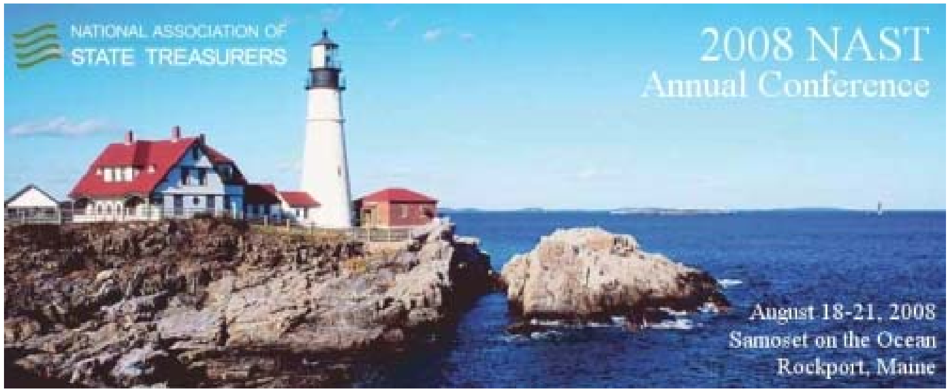

Impact of Alternatives on the Investment Process

August 20, 2008

Richard M. Charlton
Chairman, CEO

"Advancing Your Investments"

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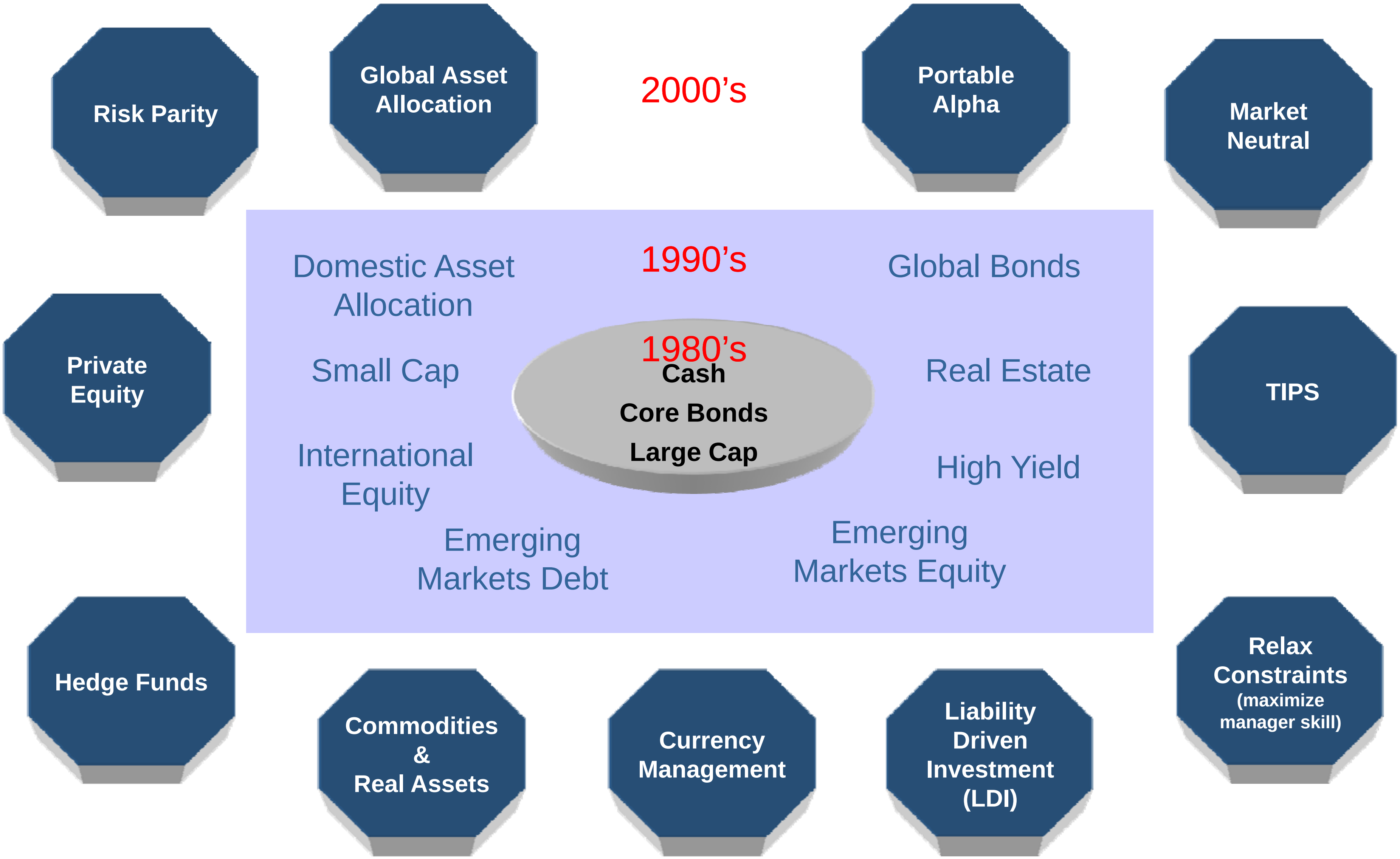
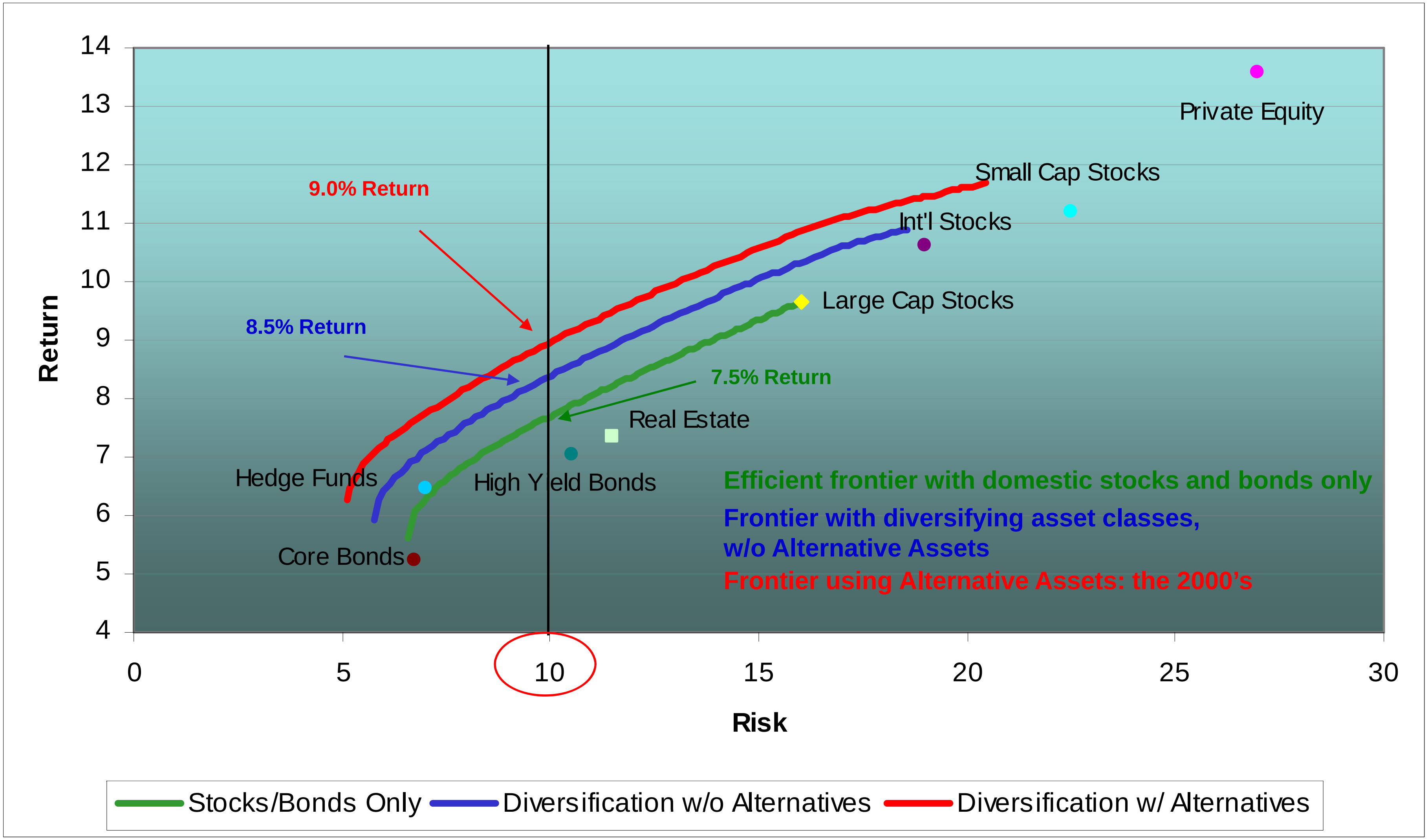
Diversification and Risk Budgeting with Alternatives

- Diversification Concepts
  - The range of eligible investments has expanded nicely over time
  - These new options can be used to improve and stabilize returns
- Risk Management
  - Traditional (60/40) portfolios are dominated by equity risk
  - Essentially, a “one-bet” approach that has failed this decade
- Portable Alpha
  - A more consistent, reliable method of enhancing index returns
- Examples
  - Alternatives demonstrably improve portfolio performance

The Evolution of Diversification

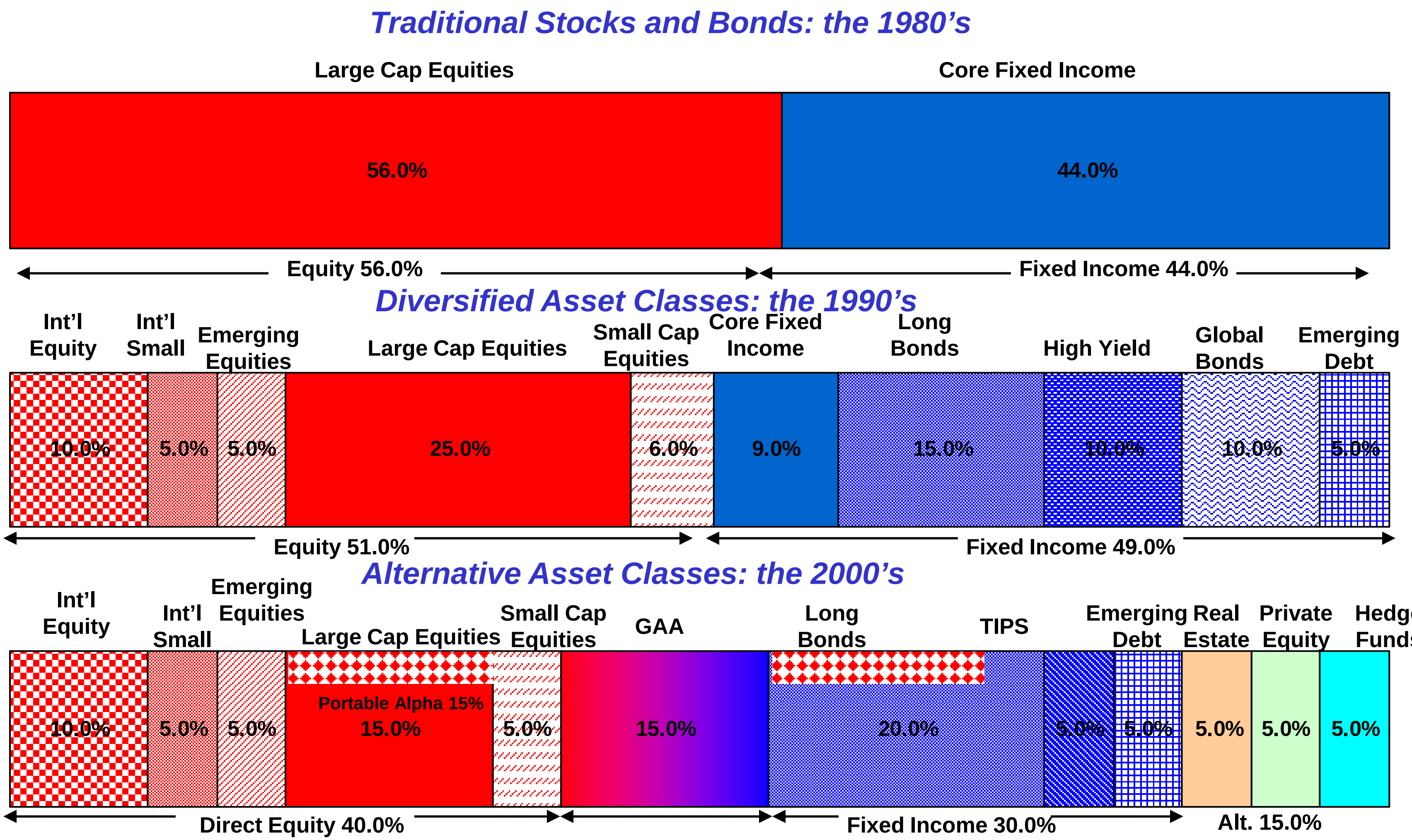


Theoretical Return/ Risk Frontier: 1980's Through 2000's

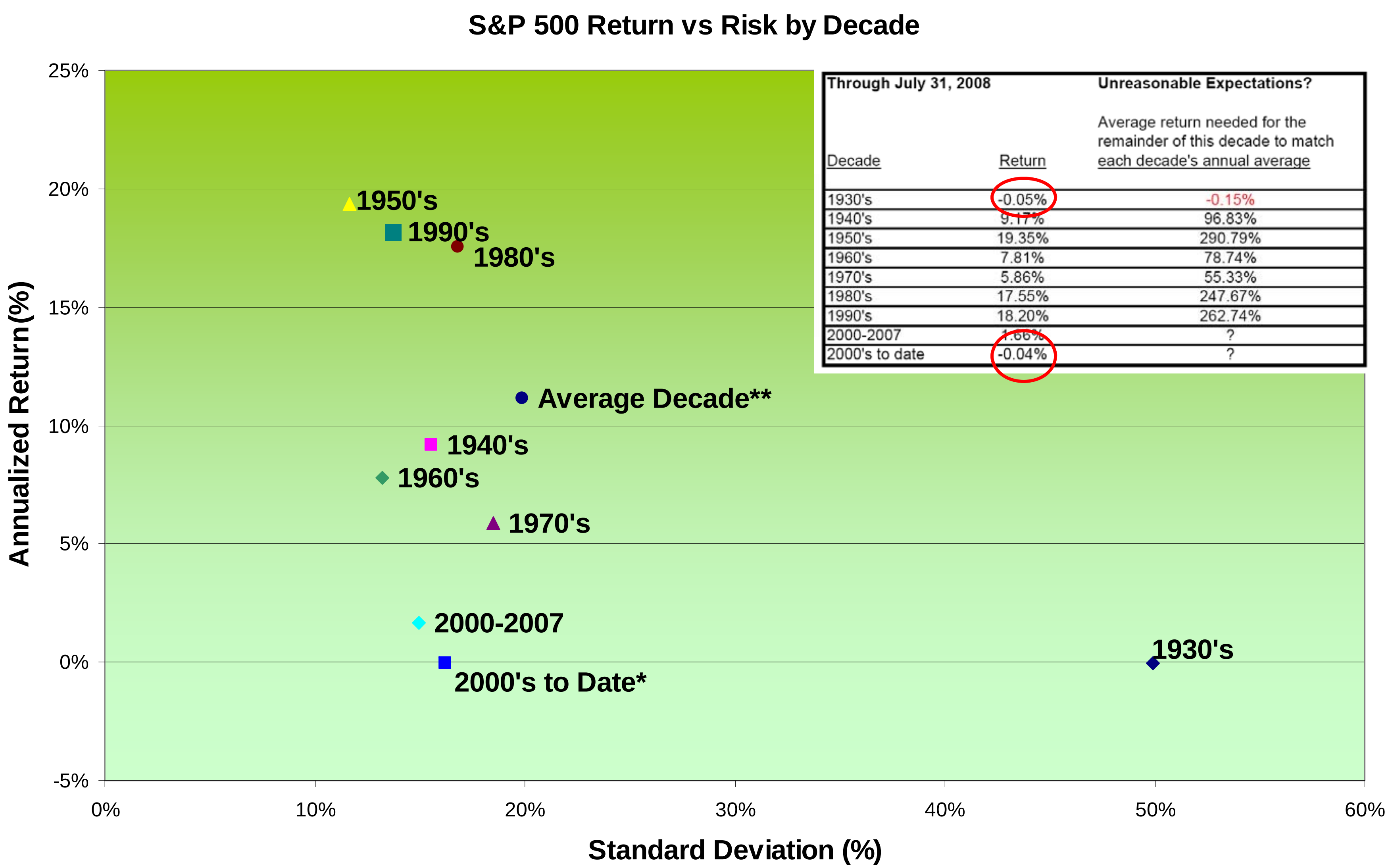


Note: Risk and return estimates exclude the impact of active management

Supporting Asset Allocation: 10.0% Risk Level



US Equity Market Returns in Perspective

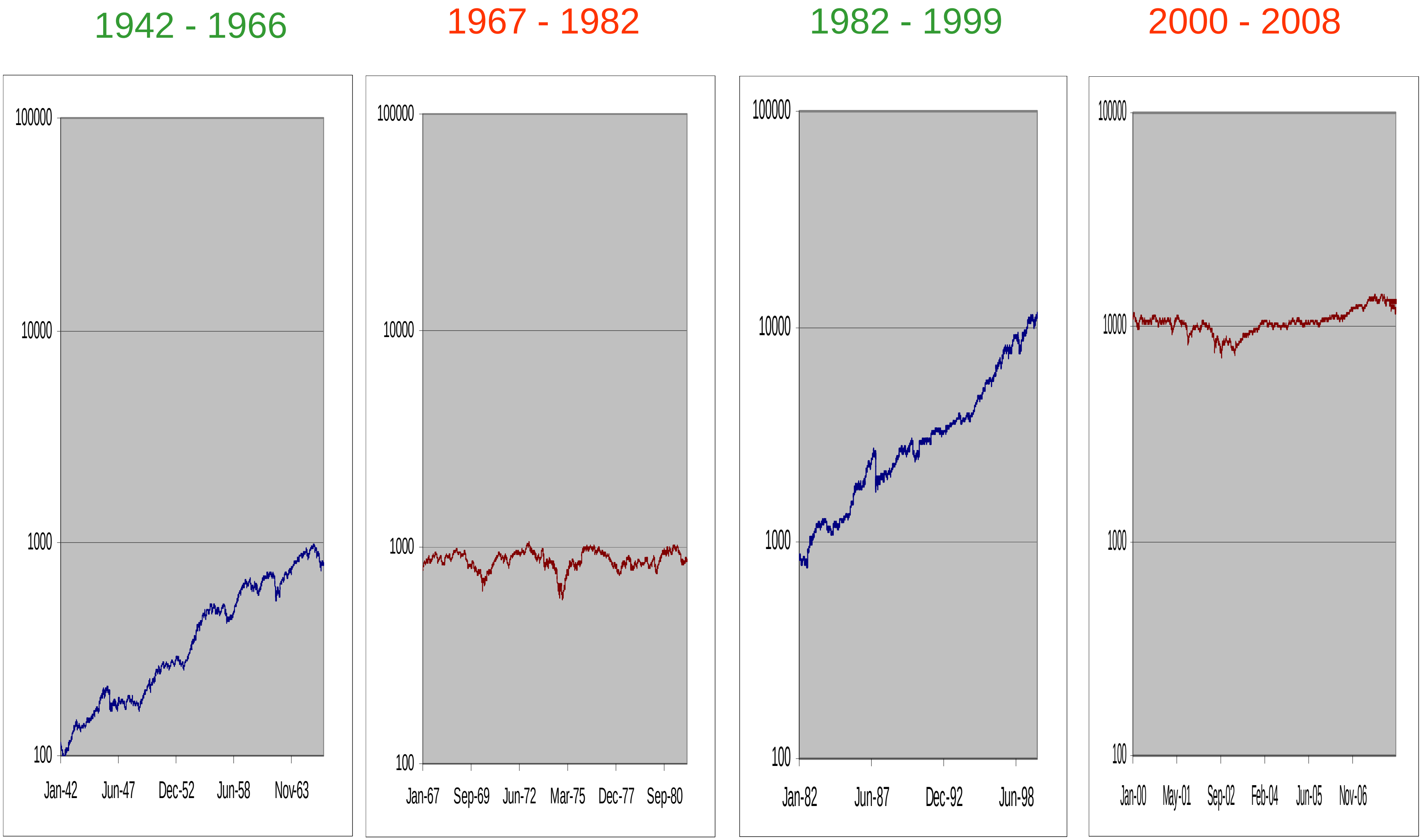


Through July 31, 2008		Unreasonable Expectations?
Decade	Return	Average return needed for the remainder of this decade to match each decade's annual average
1930's	-0.05%	-0.15%
1940's	9.17%	96.83%
1950's	19.35%	290.79%
1960's	7.81%	78.74%
1970's	5.86%	55.33%
1980's	17.55%	247.67%
1990's	18.20%	262.74%
2000-2007	1.66%	?
2000's to date	-0.04%	?

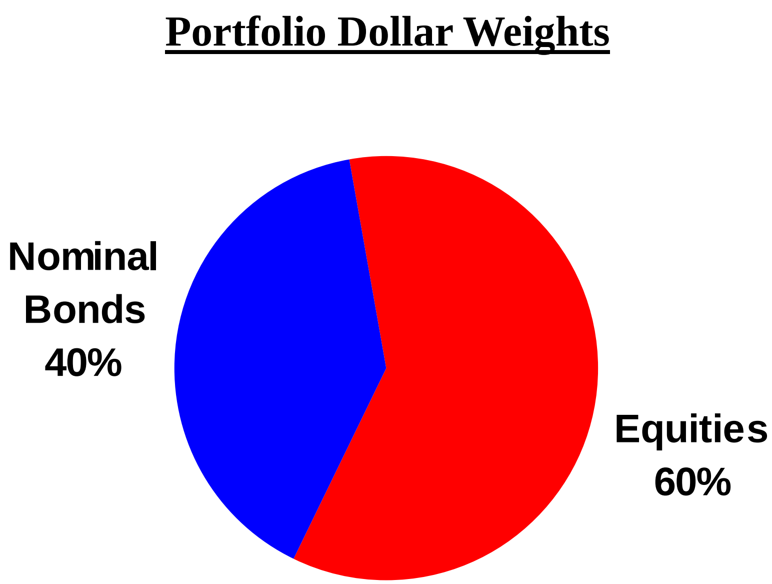
* 2000's to Date is through July 31, 2008

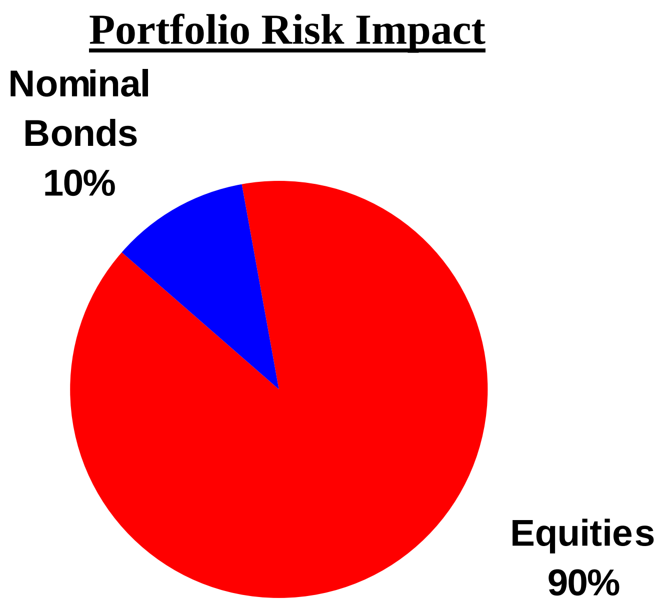
** Average Decade is from the 1930's through the 1990's

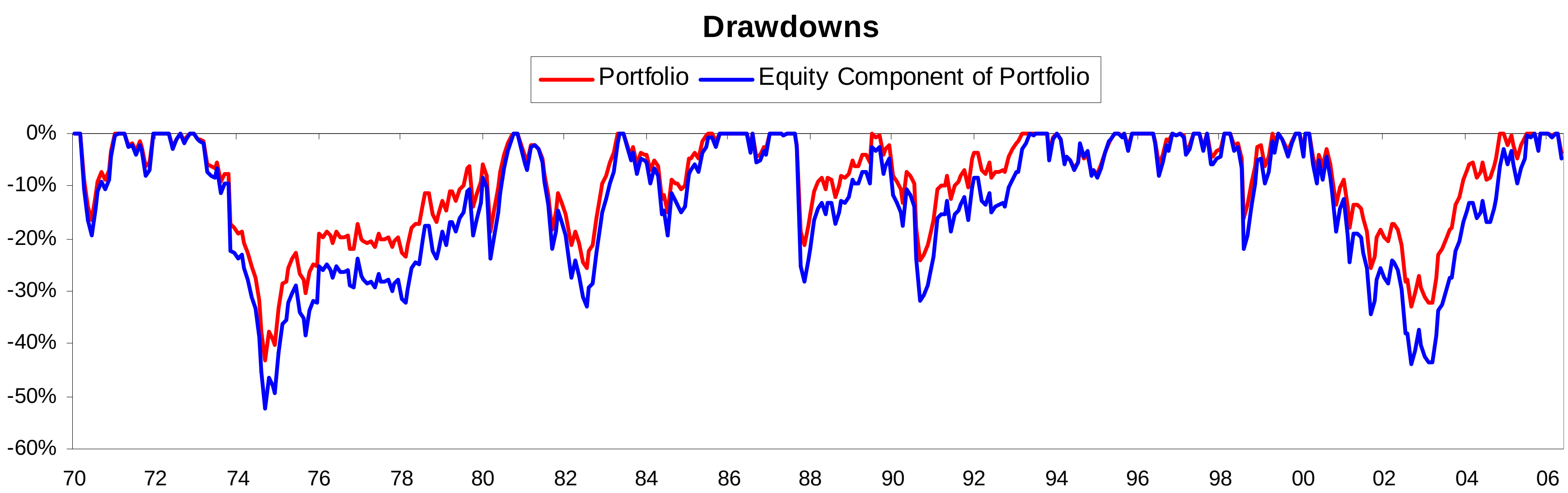
Dow Jones Index (Log Scale)



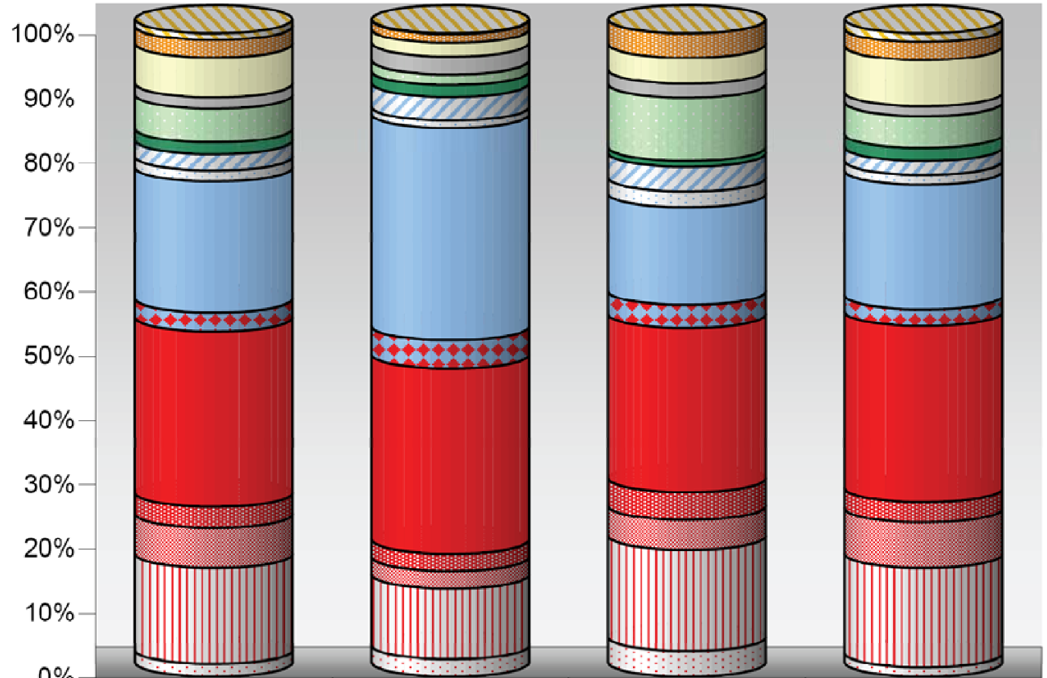
Typical 60/40 Portfolio: 90% of Risk Due to Equities





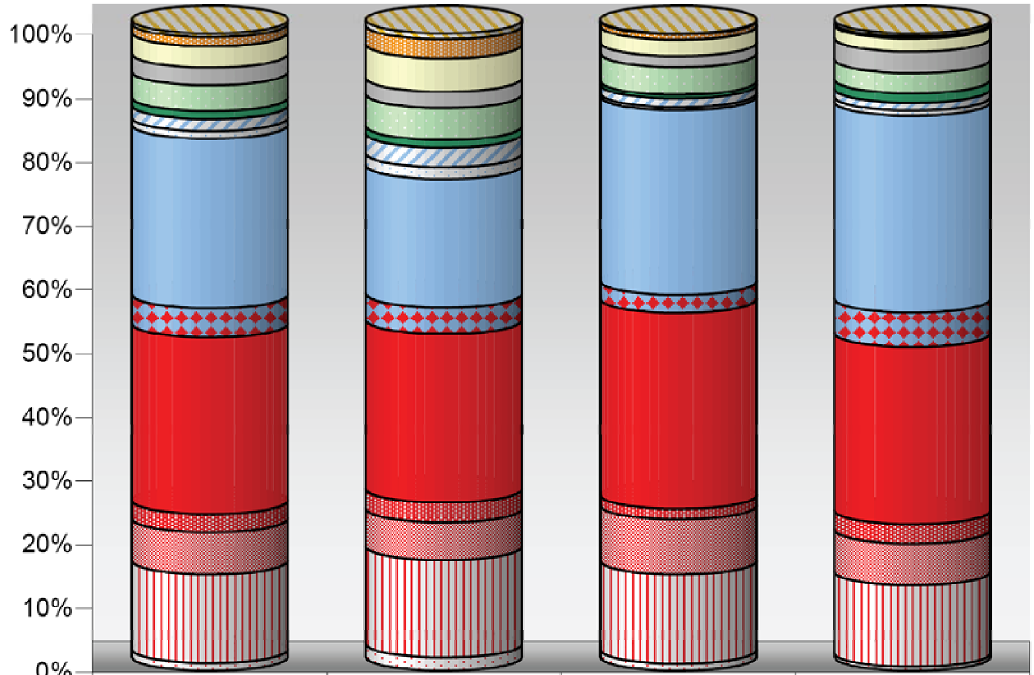


ICC Average Asset Allocation – Large Plans



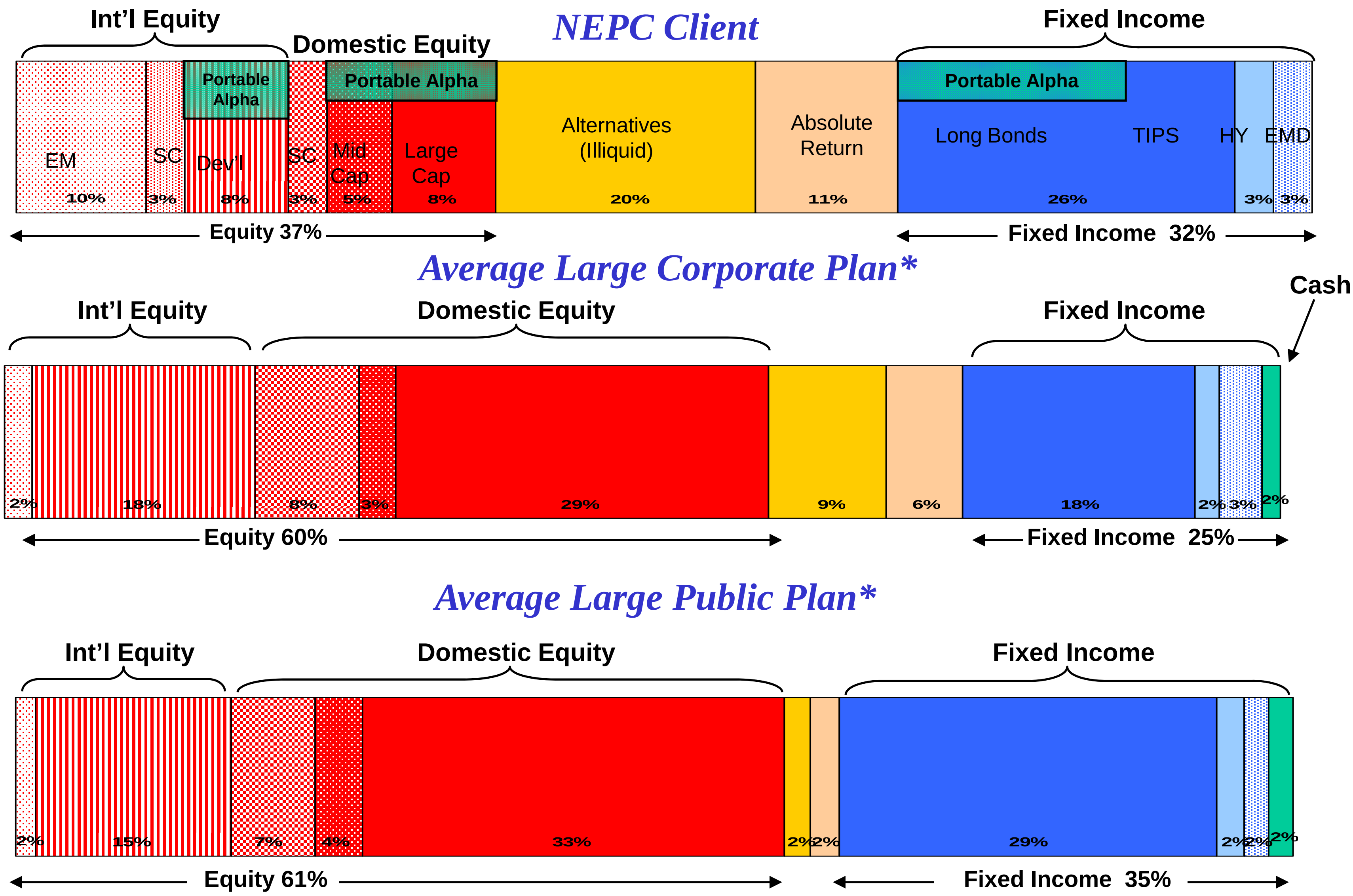
	Large Plans	Above $10 Billion	$5 Billion - $10 Billion	$1 Billion - $5 Billion
Misc	1.1%	0.1%	0.0%	1.4%
Private Equity	2.8%	1.5%	3.8%	2.8%
Hedge Fund	6.1%	2.1%	4.0%	7.1%
TAA - Global	1.8%	2.7%	2.2%	1.5%
Real Estate	5.3%	1.7%	9.9%	5.0%
Cash Equiv	1.8%	1.8%	0.9%	2.0%
GFI/EMD	2.6%	3.7%	3.8%	2.2%
High Yield	1.7%	1.2%	2.5%	1.6%
Fixed Income	20.4%	33.0%	15.2%	19.4%
TAA - Domestic	2.9%	4.4%	3.5%	2.5%
Large Cap	27.4%	28.8%	25.6%	27.5%
Mid Cap	3.2%	2.7%	4.3%	3.1%
Small Cap	6.2%	2.8%	4.7%	7.0%
Int'l Developed	15.0%	11.1%	15.7%	15.5%
Emerging Mkt	1.9%	2.6%	3.9%	1.4%
# of Observations	101	12	14	75

ICC Average Asset Allocation – Public Plans



	Public Plans	Above $1 Billion	$500 Million - $1 Billion	Less Than $500 Million
Misc	0.6%	0.9%	0.1%	0.5%
Private Equity	1.4%	3.0%	0.9%	0.3%
Hedge Fund	3.3%	5.2%	2.6%	2.1%
TAA - Global	2.8%	2.5%	1.7%	3.3%
Real Estate	4.0%	5.0%	4.3%	3.2%
Cash Equiv	1.2%	1.2%	0.6%	1.5%
GFI/EMD	1.9%	3.1%	1.3%	1.2%
High Yield	1.2%	1.9%	0.5%	0.8%
Fixed Income	26.6%	20.1%	29.1%	30.9%
TAA - Domestic	4.6%	4.2%	2.7%	5.4%
Large Cap	27.8%	26.5%	30.9%	27.9%
Mid Cap	2.8%	3.1%	1.6%	3.0%
Small Cap	6.6%	5.9%	8.6%	6.5%
Int'l Developed	13.9%	15.3%	14.0%	12.9%
Emerging Mkt	1.2%	2.1%	1.1%	0.6%
# of Observations	139	52	19	68

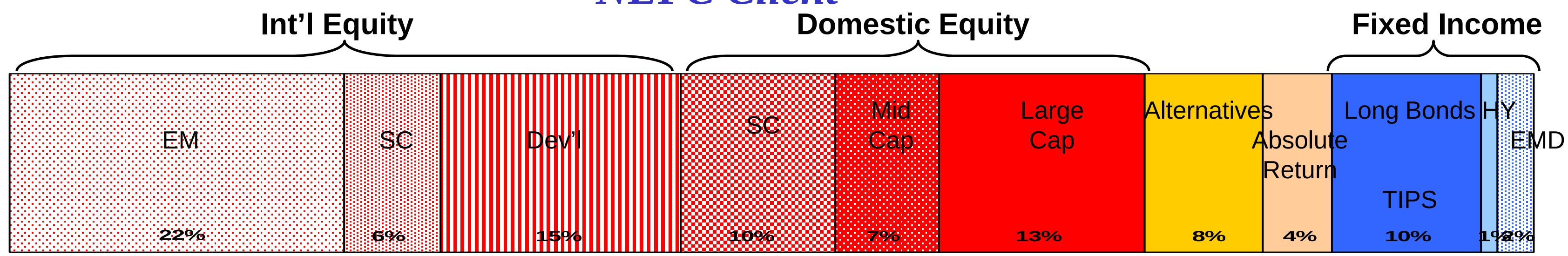
Actual Allocations: Fully Diversified Portfolios



*Average allocations are from Large Corporate/Public Plans with total plan assets over $1 Billion.

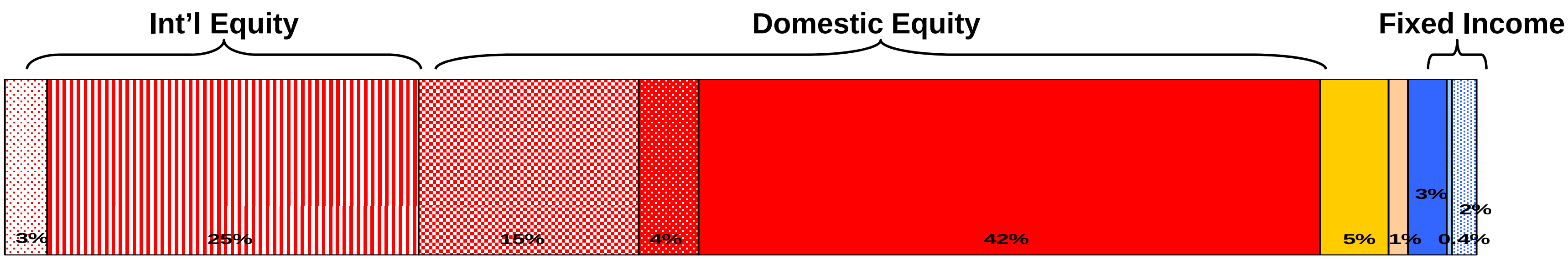
Contribution to Risk by Asset Class

NEPC Client



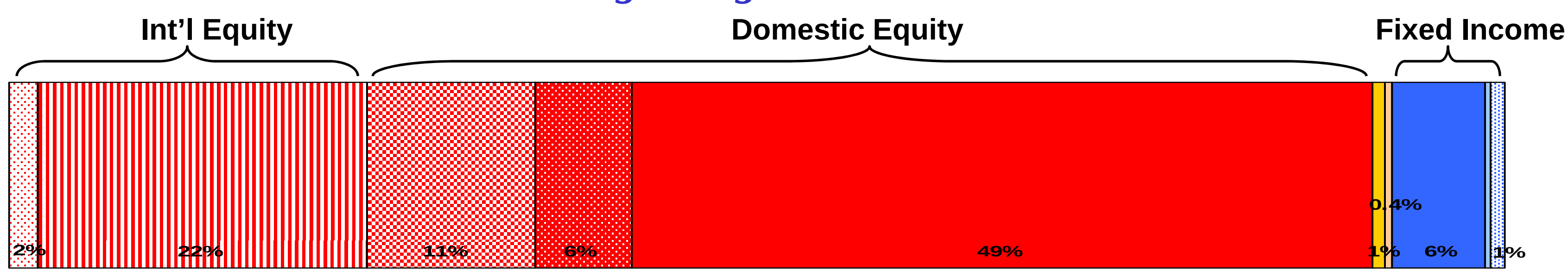
←Overall contribution to risk from equities: 73% (equity commitment = 37%)→ **Fixed Income 13%**

Average Large Corporate Plan



← Overall contribution to risk from equities: 89% (equity commitment = 60%) → **FI 6%**

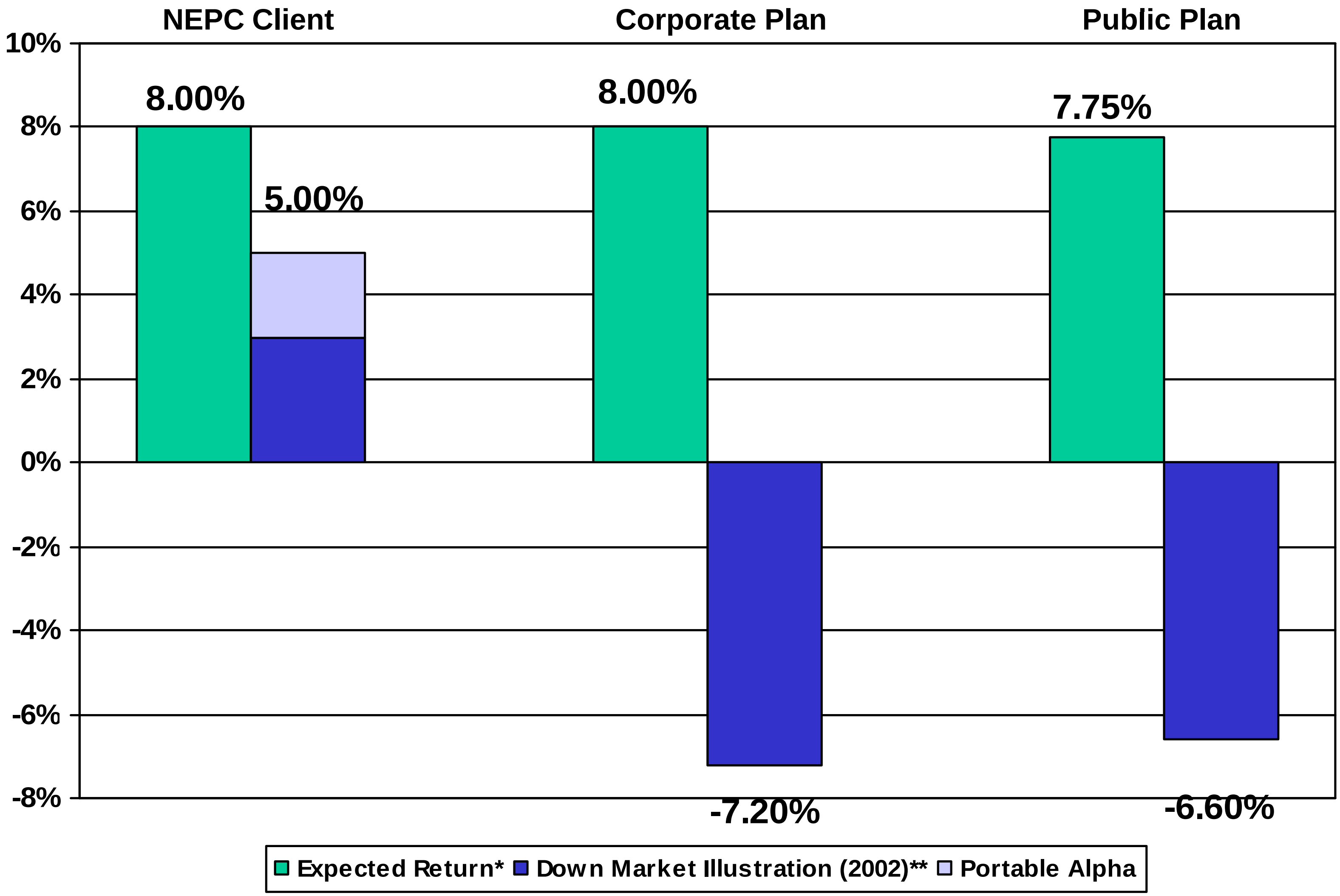
Average Large Public Plan



← Overall contribution to risk from equities: 90% (equity commitment = 61%) → **FI 6%**

**Average allocations are from Large Corporate/Public Plans with total plan assets over $1 Billion.*

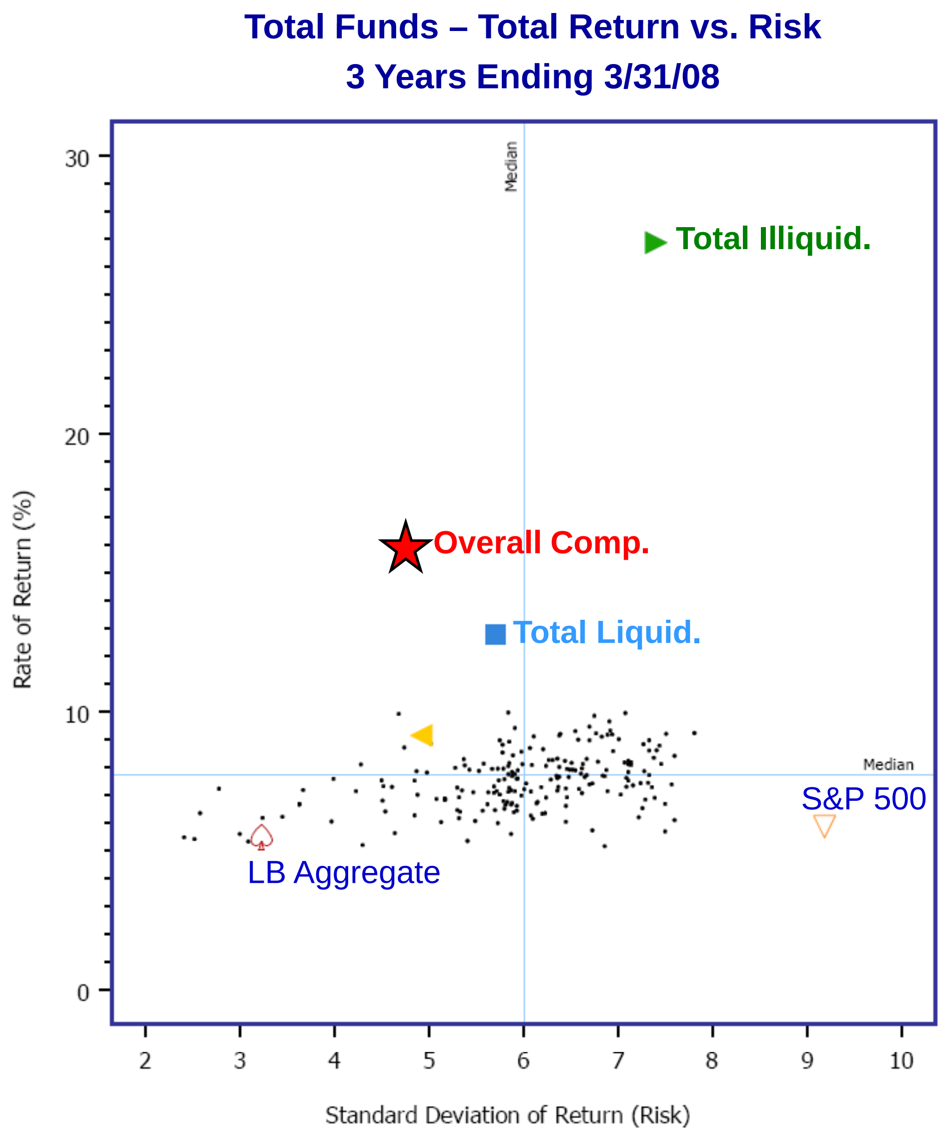
Downside Risk Analysis



*** Expected Passive returns for NEPC Client with and without impact of portable alpha**

**** Down market estimates based on actual calendar year 2002 market (beta) returns applied to current asset allocations**

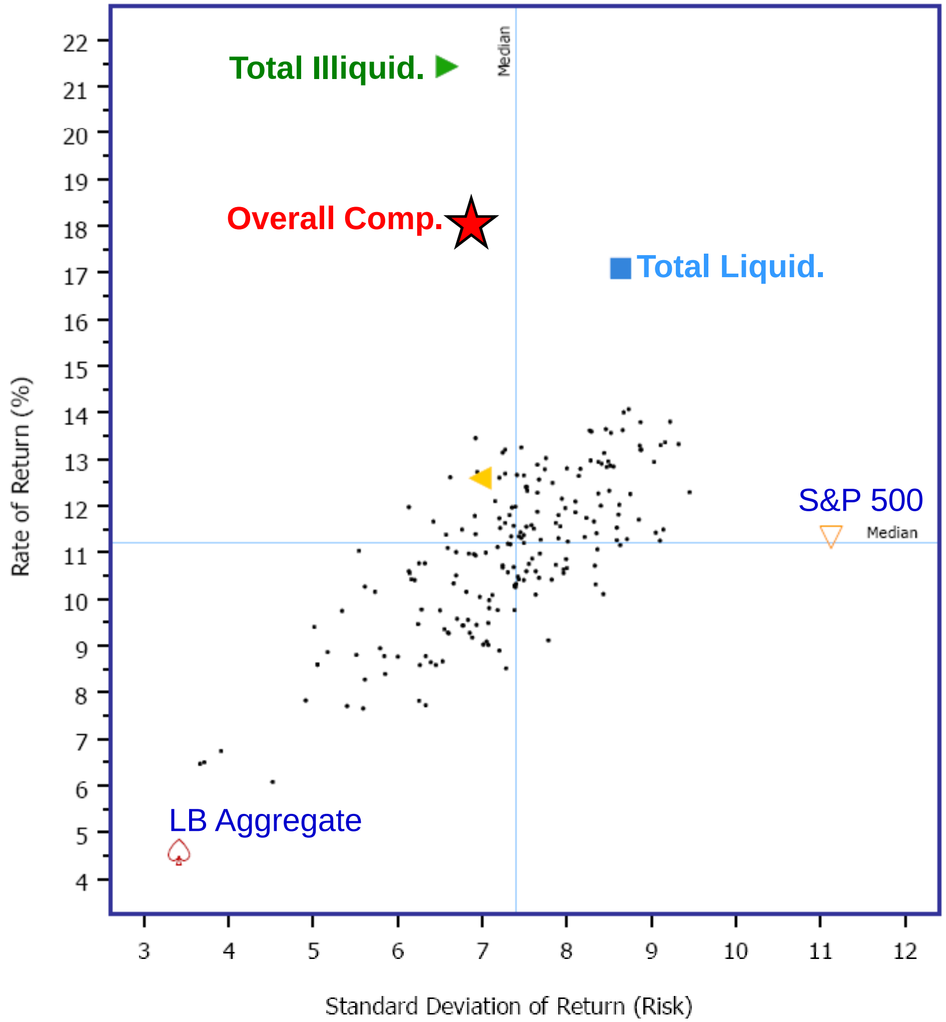
NEPC Client – 3 Year Risk/Return



	Return		Standard Deviation		Sharpe Ratio	
★ Overall Comp	15.7	1	4.8	18	2.2	1
■ Total Liquid	12.8	1	5.7	36	1.4	1
◀ ALLOC INDEX	9.1	14	4.9	21	0.9	6
▶ Total Illiquid	26.9	1	7.4	89	2.8	1
▽ *S&P 500*	5.9	89	9.2	98	0.2	94
♤ *LB AGGREGATE*	5.5	92	3.2	8	0.3	85
Median	7.7		6.0		0.5	

NEPC Client – 5 Year Risk/Return

Total Funds – Total Return vs. Risk
5 Years Ending 3/31/08



	Return		Standard Deviation		Sharpe Ratio	
★ Overall Comp	18.1	1	6.8	32	2.1	1
Total Liquid	17.1	1	8.6	85	1.5	1
ALLOC INDEX	12.6	21	7.0	37	1.3	8
Total Illiquid	21.4	1	6.6	26	2.6	1
S&P 500	11.3	48	11.1	99	0.7	92
LB AGGREGATE	4.6	98	3.4	6	0.4	97
Median	11.2		7.4		1.0	

Client Example - Broadened Diversification

Total Assets ($000)	$2,964*	$3,571	$4,864	$5,695**
	2002	2003	2005	2007
Domestic Equity	43%	33%	32%	29%
International Equity	18%	13%	13%	14%
Emerging Market Equity		3%	3%	4%
Total Equity	**61%**	**49%**	**48%**	**47%**
Domestic Fixed	28%	17%	14%	10%
Global Fixed	5%	5%	5%	3%
High Yield		8%	8%	4%
Emerging Market Debt		2%	2%	4%
Total Debt	**33%**	**32%**	**29%**	**21%**
Real Estate	6%	8%	8%	8%
Timber			2%	4%
Infrastructure				2%
Commodities				2%
Total Real Assets	**6%**	**8%**	**10%**	**16%**
Absolute Return		5%	7%	7%
Private Equity		6%	6%	9%
Total Alternative Assets		**11%**	**13%**	**16%**

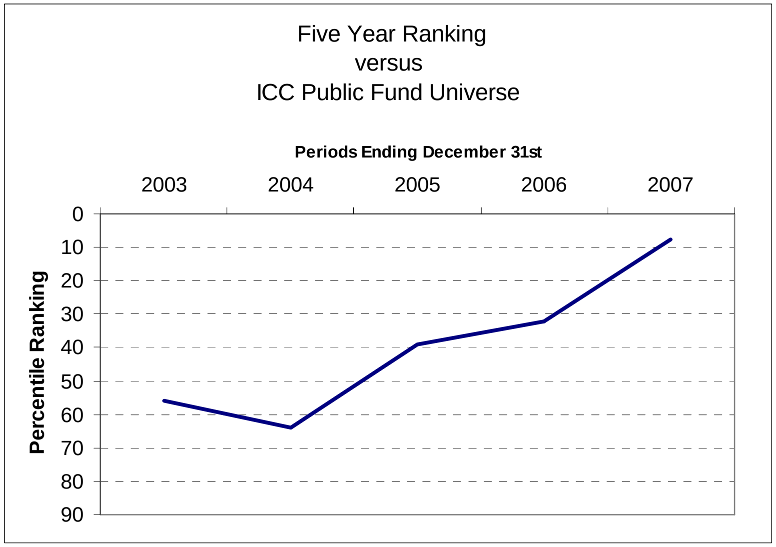
5 year return 14.0%, rank in 6th percentile
5 year risk 7.1%, rank in 69th percentile
5 year Sharpe ratio 1.5%, rank in 9th percentile

7% Alpha Pool, TAA & Currency Program – not shown.

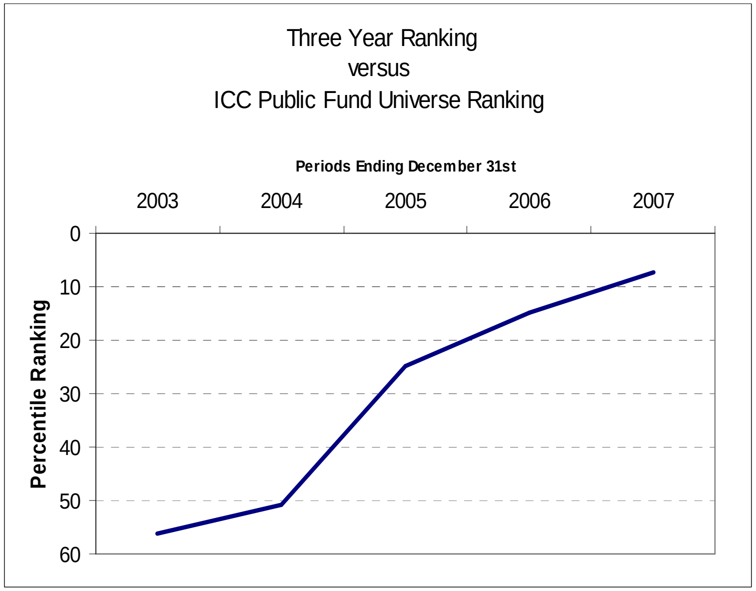
*As of December 31st
**As of March 31st

County Fund Results - Universe Comparison

	Five Years Ending	
	Return	Ranking
12/31/2003	4.4%	56
12/31/2004	3.6%	64
12/31/2005	5.6%	39
12/31/2006	9.0%	32
12/31/2007	14.0%	6



	Three Years Ending	
	Return	Ranking
12/31/2003	2.4%	57
12/31/2004	7.1%	50
12/31/2005	14.7%	25
12/31/2006	12.0%	14
12/31/2007	11.5%	8

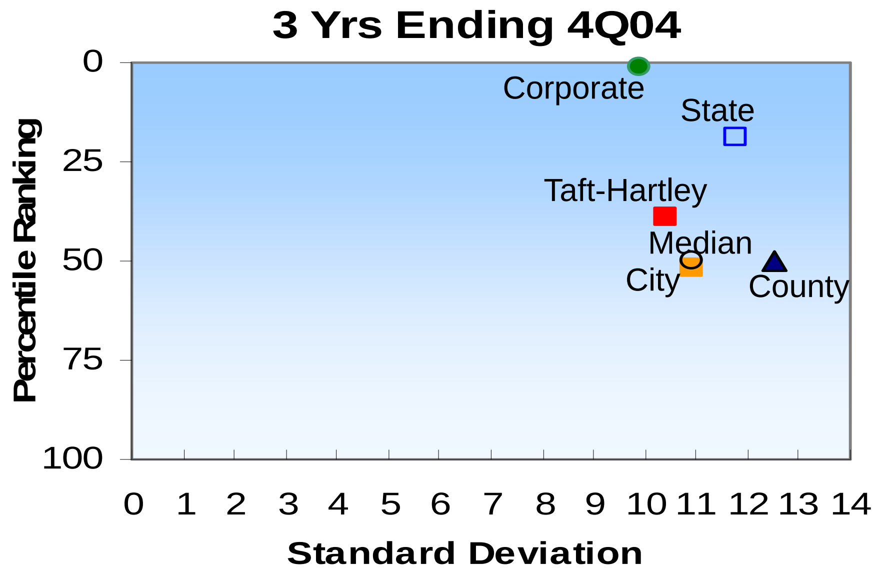


Commitment to Alternatives 2004-2007

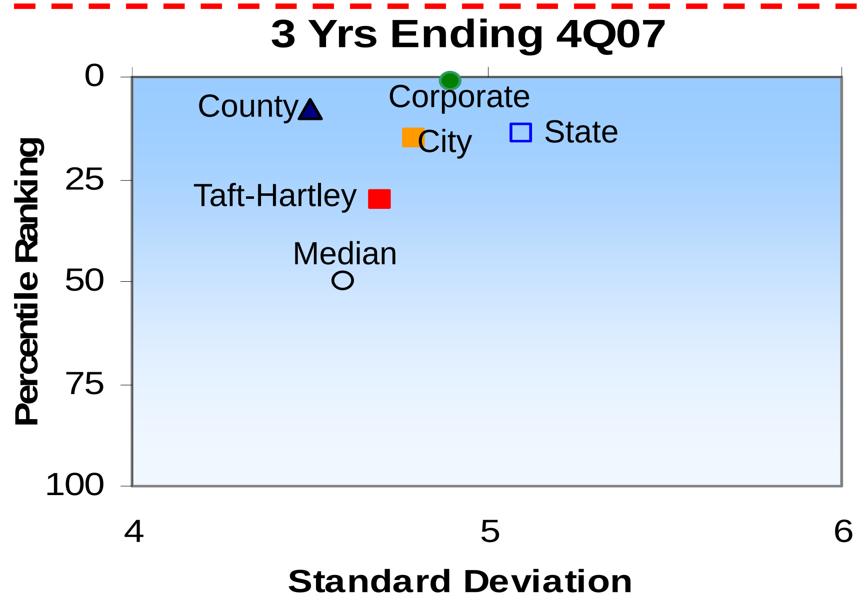
	% of Fund in Alternatives		
	4Q04	*4Q07*	*Change*
Corporate	15.3	28.2	+12.9
County	12.4	31.3	+18.9
City	15.1	22.5	+7.4
State	13.2	19.9	+6.7
Taft-Hartley	10.8	22.2	+11.4
ICC Median	***2.8***	***5.8***	***+3.0***

Performance Improvement 4Q04-4Q07

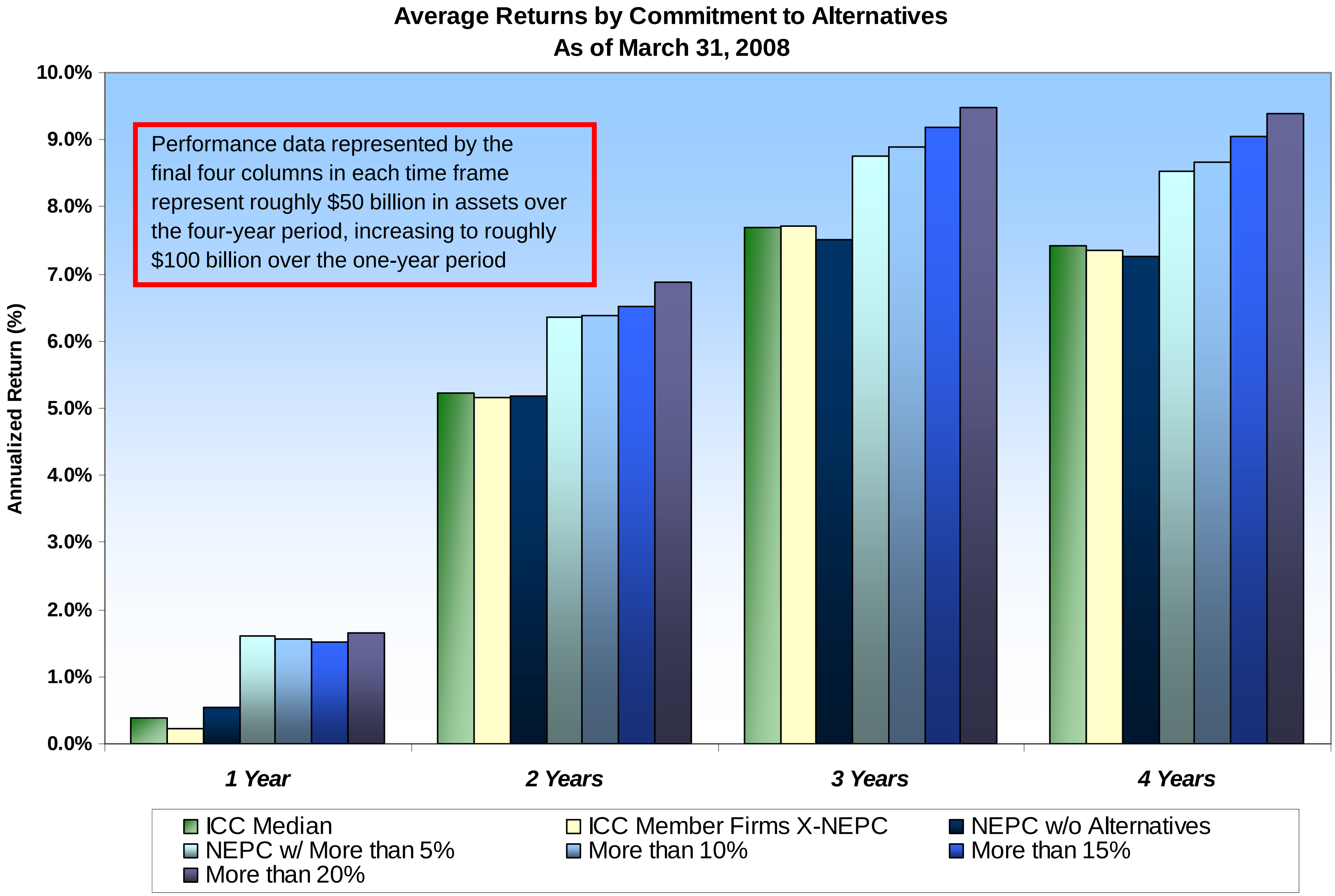
The State, City, County and Taft-Hartley funds are all multi-billion dollar relationships and all were deep fourth quartile performers when NEPC was hired.



Collectively, those four funds have awarded NEPC over $1.5 million in annual fee increases in recognition for performance improvements.



NEPC Client Performance with Alternative Investments

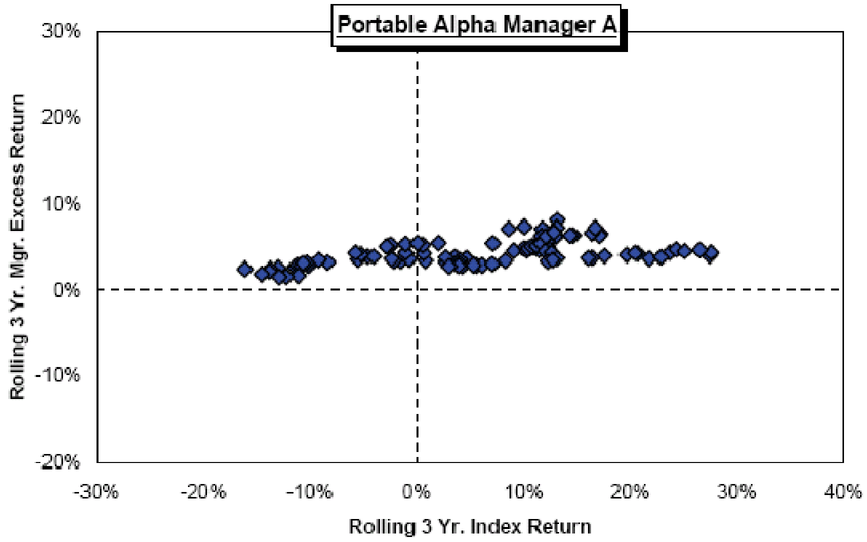


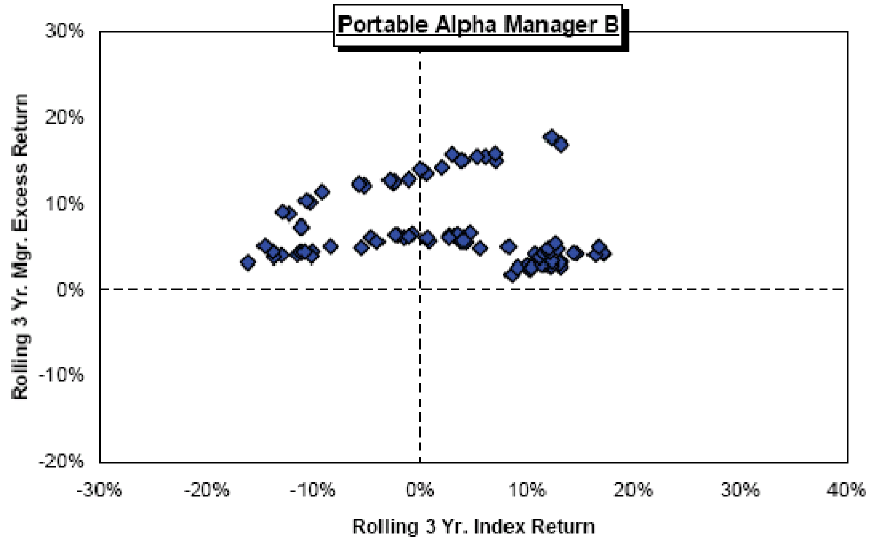
Note: * Performance shown represents NEPC clients with a minimum commitment to alternatives during the time periods presented. **Alternative Investments include commitments to hedge funds, private equity and miscellaneous investments (e.g. timber etc). Real Estate is not included in the alternatives allocation.

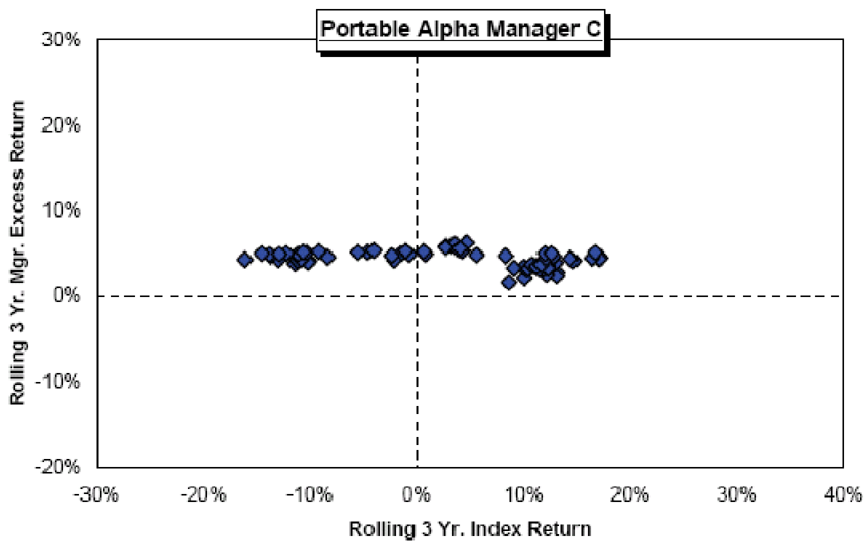
What is Portable Alpha?

- Portable alpha is packaging:
  - A beta exposure, as represented by an index, i.e., S&P 500
  - With uncorrelated alpha
- Index exposure is typically obtained with derivatives (capital-efficient)
  - The exposure can be obtained with a small commitment of capital
- Capital not committed to index exposures is used to generate uncorrelated alpha
  - Returns in excess of cash are alpha
- Sounds easy, but;
  - Derivative exposures and product structures are legally complex
  - Many alpha strategies are complex
  - Most strategies have high fees
- Where possible, NEPC is driving certain solutions
  - Bundled, ERISA friendly vehicles
  - Transparency and liquidity
  - Reasonable fees

3 Year Alpha-Only Manager Returns as of 12/31/07

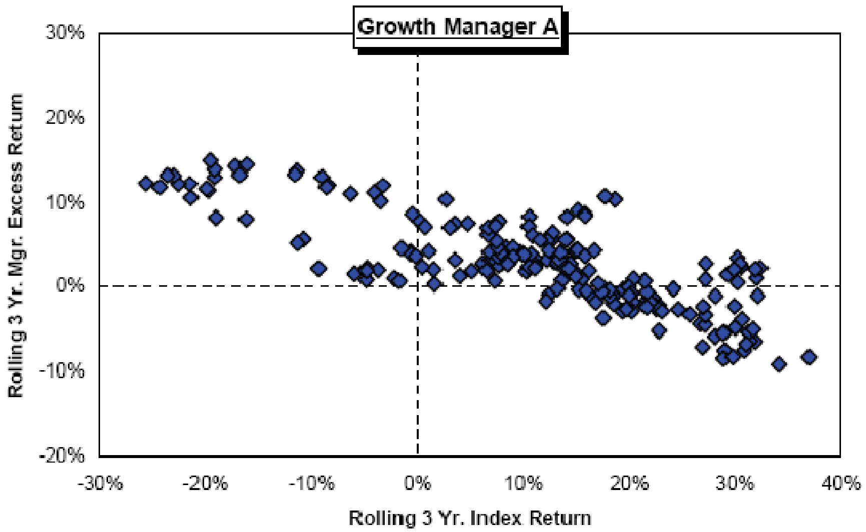


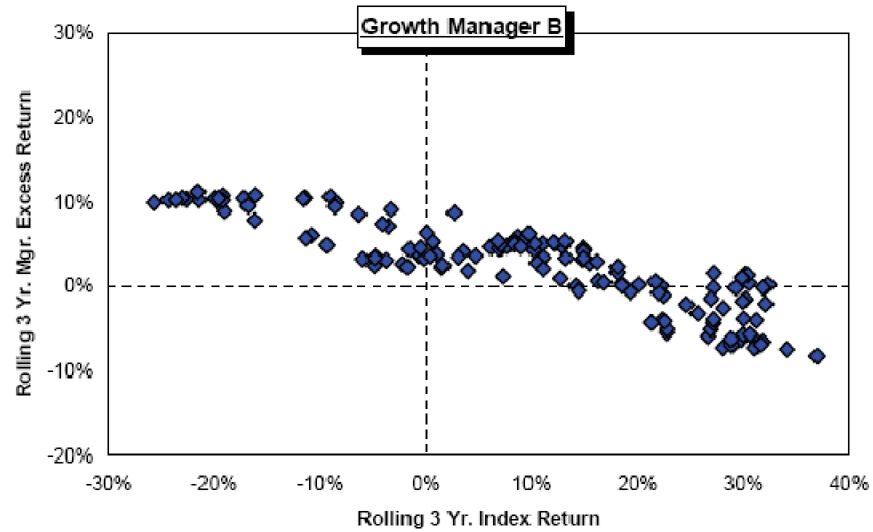


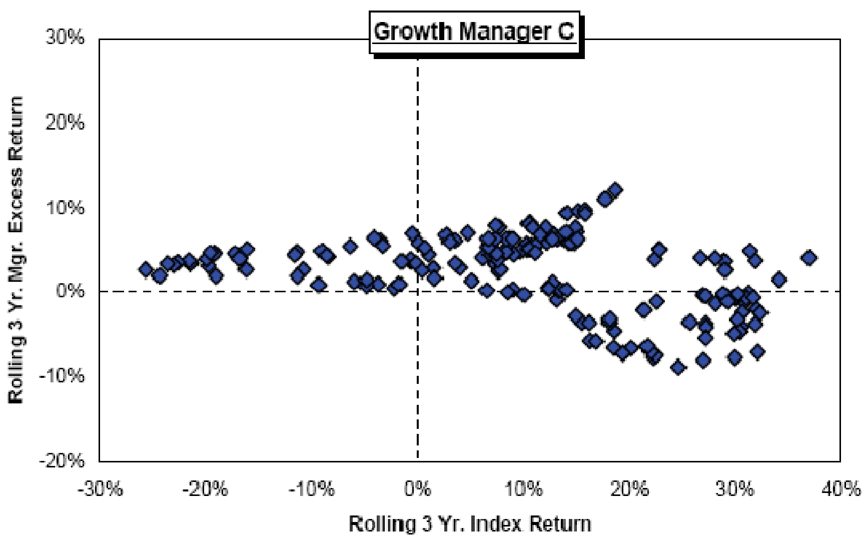


Manager returns less S&P 500

3 Year Alpha-Only Manager Returns as of 12/31/07

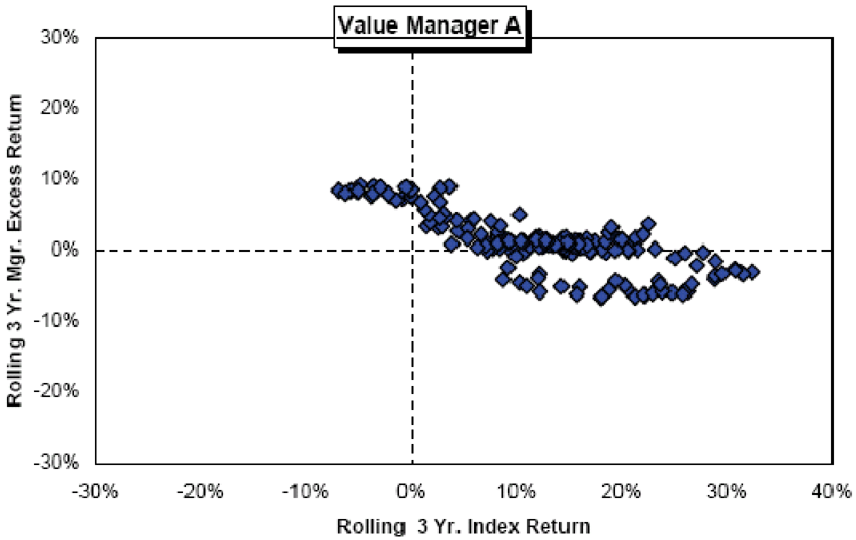


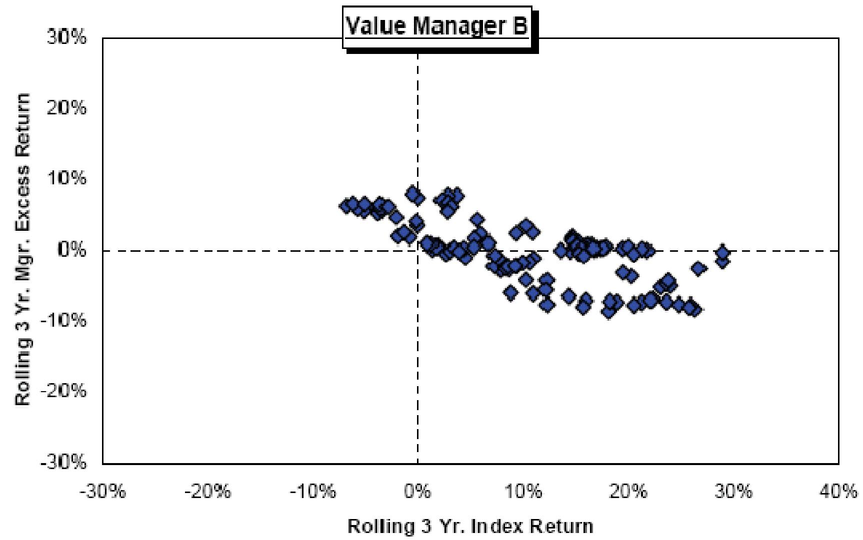


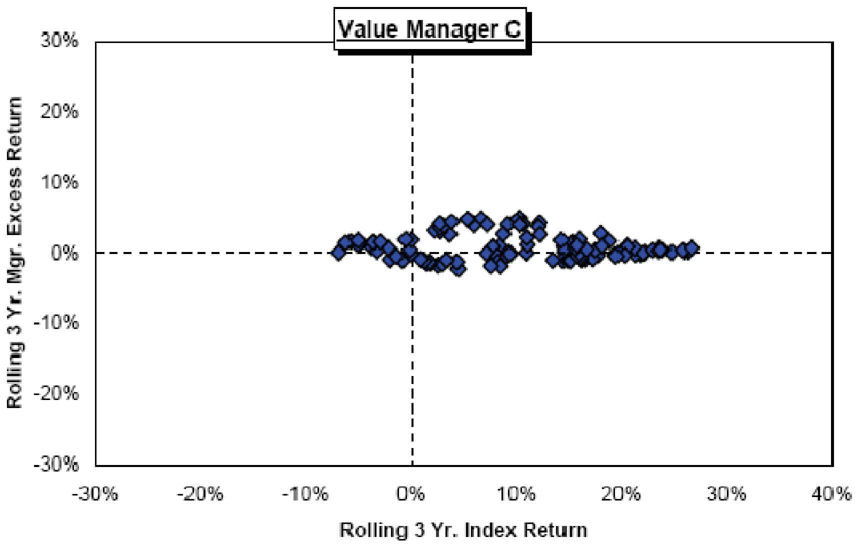


Manager returns less Russell 1000 Gr

3 Year Alpha-Only Manager Returns as of 12/31/07



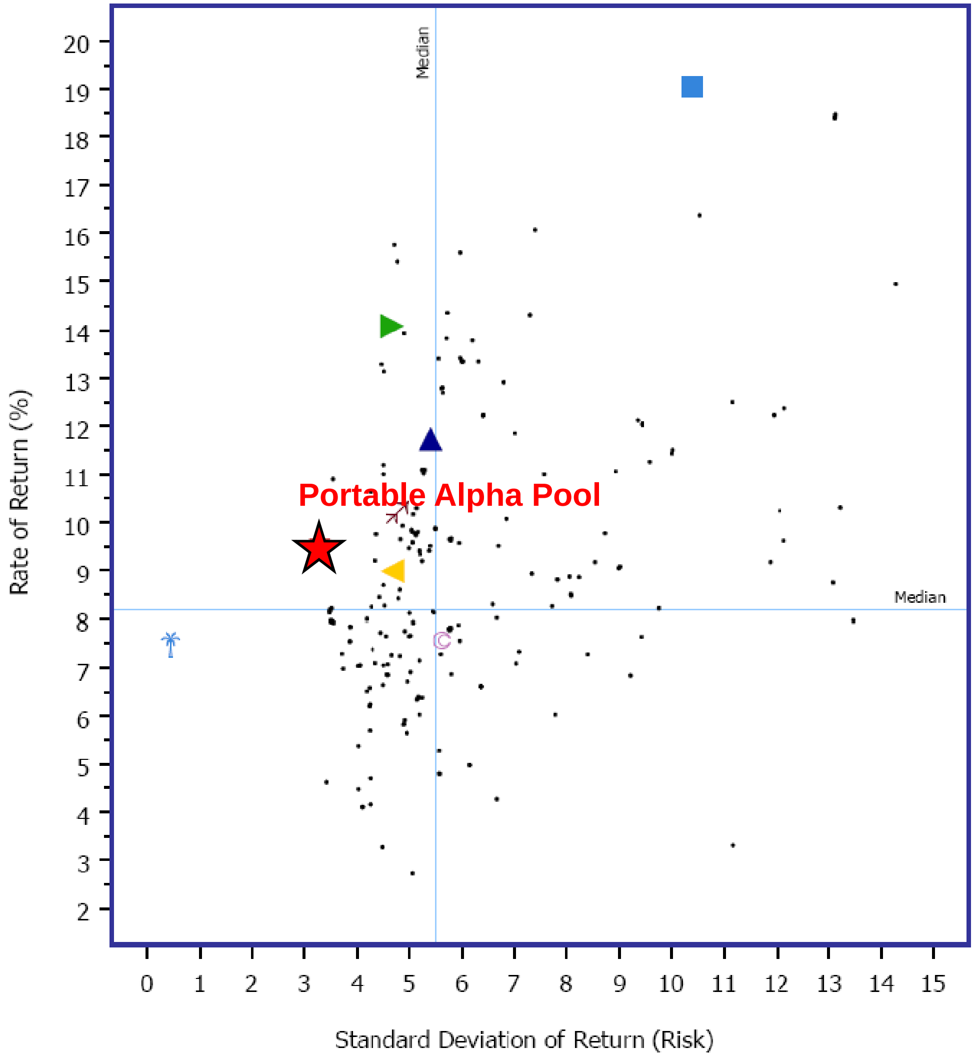




Manager returns less Russell 1000 Val

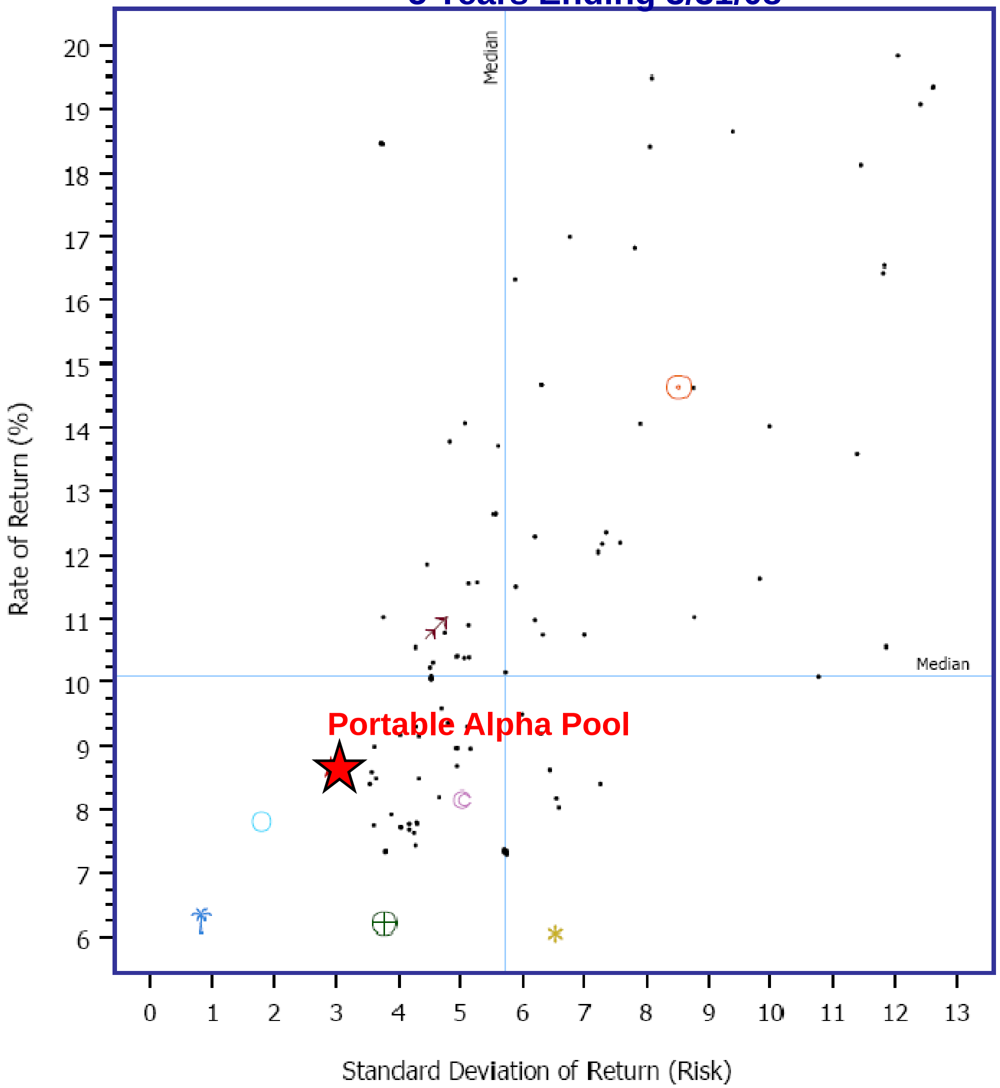
Portable Alpha Pool (Build)

Hedge Funds – Total Return vs. Risk
3 Years Ending 3/31/08



	Return		Standard Deviation		Sharpe Ratio	
★ Portable Alpha	9.6	32	3.3	3	1.5	5
Manager A	19.1	4	10.4	88	1.3	10
Manager B	9.0	40	4.7	25	1.0	29
Manager C	14.1	9	4.7	25	2.0	1
Manager D	11.7	19	5.4	48	1.3	11
CSFB TREMT HDGE	10.2	26	4.8	26	1.2	16
HFRI FD OF FDS	7.6	65	5.6	53	0.6	64
90 T-BILL+300BP	7.5	66	0.4	1	6.6	1
Median	8.2		5.5		0.7	

Portable Alpha Pool (Build)



	Return		Standard Deviation		Sharpe Ratio	
Portable Alpha	8.7	61	2.9	2	1.8	7
Manager A	6.0	96	6.5	69	0.5	95
Manager B	14.6	18	8.5	82	1.3	38
Manager C	6.2	96	3.8	11	0.8	78
Manager D	7.8	70	1.8	1	2.5	1
CSFB TREMT HDGE	10.8	36	4.6	34	1.6	13
HFRI FD OF FDS	8.2	68	5.0	42	1.0	72
90 T-BILL+300BP	6.2	96	0.8	1	3.6	1
Median	10.1		5.7		1.2	

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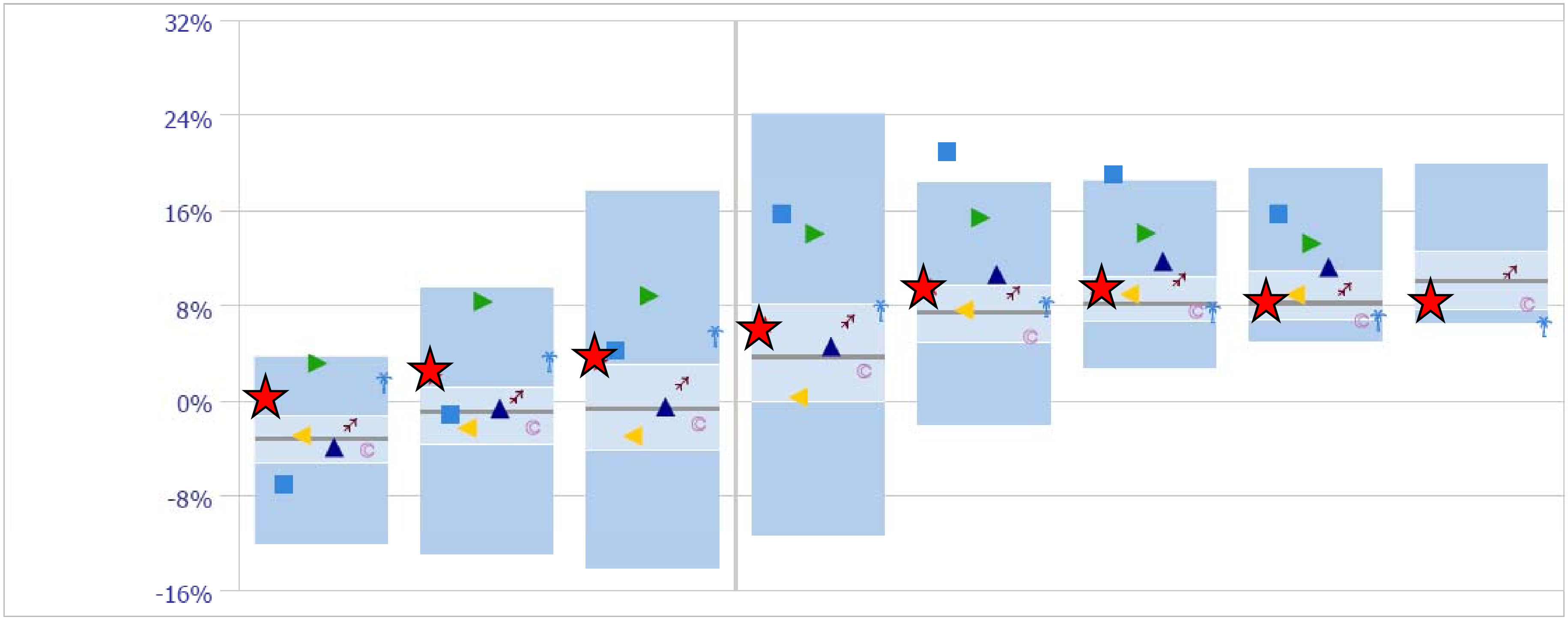
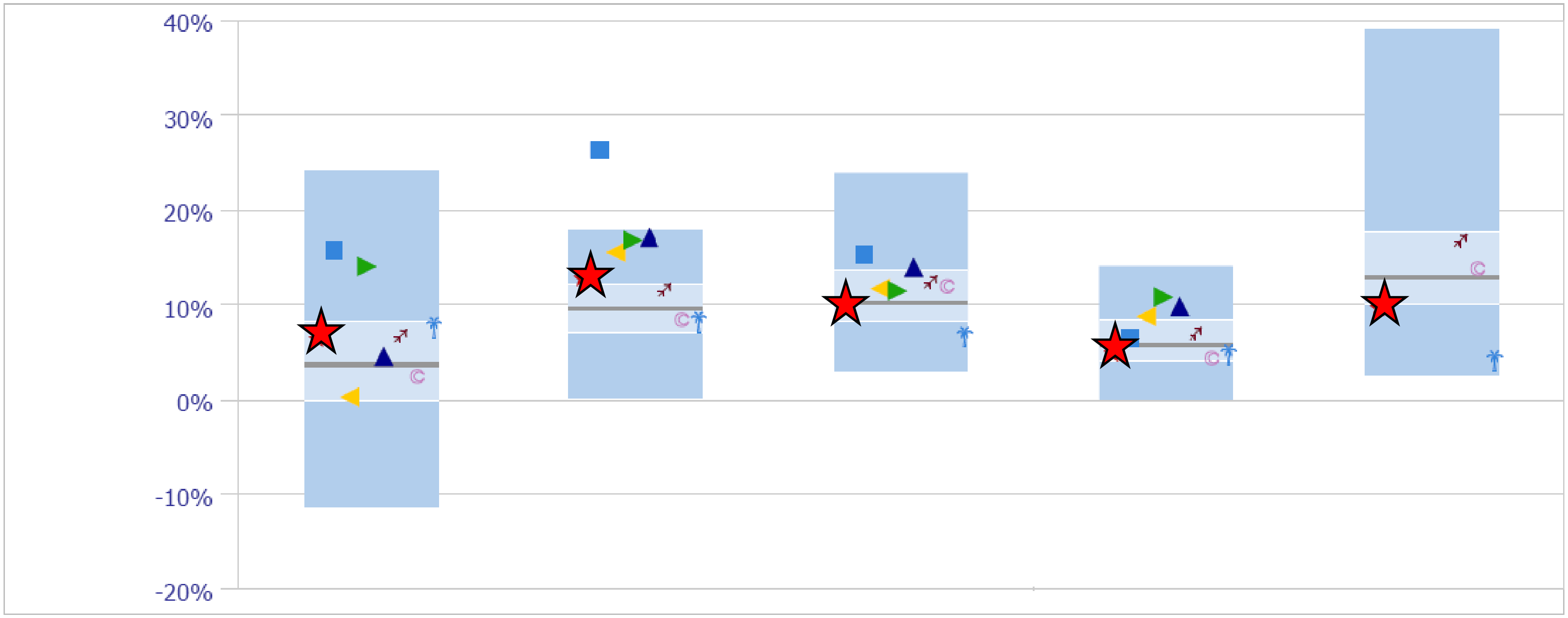
Portable Alpha Pool – Trailing Performance (as of 03/31/08)



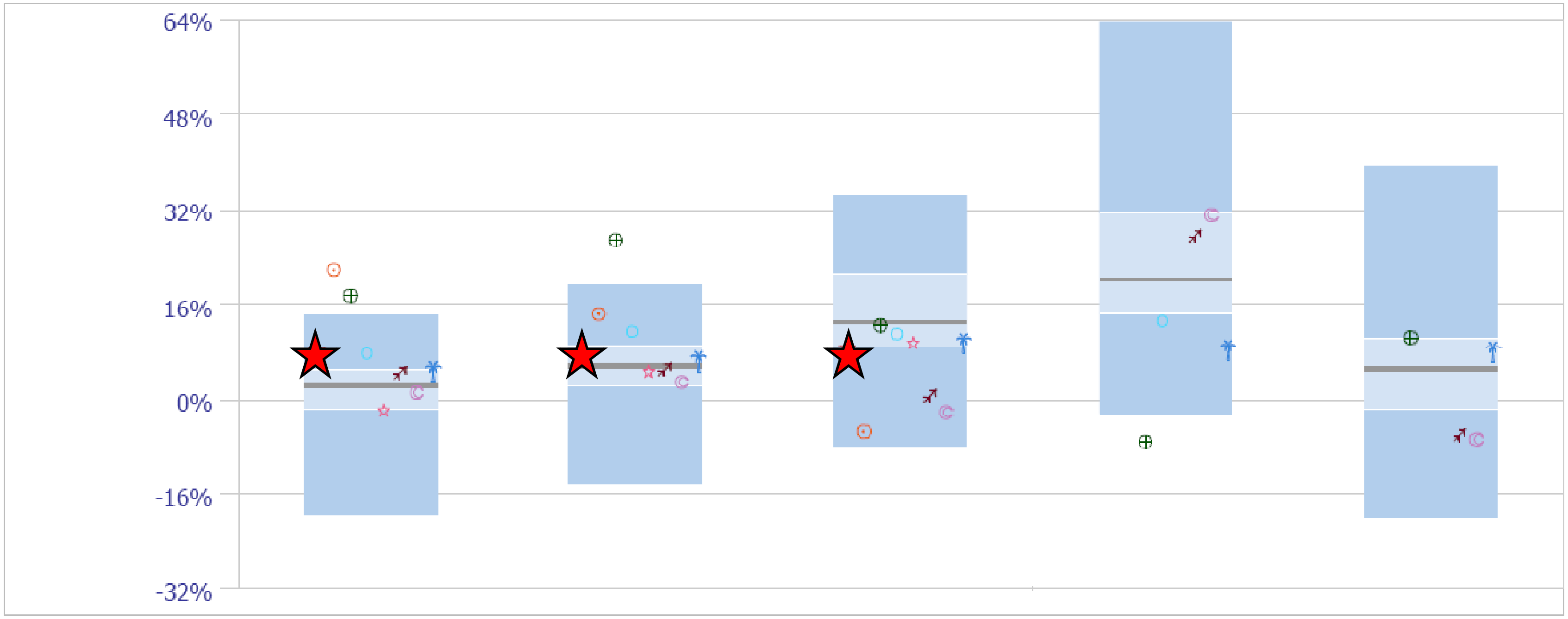
	One Quarter		Two Quarters		Three Quarters		One Year		Two Years		Three Years		Four Years		Five Years	
Portable Alpha	0.1	13	2.0	17	3.2	23	6.4	34	9.6	26	9.6	32	8.4	47	8.7	61
Manager A	-7.0	84	-1.1	52	4.3	21	15.8	8	21.0	4	19.1	4	15.8	8		
Manager B	-2.9	44	-2.3	64	-2.9	69	0.3	72	7.7	44	9.0	40	8.9	39		
Manager C	3.2	5	8.4	5	8.9	10	14.0	11	15.4	7	14.1	9	13.3	14		
Manager D	-3.9	62	-0.7	47	-0.5	47	4.6	42	10.6	18	11.7	19	11.3	22		
CSFB TREMT HDGE	-2.0	34	0.3	36	1.5	34	6.7	32	9.1	30	10.2	26	9.4	35	10.8	36
Median	-3.2		-0.9		-0.7		3.7		7.5		8.2		8.3		10.1	

Portable Alpha Pool – Year by Year (as of 03/31/08)



	March 2008		March 2007		March 2006		March 2005		March 2004	
Portable Alpha	6.4	34	12.8	20	9.7	56	4.9	65	9.7	76
Manager A	15.8	8	26.4	1	15.3	16	6.5	43		
Manager B	0.3	72	15.5	10	11.7	39	8.8	22		
Manager C	14.0	11	16.8	6	11.5	41	10.8	10		
Manager D	4.6	42	17.1	5	14.0	22	9.8	16		
CSFB TREMT HDGE	6.7	32	11.6	31	12.4	34	7.0	39	16.8	30
Median	3.7		9.6		10.3		5.8		12.9	

Portable Alpha Pool – Year by Year (as of 03/31/08)



	March 2003		March 2002		March 2001		March 2000	March 1999
Portable Alpha	8.3	12	7.4	33	8.7	76		
Manager A	21.9	2	14.4	6	-5.3	92		
Manager B	17.5	2	26.8	1	12.5	55		
Manager C	7.8	13	11.5	11	11.1	61		
Manager D	-1.7	75	4.9	56	9.6	72		
CSFB TREMT HDGE	4.6	30	5.2	51	0.7	87		
Median	2.3		5.7		13.1		20.3	5.2

NEPC's Portable Alpha Experience

- 80 clients with over $14 billion in portable alpha strategies
  - Over 30% of NEPC's eligible client base
  - $5+ billion in fund of funds
  - $4+ billion in direct placements
  - $2+ billion in GAA strategies
  - $1+ billion in traditional strategies

- Currently research over 75 portable alpha managers
- Over 100 meetings with portable alpha managers in 2007

Risk & Return Impact Conclusions

- Structural changes resulting from inclusion of alternatives
  - Materially diversify traditional “stock: bond” investment programs
    - Returns enhanced from inclusion of new asset classes
    - Risk reduced from reduction in traditional equity commitments
    - **A “better beta”**
  - Independence of portable alpha from benchmark influences
    - Maintains returns in markets adverse to stocks and bonds
    - **A “better alpha”**
- Ultimate goals of **higher** returns, **more consistent** returns **better realized** than with traditional, bundled approaches