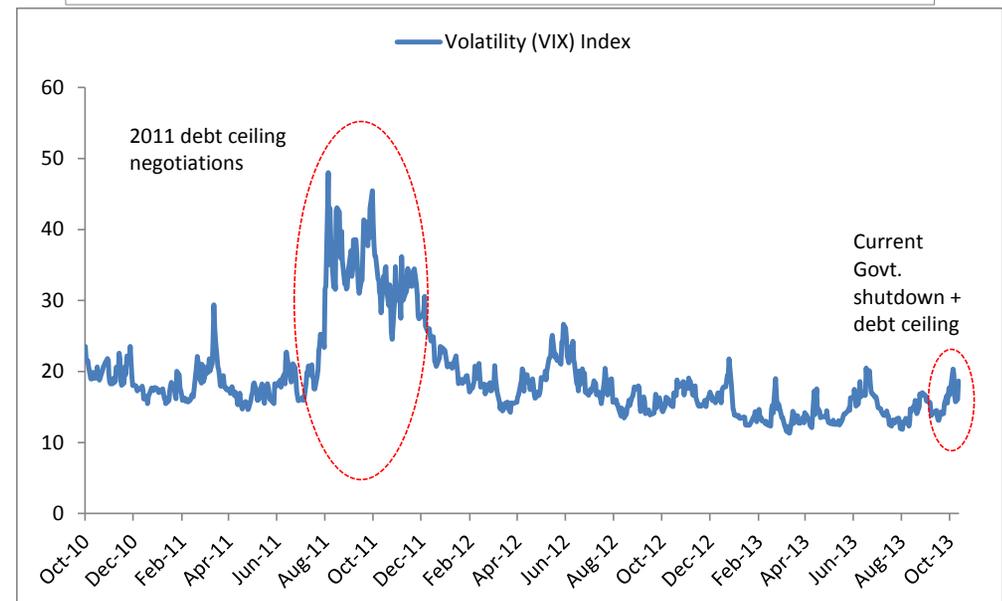
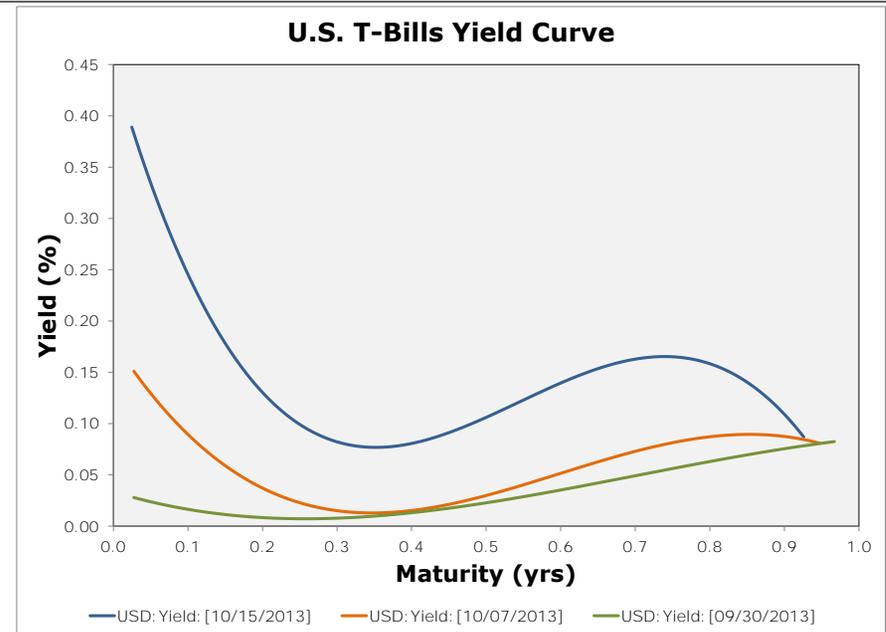
*Andrew Junkin, CFA
Managing Director & Principal*

November 2013

Government Shutdown – 18th in U.S. History



- Concerns about possible default have nudged yields on the shortest term debt higher
- VIX has not moved nearly to the point it did in 2011
- The longer the shutdown, the larger the expected financial impact
 - ~0.3% hit to GDP for 14 days, ~0.8% for 30 days, etc. (Estimates from Macroeconomic Advisors and Bridgewater)
 - More than 800,000 federal workers remain furloughed without pay
- Most recent shutdown (#17) started on Dec. 5, 1995 and lasted for 21 days





Asset Class Assumptions Update

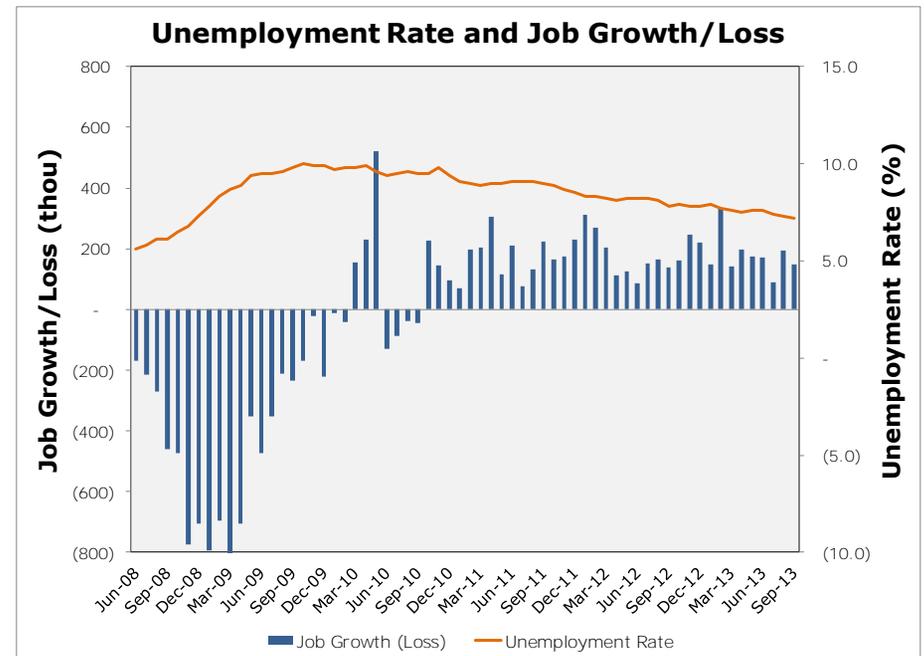
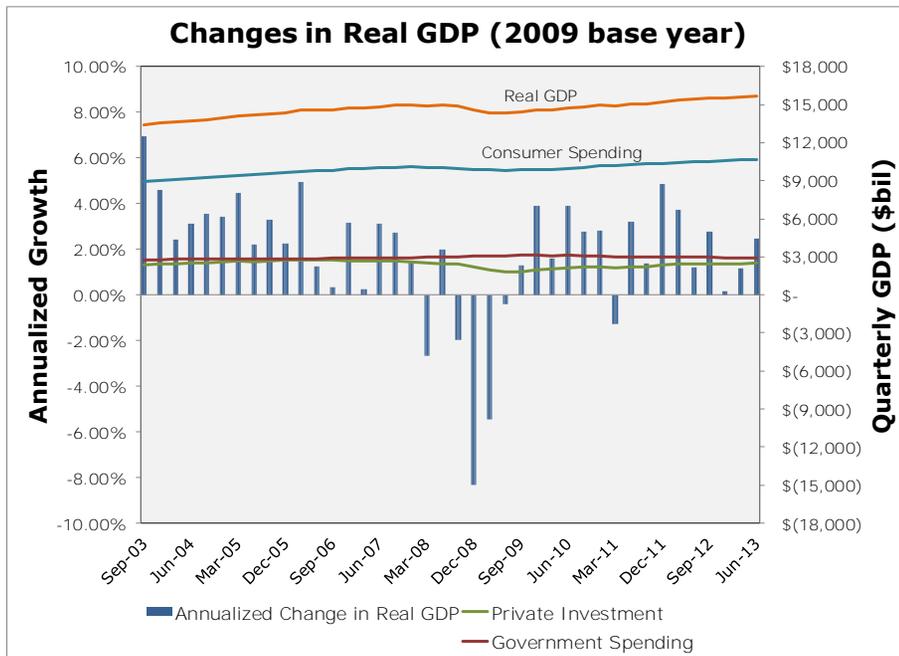
	Total Return (%)			Risk (%)
	2013 ACA	Q3 2013	Change vs YE	2013 ACA
<u>Investment Categories:</u>				
U.S. Stocks	7.75	7.25	(0.50)	17.00
Dev ex-U.S. Stocks	7.75	7.25	(0.50)	18.00
Emerging Mkt Stocks	7.75	7.25	(0.50)	26.00
Global Stocks	8.00	7.50	(0.50)	17.30
Private Markets	10.75	10.35	(0.40)	27.50
Cash Equivalents	1.55	1.45	(0.10)	1.25
Core Bonds	3.25	3.90	0.65	5.00
LT Core Bonds	3.10	4.55	1.45	10.00
TIPS	2.60	3.60	1.00	6.00
High Yield Bonds	5.15	5.25	0.10	10.00
Non-U.S. Bonds (Hdg)	2.90	3.55	0.65	3.50
U.S. RE Securities	5.30	5.10	(0.20)	15.00
Private Real Estate	6.05	5.85	(0.20)	12.25
Commodities	4.55	4.20	(0.35)	13.00
Real Asset Basket	6.35	6.30	(0.05)	7.75
Inflation:	2.55	2.20	(0.35)	1.75
<u>Returns minus Inflation:</u>				
U.S. Stocks	5.20	5.05	(0.15)	
U.S. Bonds	0.70	1.70	1.00	
Cash Equivalents	(1.00)	(0.75)	0.25	
<u>Stocks minus Bonds:</u>	4.50	3.35	(1.15)	
<u>Bonds minus Cash:</u>	1.70	2.45	0.75	



Economic Review

September 30, 2013	Key Economic Indicators			
CPI (all items) Seasonally adjusted	Monthly Change		Cumulative Change	
	Sep-13	0.2	3-Month	0.4
	Aug-13	0.1	12-Month	1.2
	Jul-13	0.2	10-Yr Annual	2.4
Breakeven Inflation	10-Year	2.2		
Consumer Sentiment Unv. of Michigan Survey	Sep-13	77.5		
	Aug-13	82.1		
	1-Yr Ago	78.3	10-Yr Avg	78.5
Manufacturing Inst. for Supply Mgmt Purchasing Mngrs' Idx	Sep-13	56.2	Change in Manufacturing Sector	
	Aug-13	55.7	>50	Expansion
	1-Yr Avg	52.4	<50	Contraction

Note: Seasonally adjusted CPI data is utilized to better reflect short-term pricing activity.

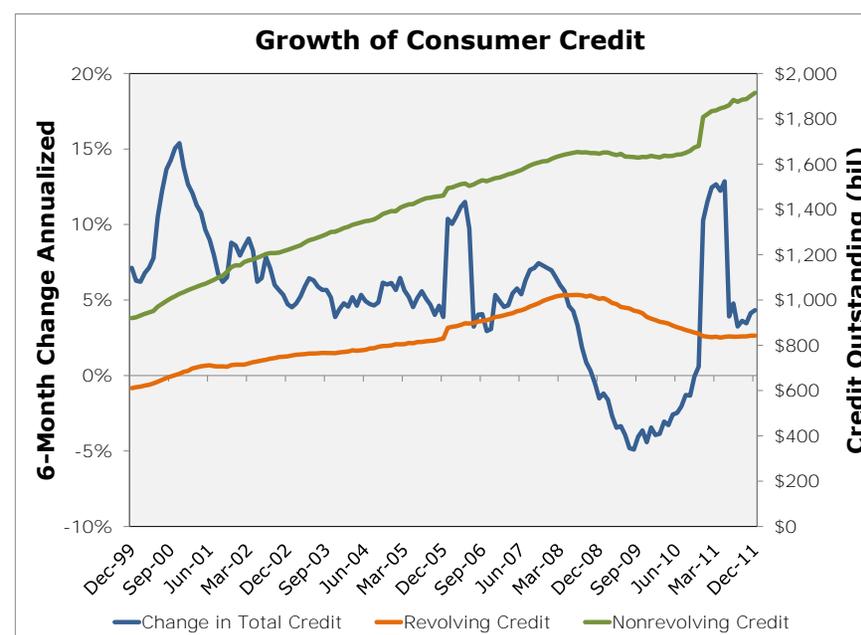
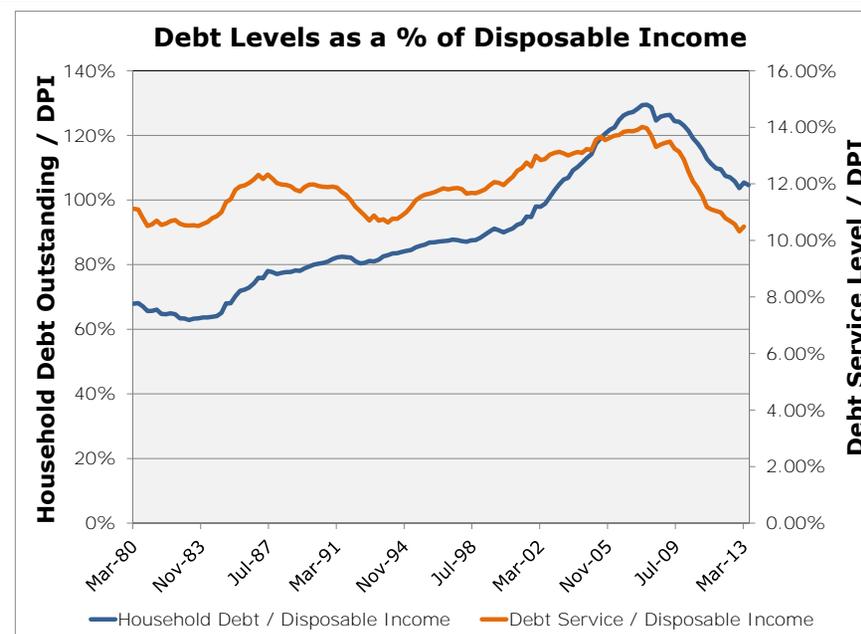


Data sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Barclays Capital



Consumer Debt Outstanding

- While debt outstanding remains elevated, debt service payments have fallen to levels not seen since the 1970s due to re-financing at historically low rates
- Consumer credit continues to expand
 - Revolving credit (i.e. credit cards) has been growing slightly after a large decline
 - Non-revolving credit (i.e. autos, school loans) continues to push higher
 - The Federal Reserve revised the historical data to better reflect student loan debt outstanding

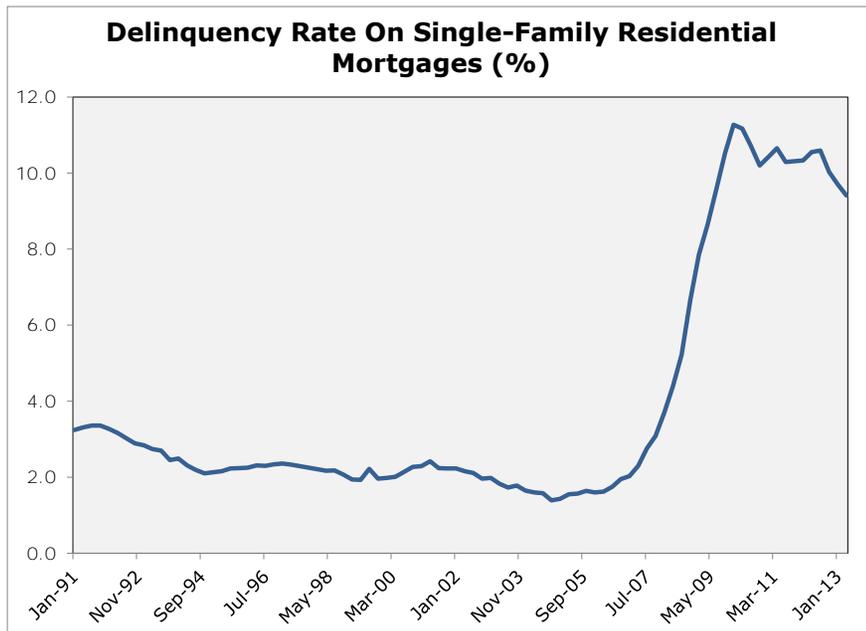
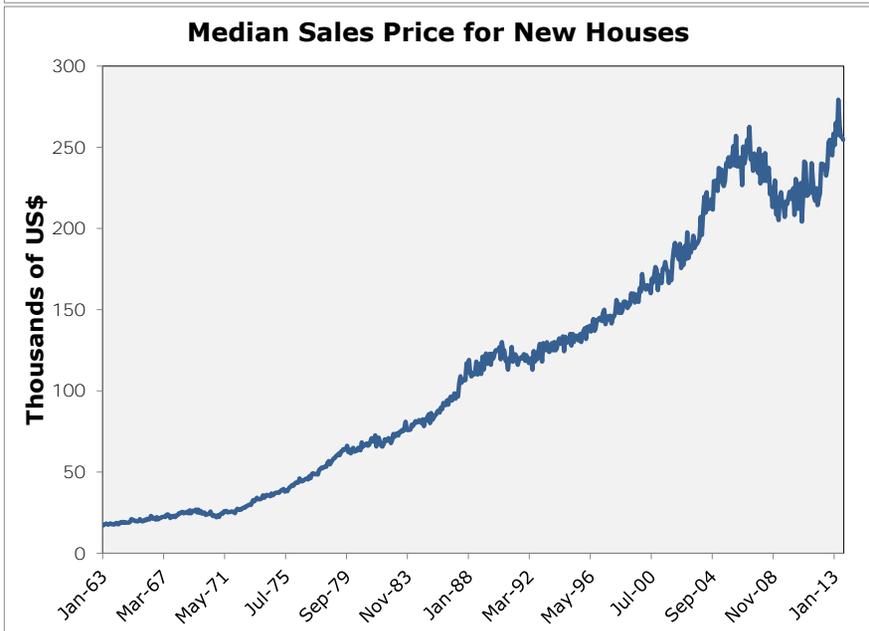


Source: Federal Reserve, Bureau of Economic Analysis



Improvements in Housing

- Improvement in household balance sheets has contributed to the rebound in housing
- Housing starts are nearly double their previous low while median prices are near the previous high
- Delinquency rates, however, remain elevated



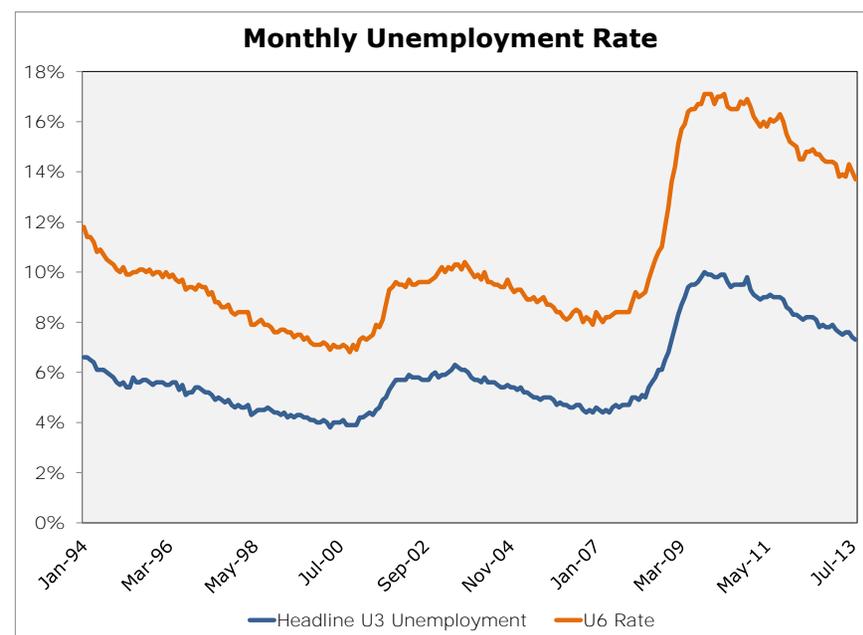
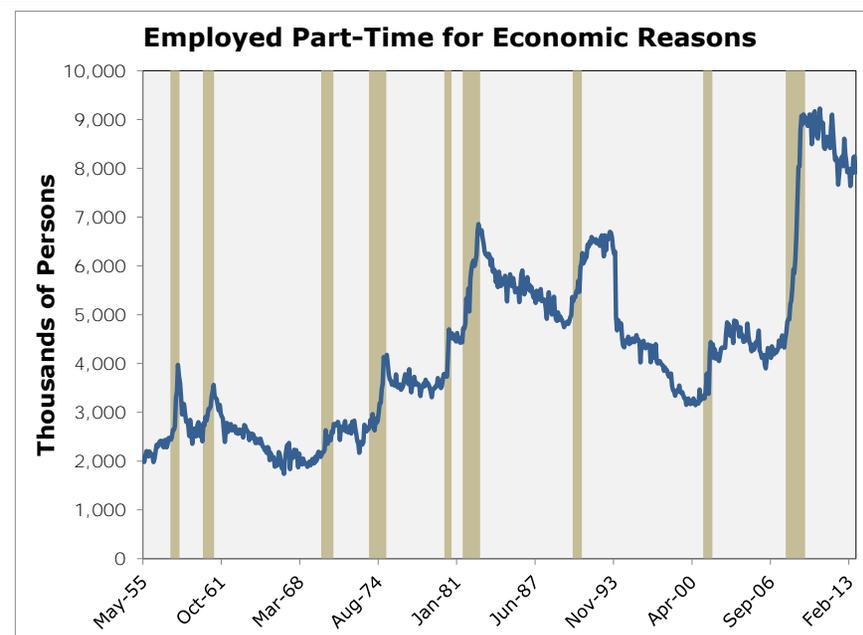
Source: U.S. Census Bureau, Federal Reserve



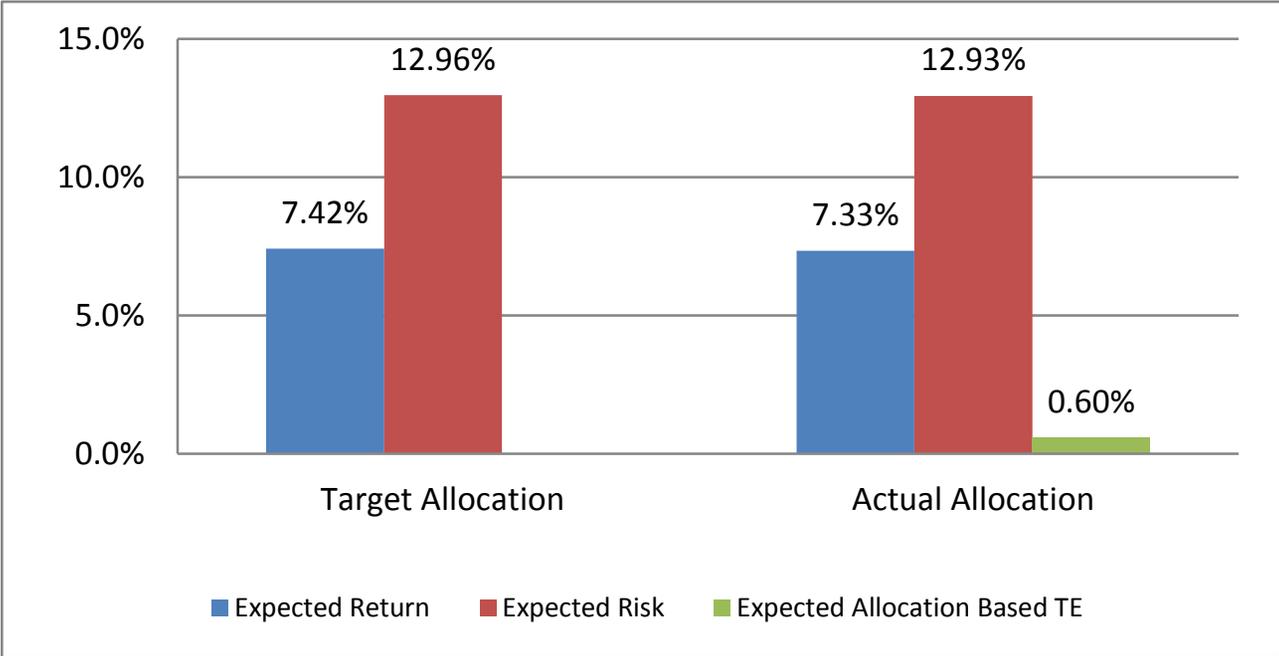
Employment Conditions

- Employed part-time for economic reasons are those individuals who are unable to find full-time employment
- While this number typically increases during recession (shaded areas), the recent rise was dramatic and it remains stubbornly high
- U6 Unemployment contains the workers mentioned above plus those “marginally attached” – individuals who have looked but cannot find employment
- U6 stands at 13.7% and exhibits an unusually wide spread versus U3

Source: Bureau of Labor Statistics



CalPERS Investments are Expected to Provide Return

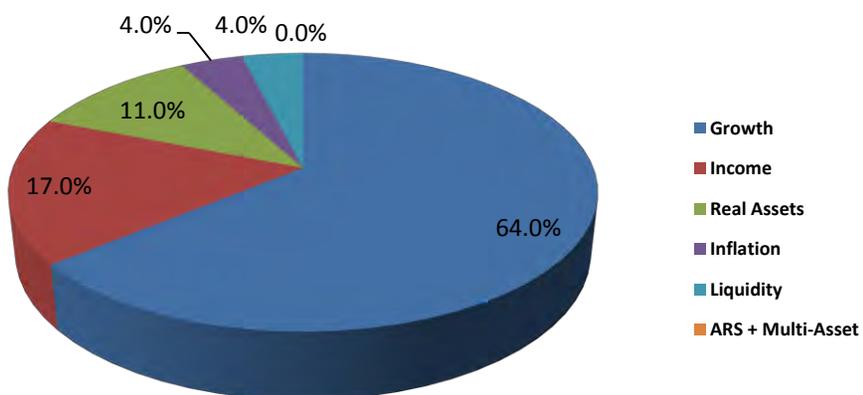


Forecasts using Wilshire's September 2013 Asset Class Assumptions.

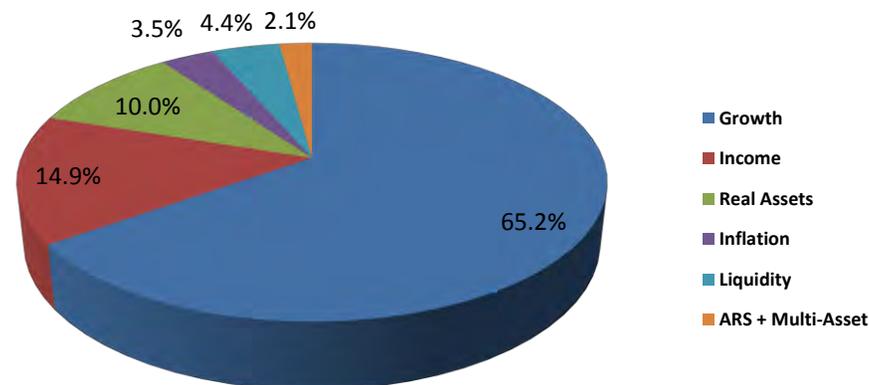


Asset and Risk Allocation

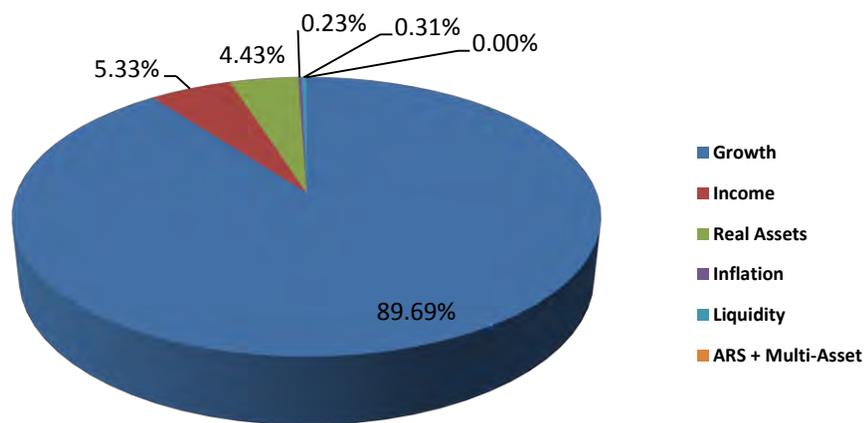
Target Asset Allocation



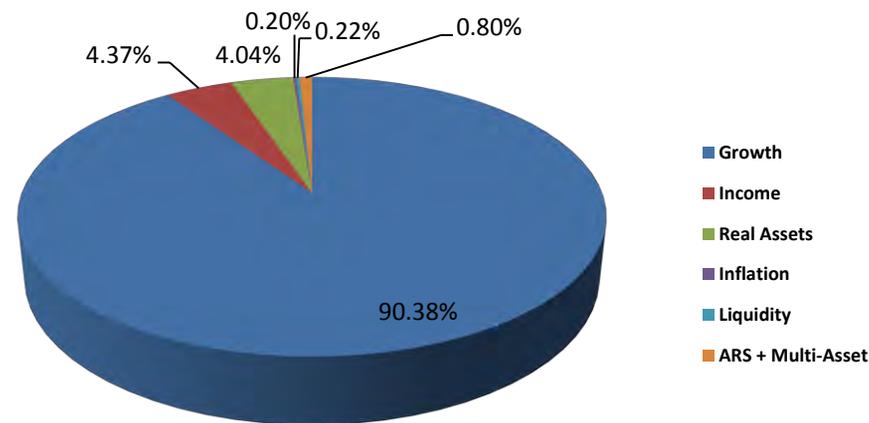
Actual Asset Allocation



Contribution to Total Risk - Target Allocation



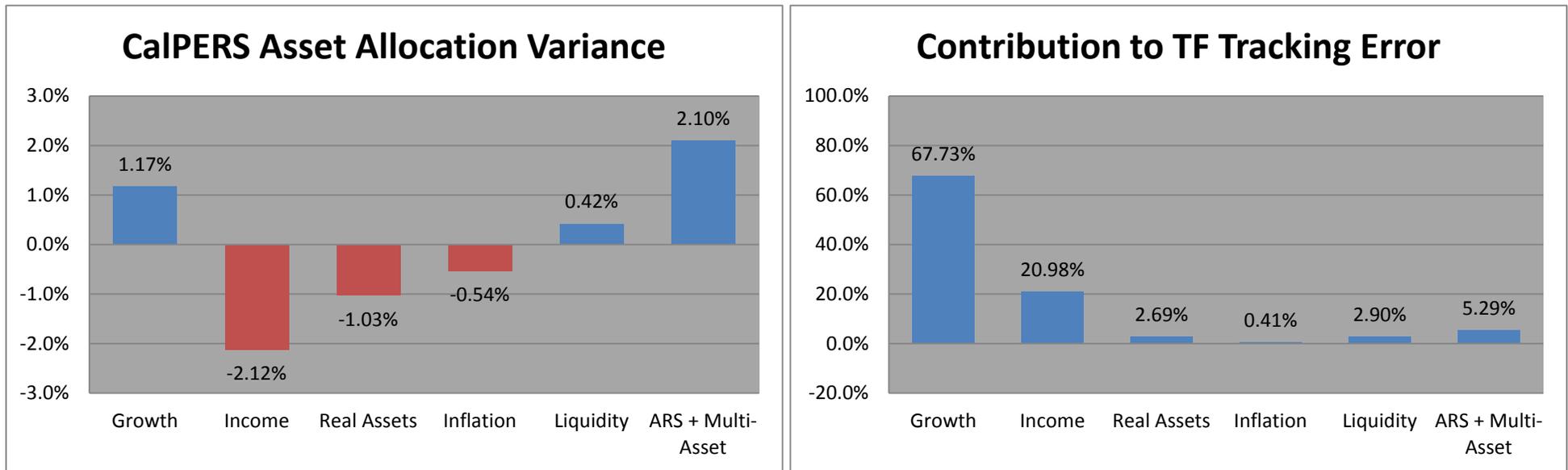
Contribution to Total Risk - Actual Allocation



Forecasts using Wilshire's September 2013 Asset Class Assumptions.



Drivers of Expected Excess Risk



- This excess risk forecast is based on asset allocation variance only.
- Other sources of risk (structural within asset classes, manager/program specific source of tracking error, covariance) are not considered here.



Total Fund – Performance

	Market Value	Five-Year Ratios							
		Qtr	1-Year	3-Year	5-Year	10-Year	VaR	Sharpe	Info
TOTAL FUND	\$271.5 bil	5.4%	13.7%	10.2%	6.6%	7.2%	\$35.7 bil	0.6	-0.5
<i>Total Fund Policy Benchmark</i>		4.8%	12.3%	10.1%	8.2%	8.0%		0.7	0.0
<i>Actuarial Rate</i>		1.8%	7.5%	7.6%	7.7%	7.7%			
GROWTH	176.4	7.9%	20.5%	12.3%	8.1%	8.5%	\$36.2 bil	0.5	-0.4
<i>Growth Policy Benchmark</i>		7.0%	20.7%	12.8%	9.6%	9.2%		0.6	0.0
PUBLIC EQUITY	145.1	8.6%	20.8%	11.3%	8.5%	7.9%	\$28.5 bil	0.4	-0.2
<i>Public Equity Policy Benchmark</i>		8.4%	19.8%	10.8%	8.8%	8.2%		0.4	0.0
PRIVATE EQUITY	31.3	4.6%	19.0%	15.8%	7.6%	12.8%	\$9.9 bil	0.8	-0.3
<i>Private Equity Policy Benchmark</i>		1.8%	23.0%	18.7%	12.7%	14.2%		0.8	0.0
INCOME	40.4	0.6%	-3.9%	4.4%	9.0%	6.5%	\$4.6 bil	1.3	0.5
<i>Income Policy Benchmark</i>		0.5%	-4.9%	3.8%	7.2%	5.7%		1.1	0.0
REAL ASSETS	27.1	1.4%	11.7%	11.9%	-6.8%	3.7%	\$3.1 bil	-0.4	-0.9
<i>Real Assets Policy Benchmark</i>		3.2%	10.8%	12.1%	3.7%	9.0%		0.6	0.0
INFLATION	9.4	2.6%	-2.9%	5.4%	1.3%	-.%	\$0.6 bil	0.1	-0.2
<i>Inflation Policy Benchmark</i>		2.8%	-3.0%	4.1%	1.9%	-.%		0.2	0.0
LIQUIDITY	12.0	0.1%	-1.1%	1.4%	1.1%	2.3%	\$0.5 bil	0.7	-0.5
<i>Liquidity Policy Benchmark</i>		0.4%	-1.0%	1.6%	1.2%	2.3%		0.7	0.0
ABSOLUTE RETURN STRATEGIES	5.2	1.7%	6.8%	3.5%	3.6%	5.0%		0.7	-0.4
<i>Absolute Return Strategies Policy Benchmark</i>		1.4%	5.3%	5.4%	5.9%	7.9%		12.3	0.0
MULTI-ASSET CLASS COMPOSITE	0.5	0.0%	-.%	-.%	-.%	-.%		N/A	N/A
<i>Absolute 7.5%</i>		1.8%	-.%	-.%	-.%	-.%		N/A	N/A
CURRENCY + ASSET ALLOCATION TRANSITION	0.5	-.%	-.%	-.%	-.%	-.%		N/A	N/A
TERMINATED AGENCY POOL	0.1	-1.1%	-.%	-.%	-.%	-.%		N/A	N/A
TOTAL FUND PLUS TAP	271.6	5.4%	13.7%	10.2%	6.6%	7.2%		N/A	N/A



Total Fund – Attribution (Quarter)

California Public Employees' Retirement System
Total Fund Attribution - Quarter
As of 9/30/2013

Asset Class	Actual (%)		Policy (%)		Difference (%)		Total Fund Return Contribution (%)			
	Weight	Return	Weight	Return	Weight	Return	Actual Allocation	Interaction	Active Management	Total
Growth	64.48	7.88	64.00	6.99	0.48	0.88	0.00	0.01	0.56	0.57
Public Equity	52.47	8.63	50.00	8.43	2.47	0.19	0.07	0.00	0.10	0.17
Private Equity	12.01	4.64	14.00	1.77	-1.99	2.87	0.06	-0.06	0.40	0.40
Income	15.85	0.60	17.00	0.55	-1.16	0.05	0.05	0.00	0.01	0.06
Real Assets	9.88	1.43	11.00	3.15	-1.12	-1.72	0.01	0.02	-0.19	-0.16
Inflation	3.56	2.65	4.00	2.79	-0.44	-0.14	0.01	0.00	-0.01	0.00
Absolute Return	2.19	1.73	0.00	1.36	2.19	0.38	-0.08	0.01	0.00	-0.07
Liquidity	4.04	0.12	4.00	0.37	0.04	-0.25	0.00	0.00	-0.01	-0.01
Monthly Linked Return	100.00	5.42	100.00	5.03		0.38	-0.01	0.04	0.36	0.39
Trading/Hedging/Other		-0.01		-0.20		0.18				0.18
Total		5.40		4.84		0.57				0.57

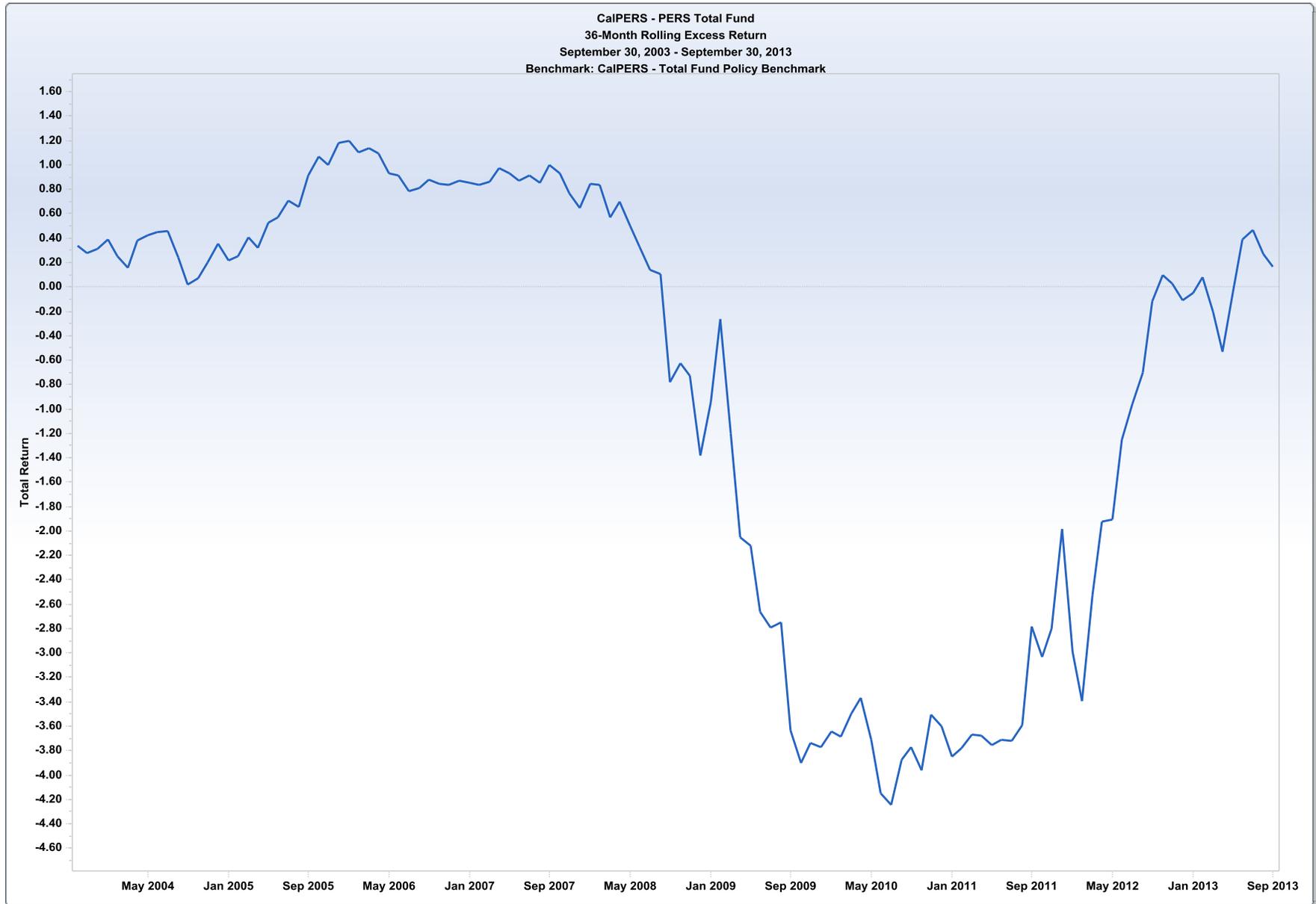


Total Fund – Attribution (Calendar YTD)

California Public Employees' Retirement System
Total Fund Attribution - Calendar Year-to-Date
As of 9/30/2013

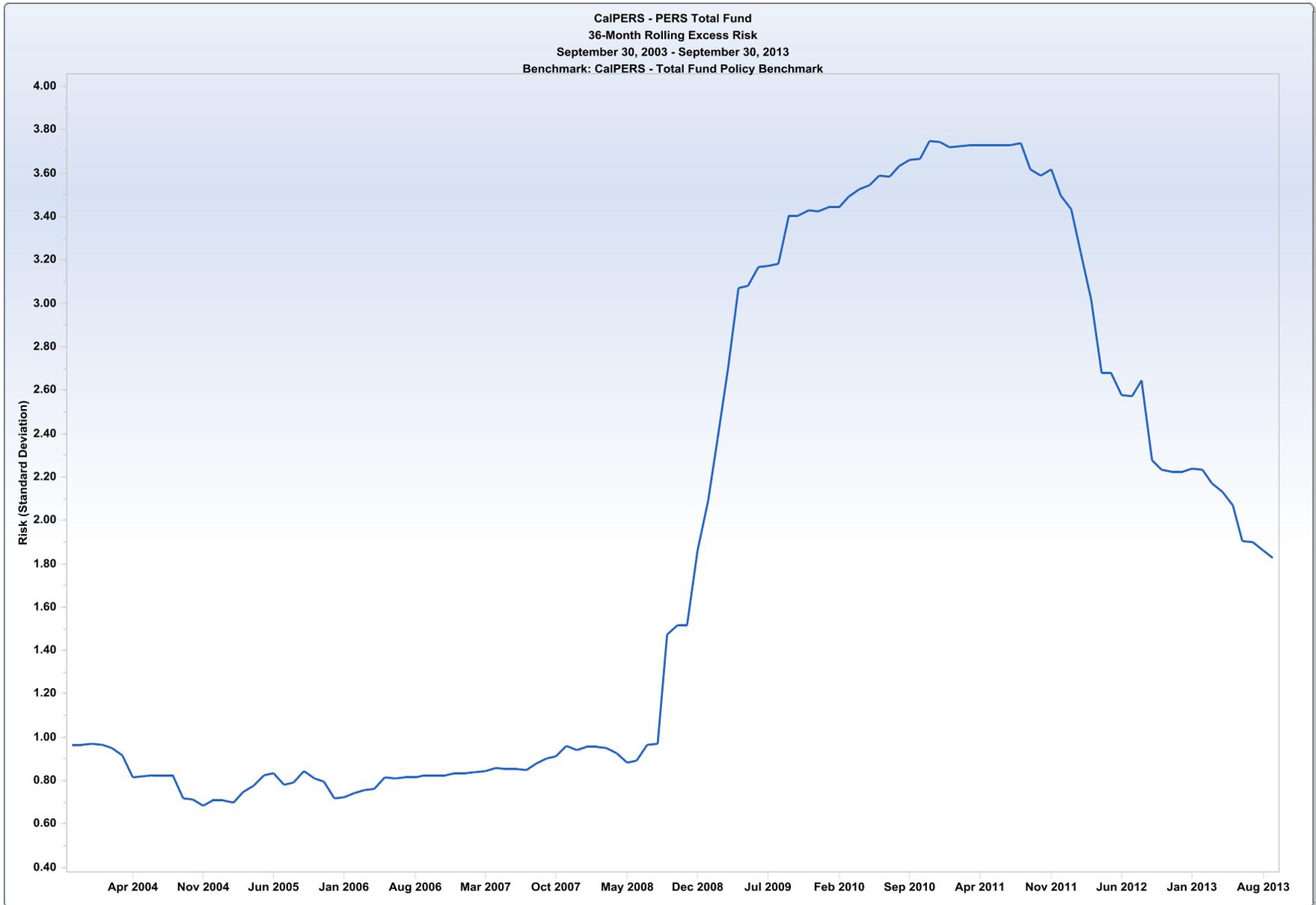
Asset Class	Actual (%)		Policy (%)		Difference (%)		Total Fund Return Contribution (%)			
	Weight	Return	Weight	Return	Weight	Return	Actual Allocation	Interaction	Active Management	Total
Growth	64.08	16.19	64.00	15.82	0.08	0.37	-0.02	0.00	0.23	0.21
Public Equity	51.79	16.74	50.00	16.04	1.79	0.70	0.06	0.01	0.34	0.40
Private Equity	12.29	14.05	14.00	14.42	-1.71	-0.37	-0.10	0.00	-0.07	-0.18
Income	16.45	-4.29	17.00	-4.95	-0.55	0.66	0.04	0.00	0.13	0.17
Real Assets	9.65	9.74	11.00	8.09	-1.35	1.65	-0.01	-0.05	0.22	0.16
Inflation	3.62	-3.70	4.00	-3.72	-0.38	0.03	0.04	0.00	0.00	0.05
Absolute Return	2.22	6.18	0.00	3.98	2.22	2.20	-0.13	0.05	0.00	-0.08
Liquidity	3.98	-1.05	4.00	-0.98	-0.02	-0.07	0.00	0.00	0.00	-0.01
Monthly Linked Return	100.00	10.23	100.00	9.73		0.51	-0.07	0.00	0.58	0.51
Trading/Hedging/Other		0.53		-0.46		0.99				0.99
Total		10.77		9.27		1.50				1.50

Total Fund – Rolling Excess Returns





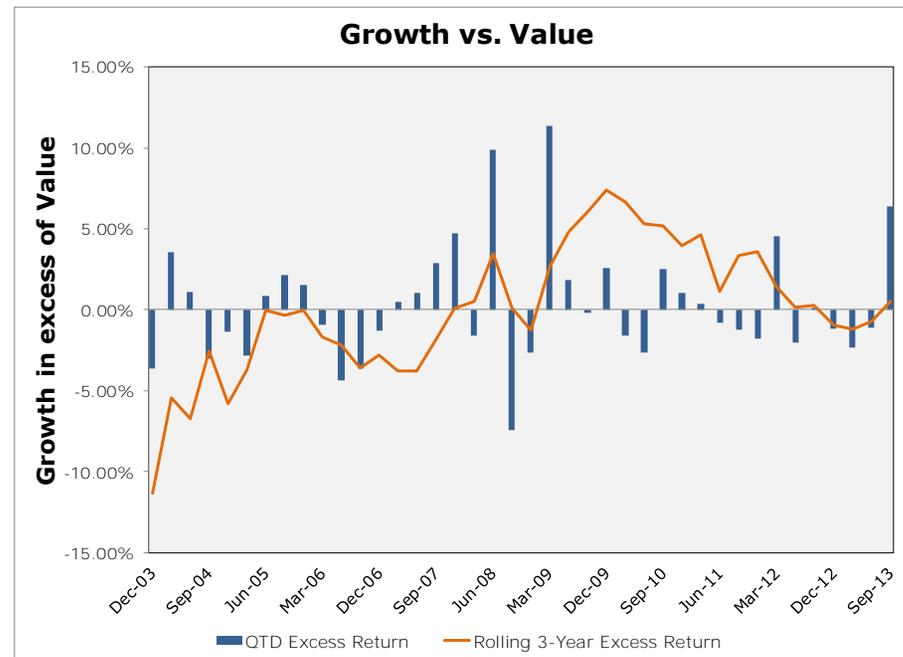
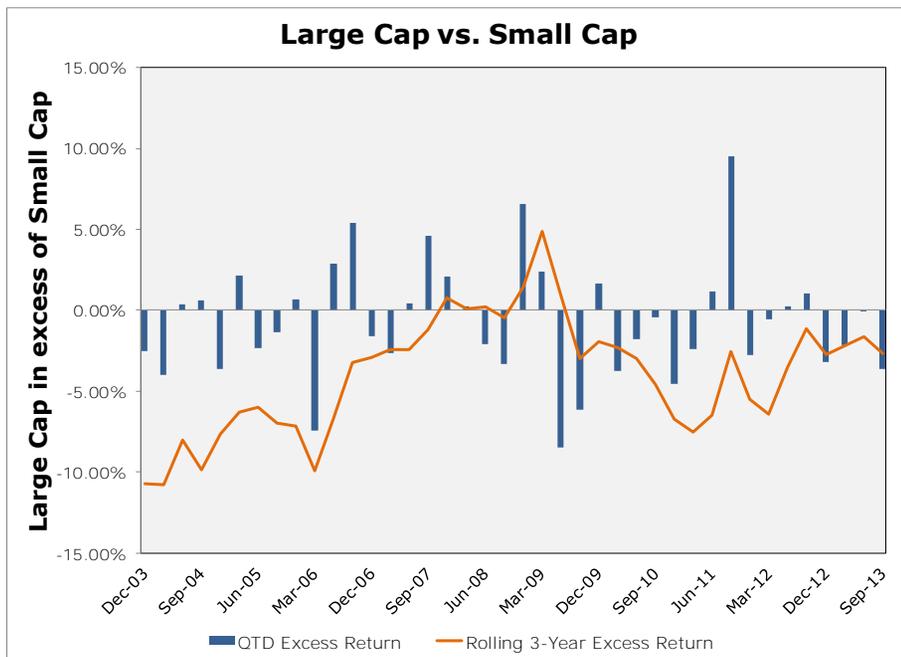
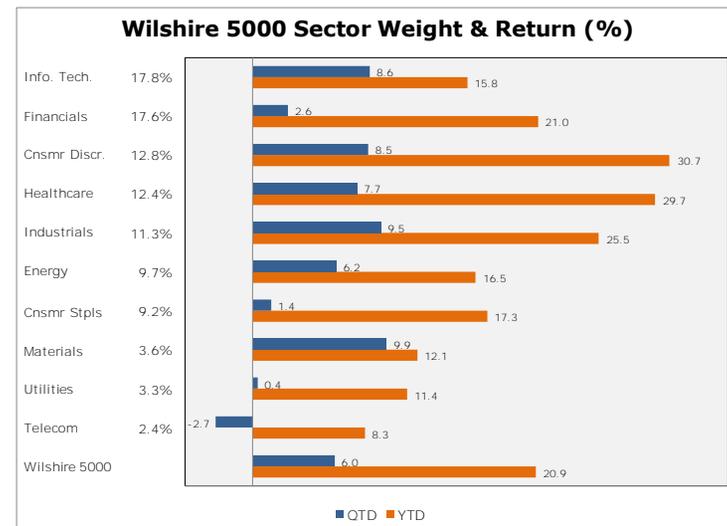
Total Fund – Rolling Tracking Error





U.S. Equity Market

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Wilshire 5000	6.0	20.9	21.0	16.5	10.4	8.2
Wilshire U.S. Large Cap	5.6	20.1	19.8	16.2	10.0	7.9
Wilshire U.S. Small Cap	9.6	27.4	31.4	19.4	14.3	11.3
Wilshire U.S. Large Growth	9.3	21.5	20.6	16.3	11.3	8.1
Wilshire U.S. Large Value	2.7	19.0	19.3	16.0	8.7	7.6
Wilshire U.S. Small Growth	12.6	33.5	35.8	21.0	15.8	12.0
Wilshire U.S. Small Value	6.8	22.1	27.4	17.7	12.8	10.6
Wilshire REIT Index	-3.0	2.7	5.3	12.5	5.6	9.4
MSCI USA Minimum Volatility Index	2.7	15.9	13.8	15.3	9.1	7.8
FTSE RAFI U.S. 1000 Index	5.2	22.8	25.5	17.2	13.2	n.a.

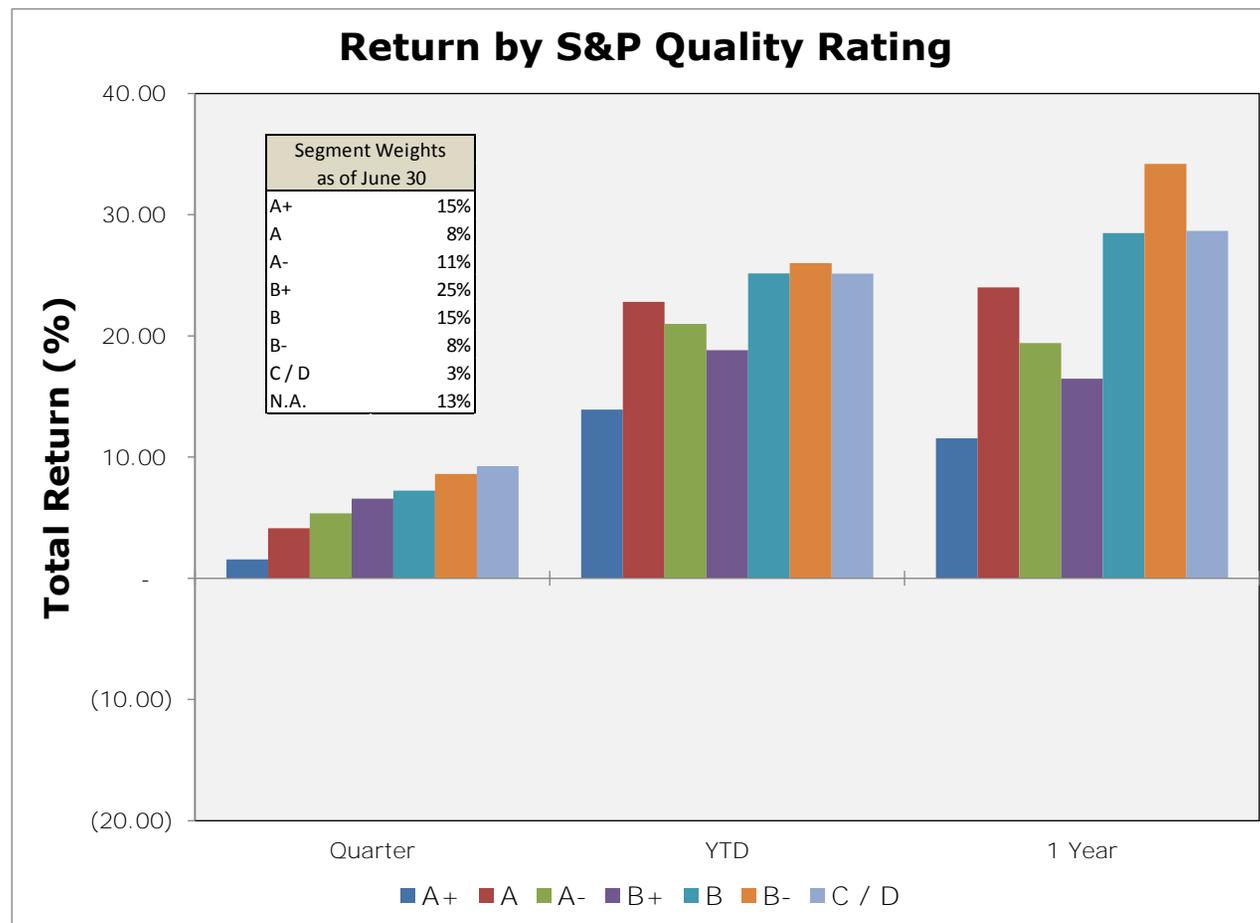


Data sources: Wilshire Compass, Wilshire Atlas



Returns by Quality Segment

Lower quality names have performed well during the past quarter and for the last twelve months



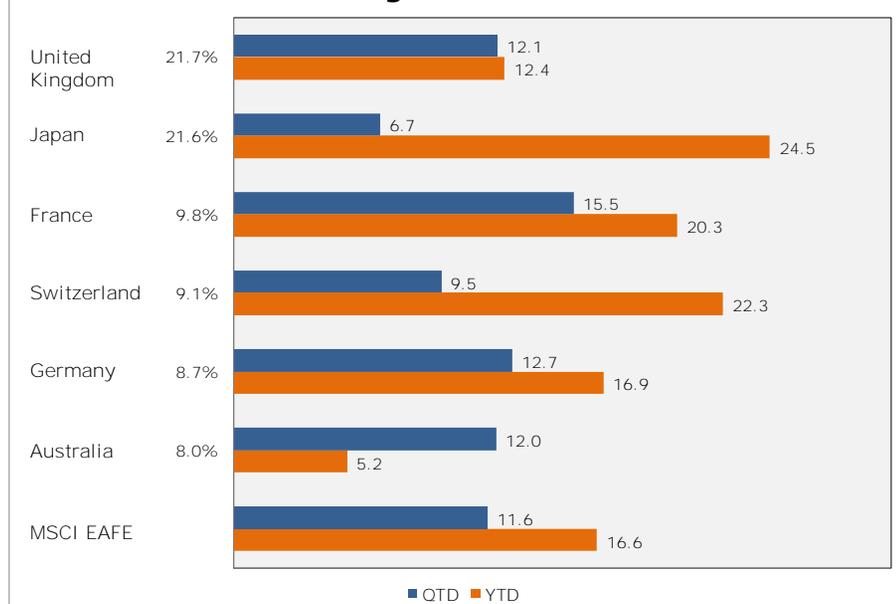
Data sources: Wilshire Atlas



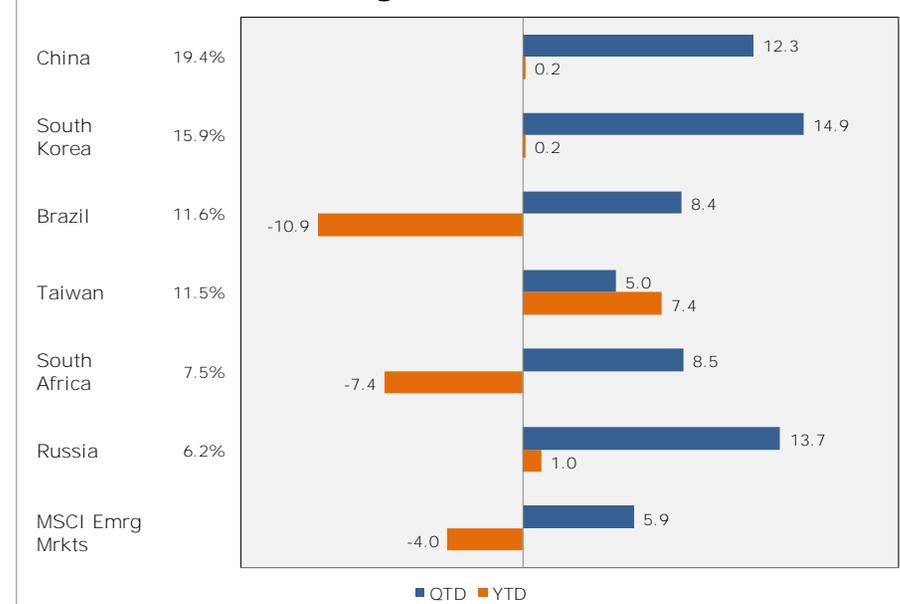
Non-U.S. Equity Market

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
MSCI ACWI ex-US (\$g)	10.2	10.5	17.0	6.4	6.7	9.2
MSCI EAFE (\$g)	11.6	16.6	24.3	9.0	6.9	8.5
MSCI Emerging Markets (\$g)	5.9	-4.0	1.3	0.0	7.6	13.2
MSCI Frontier Markets (\$g)	6.3	18.5	22.1	4.5	-2.2	7.7
MSCI ACWI ex-US Growth (\$g)	8.9	10.7	16.5	6.5	6.7	8.8
MSCI ACWI ex-US Value (\$g)	11.5	10.2	17.4	6.4	6.8	9.7
MSCI ACWI ex-US Small (\$g)	12.5	14.8	20.5	7.6	11.8	11.5
MSCI EAFE Minimum Volatility Idx	6.9	14.5	14.8	9.6	8.1	10.9
FTSE RAFI Developed ex-US Index	13.6	17.7	26.5	7.5	7.3	n.a.
MSCI EAFE LC (\$g)	7.6	19.8	28.8	9.6	6.0	6.8
MSCI Emerging Markets LC (\$g)	5.8	0.8	6.2	3.1	8.5	12.8

MSCI EAFE: Largest Countries and Return



MSCI EM: Largest Countries and Return



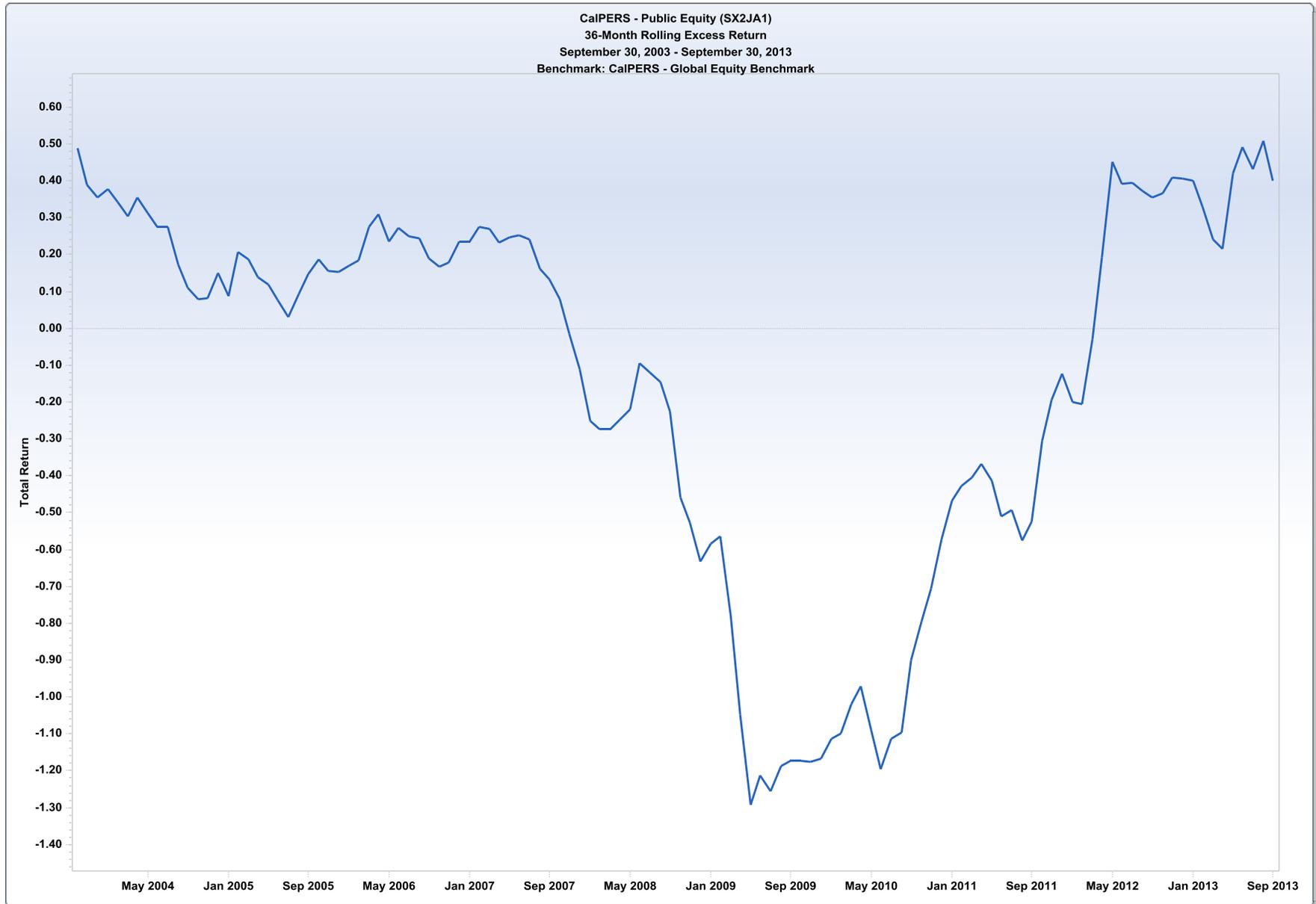
Data sources: Wilshire Compass, MSCI Barra

Growth: Public Equity – Performance

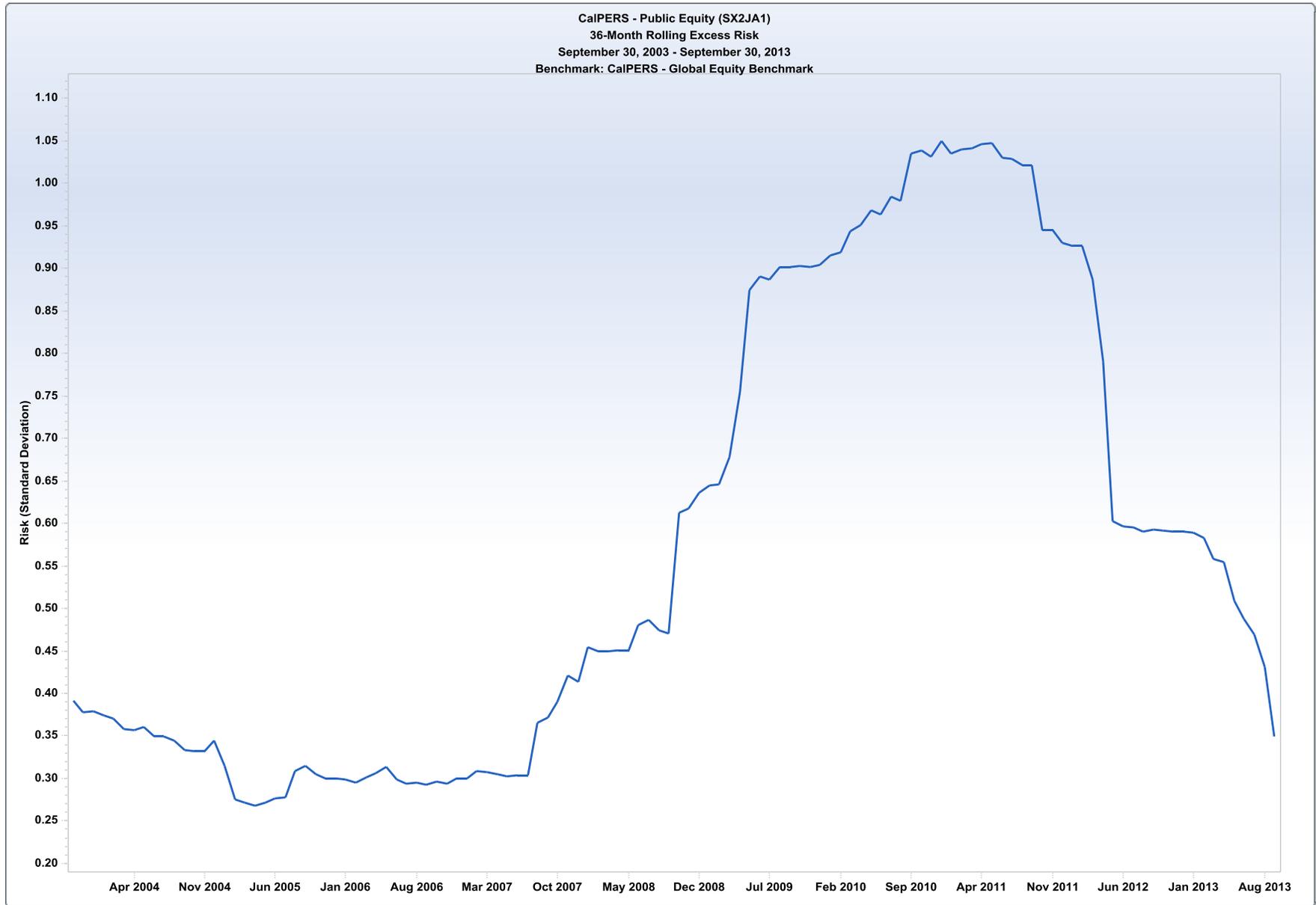


	<u>Market Value</u>	<u>Qtr</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>VaR</u>	<u>5-year Sharpe Ratio</u>	<u>5-year Info Ratio</u>
PUBLIC EQUITY	145.1	8.6%	20.8%	11.3%	8.5%	7.9%	\$28.5 bil	0.4	-0.2
<i>Public Equity Policy Benchmark</i>		8.4%	19.8%	10.8%	8.8%	8.2%		0.4	0.0
<i>Value Added</i>		0.2%	1.0%	0.5%	-0.3%	-0.3%			
US Equity Composite	69.6	6.5%	23.3%	16.8%	10.8%	8.1%		0.6	0.5
<i>Custom US Equity Benchmark</i>		6.5%	22.2%	16.7%	10.5%	8.1%		0.6	0.0
<i>Value Added</i>		0.0%	1.1%	0.1%	0.3%	0.0%			
Total Int'l Equity	73.8	10.8%	18.5%	6.7%	7.1%	9.2%		0.3	0.4
<i>Custom Int'l Equity Benchmark</i>		10.7%	19.9%	7.2%	6.6%	8.9%		0.3	0.0
<i>Value Added</i>		0.1%	-1.4%	-0.5%	0.5%	0.3%			
Global Equity Equitization	1.0	7.6%	19.4%	11.9%	-.-%	-.-%			
<i>Custom Benchmark</i>		8.4%	19.8%	10.8%	-.-%	-.-%			
<i>Value Added</i>		-0.8%	-0.4%	1.1%	-.-%	-.-%			

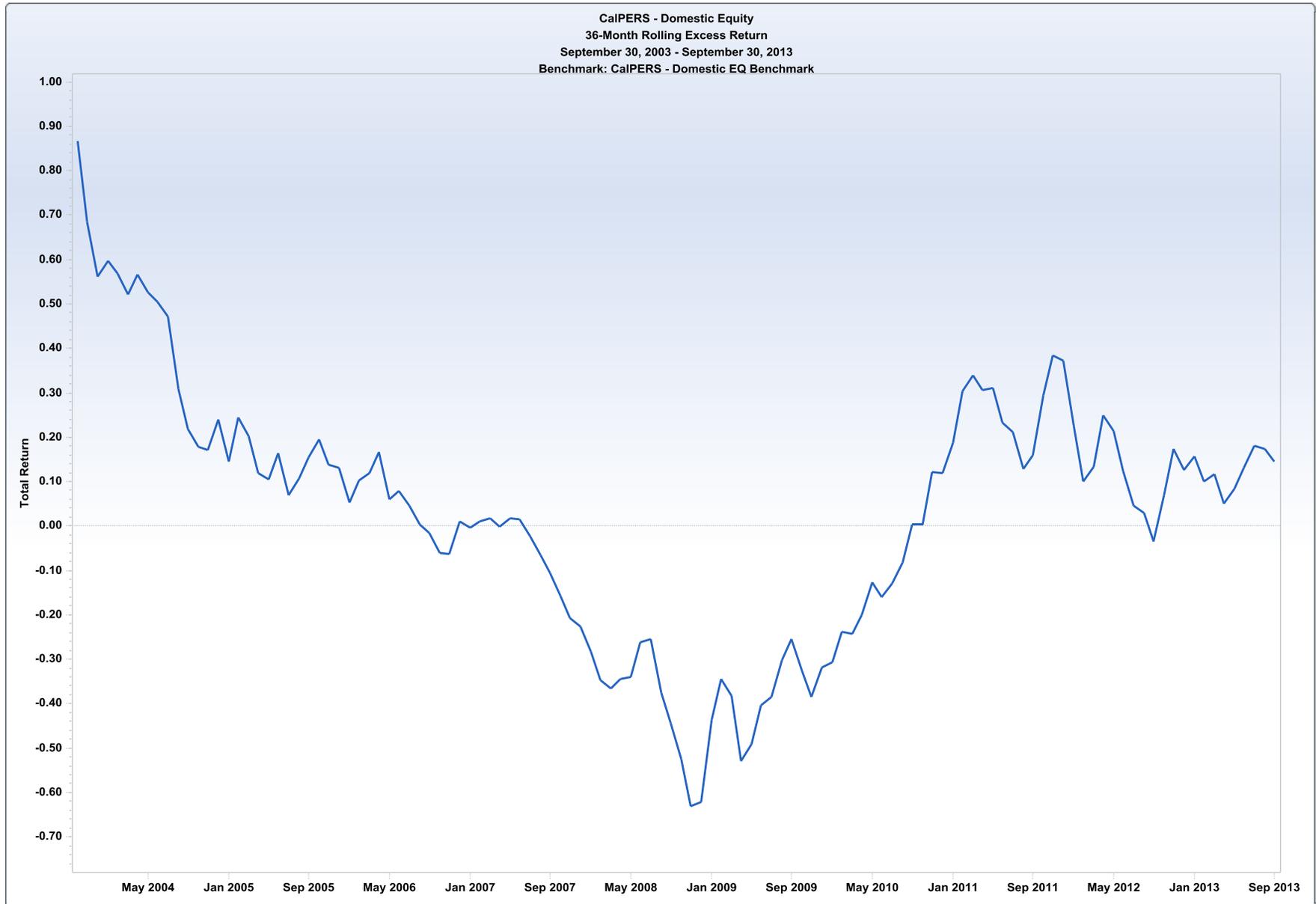
Growth: Public Equity – Rolling Excess Returns



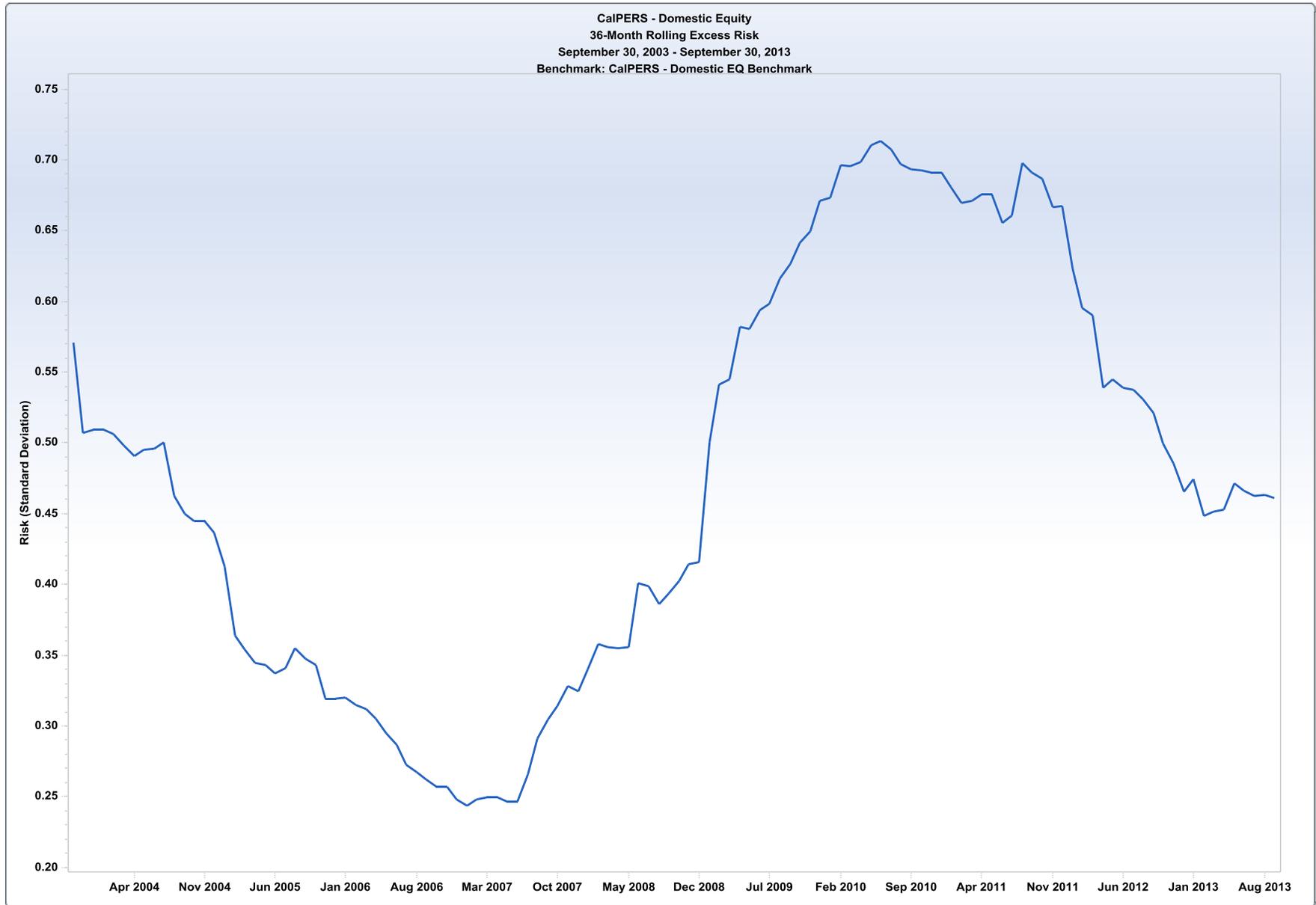
Growth: Public Equity – Rolling Tracking Error



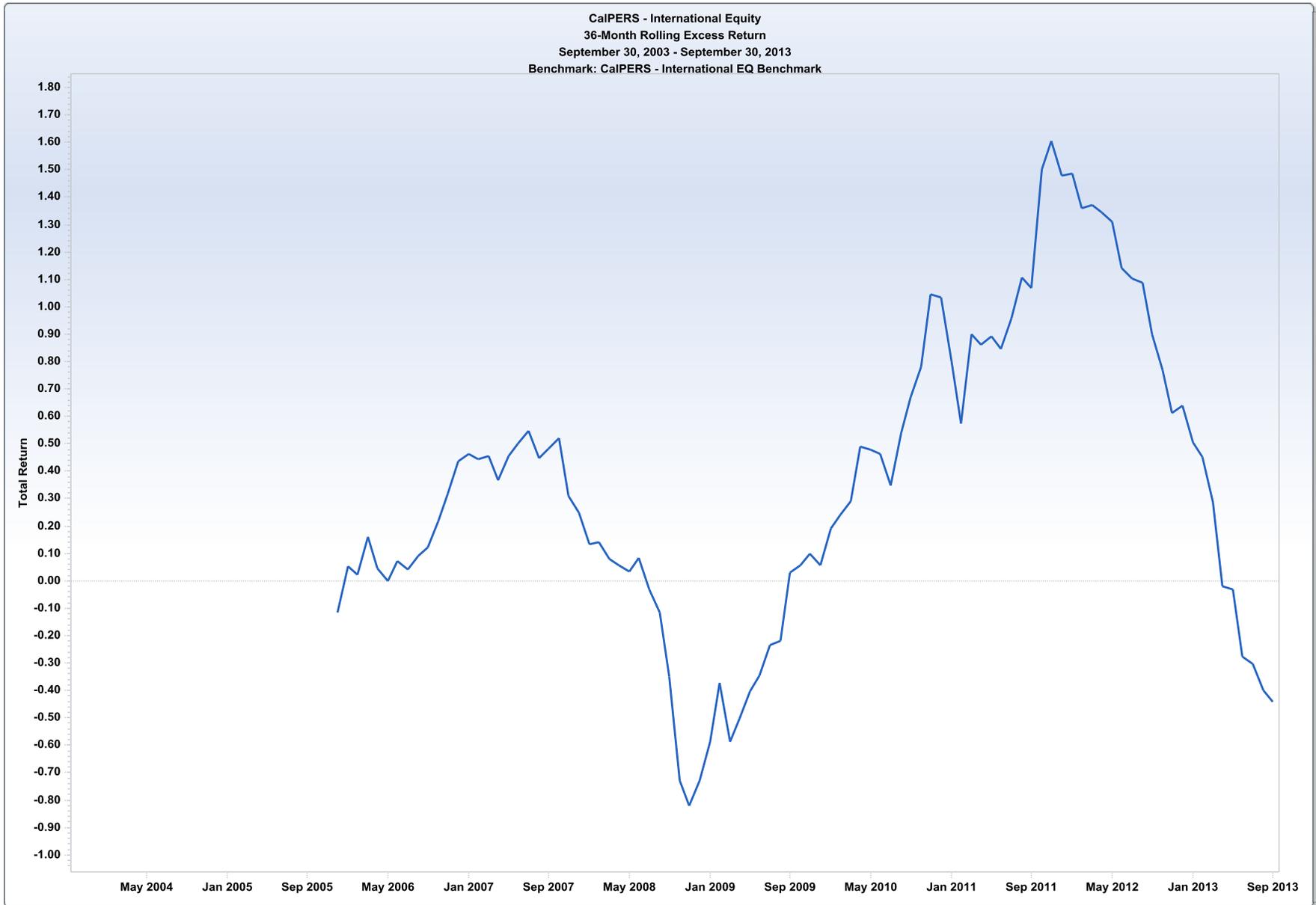
Growth: US Equity – Rolling Excess Returns



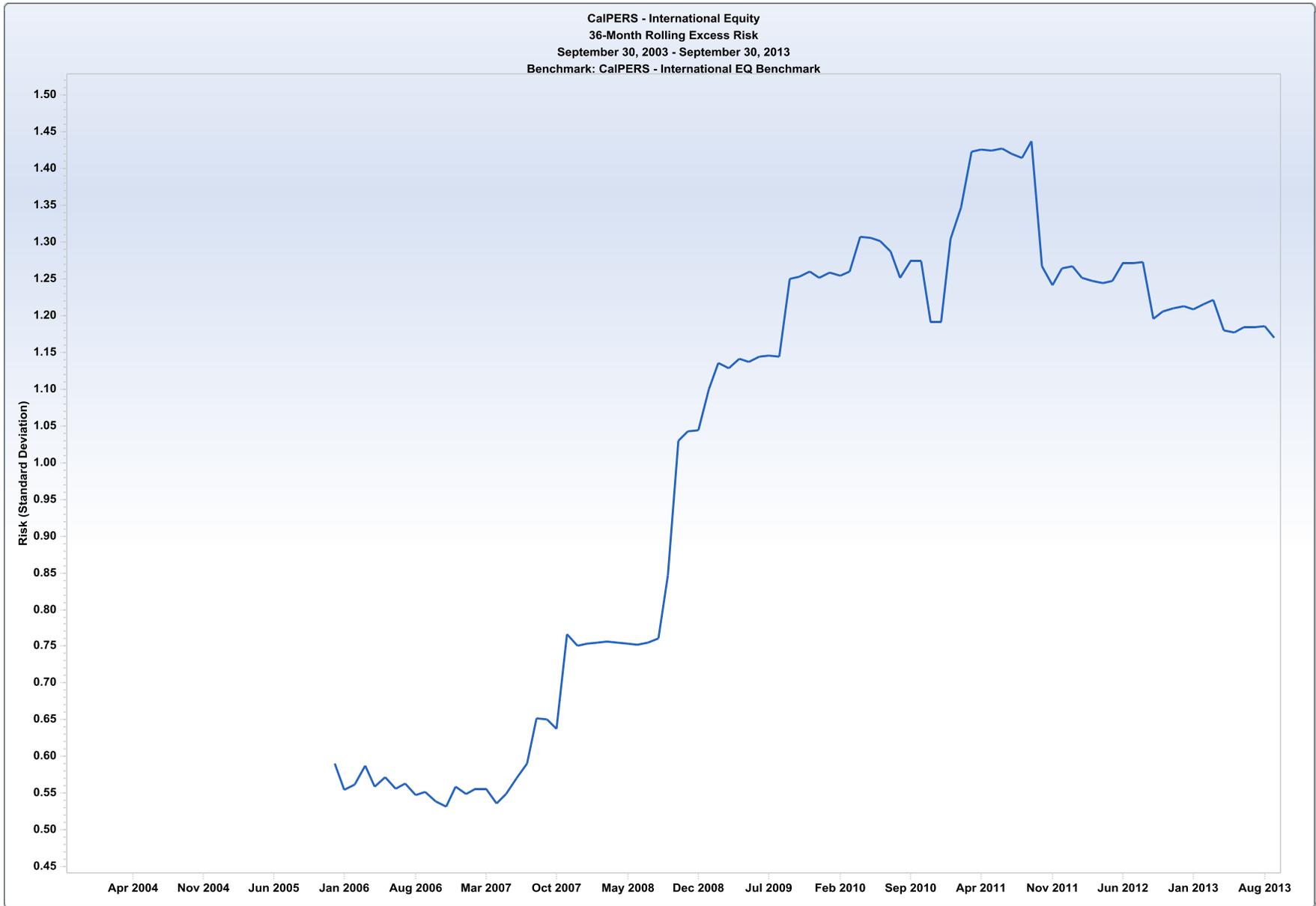
Growth: US Equity – Rolling Tracking Error



Growth: International Equity – Rolling Excess Returns



Growth: International Equity – Rolling Tracking Error



Growth: Corporate Governance/MDP/FoF



	<u>Market</u> <u>Value</u>	<u>Qtr</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>Date</u>
Total Corporate Governance	4.7	9.2%	29.4%	11.1%	7.8%	7.1%	12/98
<i>Policy Benchmark</i>		6.3%	25.7%	12.0%	7.1%	7.1%	
<i>Value Added</i>		2.9%	3.7%	-0.9%	0.7%	0.0%	
Total MDP	1.7	9.4%	19.7%	13.0%	8.3%	7.5%	6/00
<i>Policy Benchmark</i>		8.8%	20.1%	12.6%	9.1%	8.5%	
<i>Value Added</i>		0.6%	-0.4%	0.4%	-0.8%	-1.0%	
Total FoF	1.1	9.1%	22.8%	14.4%	10.7%	-.-%	3/08
<i>Policy Benchmark</i>		7.3%	20.7%	13.2%	10.0%	-.-%	
<i>Value Added</i>		1.8%	2.1%	1.2%	0.7%	-.-%	

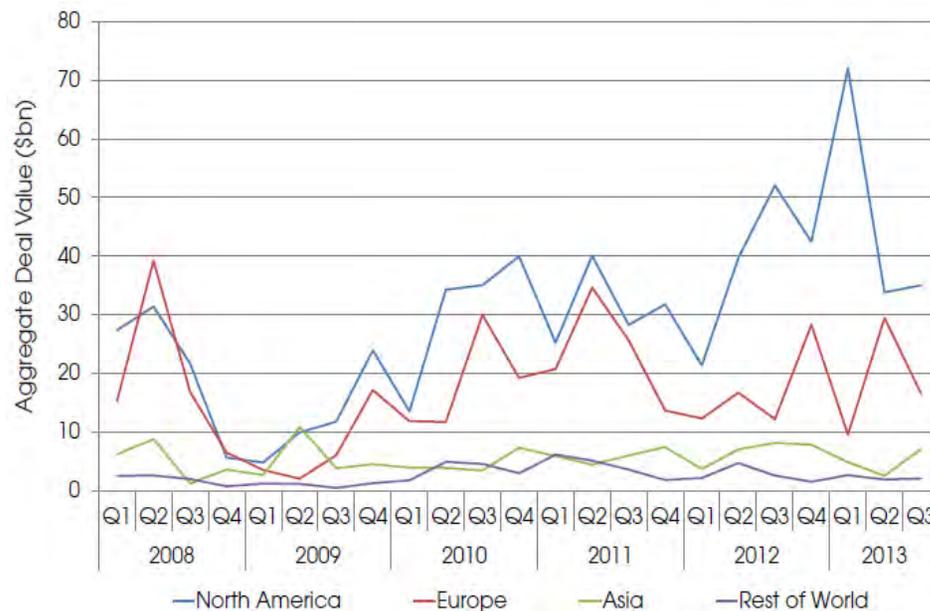
Private Equity Environment – Fundraising & Investment Activity



Global PE Fundraising (Q1 2008 – Q3 2013)



Global PE-Backed Buyout Activity (Q1 2008 – Q3 2013)

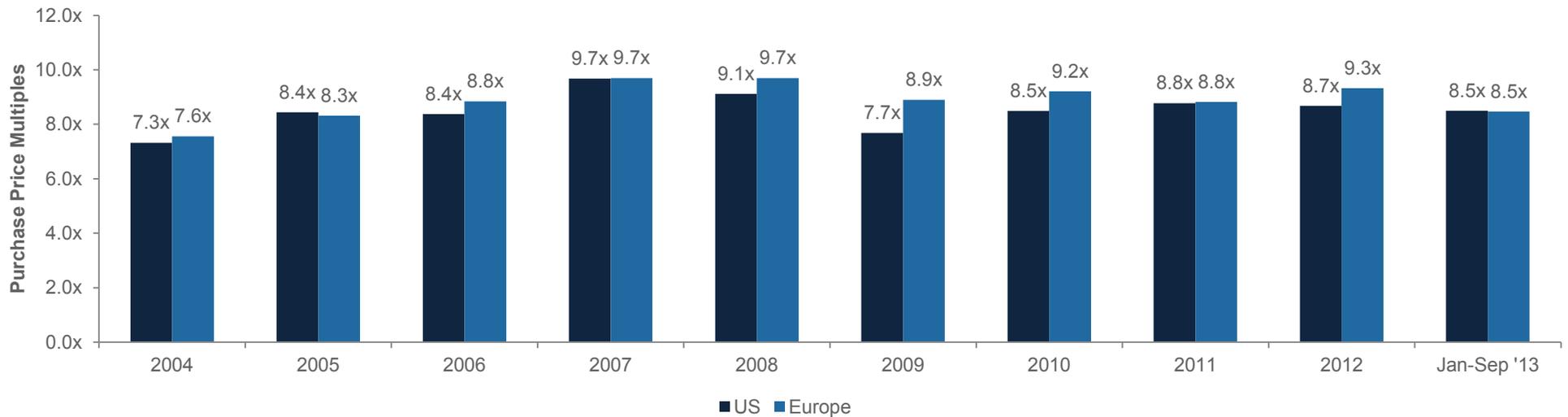


Sources: Preqin.

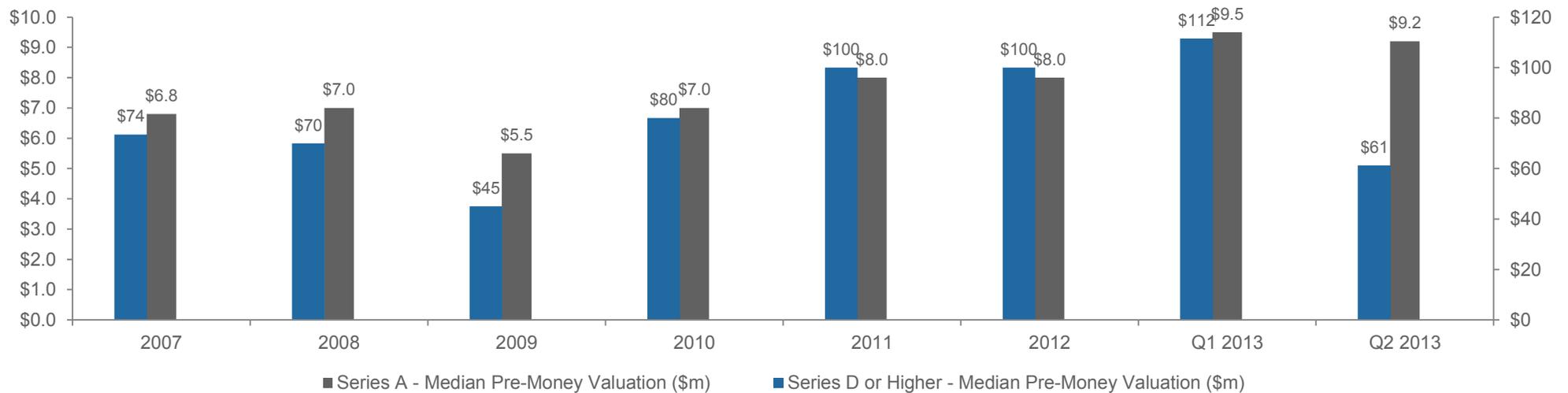
Private Equity Environment – Pricing



Global LBO Multiples (2004 – Q3 2013)



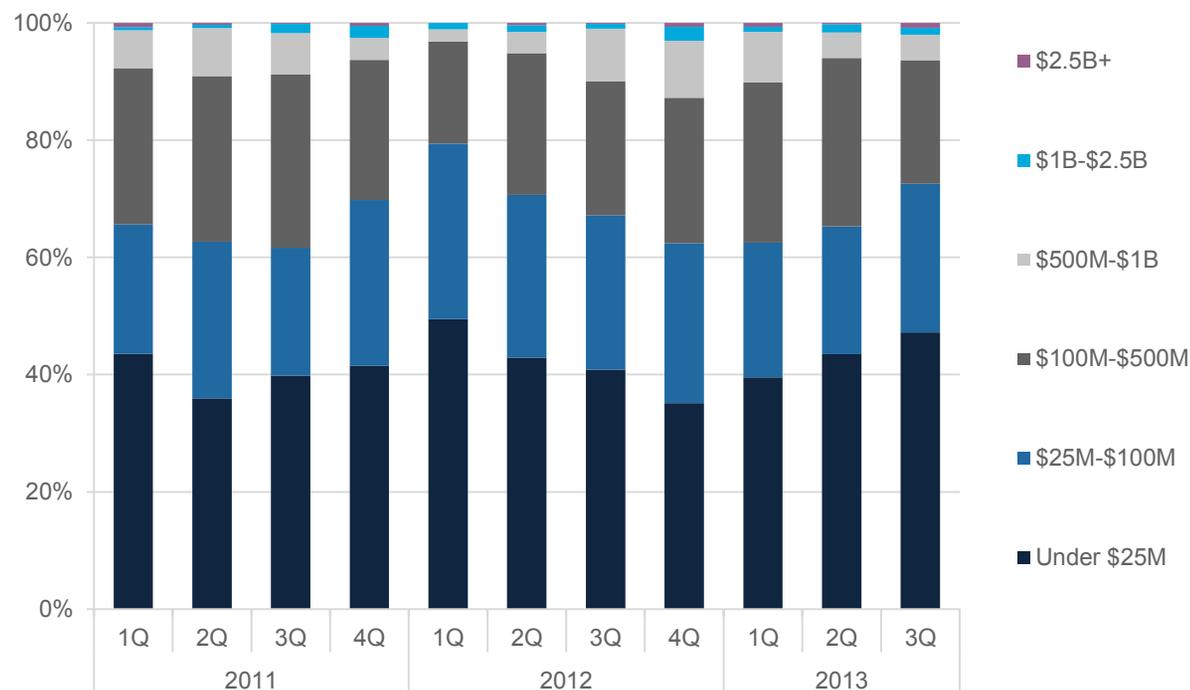
Venture Capital Valuations (2007 – Q2 2013)





U.S. Investment Activity by Deal Size

Percentage of Deal Volume (count) by Deal Size

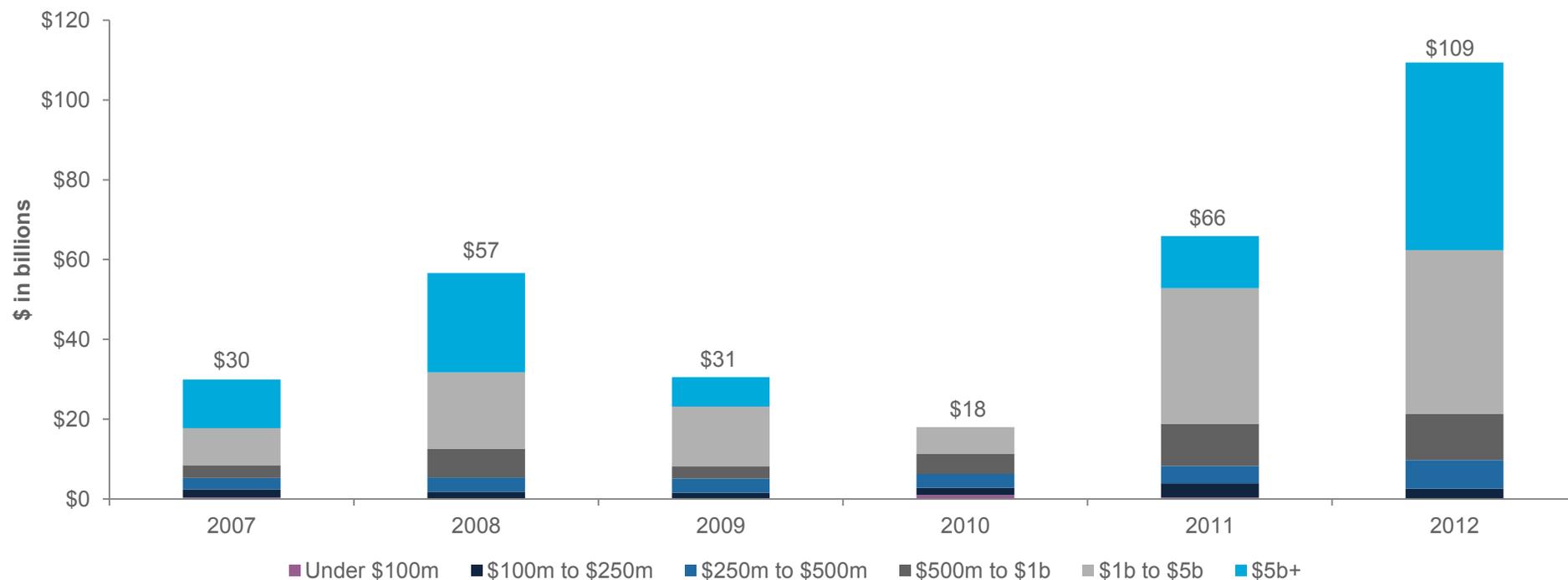


- Smaller deals continue to dominant deal activity by count
- Add-on acquisitions and minority deals have led to an increase in small transactions



North American Private Equity Overhang

Vintage Year Overhang

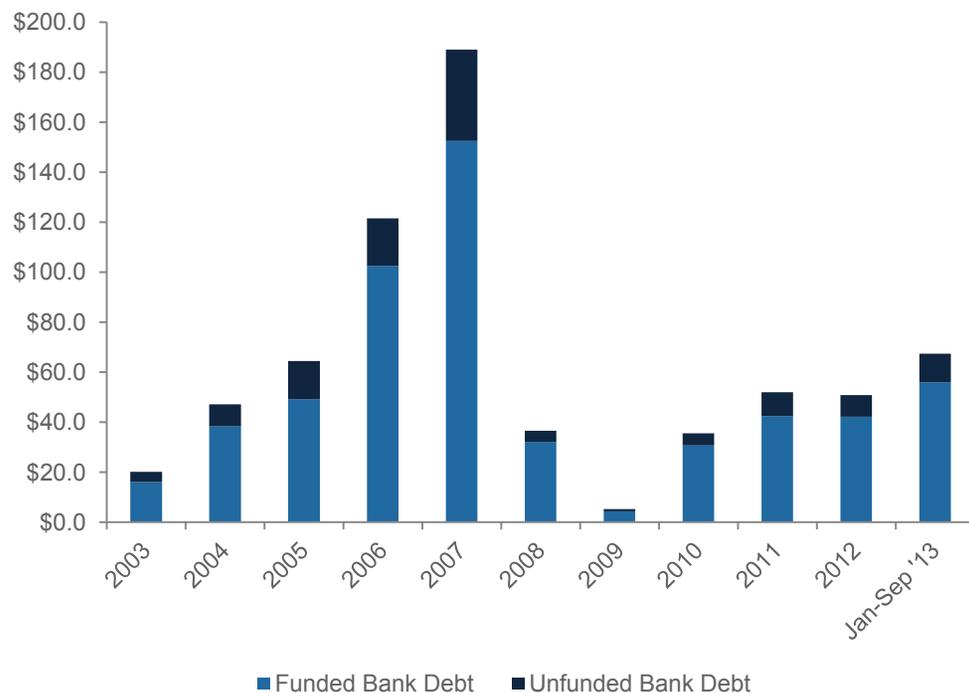


- Total private equity overhang significantly grew to over \$500 billion during the run-up to the financial crisis
- While the total private equity overhang has decreased to approximately \$328 billion, there still remains a large amount of capital to be deployed

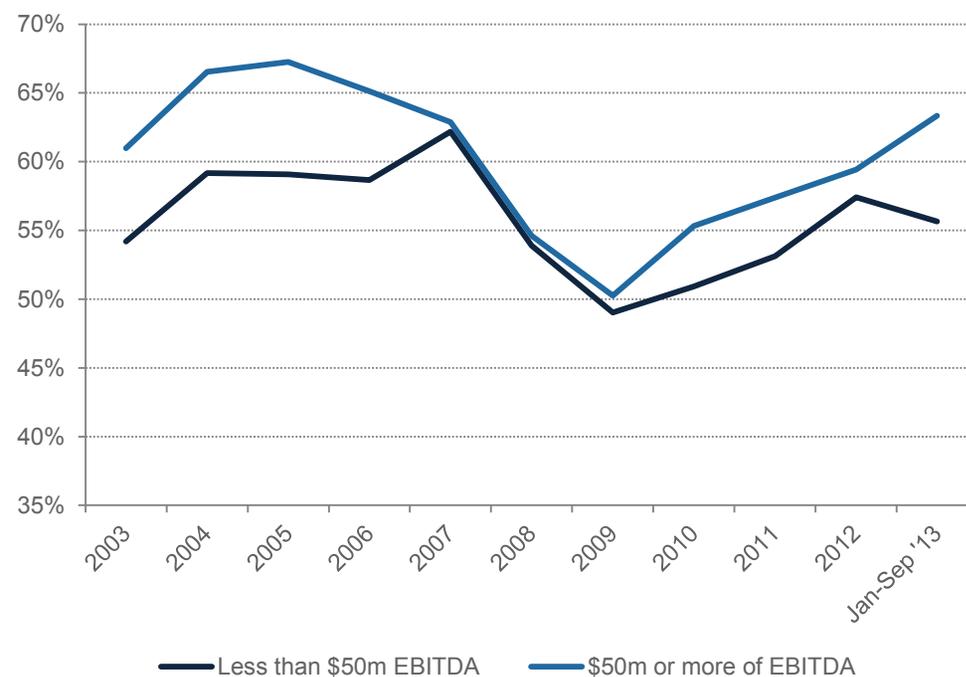


U.S. Debt Markets

Total U.S. Leveraged Buyout Loan Volume (\$b)



Percentage of Debt Used in Buyouts

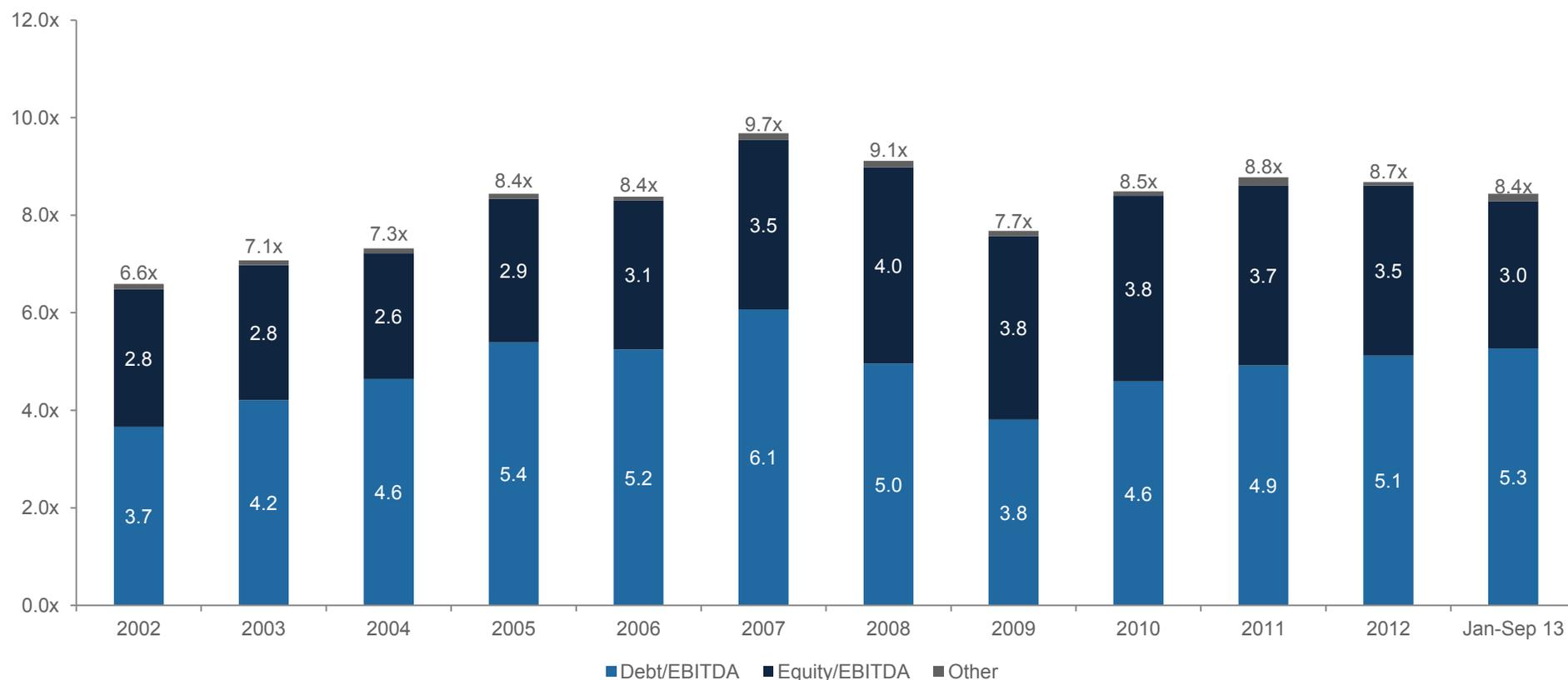


- The amount of capital available for leverage has gone down significantly since its peak volume in 2007, but continues to climb from the historically low levels in 2009
- Transactions with less than \$50m of EBITDA continue to apply less leverage than those of larger deals by a meaningful percentage



U.S. LBO Purchase Price Multiples

Purchase Price Multiples of LBO Transactions



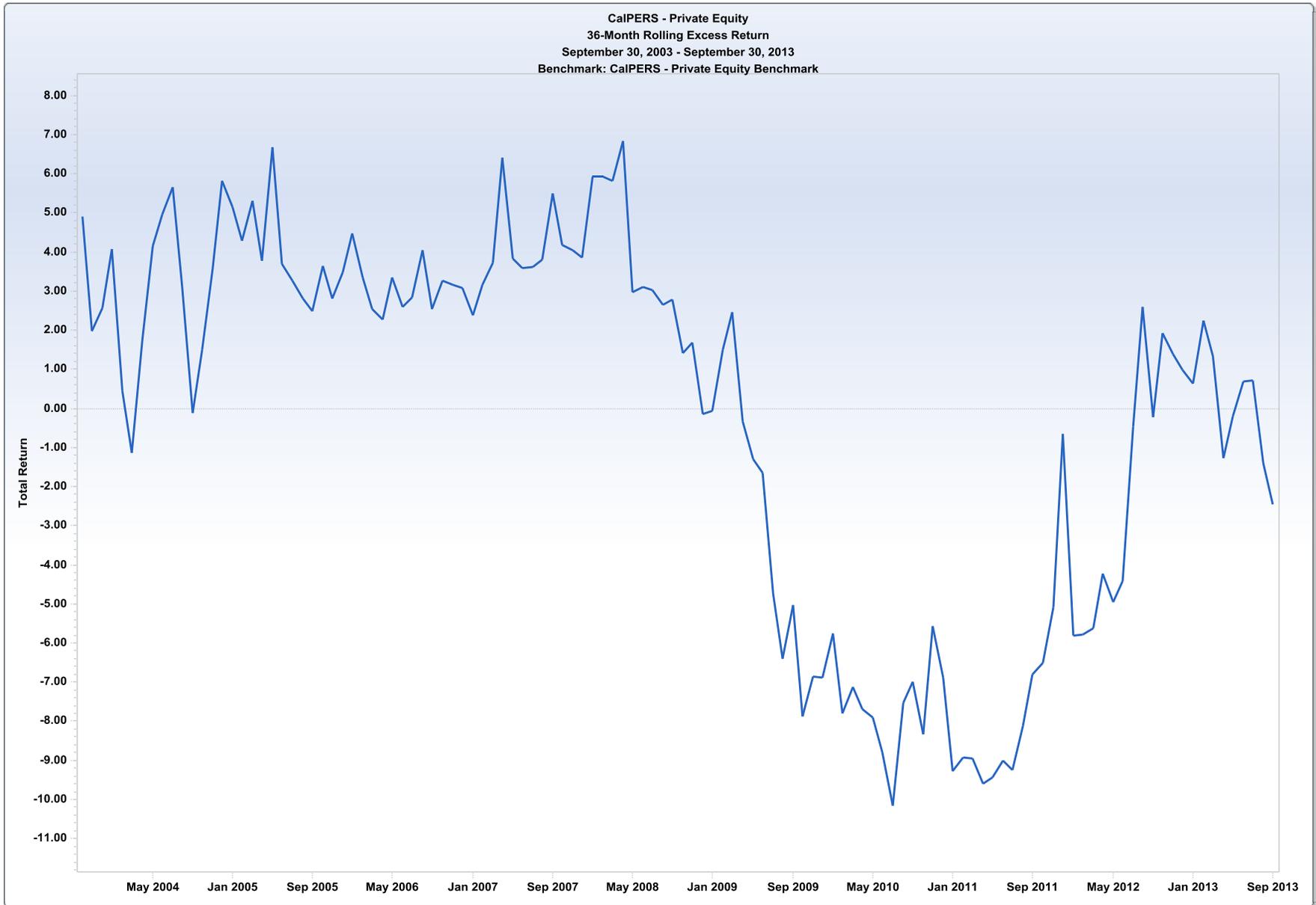
- As the debt markets have come back, purchase price multiples have increased from 2009 and have been stable in the 8.4x to 8.8x range
- In the first three quarters of 2013, multiples seem to have slightly decreased

Growth: Private Equity – Performance

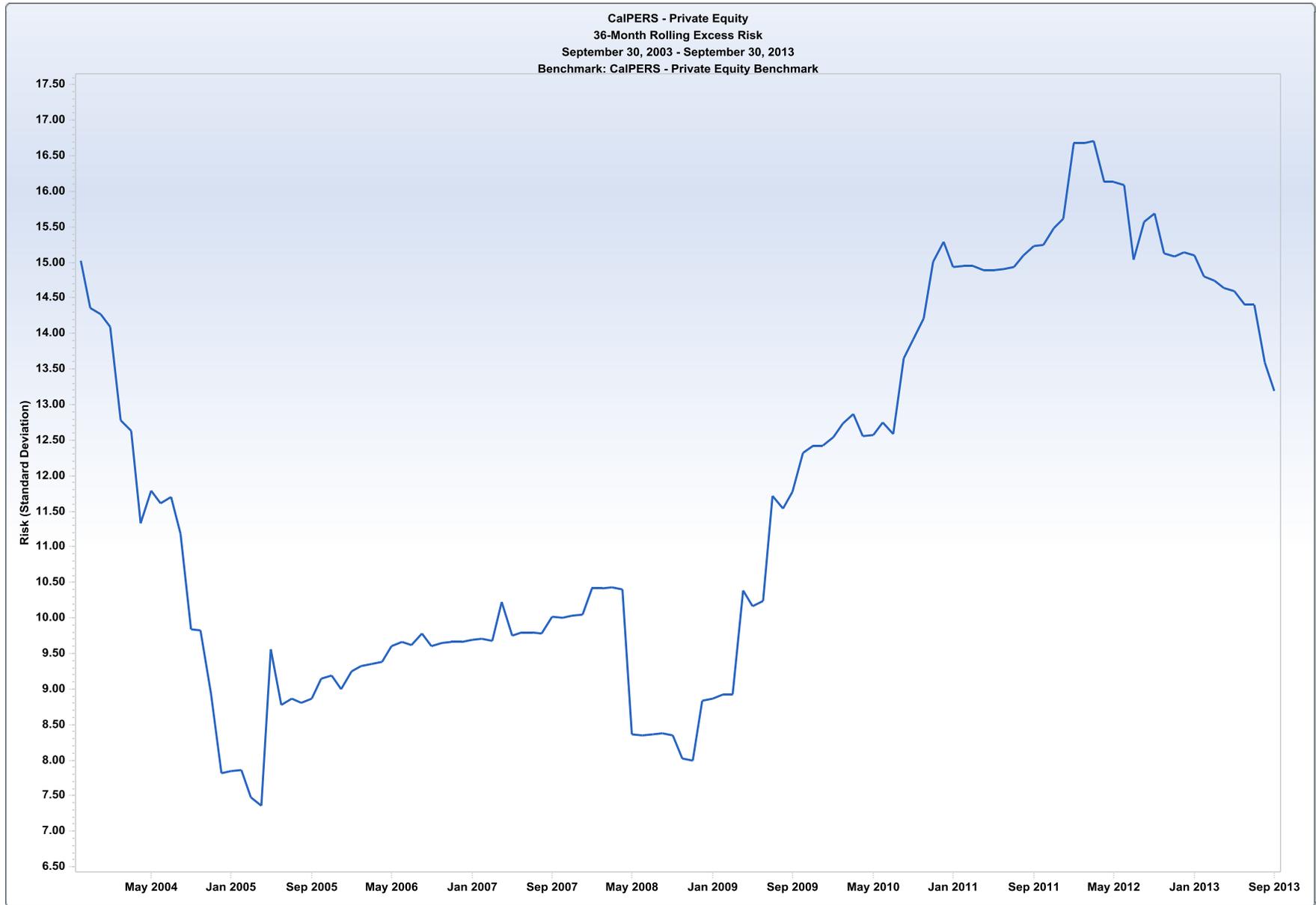


	Market Value	Qtr	1-Year	3-Year	5-Year	10-Year	VaR	5-year Sharpe Ratio	5-year Info Ratio
PRIVATE EQUITY	31.3	4.6%	19.0%	15.8%	7.6%	12.8%	\$9.9 bil	0.8	-0.3
<i>PE Policy Benchmark</i>		1.8%	23.0%	18.7%	12.7%	14.2%		0.8	0.0
<i>Value Added</i>		2.8%	-4.0%	-2.9%	-5.1%	-1.4%			
Private Equity Partnership Investments	31.3	4.6%	19.0%	15.9%	7.7%	12.9%			
Private Equity Distribution Stock	0.0	6.1%	2.4%	-18.7%	4.7%	3.9%			

Growth: Private Equity – Rolling Excess Returns



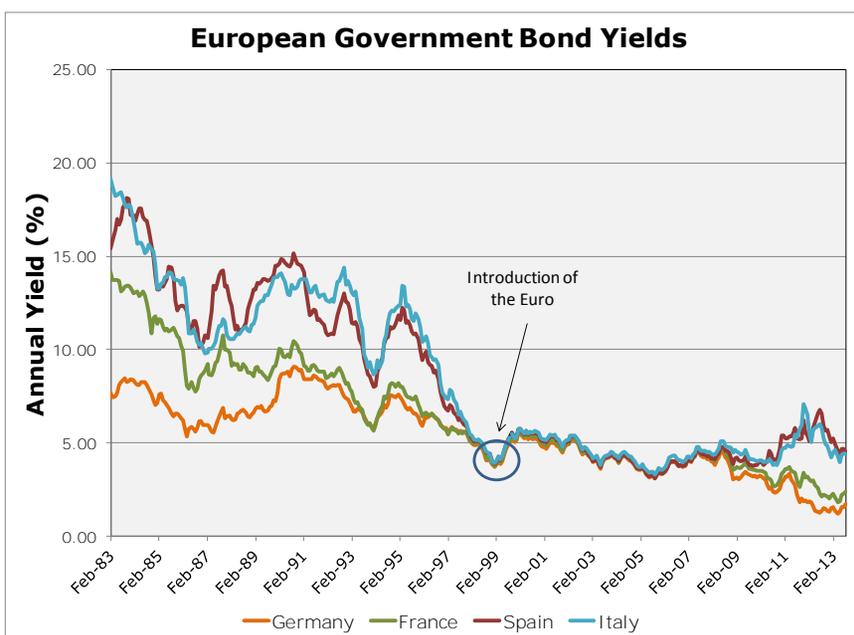
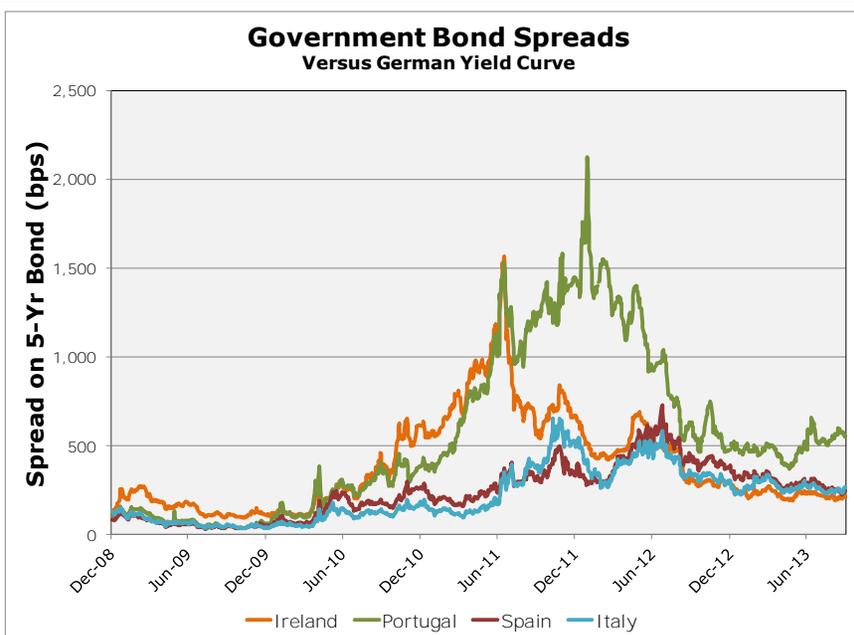
Growth: Private Equity – Rolling Tracking Error





European Debt Issues

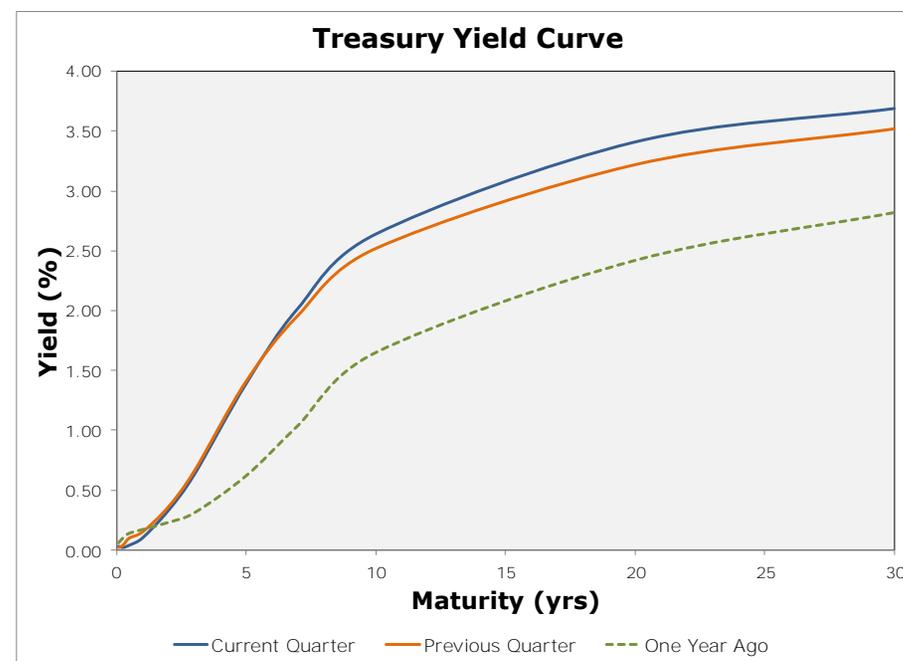
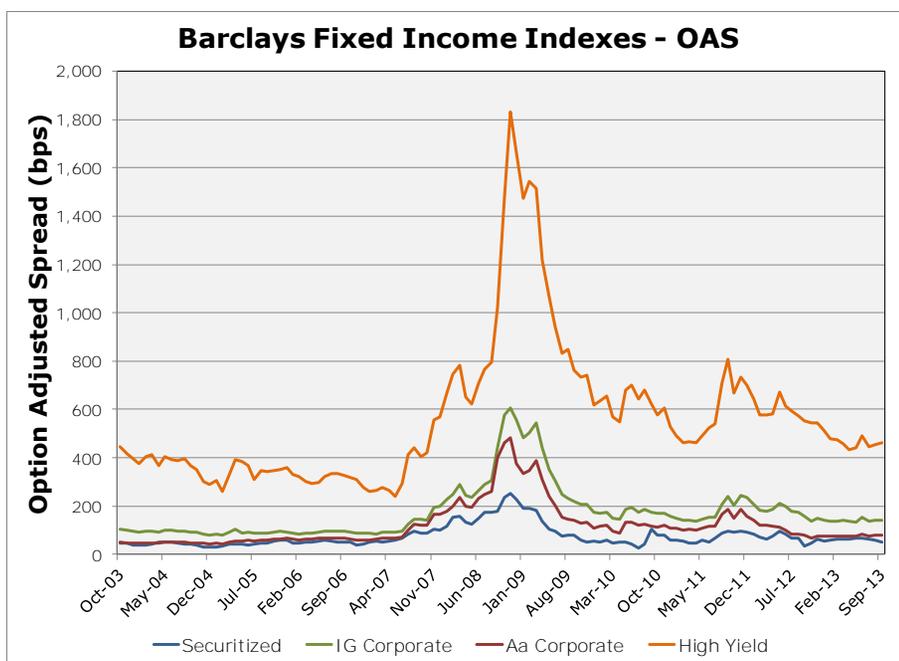
- As Portugal's three-year bailout comes to an end and the country continues to struggle with its finances, concerns about what to do next have pushed their government yields higher
- Yields on government bonds continue their downward trend as some spread has emerged between the relatively stable France and Germany, as both economies are growing however slightly





U.S. Fixed Income Market

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Barclays Aggregate Bond Index	0.6	-1.9	-1.7	2.9	5.4	4.6
Barclays Treasury Index	0.1	-2.0	-2.1	2.2	4.0	4.3
Barclays Govt-Related Index	0.3	-2.8	-2.2	2.3	4.4	4.3
Barclays Securitized Index	1.0	-1.0	-1.1	2.8	4.9	4.7
Barclays Corporate IG Index	0.8	-2.6	-1.6	4.4	9.2	5.3
Barclays LT Govt/Credit Index	-0.8	-8.7	-8.3	4.7	9.1	6.3
Barclays LT Treasury Index	-2.2	-9.9	-10.6	3.6	6.5	6.1
Barclays LT Govt-Related Index	-0.4	-9.8	-8.3	4.9	7.7	6.7
Barclays LT Corporate IG Index	0.1	-7.4	-6.5	5.4	11.7	6.3
Barclays U.S. TIPS Index	0.7	-6.7	-6.1	4.0	5.3	5.2
Barclays High Yield Index	2.3	3.7	7.1	9.2	13.5	8.9
Treasury Bills	0.0	0.1	0.1	0.1	0.2	1.7



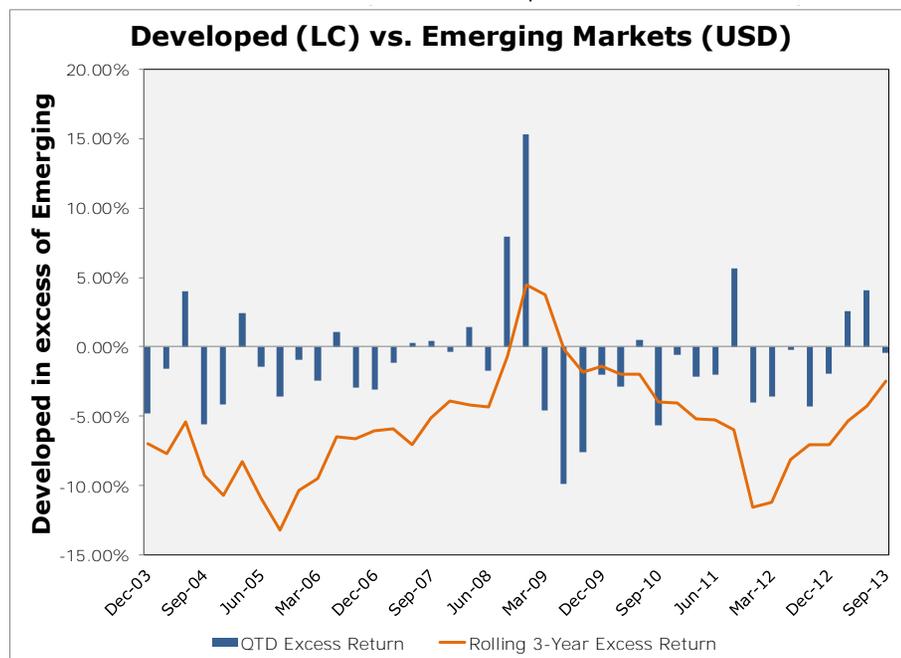
Data sources: Wilshire Compass, Barclays Capital, U.S. Treasury



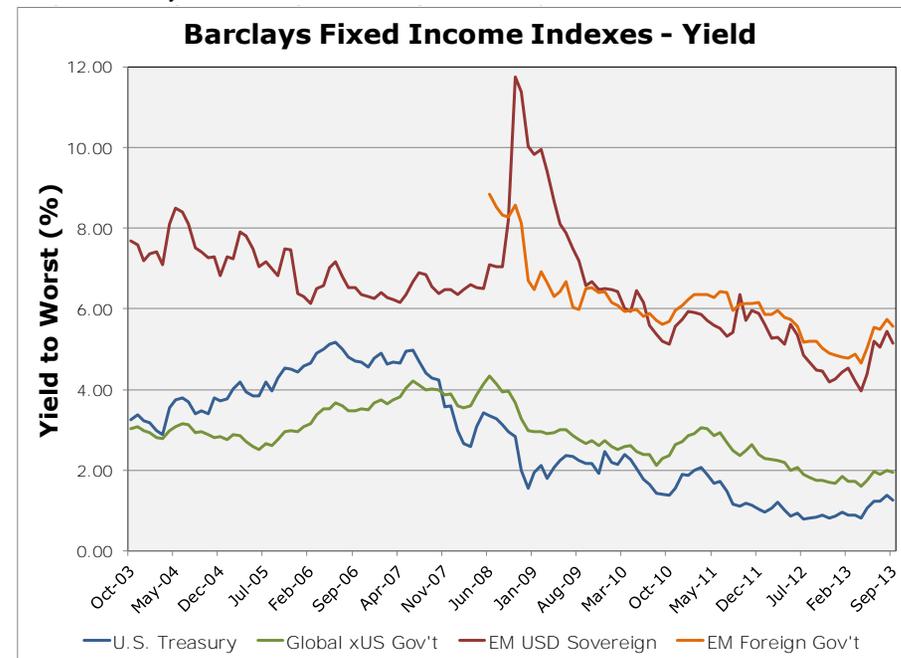
Non-U.S. Fixed Income Market

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
<i>Developed Markets</i>						
Barclays Global Aggregate xUS	4.4	-2.4	-3.4	1.5	4.8	5.1
Barclays Global Aggregate xUS *	1.0	0.8	2.1	3.1	4.7	4.3
Barclays Wrld Govt xUS IL Bond	5.9	-1.4	1.9	4.2	4.4	6.4
Barclays Wrld Govt xUS IL Bond *	0.5	-1.1	1.6	4.2	4.9	5.2
<i>Emerging Mkts (Hard Currency)</i>						
Barclays EM USD Aggregate	1.4	-5.2	-2.1	5.7	10.4	8.9
<i>Emerging Mkts (Foreign Currency)</i>						
Barclays EM Local Currency Govt	2.3	-4.0	-0.2	3.5	6.6	n.a.
Barclays EM Local Currency Govt *	0.0	-2.2	-0.4	2.7	4.7	n.a.
Euro vs. Dollar	4.1	2.7	5.2	-0.3	-0.8	1.5
Yen vs. Dollar	1.2	-11.9	-20.7	-5.2	1.6	1.3
Pound vs. Dollar	6.8	-0.4	0.3	0.9	-1.9	-0.3

* Returns are reported in terms of local market investors, which removes currency effects.



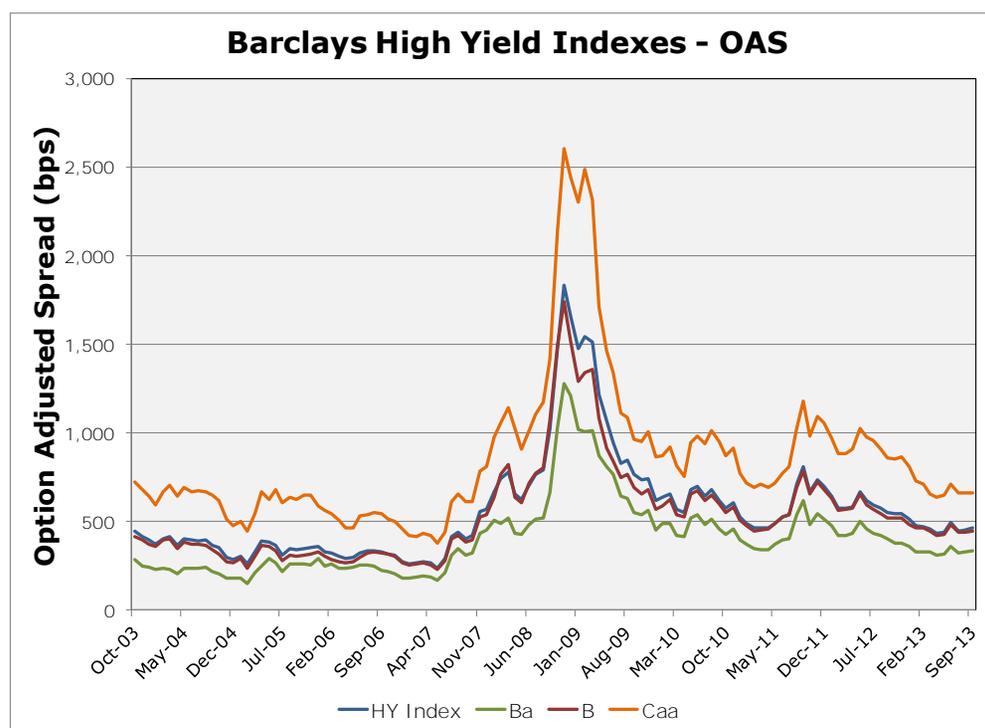
Data sources: Wilshire Compass, Barclays Capital





High Yield Bond Market

September 30, 2013	Weight	Qtr	Ytd	1 Yr	3 Yr
Barclays High Yield Index	100%	2.3	3.7	7.1	9.2
Quality Distribution					
Ba U.S. High Yield	38.6%	1.8	1.8	4.7	8.2
B U.S. High Yield	42.9%	2.3	3.6	7.3	9.2
Caa U.S. High Yield	17.6%	3.7	9.2	12.8	11.4
Ca to D U.S. High Yield	0.7%	-5.2	-4.7	1.9	5.8
Non-Rated U.S. High Yield	0.2%	2.5	4.2	6.1	12.5



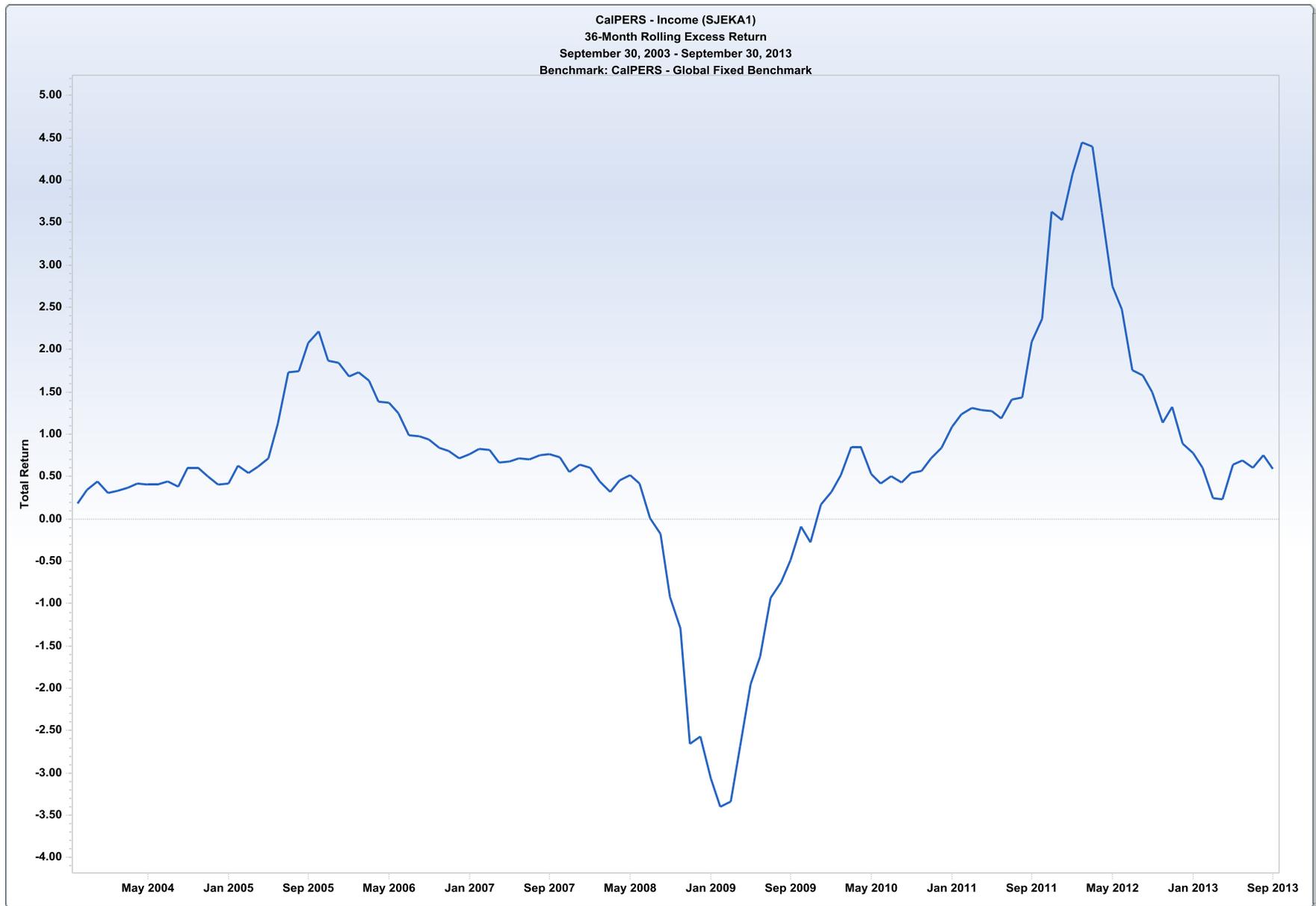
Data sources: Barclays Capital



Income – Performance

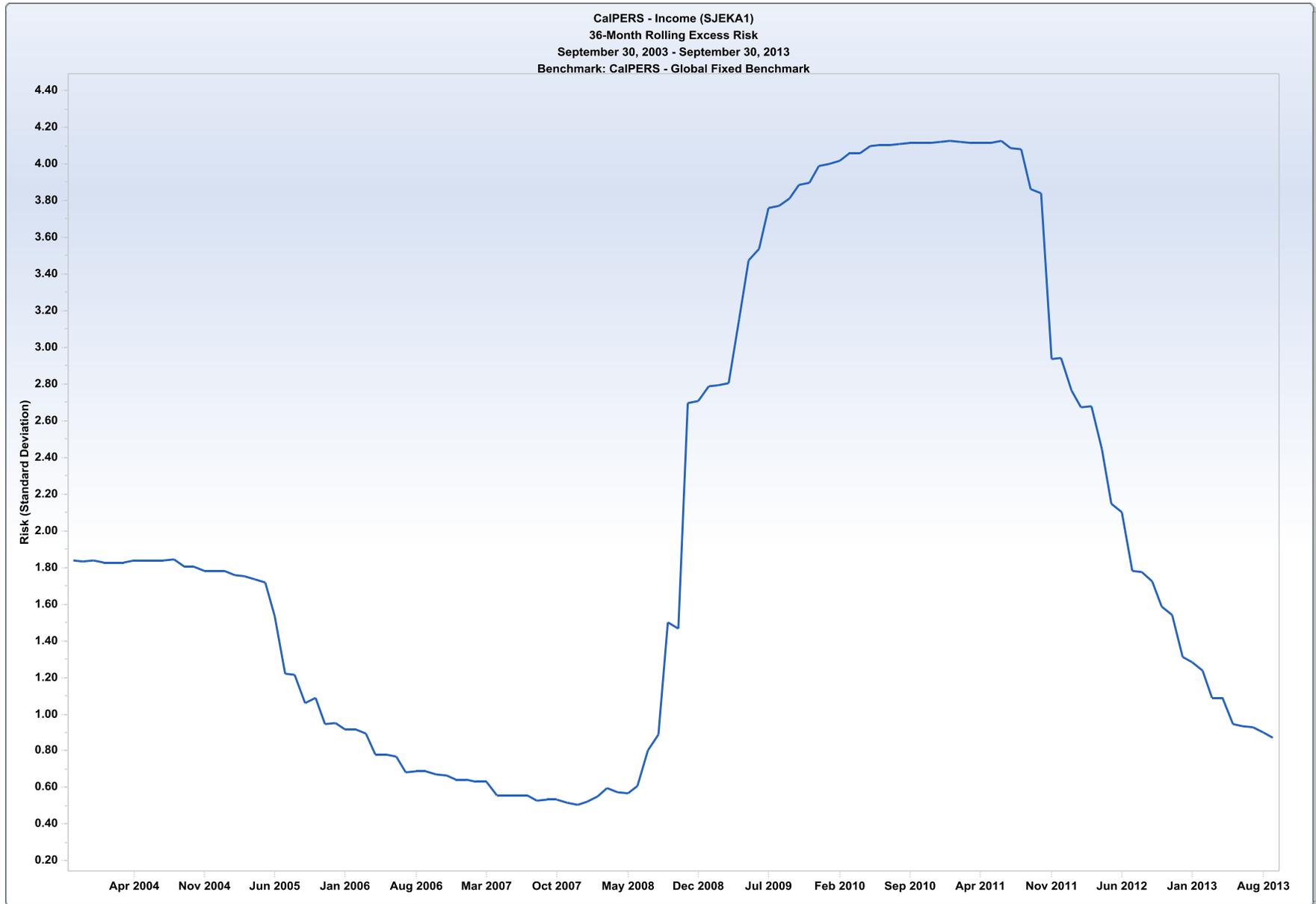
	Market Value	Qtr	1-Year	3-Year	5-Year	10-Year	VaR	5-year Sharpe Ratio	5-year Info Ratio
INCOME	40.4	0.6%	-3.9%	4.4%	9.0%	6.5%	\$4.6 bil	1.3	0.5
<i>Income Policy Benchmark</i>		0.5%	-4.9%	3.8%	7.2%	5.7%		1.1	0.0
<i>Value Added</i>		0.1%	1.0%	0.6%	1.8%	0.8%			
U.S. Income	36.6	0.3%	-3.6%	4.7%	9.4%	6.5%		1.3	0.5
<i>U.S. Income Policy Benchmark</i>		0.2%	-4.8%	4.7%	7.5%	5.8%		1.1	0.0
<i>Value Added</i>		0.1%	1.2%	0.0%	1.9%	0.7%			
Non-U.S. Income	3.8	3.8%	-6.8%	1.4%	6.0%	5.6%		0.6	0.9
<i>Non-US Income Policy Benchmark</i>		3.9%	-6.3%	0.5%	4.3%	4.9%		0.5	0.0
<i>Value Added</i>		-0.1%	-0.5%	0.9%	1.7%	0.7%			

Income – Rolling Excess Returns

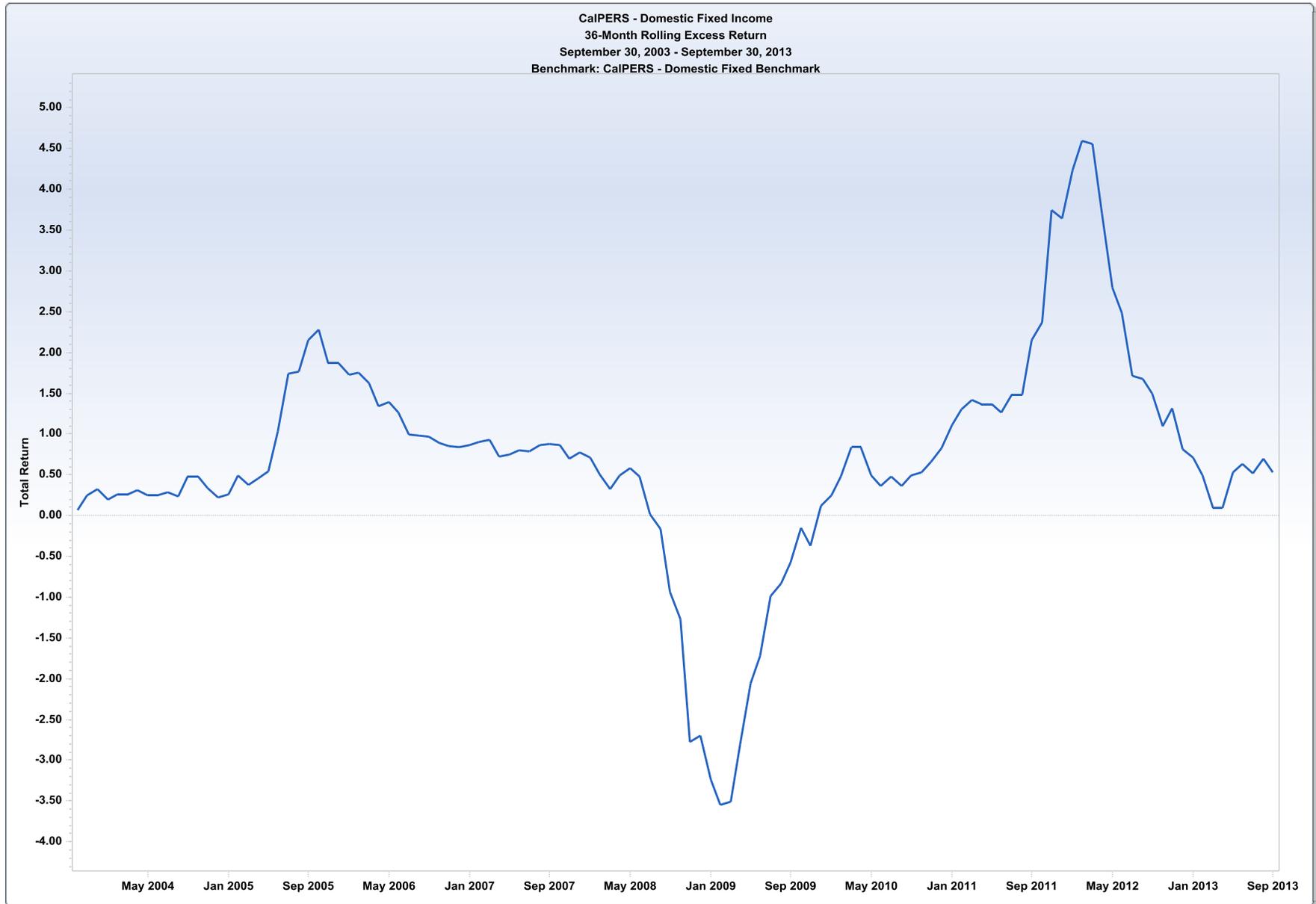




Income – Rolling Tracking Error

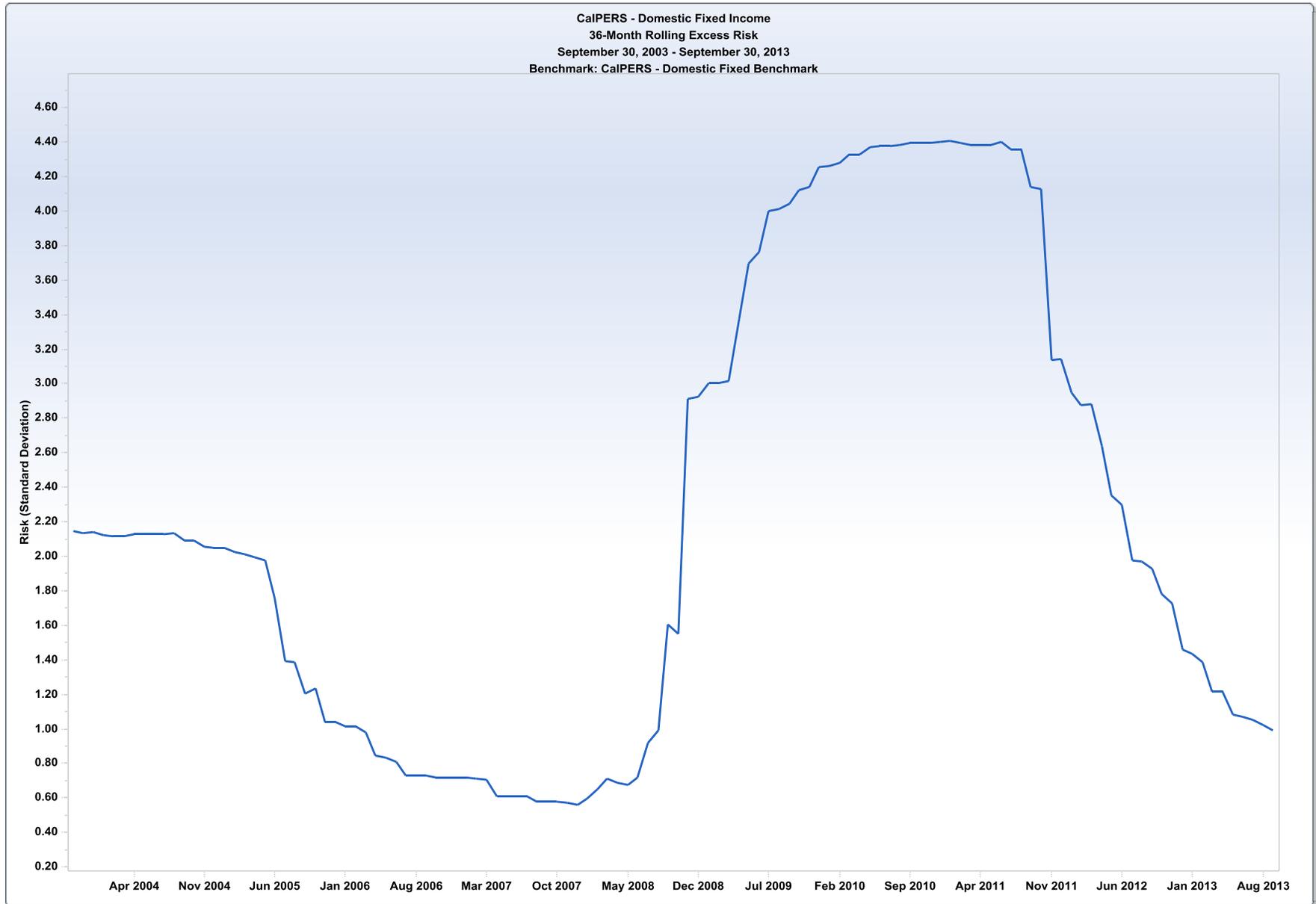


US Income – Rolling Excess Returns

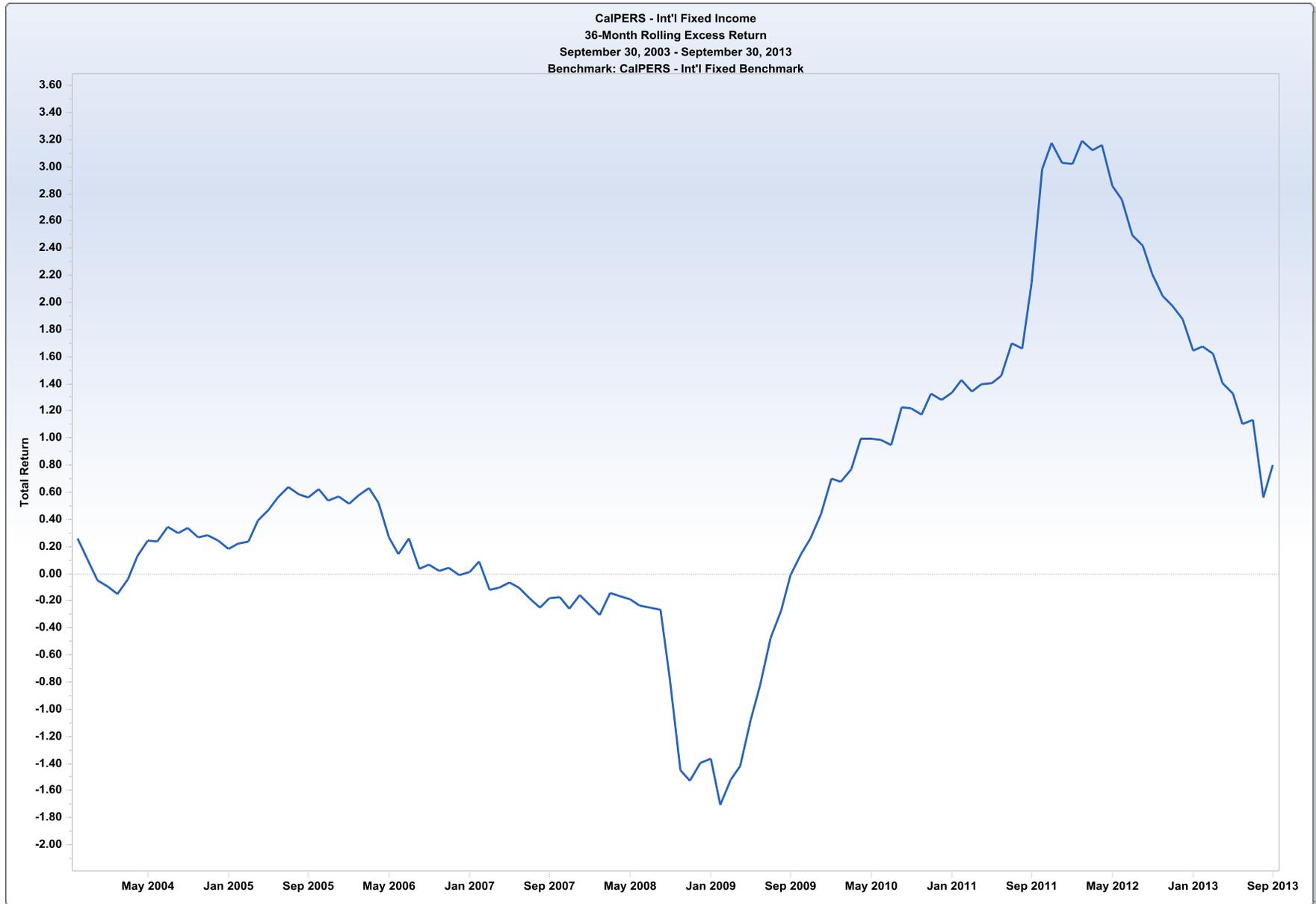




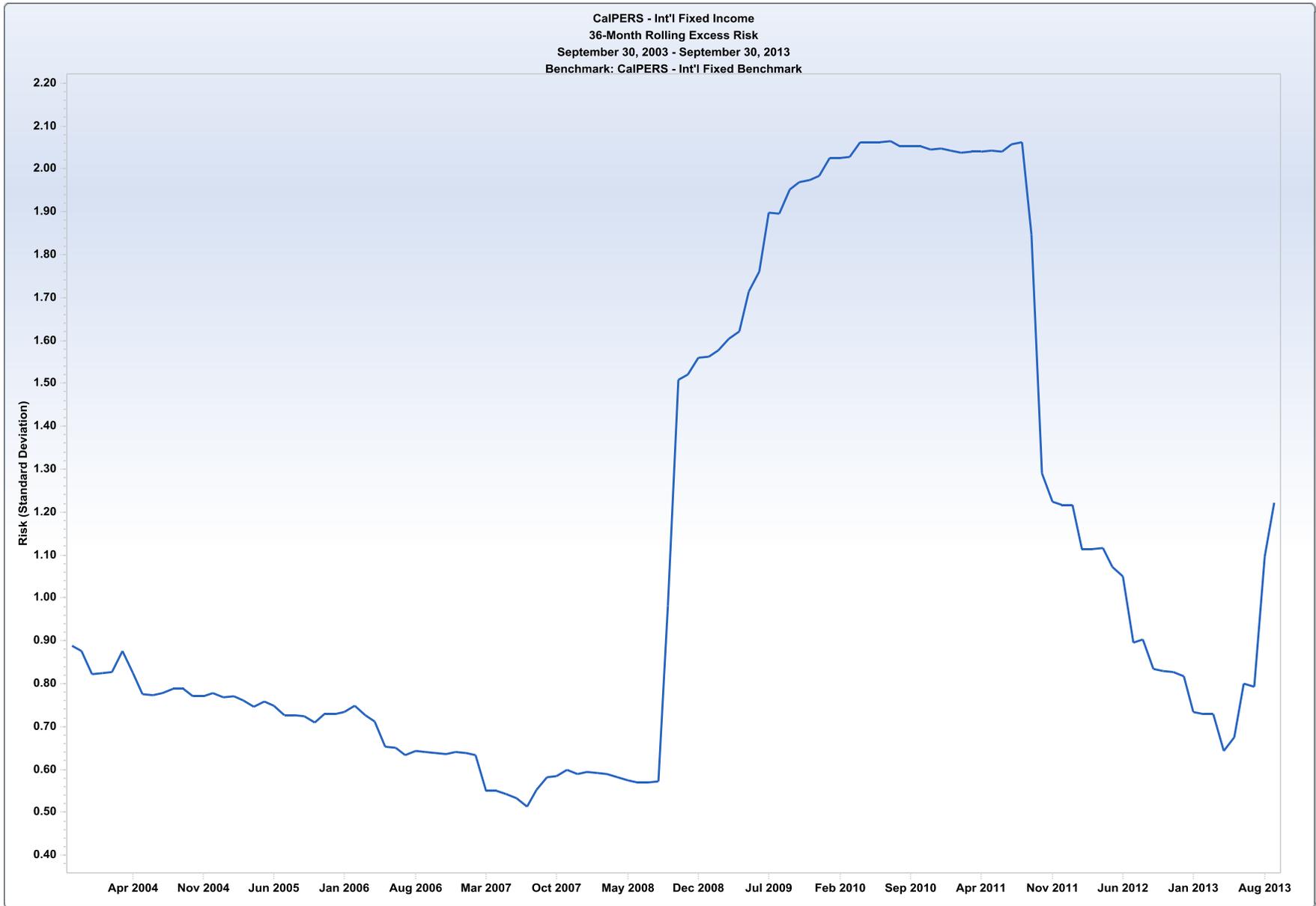
US Income – Rolling Tracking Error



International Income – Rolling Excess Returns



International Income – Rolling Tracking Error

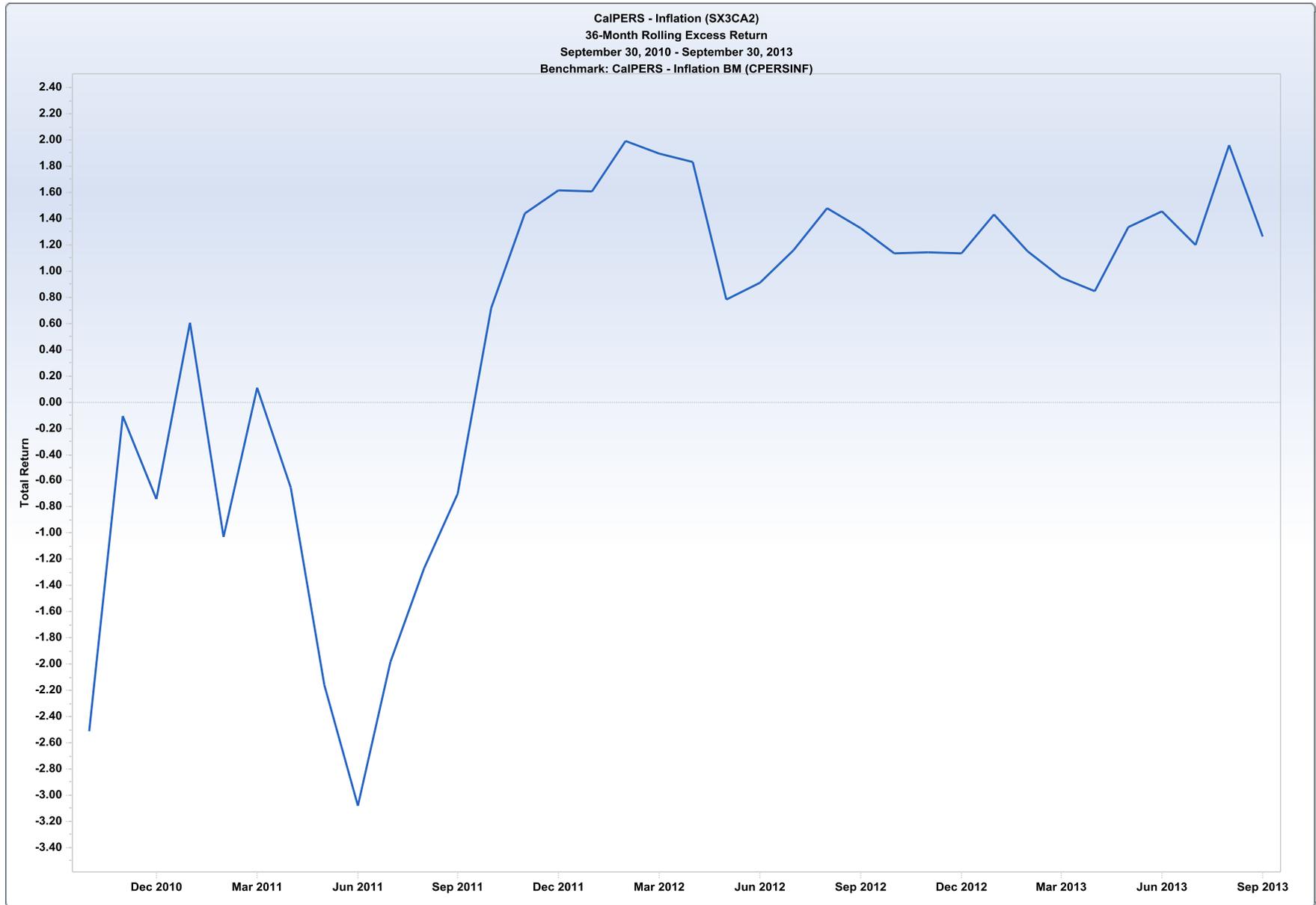




Inflation – Performance

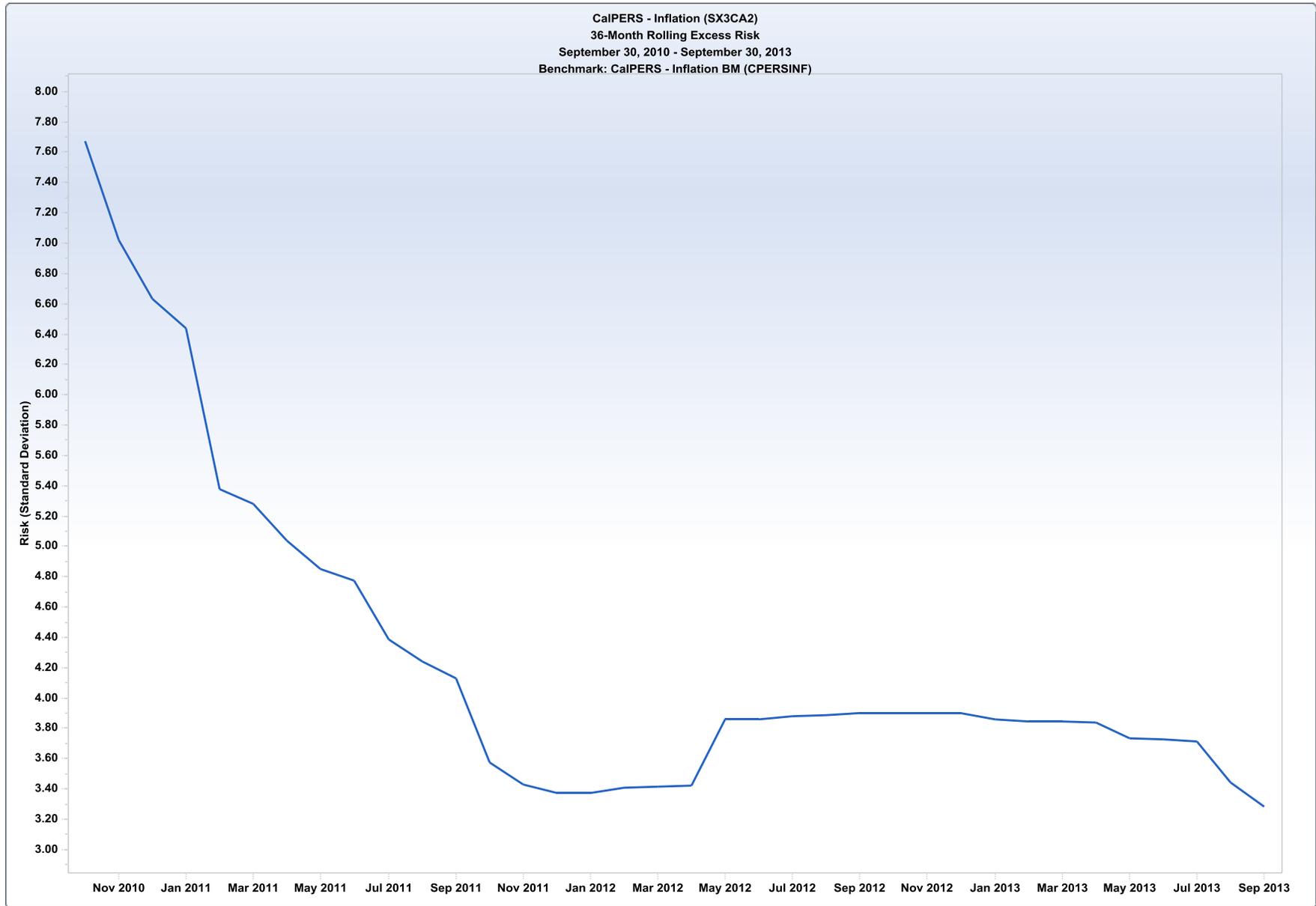
	Market Value	Qtr	1-Year	3-Year	5-Year	10-Year	VaR	5-year Sharpe Ratio	5-year Info Ratio
INFLATION	9.4	2.6%	-2.9%	5.4%	1.3%	-.-%	\$0.6 bil	0.1	-0.2
<i>Inflation Policy Benchmark</i>		2.8%	-3.0%	4.1%	1.9%	-.-%		0.2	0.0
<i>Value Added</i>		-0.2%	0.1%	1.3%	-0.6%	-.-%			
Internal Commodities	1.2	3.4%	-4.6%	3.1%	-8.1%	-.-%			
<i>GSCI Total Return Index</i>		4.8%	-4.1%	3.6%	-8.5%	-.-%			
<i>Value Added</i>		-1.4%	-0.5%	-0.5%	0.4%	-.-%			
Core Inflation Linked Bonds	5.9	2.3%	-2.0%	4.9%	5.5%	-.-%			
<i>Custom Benchmark</i>		2.3%	-2.6%	4.5%	5.3%	-.-%			
<i>Value Added</i>		0.0%	0.6%	0.4%	0.2%	-.-%			
Tactical Commodities	1.2	4.2%	-.-%	-.-%	-.-%	-.-%			
<i>GSCI Total Return Index</i>		4.8%	-.-%	-.-%	-.-%	-.-%			
<i>Value Added</i>		-0.6%	-.-%	-.-%	-.-%	-.-%			
Tactical TIPS	1.1	0.1%	-.-%	-.-%	-.-%	-.-%			
<i>CalPERS TIPS</i>		0.7%	-.-%	-.-%	-.-%	-.-%			
<i>Value Added</i>		-0.6%	-.-%	-.-%	-.-%	-.-%			

Inflation – Rolling Excess Returns





Inflation – Rolling Tracking Error

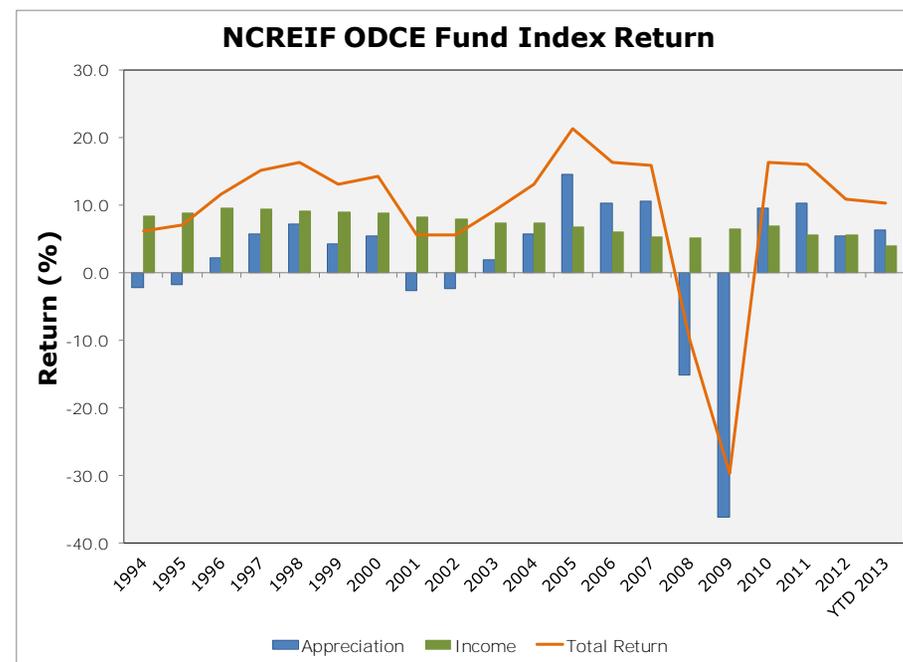
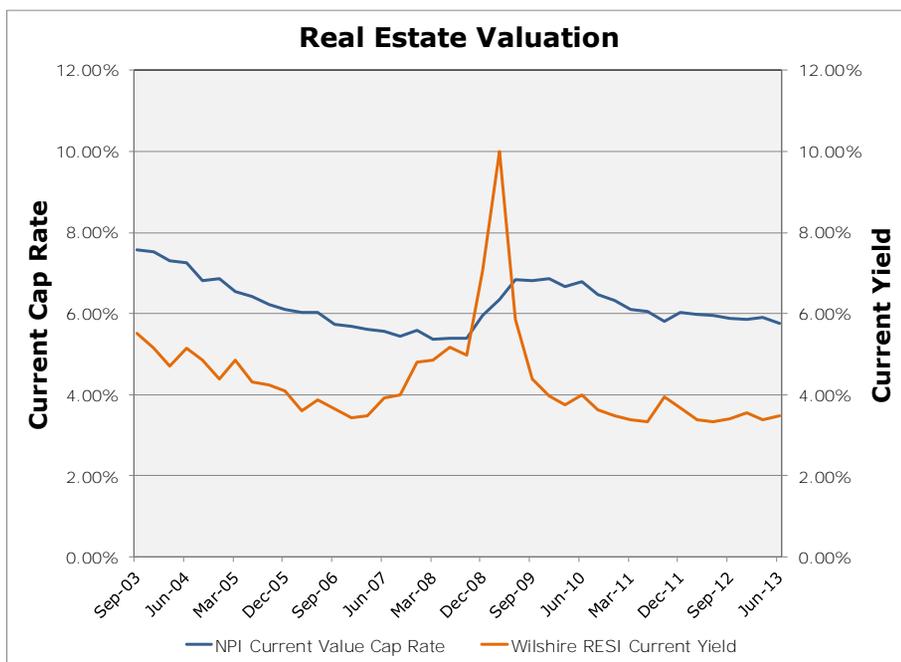




Real Assets

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Barclays U.S. TIPS Index	0.7	-6.7	-6.1	4.0	5.3	5.2
Dow Jones UBS Commodity Index	2.1	-8.6	-14.3	-3.2	-5.3	2.1
Global Public Real Estate*	-0.1	2.9	6.8	12.2	6.7	10.1
NCREIF ODCE Fund Index	3.5	10.4	13.0	14.2	0.7	7.1
NCREIF Timberland Index	1.1	3.6	9.7	4.0	2.1	8.1
Alerian MLP Index (Oil & Gas)	-0.7	21.2	17.0	16.5	22.5	15.7

* Wilshire Global Real Estate Securities from December 2003 to December 2004. Wilshire Global REITs from 2004 to present.



Data sources: Wilshire Compass, National Council of Real Estate Investment Fiduciaries

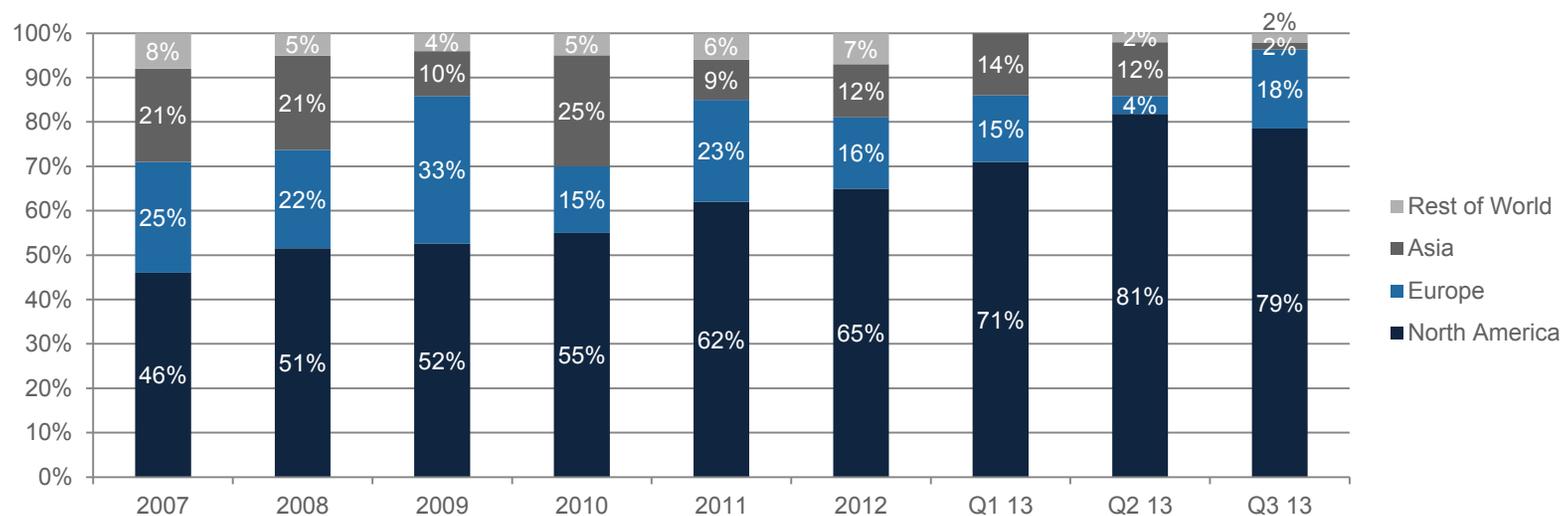


Real Estate Fundraising

Quarterly Closed-End Private Real Estate Fundraising (Q1 2008 – Q3 2013)



Proportion of Aggregate Capital Raised by Closed-End Private Real Estate Funds by Fund Geographic Focus (2007 – Q3 2013)

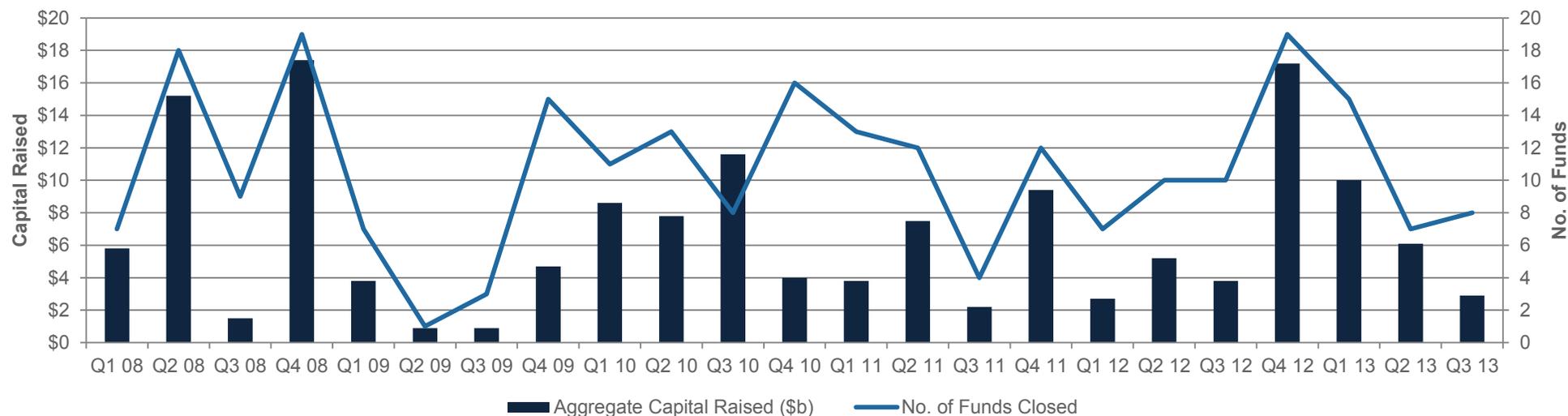


Source: Preqin.

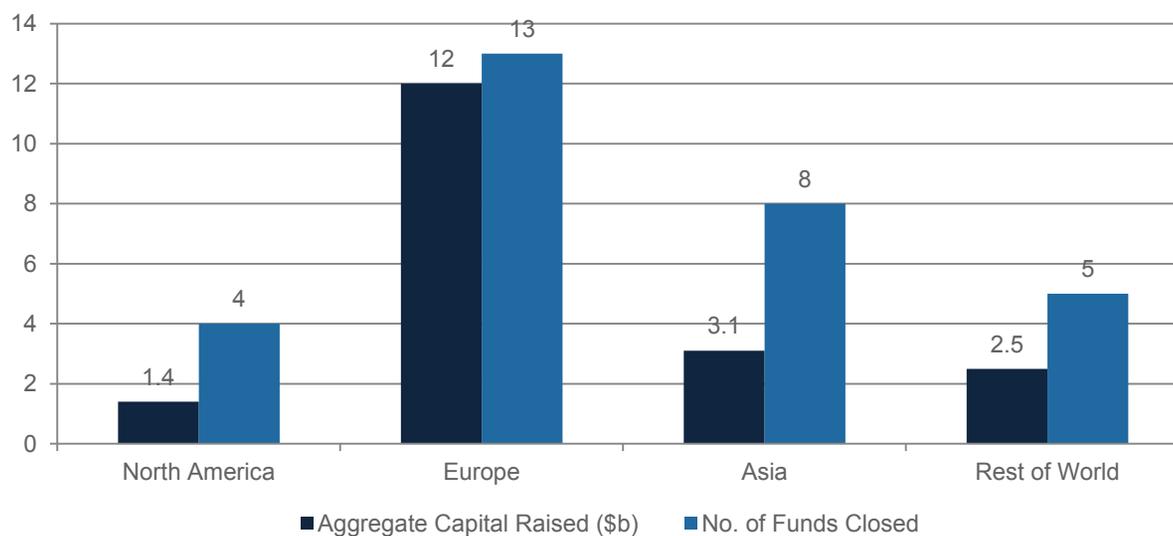


Infrastructure

Unlisted Infrastructure Fundraising (Q1 2008 – Q3 2013)



Unlisted Infrastructure Fundraising by Primary Geographic Focus (January - September 2013)

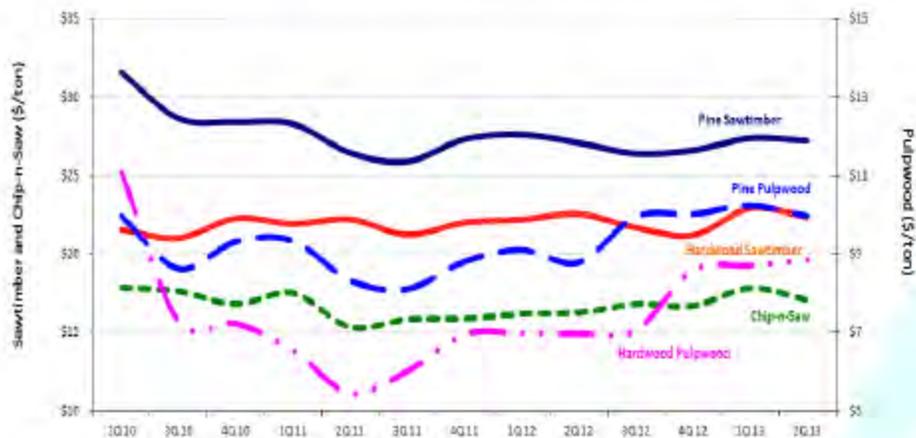


Source: Preqin.



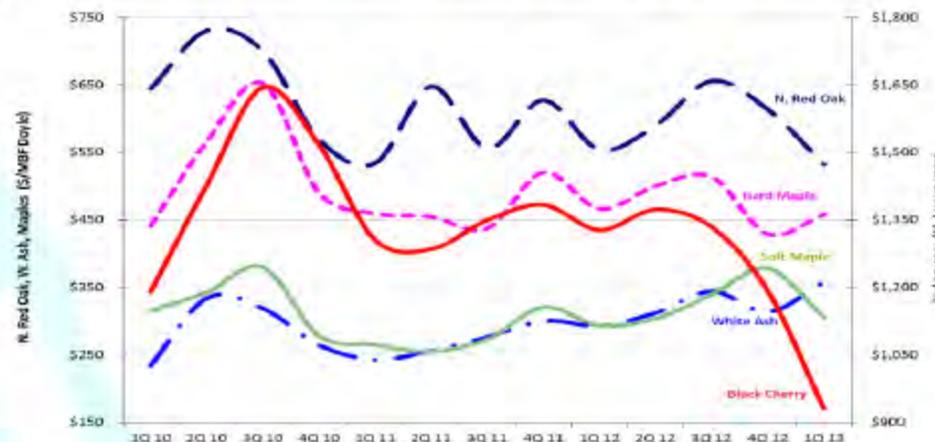
Timber

Southeastern Timber Prices



Source: Forest2Market®

Northeastern Hardwood Timber Prices



Source: Pennsylvania Woodlands Timber Market Report - Northwest Region

Pacific Northwest Timber Prices



Source: Log Lines®

Inflation (CPI)



Source: <http://www.bls.gov/cpi/home.htm>

Source: Forest Investment Associates



Real Assets – Performance

	Market Value	Qtr	1-Year	3-Year	5-Year	10-Year	VaR	5-year Sharpe Ratio	5-year Info Ratio
REAL ASSETS	27.1	1.4%	11.7%	11.9%	-6.8%	3.7%	\$3.1 bil	-0.4	-0.9
<i>Real Assets Policy Benchmark</i>		3.2%	10.8%	12.1%	3.7%	9.0%		0.6	0.0
<i>Value Added</i>		-1.8%	0.9%	-0.2%	-10.5%	-5.3%			
Real Estate	23.7	1.6%	12.4%	13.6%	-7.7%	3.0%	\$3.2 bil	-0.5	-0.8
<i>Real Estate Policy Benchmark</i>		3.6%	11.5%	13.6%	4.7%	9.5%		0.6	0.0
<i>Value Added</i>		-2.0%	0.9%	0.0%	-12.4%	-6.5%			
Forestland	2.2	-0.5%	6.2%	-2.8%	-1.3%	-.-%			
<i>NCREIF Timberland Index</i>		0.9%	9.4%	3.6%	2.0%	-.-%			
<i>Value Added</i>		-1.4%	-3.2%	-6.4%	-3.3%	-.-%			
Infrastructure	1.2	2.5%	9.3%	18.9%	15.3%	-.-%			
<i>CPI + 400 BPS 1Qtr Lag</i>		1.3%	5.8%	7.0%	6.1%	-.-%			
<i>Value Added</i>		1.2%	3.5%	11.9%	9.2%	-.-%			

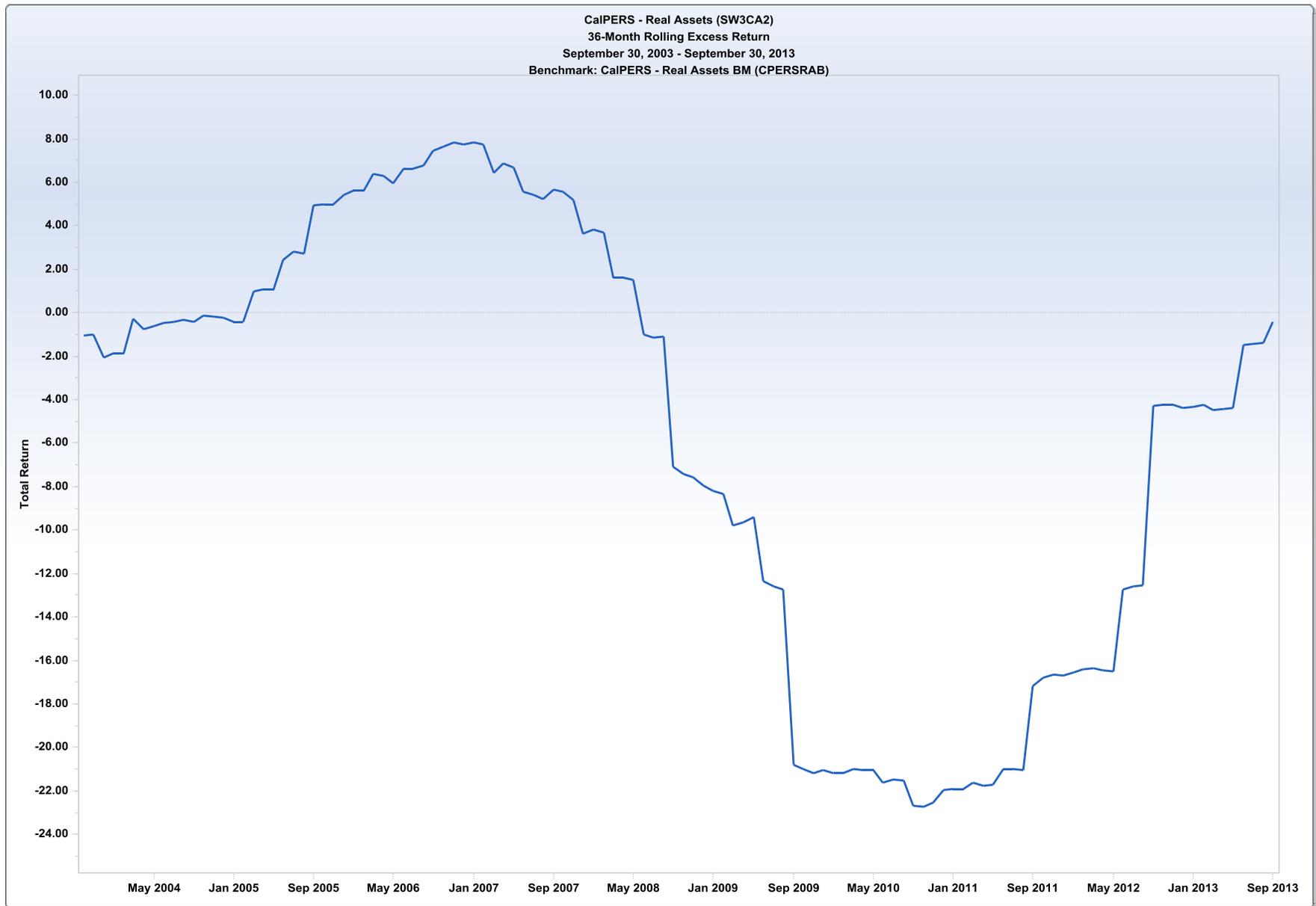


Real Estate – Performance

	Market Value	Qtr	1-Year	3-Year	5-Year	10-Year	VaR	5-year Sharpe Ratio	5-year Info Ratio
Real Estate	23.7	1.6%	12.4%	13.6%	-7.7%	3.0%	\$3.2 bil	-0.5	-0.8
<i>Real Estate Policy Benchmark</i>		3.6%	11.5%	13.6%	4.7%	9.5%		0.6	0.0
<i>Value Added</i>		-2.0%	0.9%	0.0%	-12.4%	-6.5%			
Strategic Real Estate	16.8	1.9%	15.4%	17.7%	3.0%	15.7%			
<i>Wt. NCREIF ODCE+FTSE EPRA NAREIT</i>		3.6%	11.5%	13.6%	4.7%	9.5%			
<i>Value Added</i>		-1.7%	3.9%	4.1%	-1.7%	6.2%			
Legacy Real Estate ex Public	6.9	0.9%	4.7%	8.0%	-14.1%	-1.7%			
<i>Wt. NCREIF ODCE+FTSE EPRA NAREIT</i>		3.6%	11.5%	13.6%	4.7%	9.5%			
<i>Value Added</i>		-2.7%	-6.8%	-5.6%	-18.8%	-11.2%			

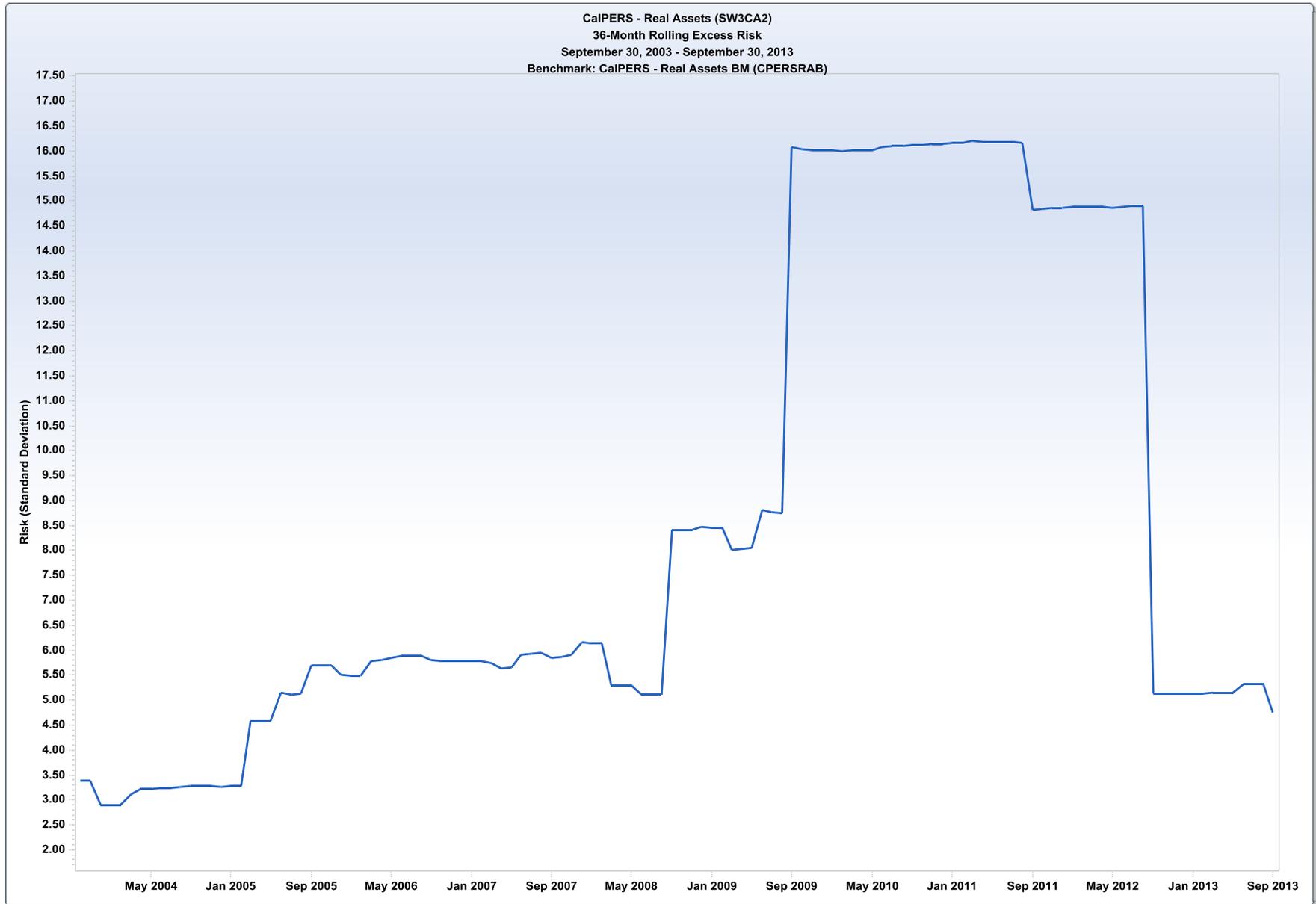


Real Assets – Rolling Excess Returns

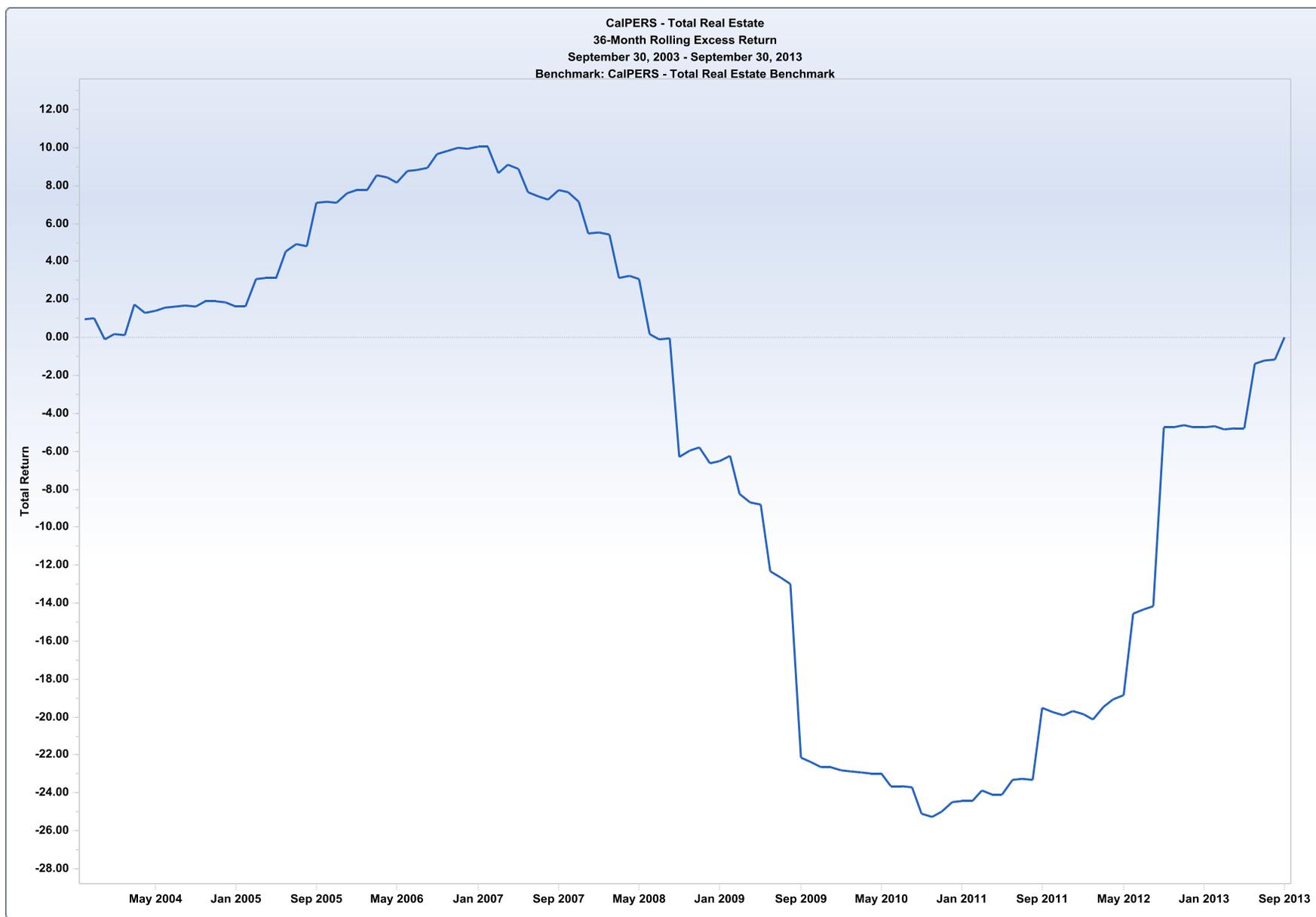




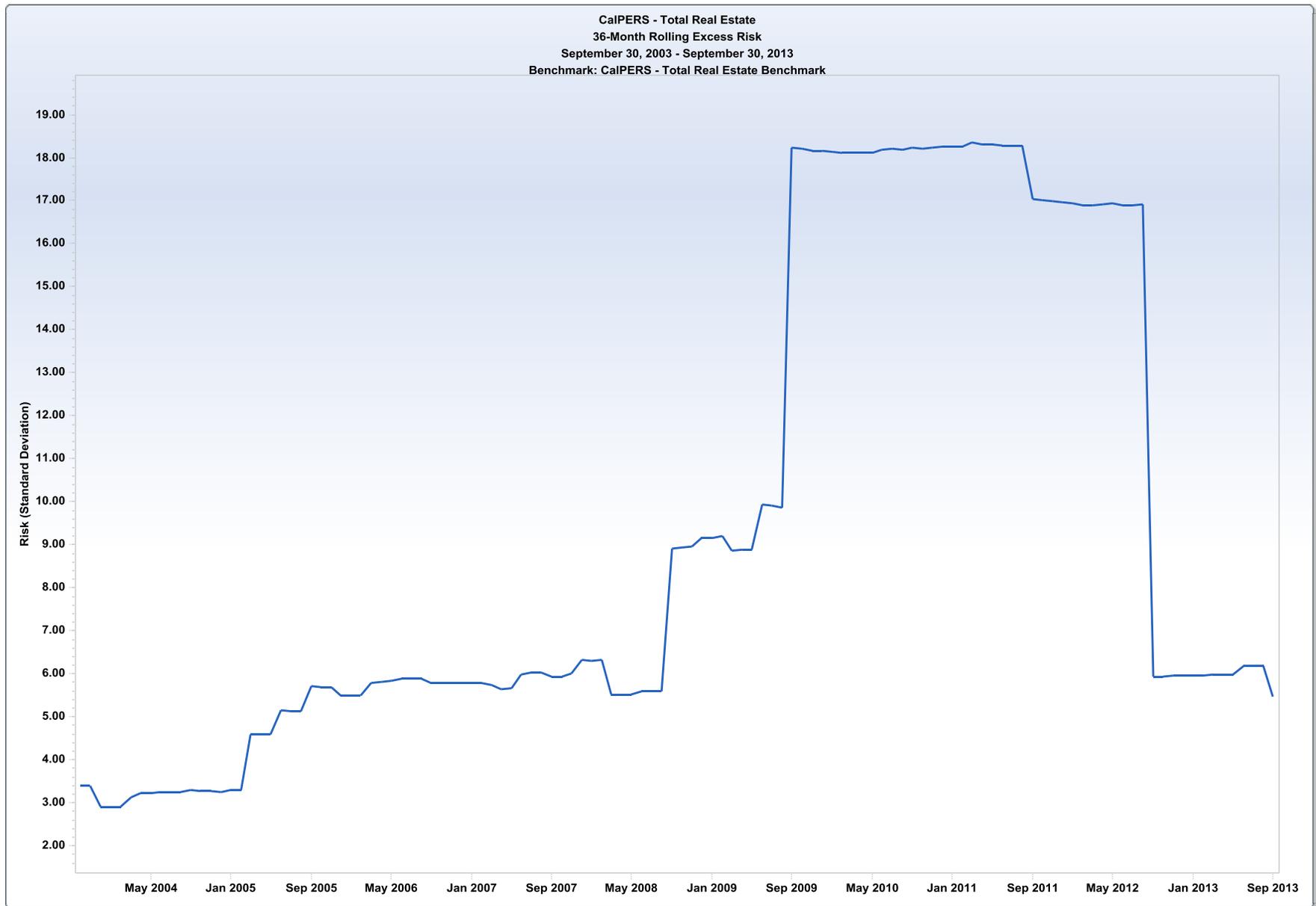
Real Assets – Rolling Tracking Error



Real Estate – Rolling Excess Returns



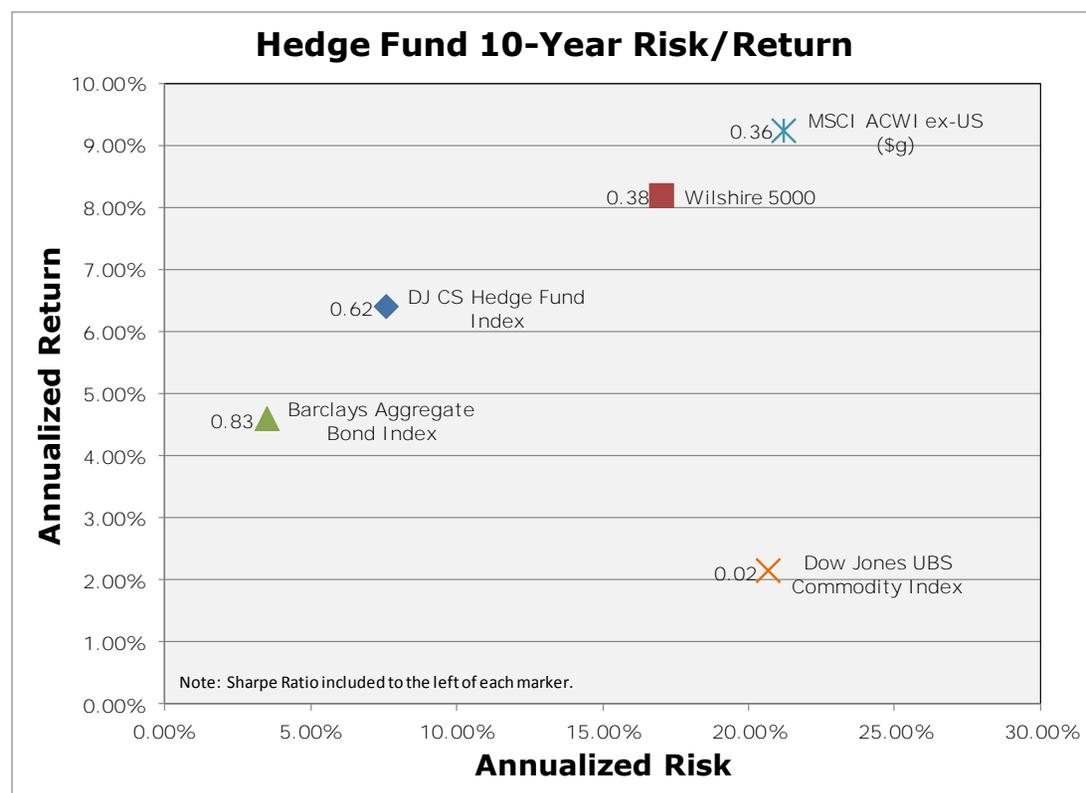
Real Estate – Rolling Tracking Error





Hedge Fund Performance

September 30, 2013	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
DJ CS Hedge Fund Index	1.6	5.4	7.4	5.0	5.5	6.4
Event Driven Index	2.9	10.2	13.7	5.5	6.4	7.7
Global Macro Index	0.2	1.5	2.8	5.4	6.8	8.2
Long/Short Equity Index	3.5	10.7	13.1	5.6	6.0	7.0
Multi-Strategy Index	2.7	6.6	9.5	7.9	7.5	6.7
Wilshire 5000	6.0	20.9	21.0	16.5	10.4	8.2
MSCI ACWI ex-US (\$g)	10.2	10.5	17.0	6.4	6.7	9.2
Barclays Aggregate Bond Index	0.6	-1.9	-1.7	2.9	5.4	4.6
Dow Jones UBS Commodity Index	2.1	-8.6	-14.3	-3.2	-5.3	2.1





ARS – Distribution of Performance

	<u>Market</u>						<u>5-Year</u>	<u>5-Year Up</u>	<u>5-Year</u>	<u>5-Year</u>
	<u>Value</u>	<u>Qtr</u>	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>Info</u>	<u>Capture</u>	<u>Sharpe</u>	<u>Sortino</u>
							<u>Ratio</u>	<u>Ratio</u>	<u>Ratio</u>	<u>Ratio</u>
Absolute Return Strategies	5.2	1.7%	6.8%	3.5%	3.6%	5.0%	-0.4	0.6	0.7	0.9
<i>ARS Policy Benchmark</i>		1.4%	5.3%	5.4%	5.9%	7.9%				
<i>Value Added</i>		0.3%	1.5%	-1.9%	-2.3%	-2.9%				
Total Direct Investments	3.7	2.4%	6.4%	4.1%	4.5%	5.5%				
Total Funds of Funds	1.5	0.2%	7.8%	2.2%	1.6%					
HFRI Fund of Funds Index		2.4%	7.3%	2.7%	2.1%	3.5%				



ARS – Histogram of Monthly Returns

