
Case Study # 3 **Investing in Hedge Funds**

IFSWF Subcommittee II: Investment & Risk Management
Presented by the Korea Investment Corporation
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- II. Key Aspects of Our Program
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I. KIC Hedge Fund Program - Introduction

History & Performance

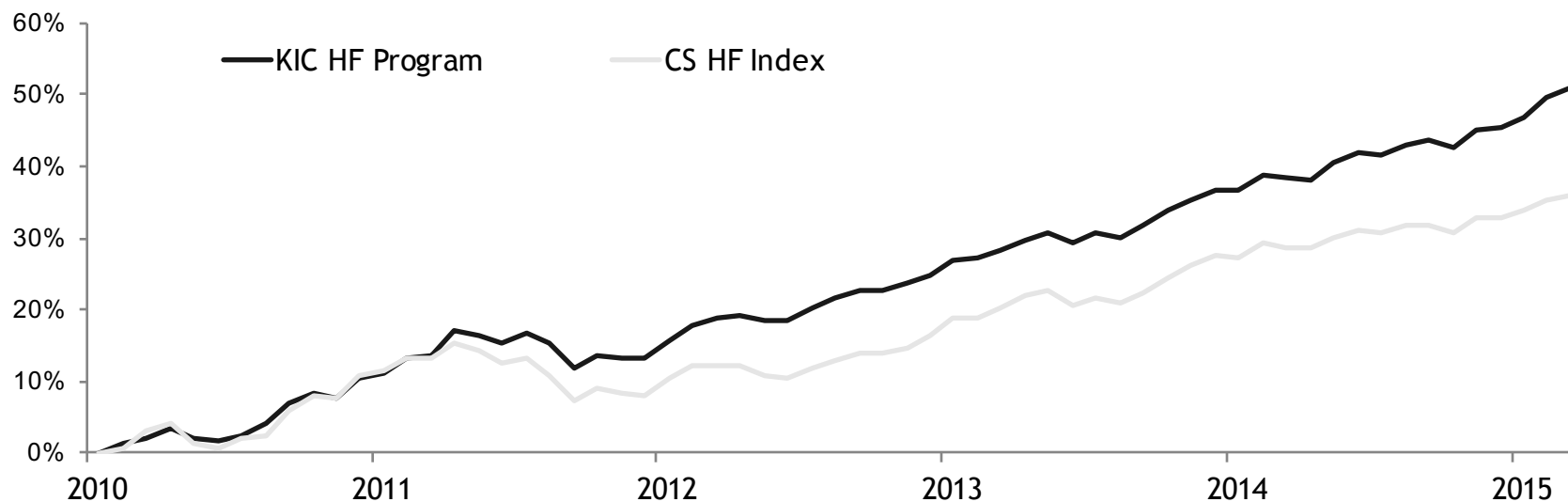
I. KIC Hedge Fund Program - Introduction

1) History

- Initiated in early 2010
- Target return of G7 Inflation + α
- Now 5 ppl (4 in Seoul, 1 in NY)
- Invests in single managers / fund of funds

2) Performance

Cumulative Return : KIC HF Program vs CS HF Indices (Feb 2010~)



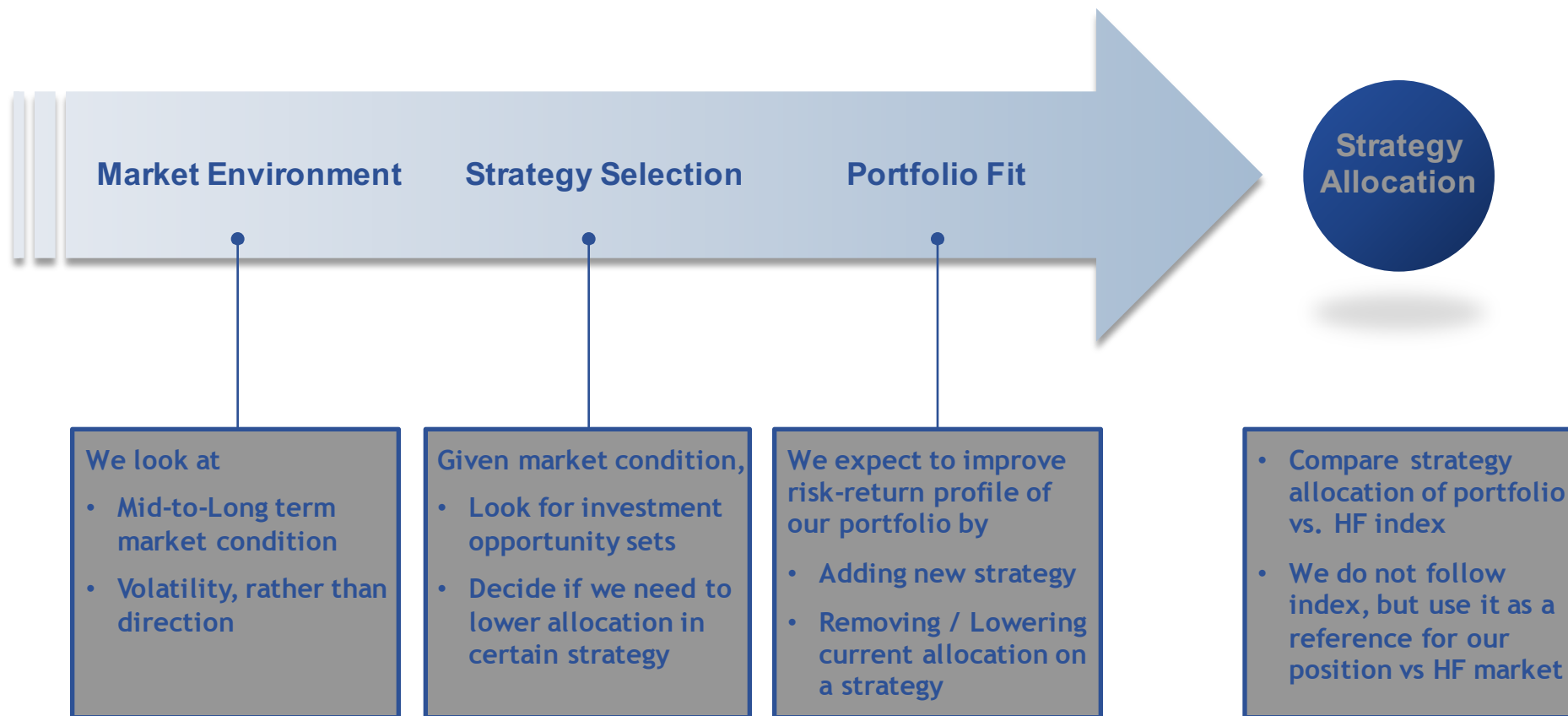
Source: KIC, Credit Suisse

II. Key Aspects of Our Program

1. Strategy Allocation
2. Manager Selection
3. Vehicle & Fee

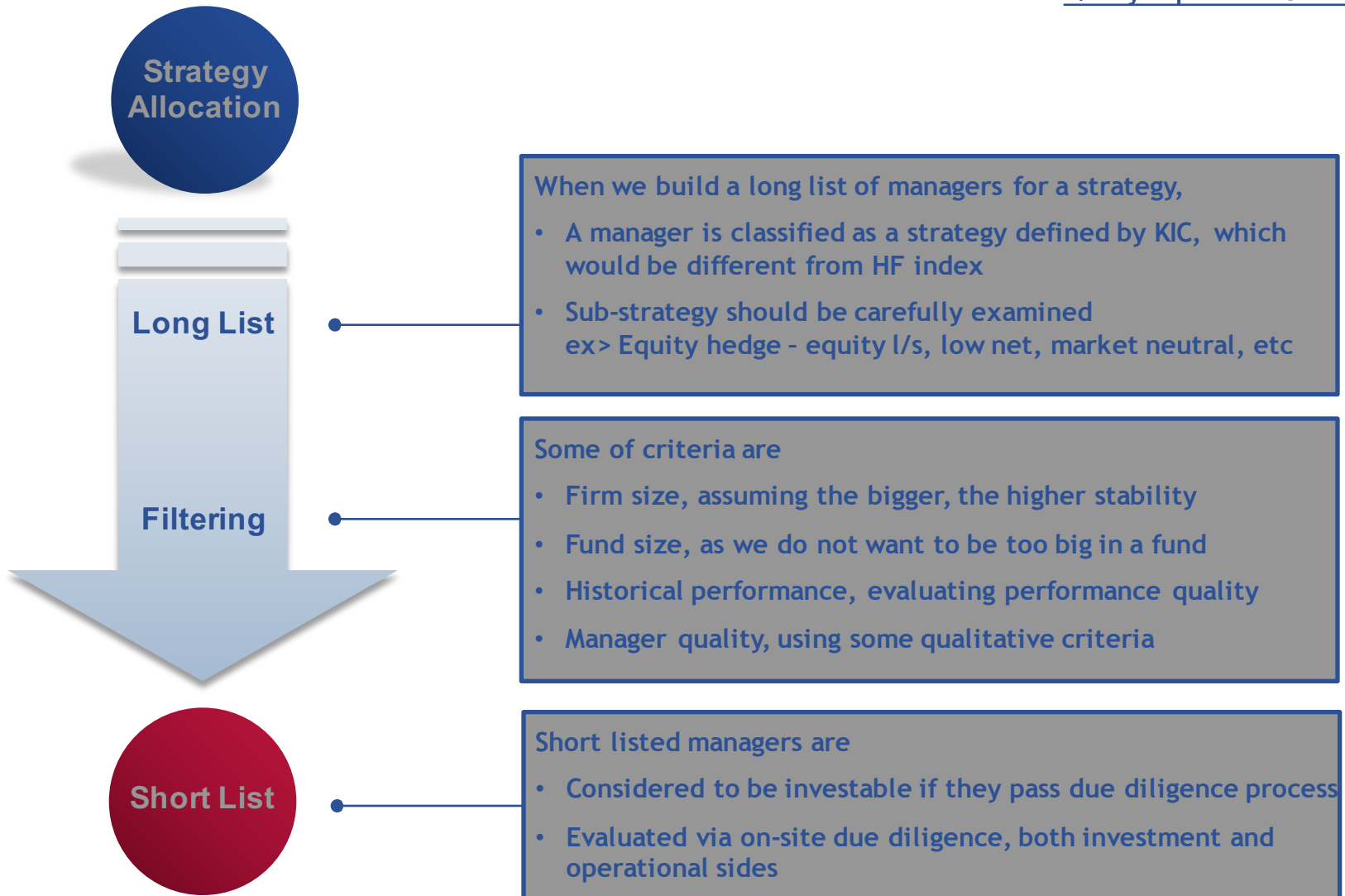
1. Strategy Allocation

II. Key Aspects of Our Program



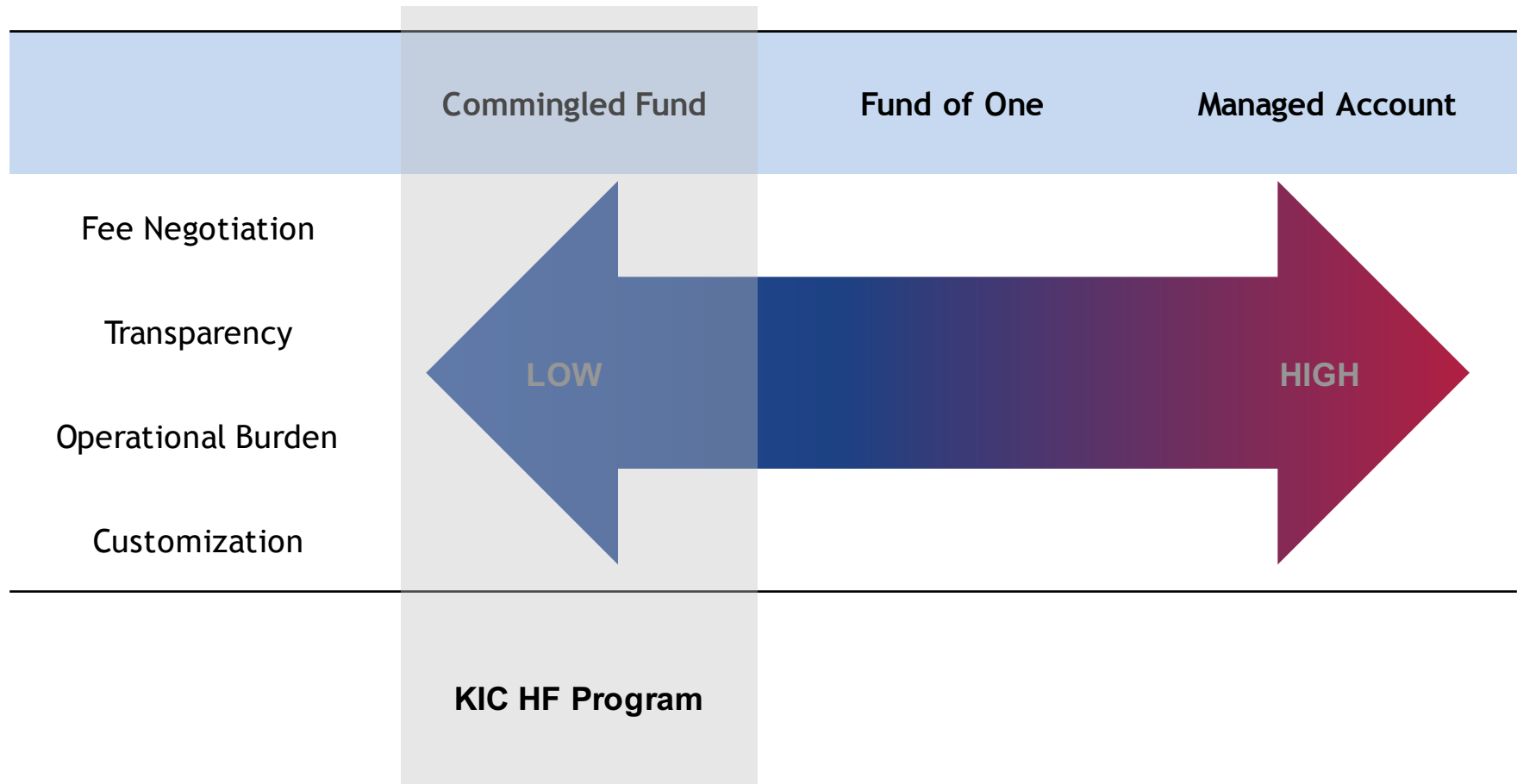
2. Manager Selection

II. Key Aspects of Our Program



3. Vehicle & Fee

II. Key Aspects of Our Program



III. Hedge Fund Factor Analysis

1. Types of Factor Models
2. Hedge Funds Index
3. KIC Hedge Fund
4. SAA Consideration

1. Types of Factor Models

III. Hedge Fund Factor Analysis

1) Implicit factor models

- Factors: principal components, i.e., uncorrelated linear combinations of asset returns

2) Explicit factor models - macro “factors”

- Factors (Chen, Roll, Ross (1986)): inflation rate, growth in industrial production, spread long-short treasuries, spread high-low grade corporate interest rate

3) Explicit factor models - micro “factors”

- Factors (actually attributes): size, country, industry, etc.

4) Explicit factor models - index “factors”

- Factors are stock and bond market indices

5) Explicit factor models - Combined

- Macro + Micro + Asset Based Factor
- Example: Carhart 4 factor + Fung & Hsieh 7 factor

2. Hedge Funds Index

III. Hedge Fund Factor Analysis

Correlation Table (Factor Correlation)

- Correlation between Factors are quite lower or negative
 - Market, Emerging Market, US High Yield shows positive correlation above 60%
 - USD is negatively correlated to global government bond ex US(EX UST)

Correlation (1994.01-2015.02)

	Market	EM	Rate	Credit	BT	CUT	COT	SMB	HML	MOM	Ex UST	UST	USHY	USD	Cash	Gold
Market	100%	76%	15%	-26%	-25%	-20%	-18%	22%	-23%	-27%	7%	-22%	64%	-23%	-6%	-12%
EM	76%	100%	11%	-30%	-25%	-18%	-16%	28%	-19%	-27%	12%	-22%	63%	-32%	-9%	-3%
Rate	15%	11%	100%	-52%	-20%	-18%	-14%	10%	-1%	-8%	-34%	-66%	-1%	9%	-4%	-9%
Credit	-26%	-30%	-52%	100%	20%	29%	17%	-23%	-4%	10%	19%	37%	-41%	11%	19%	6%
BT	-25%	-25%	-20%	20%	100%	30%	19%	-10%	-8%	2%	12%	25%	-26%	9%	5%	-9%
CUT	-20%	-18%	-18%	29%	30%	100%	35%	-2%	-1%	13%	17%	18%	-24%	3%	7%	3%
COT	-18%	-16%	-14%	17%	19%	35%	100%	-8%	-3%	20%	8%	10%	-22%	4%	2%	1%
SMB	22%	28%	10%	-23%	-10%	-2%	-8%	100%	-20%	6%	-4%	-19%	25%	-4%	-7%	-6%
HML	-23%	-19%	-1%	-4%	-8%	-1%	-3%	-20%	100%	-15%	5%	6%	-1%	0%	3%	-6%
MOM	-27%	-27%	-8%	10%	2%	13%	20%	6%	-15%	100%	-4%	17%	-38%	12%	13%	2%
Ex UST	7%	12%	-34%	19%	12%	17%	8%	-4%	5%	-4%	100%	45%	14%	-58%	2%	7%
UST	-22%	-22%	-66%	37%	25%	18%	10%	-19%	6%	17%	45%	100%	-9%	-3%	13%	-5%
USHY	64%	63%	-1%	-41%	-26%	-24%	-22%	25%	-1%	-38%	14%	-9%	100%	-32%	-13%	-3%
USD	-23%	-32%	9%	11%	9%	3%	4%	-4%	0%	12%	-58%	-3%	-32%	100%	4%	-28%
Cash	-6%	-9%	-4%	19%	5%	7%	2%	-7%	3%	13%	2%	13%	-13%	4%	100%	-7%
Gold	-12%	-3%	-9%	6%	-9%	3%	1%	-6%	-6%	2%	7%	-5%	-3%	-28%	-7%	100%

2. Hedge Funds Index

III. Hedge Fund Factor Analysis

Correlation Table (Strategy Correlation)

- Correlation within sub-strategy shows great diversity
 - Equity Market Neutral, Equity Short Biased, Macro Systematic Diversified, Fixed Income Asset Backed strategy have lower correlation to other strategy

Correlation (1994.01-2015.02)

	EHEMN	EHQD	EHSB	EDMA	EDDR	MSD	RVFAB	RVFCA	RVFC	RVMS	EM	FOF
EHEMN	100%	36%	-18%	47%	45%	24%	19%	36%	36%	40%	31%	52%
EHQD	36%	100%	-86%	64%	67%	56%	18%	46%	59%	59%	77%	79%
EHSB	-18%	-86%	100%	-41%	-53%	-44%	-12%	-35%	-46%	-44%	-62%	-61%
EDMA	47%	64%	-41%	100%	59%	32%	13%	54%	55%	53%	55%	63%
EDDR	45%	67%	-53%	59%	100%	21%	44%	71%	86%	80%	74%	79%
MSD	24%	56%	-44%	32%	21%	100%	-11%	5%	10%	14%	38%	47%
RVFAB	19%	18%	-12%	13%	44%	-11%	100%	37%	52%	62%	28%	35%
RVFCA	36%	46%	-35%	54%	71%	5%	37%	100%	76%	83%	56%	63%
RVFC	36%	59%	-46%	55%	86%	10%	52%	76%	100%	86%	69%	70%
RVMS	40%	59%	-44%	53%	80%	14%	62%	83%	86%	100%	69%	77%
EM	31%	77%	-62%	55%	74%	38%	28%	56%	69%	69%	100%	85%
FOF	52%	79%	-61%	63%	79%	47%	35%	63%	70%	77%	85%	100%

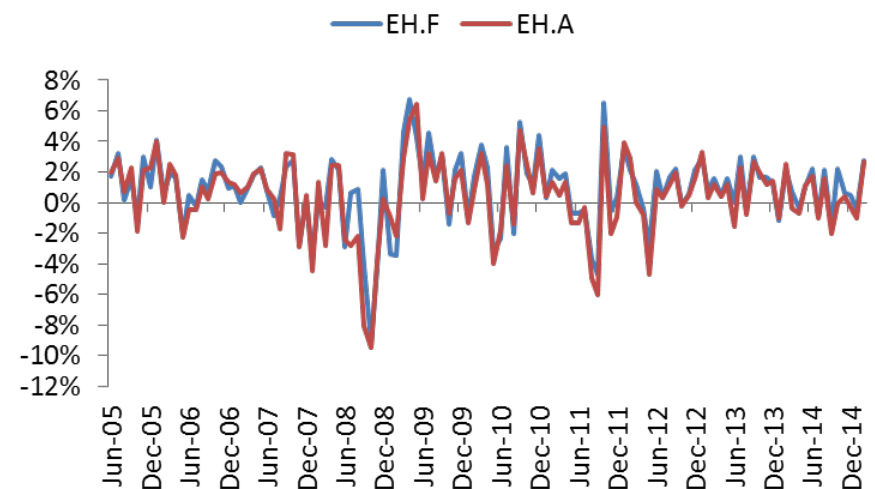
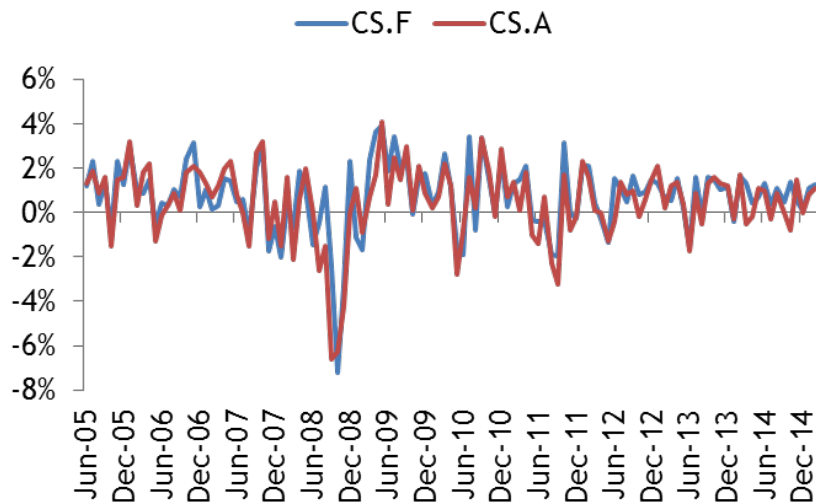
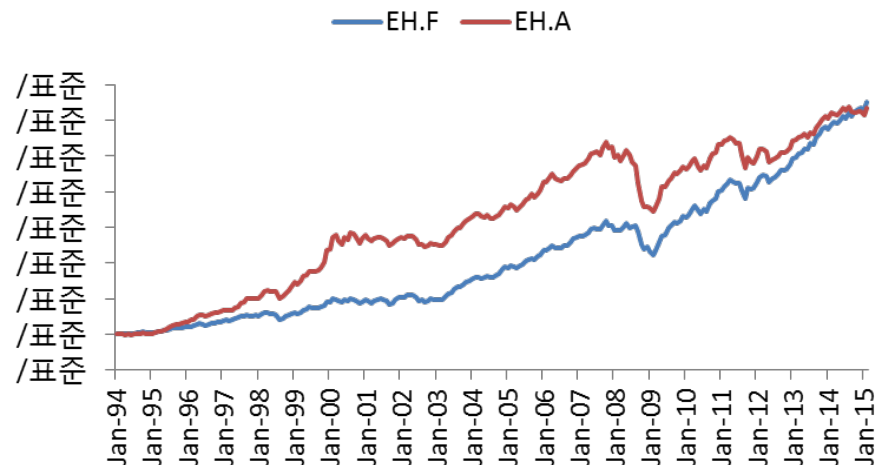
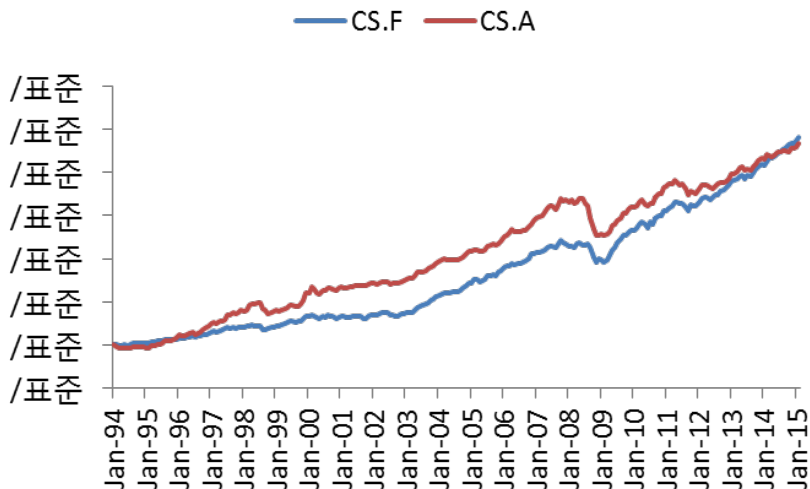
Correlation (GFC: 2007.06-2009.04)

	EHEMN	EHQD	EHSB	EDMA	EDDR	MSD	RVFAB	RVFCA	RVFC	RVMS	EM	FOF
EHEMN	100%	45%	-3%	32%	56%	36%	18%	33%	37%	44%	50%	69%
EHQD	45%	100%	-84%	88%	82%	8%	53%	74%	79%	79%	92%	85%
EHSB	-3%	-84%	100%	-77%	-65%	20%	-59%	-66%	-75%	-66%	-72%	-54%
EDMA	32%	88%	-77%	100%	67%	6%	46%	77%	71%	79%	80%	78%
EDDR	56%	82%	-65%	67%	100%	-10%	71%	83%	91%	88%	85%	89%
MSD	36%	8%	20%	6%	-10%	100%	-13%	-24%	-19%	-11%	-2%	16%
RVFAB	18%	53%	-59%	46%	71%	-13%	100%	63%	75%	66%	47%	54%
RVFCA	33%	74%	-66%	77%	83%	-24%	63%	100%	87%	98%	85%	83%
RVFC	37%	79%	-75%	71%	91%	-19%	75%	87%	100%	91%	79%	79%
RVMS	44%	79%	-66%	79%	88%	-11%	66%	98%	91%	100%	87%	89%
EM	50%	92%	-72%	80%	85%	-2%	47%	85%	79%	87%	100%	91%
FOF	69%	85%	-54%	78%	89%	16%	54%	83%	79%	89%	91%	100%

2. Hedge Funds Index

Result Fitted Vs Actual

III. Hedge Fund Factor Analysis



3. KIC Hedge Fund

III. Hedge Fund Factor Analysis

Correlation Table (KIC Vs Hedge Funds Index)

- KIC is highly correlated with CS, HFRI
 - D and B are less correlated to other managers and indices, while W and BA show high correlation to HFRI
 - Correlation between B and M are almost uncorrelated
- Diversifiers are D and B

Correlation (2010.02-2015.02)

	KIC	W	D	B	M	BA	CS	HFRI	EH	ED	Macro	RV
KIC	100%	71%	55%	44%	74%	83%	89%	85%	78%	77%	70%	74%
W	71%	100%	19%	18%	60%	75%	78%	85%	87%	82%	40%	73%
D	55%	19%	100%	29%	20%	30%	27%	24%	17%	23%	29%	28%
B	44%	18%	29%	100%	5%	15%	30%	22%	12%	9%	58%	10%
M	74%	60%	20%	5%	100%	66%	69%	70%	70%	66%	40%	58%
BA	83%	75%	30%	15%	66%	100%	91%	90%	87%	90%	51%	87%
CS	89%	78%	27%	30%	69%	91%	100%	96%	90%	90%	72%	87%
HFRI	85%	85%	24%	22%	70%	90%	96%	100%	98%	95%	59%	90%
EH	78%	87%	17%	12%	70%	87%	90%	98%	100%	95%	43%	87%
ED	77%	82%	23%	9%	66%	90%	90%	95%	95%	100%	40%	91%
Macro	70%	40%	29%	58%	40%	51%	72%	59%	43%	40%	100%	44%
RV	74%	73%	28%	10%	58%	87%	87%	90%	87%	91%	44%	100%

3. KIC Hedge Fund

III. Hedge Fund Factor Analysis

Simple Statistics (KIC)

- KIC has been outperforming CS, HFRI, more than 2% with lower standard deviation
- RVFAB shows highest Sharpe Ratio while EH, Macro, MSD and EM shows Sharpe Ratio below 1

Simple Statistics (2010.02-2015.02)

	KIC	W	D	B	M	BA	CS	HFRI	EH	ED	Macro	RV
Return(Annualized)	8.1%	9.9%	12.5%	14.9%	6.7%	6.2%	6.1%	5.0%	5.4%	6.1%	2.6%	6.5%
SD(Annualized)	3.7%	11.0%	9.0%	8.4%	11.2%	4.1%	4.5%	5.2%	7.5%	5.2%	4.4%	3.1%
Sharpe Ratio (Rf=0%, Annualized)	2.15	0.90	1.38	1.76	0.60	1.53	1.36	0.97	0.71	1.16	0.59	2.09
Worst Drawdown	-4.2%	-13.7%	-8.6%	-3.8%	-21.8%	-6.7%	-7.0%	-9.0%	-13.2%	-9.0%	-8.0%	-4.2%
Skewness	-0.58	-0.19	0.75	0.62	-0.75	-0.90	-0.58	-0.56	-0.62	-0.78	0.29	-1.04
Excess kurtosis	3.88	2.99	4.53	3.09	4.64	3.58	3.51	3.55	3.84	3.62	2.42	4.03

	EHEMN	EHQD	EHSB	EDMA	EDDR	MSD	RVFAB	RVFCA	RVFC	RVMS	EM	FOF
Return(Annualized)	2.8%	5.2%	-12.5%	3.4%	5.9%	3.9%	10.4%	5.3%	5.8%	5.6%	2.0%	3.7%
SD(Annualized)	2.6%	6.8%	9.6%	2.1%	5.3%	7.2%	2.2%	4.6%	3.8%	3.1%	9.3%	4.0%
Sharpe Ratio (Rf=0%, Annualized)	1.06	0.77	-1.31	1.61	1.11	0.55	4.73	1.16	1.54	1.78	0.22	0.92
Worst Drawdown	-6.0%	-13.1%	-49.4%	-2.3%	-8.8%	-11.8%	-1.5%	-9.1%	-5.4%	-4.7%	-16.4%	-7.7%
Skewness	-1.64	-0.61	0.26	-0.49	-1.00	0.19	-0.62	-0.71	-0.99	-0.44	-0.63	-0.70
Excess kurtosis	5.23	0.94	-0.24	0.07	0.89	-0.69	0.14	0.69	1.08	0.29	0.72	0.23

3. KIC Hedge Fund

III. Hedge Fund Factor Analysis

Result of Factor Analysis (Fung & Hsieh (2004) 7 Factors, KIC)

- KIC's factor loadings of Rate, Small Cap, Credit, Bond Trend, Commodity Trend are statistically significant
- W has higher equity beta compared to other manager, while D,B have negative equity factor loadings

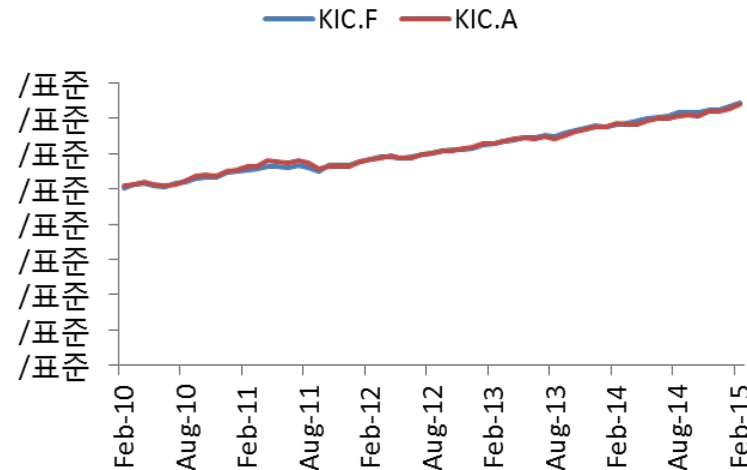
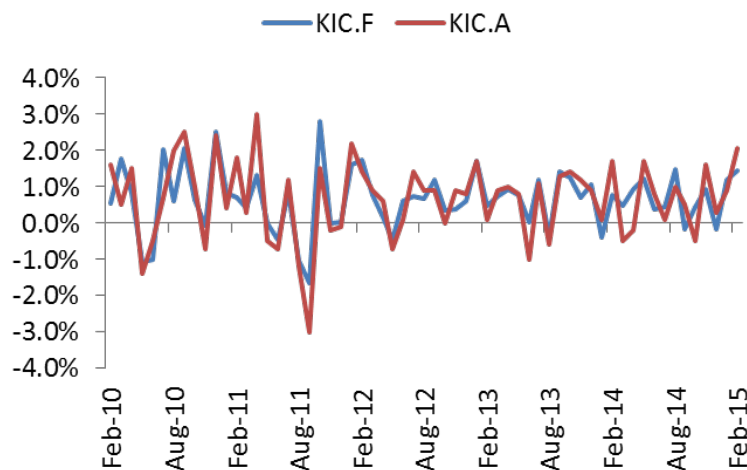
Factor Analysis using Fung & Hsieh (2004) 7 Factors

	KIC	W	D	B	M	BA
(Intercept)	0.005 **	0.003 **	0.011	0.012	-0.001 **	0.004 **
Equity	0.139	0.376 **	-0.032	-0.025	0.617	0.117
Small Cap	-0.051 **	0.303 **	-0.222 *	-0.021 **	-0.063	-0.040 **
Emerging	0.079	0.171	0.196	0.216	0.033	0.063
Rate	-0.002 **	0.024	-0.055 *	-0.041	0.033	0.019 **
Credit	-0.058 *	-0.106	-0.152 *	-0.046 **	-0.050	-0.064
Bond Trend	0.013 *	0.020	0.045	0.054	0.016	-0.003
Currency Trend	0.010	0.016	0.018 **	0.016	0.028	0.006
Commodity Trend	-0.007 **	-0.017 **	-0.051 **	0.005 **	-0.002 **	-0.009 **
	CS	HFRI	EH	ED	Macro	RV
(Intercept)	0.003 **	0.002 **	0.001 **	0.003 **	0.001 *	0.004 *
Equity	0.174	0.184	0.266 **	0.160	0.121	0.060
Small Cap	-0.030 **	0.021 **	0.097 **	0.018 **	-0.099 **	-0.032 **
Emerging	0.097	0.128	0.170 **	0.097 *	0.096	0.080
Rate	-0.003 **	0.012 **	0.031	0.027 **	-0.013	-0.004 **
Credit	-0.070	-0.043	-0.030	-0.058	-0.055 *	-0.044
Bond Trend	0.002 **	0.002 *	-0.003	-0.005	0.019 **	-0.006
Currency Trend	0.014	0.008	0.005 *	0.002 *	0.025	-0.001
Commodity Trend	-0.002 **	-0.005 **	-0.010 **	-0.010 **	0.009 **	-0.006 **

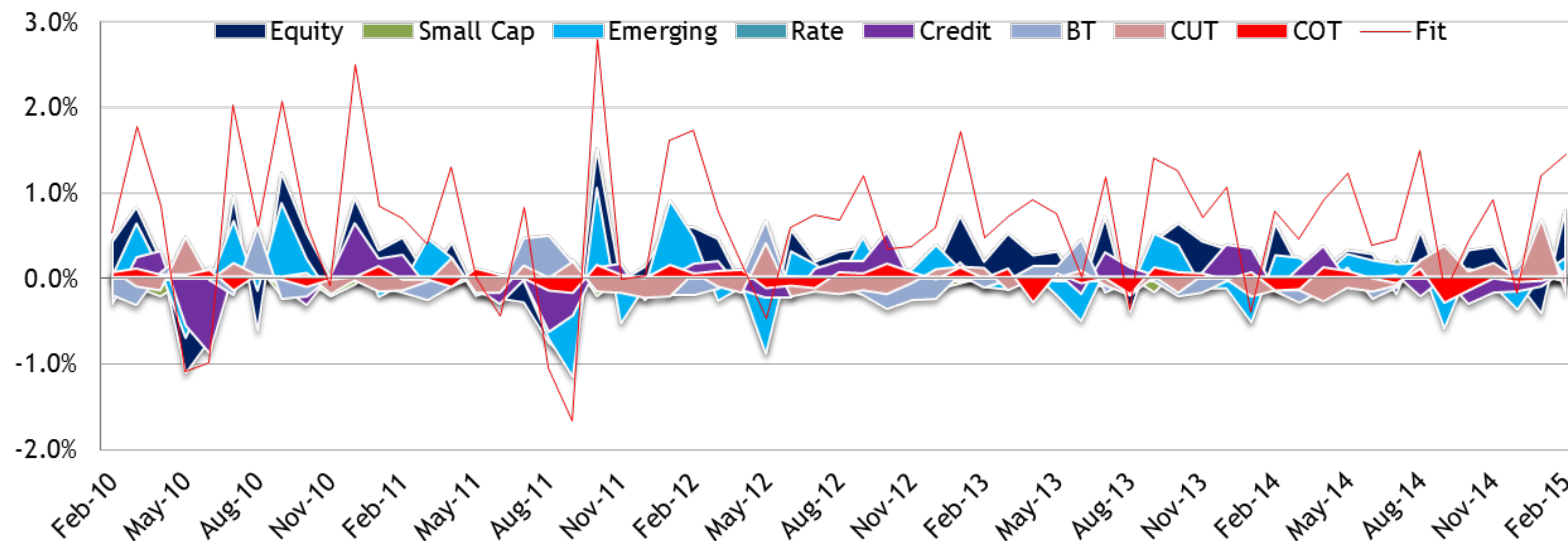
3. KIC Hedge Fund

III. Hedge Fund Factor Analysis

Result Fitted Vs Actual (KIC)



Factor Contribution (KIC Portfolio)



4. SAA Consideration

III. Hedge Fund Factor Analysis

Hedge fund Classification in terms of SAA (Strategic Asset Allocation)

- Classifying hedge funds by its underlying strategy
 - Each strategy has different risk/return profile

Sub-strategy classification

Equity Hedge	Event Driven	Macro	Relative Value
Equity Market Neutral	Activist	Active Trading	Fixed Income Asset Backed
Fundamental Growth	Credit Arbitrage	Commodity: Agriculture	Fixed Income Convertible Arbitrage
Fundamental Value	Distressed/Restructuring	Commodity: Energy	Fixed Income Corporate
Quantitative Directional	Merger Arbitrage	Commodity: Metals	Fixed Income Sovereign
Sector: Energy/Basic Materials	Private Issue/Regulation D	Commodity: Multi	Volatility
Sector: Technology/Healthcare	Special Situations	Currency: Discretionary	Yield Alternatives Energy Infrastructure
Short Bias	Multi-Strategy	Currency: Systematic	Yield Alternatives Real Estate
Multi-Strategy		Discretionary Thematic	Multi-Strategy
		Systematic Diversified	
		Multi-Strategy	

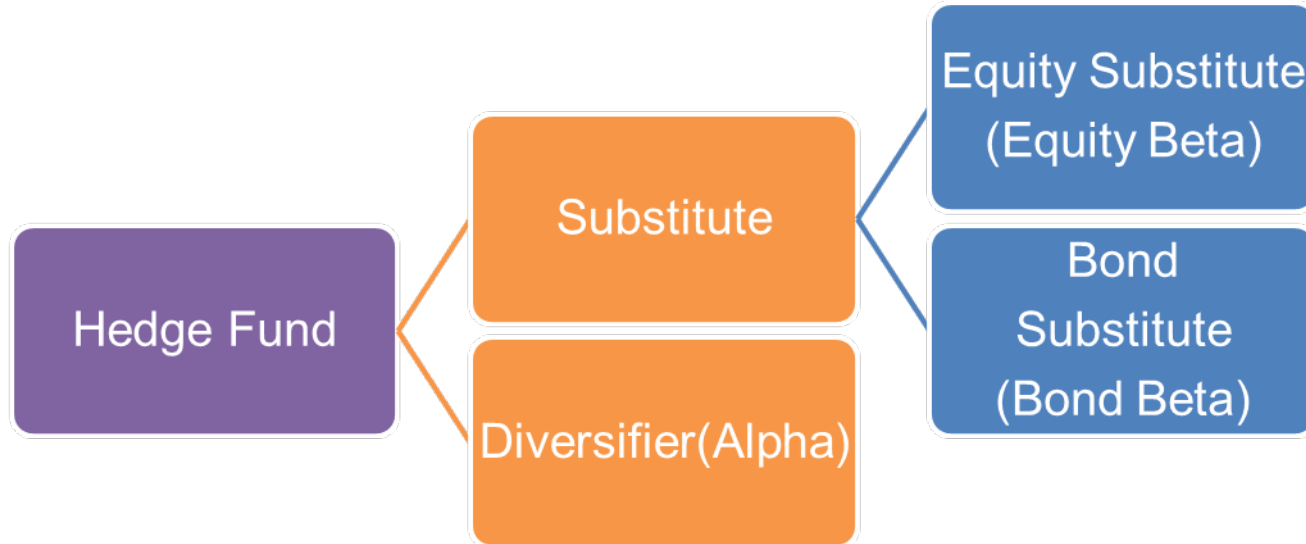
4. SAA Consideration

III. Hedge Fund Factor Analysis

Hedge fund Classification in terms of SAA (Strategic Asset Allocation)

- Hedge funds are becoming more heterogeneous among themselves
 - Example: Equity Hedge suffered from big losses whereas Macro fared better in 2008
- Classifying hedge funds by beta and alpha
 - Strategy with significant beta: Substitute for traditional assets
 - Strategy with alpha: Diversifier

New Concept for Hedge Fund Classification



4. SAA Consideration

III. Hedge Fund Factor Analysis

Hedge fund Classification in terms of SAA (Strategic Asset Allocation)

- Classifying sub-hedge fund strategy into new concept classification
 - Conducting factor analysis to identify the significance of beta and alpha
 - Identifying factor sensitivity among different regimes (Extreme and Normal)
- Considering substitutes and diversifiers as a different asset class while conducting SAA analysis

Sub-strategy classification

New Concept		Sub-Strategy
Substitutes	Equity Substitutes	• EH: Quantitative Directional
	Bond Substitutes	• Macro • RV: Fixed Income Asset Convertible Arbitrage • RV: Fixed Income Asset Corporate • Rv: Multi Strategy
Diversifiers		• EH: Equity Market Neutral • ED: Merger Arbitrage • RV: Fixed Income Asset Backed

4. SAA Consideration

III. Hedge Fund Factor Analysis

Appendix: Abbreviation of Hedge Fund Sub Strategies

Strategy	Abb.	Strategy	Abb.
Credit Suisse Hedge Fund Index	CS	Event Driven Distressed/Restructuring	EDDR
HFRI Fund Weighted Composite Index	HFRI	Macro Systematic Diversified	MSD
HFRI Equity Hedge	EH	RV Fixed Income Asset Backed	RVFAB
HFRI Event Driven	ED	RV Fixed Income Convertible Arbitrage	RVFCA
HFRI Macro	Macro	RV Fixed Income Corporate	RVFC
HFRI Relative Value	RV	RV Multi Strategy	RVMS
Equity Hedge Equity Market Neutral	EHEMN	HFRI Emerging Markets	EM
Equity Hedge Quantitative Directional	EHQD	HFRI Fund of Funds Composite Index	FOF
Equity Hedge Short Bias	EHSB	FOF Diversified Index	FOFD
Event Driven Merger Arbitrage	EDMA	FOF Conservative	FOFC

IV. Reflection on Our Experience

1. Strategy Allocation
2. Manager Selection
3. Vehicle & Fee

1. Strategy Allocation

IV. Reflection on Our Experience

1) Market Environment

- We look at the market through volatility
- New investment opportunity would arise when market volatility picks up
- We would consider following two approaches
 - a. Aggressively, look for investment opportunity, leveraging long term capital base (Higher return)
 - b. Passively, look for a strategy that can protect portfolio from market volatility (Lower vol)
- Sound easy and obvious, but we can emphasize that maintaining disciplined investment philosophy is the key

2) Should we follow HF index?

- It all depends on your investment mandate.
- Our benchmark is G7 inflation + α → Following the index would not be the best way to achieve the target
- Also, HF index tends to have higher weight on certain strategies, i.e. equities, due to
 - a. Number of funds in the strategy
 - b. Size of funds in the strategy
- As a result, we use HF index as a reference to see where our portfolio is relative to HF market

2. Manager Selection

IV. Reflection on Our Experience

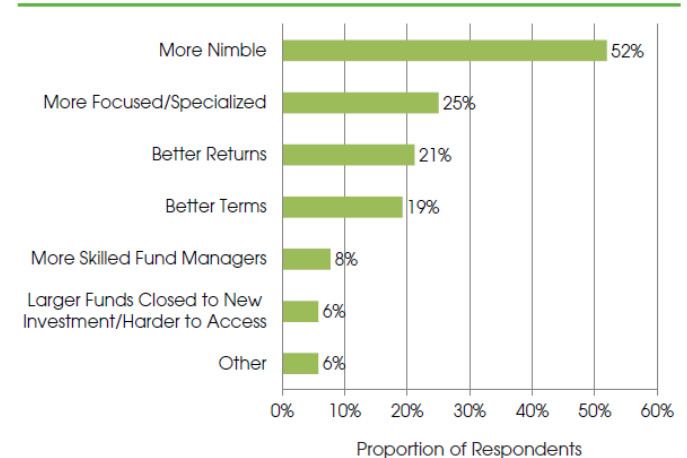
1) Manager size

- We put some minimum size of a fund and a firm because
 - a. We do not want to be too big in one fund/firm
 - b. It can be assumed to be safer with bigger AUM in operational side
- Due to size limit, we might miss some part of investment opportunity in HF market
 - a. Emerging managers
 - b. Small managers

2) Program size

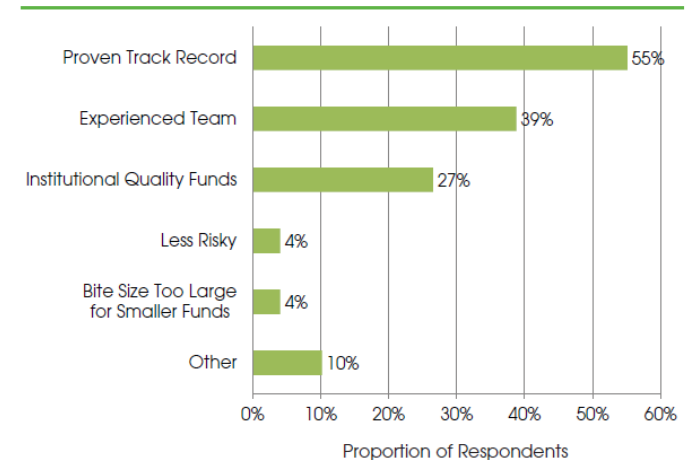
- As our program size increases,
 - a. We would increase ticket size
 - b. We would add more managers
- Bigger ticker size
 - Need to look for bigger managers : size vs. performance
 - Less operational burden for investor
 - Bigger managers would be more experienced with proven track record
- More managers
 - More operational burden for investor
 - ODD becomes more important

Fig. 2: Reasons for Investors Preferring Managers With Less than \$1bn in Assets under Management



Source: Preqin Investor Outlook: Alternative Assets, H1 2014

Fig. 3: Reasons for Investors Preferring Managers With More than \$1bn in Assets under Management



Source: Preqin Investor Outlook: Alternative Assets, H1 2014

3. Vehicle & Fee

IV. Reflection on Our Experience

1) Vehicle : No preference, for now

- Most flagship strategies are good as they are
 - No needs for customization
- Some managers do not offer separate account either because
 - a. Simply they do not, or
 - b. Our ticket size is not big enough
- But, we would like to have higher transparency because
 - ✓ Lack of transparency → Investment decision heavily depends on performance, just a number
 - ✓ When performance is low, we would have higher tolerance level if we can see more details
 - ✓ In this context, lower transparency would be a cost to a manager

2) Fee : Net of fee return matters

- As long as net of fee return is good enough, and the manager's skillset is unique, we are willing to pay higher fees than traditional investment

V. Case Study

1. Liquid Alternatives (Absolute Return Strategy)
2. Beta vs Alpha
3. Case Study – EM Manager

1. Liquid Alternative

V. Case Study

1) Our View

- Just like hedge funds, liquid alternative strategy is another way to manage asset
- As they offer higher liquidity and lower fee, we would consider to invest with liquid alternative managers
- However, there is some limitation for them to replace HFs because
 - a. Some HF strategies can not be replaced, or can not be “liquid” (ex. Distressed, Structured credit, etc)
 - b. Even HF strategies using liquid instruments, i.e. Activists, would not perform well if a manager faces stricter liquidity term

2) Implementation

- We would think Liquid Alternative as a complement to traditional long-only investment, not HF
- Or/And, liquid alternative can be used to tilt HF portfolio as managed account platforms offer liquid “replication” of HF managers

2. Beta vs Alpha

V. Case Study

1) Our View

- It is true that many HF managers have beta
- Due to ETFs, price of beta is cheap → Is higher HF fee justified?
- We can think of performance as the following three components
 - a. Market beta, which can be replicated using ETFs
 - b. Strategy beta, which can be obtained by investing in a HF strategy
 - c. Alpha, a manager specific value, which can not be replicated

2) Implementation

- It is not easy to find, but there are managers who have significant alpha → It is our job to find one
- We would pay fee, higher than ETF but lower than 2/20 to invest in strategy beta

3. Case Study – EM Manager (1)

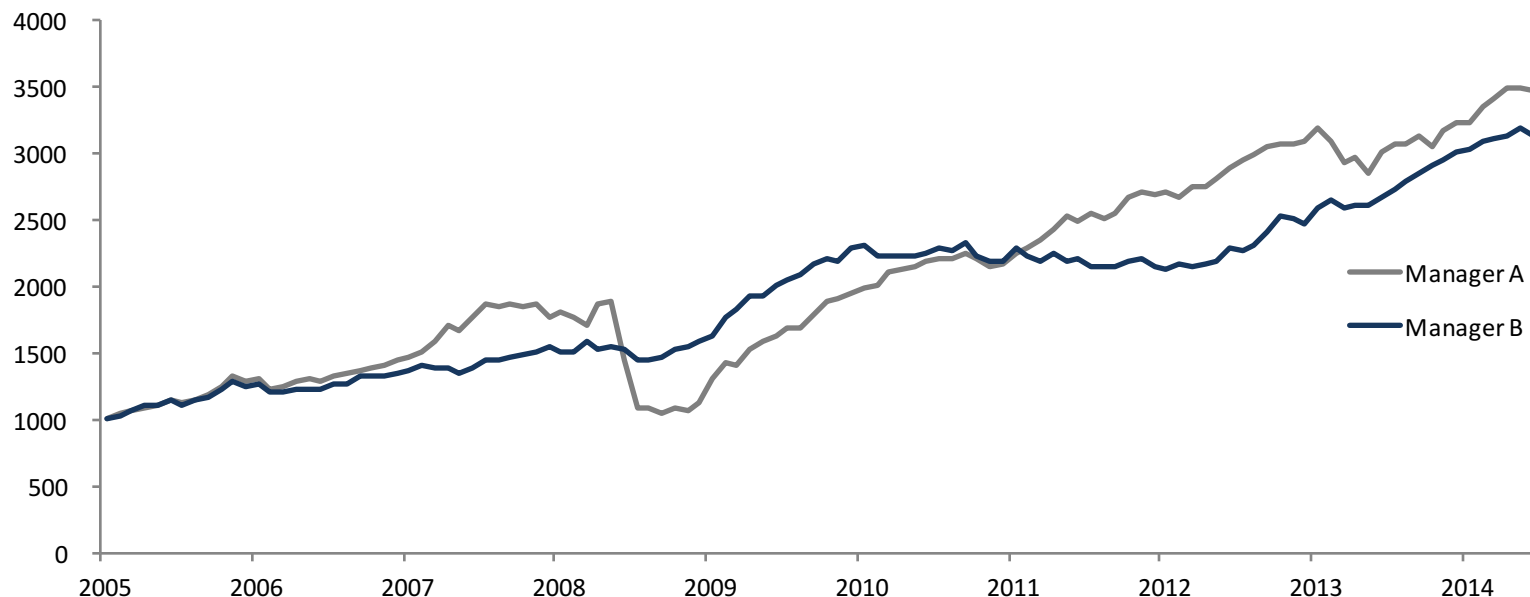
V. Case Study

1) Emerging Market Managers

- Many EM managers have inherent beta because
 - a. Beta would be one of reasons to invest in EM
 - b. They tend to long-bias due to high carry in EM

2) KIC Case

- When selecting emerging market HF managers, we are very cautious to evaluate source of their performance, beta vs alpha
- Who would you select from the following two managers?



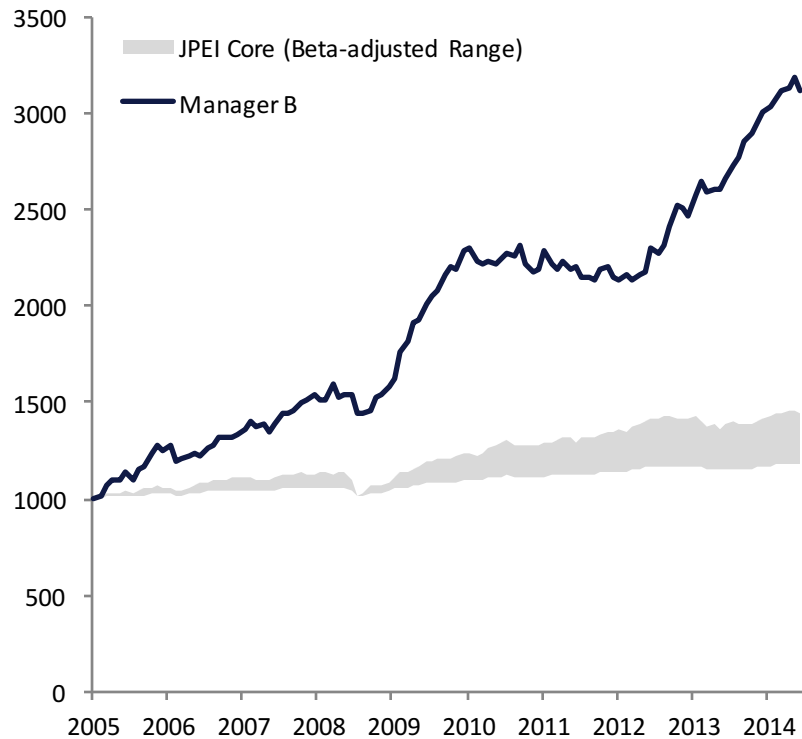
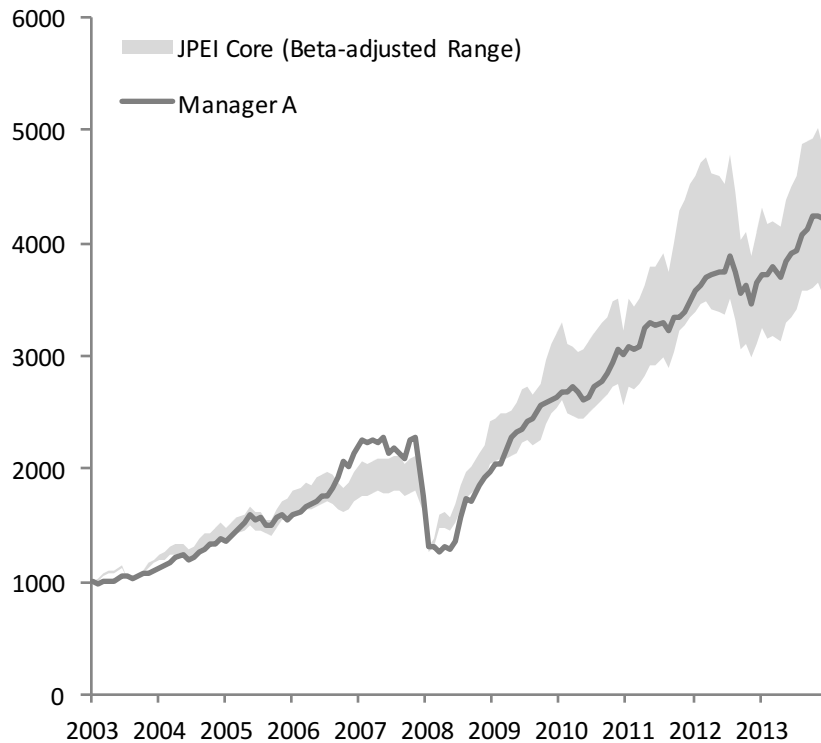
Note: Data in this slide is for illustrative purpose only, and Manager A and B are hypothetical examples, which does not represent KIC's investment

3. Case Study – EM Manager (2)

V. Case Study

3) Analysis

- Manager A seems to show higher return
- But, quality of return, i.e. alpha, is higher in Manager B
- Manager A can be replicated using EM ETF, which is not we are looking for



Note: Data in this slide is for illustrative purpose only, and Manager A and B are hypothetical examples, which does not represent KIC's investment

VI. KIC Hedge Fund Program - Future Development

- 1) Strategy Allocation
- 2) Manager Selection
- 3) Vehicle & Fee

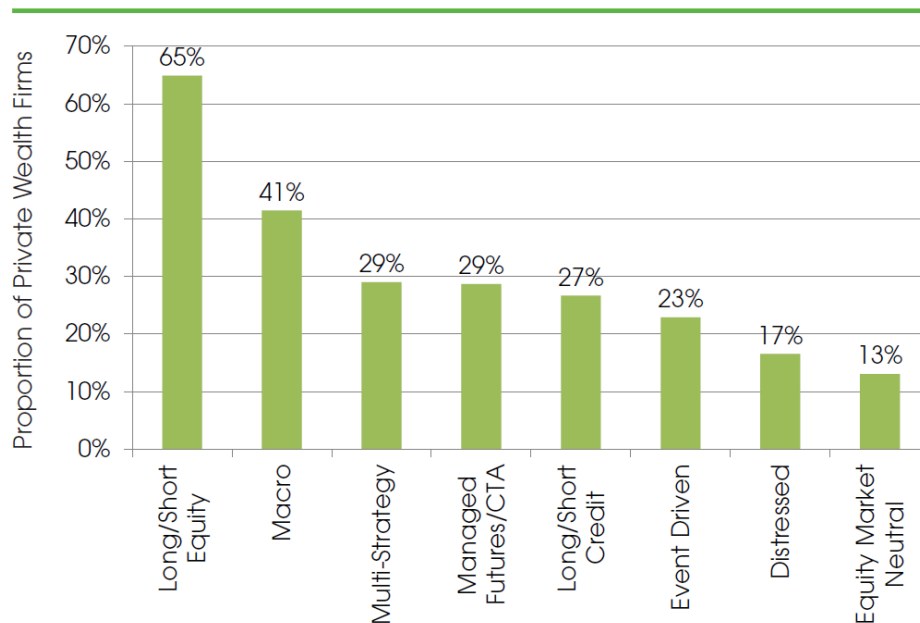
1. Strategy Allocation

VI. KIC Hedge Fund Program - Future Development

1) Benchmark

- We have had controversial perspectives on HF benchmark internally
- If we change our current benchmark, it would be somewhere between absolute return and relative return to HF index
 - If we set HF index as a sole benchmark, how do we justify to have separate HF team?
 - HF index would have a bias toward some strategies, which we would not always prefer
 - Unlike traditional assets, it takes longer time to change allocation
- Eventually, it depends on investment mandate, with no right or wrong answer

Fig. 3: Strategy Preferences of Private Wealth Firms



Source: Preqin Hedge Fund Investor Profiles

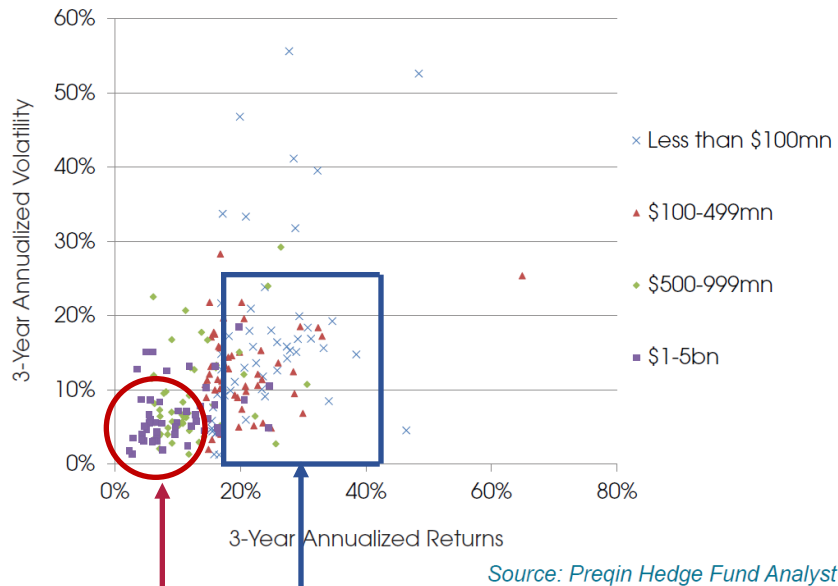
Assuming that preference reflects actual allocation,

- a. Do we have the same preference with private wealth firms?
- b. What if preference is different from HF index weighting?

2. Manager Selection (1)

1) Emerging / Small manager program

Fig. 4: Top Performing Funds by 3-Year Annualized Return and Volatility

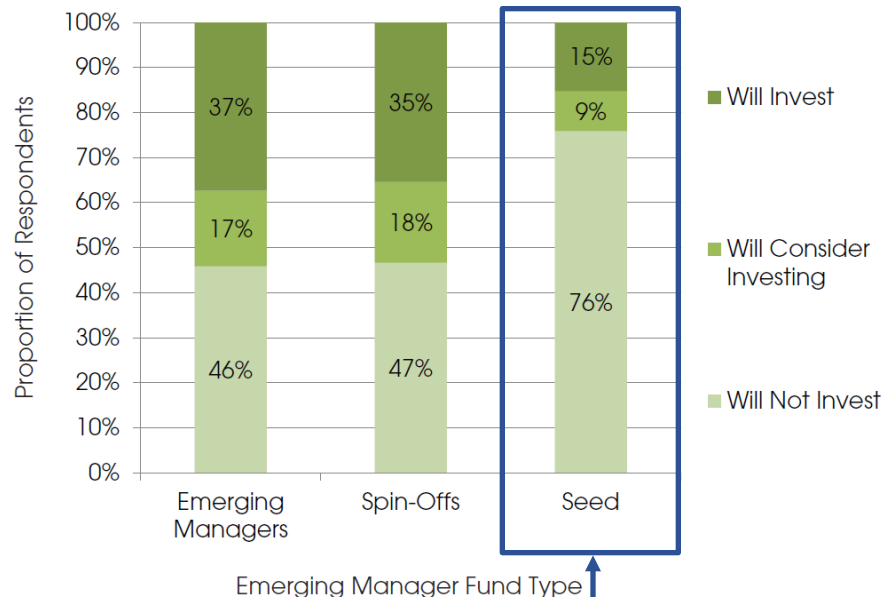


We are here

We are missing

VI. KIC Hedge Fund Program - Future Development

Fig. 4: Institutional Hedge Fund Investor Attitudes Towards Emerging Manager Fund Types



Source: Preqin Investor Outlook: Alternative Assets, H1 2014

Seeding is a completely different investment scheme, more like venture investment

2. Manager Selection (2)

VI. KIC Hedge Fund Program - Future Development

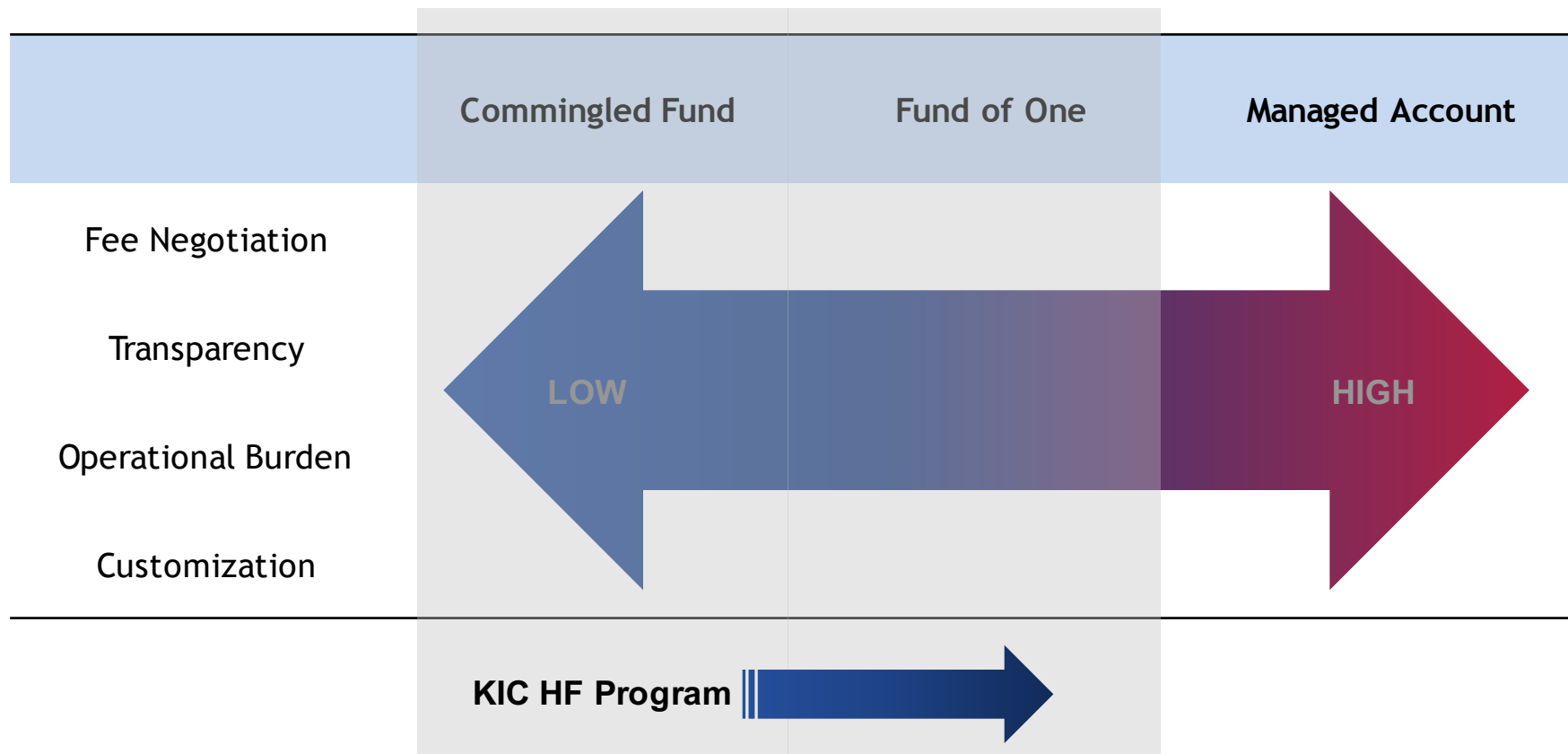
2) Emerging / Small manager program

- If we want to invest in emerging / small manager program, we would launch it as a separate sub-program
- Investment scheme could be one or more of the followings

Scheme	Pros	Cons
Fund of Funds (Discretionary mandate)	• Fund of funds would have higher expertise than us	• We would not be comfortable with double layer structure • Higher transparency would be required
Fund of Funds (Platform)	• We could improve our manager picking skill	• Fund of funds managers would not offer this structure as a standalone program (Low fee)
3 rd Party Consulting (Direct investment)	• We do not see any good reasons to justify 3rd party consulting service fee yet	• 3rd party consultants do not have legal liability for what they “recommend”
Equity Participation (Profit sharing scheme)	• High upside	• This is a completely different investment area, more like a venture capital investment • We are not sure if we will be comfortable with big losses in individual managers

3. Vehicle & Fee

VI. KIC Hedge Fund Program - Future Development



- We would set up a fund of one or managed account for higher transparency and fee negotiation
- Considering operational burden, fund of one would be more acceptable than managed account
- We LOVE to pay lower fee, but too low fee would make a manager difficult to maintain/grow business, which is indirect cost to us
- Also, we are willing to pay higher fee to a manager with unique skillset

VII. Conclusion

Are we seeking unachievable target?

VII. Conclusion

- We want a manager to be
 - Big enough relative to our ticket size
 - Able to generate consistent and high level of alpha through unique skill sets
 - Willing to negotiate fee and/or to take additional operational burden by setting up a fund of one or managed account
- We might need to express our view on which is more important than others through investment decision process
 - No right or wrong answer

