

A city skyline at dusk, likely New York City, with a body of water in the foreground. The sky is a mix of blue and orange, and the buildings are lit up. In the foreground, there are rows of wooden pilings extending into the water.

PERFORMANCE EVALUATION & ANALYSIS

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Web Search for Sydney Hotel Room

Which is better deal?

Site A: **400** Site B: **350**

Same hotel, equivalent room



Which is Preferred System?

Risk is denomination of return

	Return	Risk (Standard Deviation)	Return/Risk Ratio
System A	10	5	2
System B	25	25	1

Assume no hidden risk and standard deviation a reasonable proxy for risk

But what if you are risk-tolerant and the higher return is more important?

Why Return Alone Is Meaningless

	Return	Risk (Standard Deviation)	Return/Risk Ratio
System A	10	5	2
System B	25	25	1
System A 3X	30	15	2

Comparing returns without risk is as meaningless as comparing international hotel prices without the currency denomination

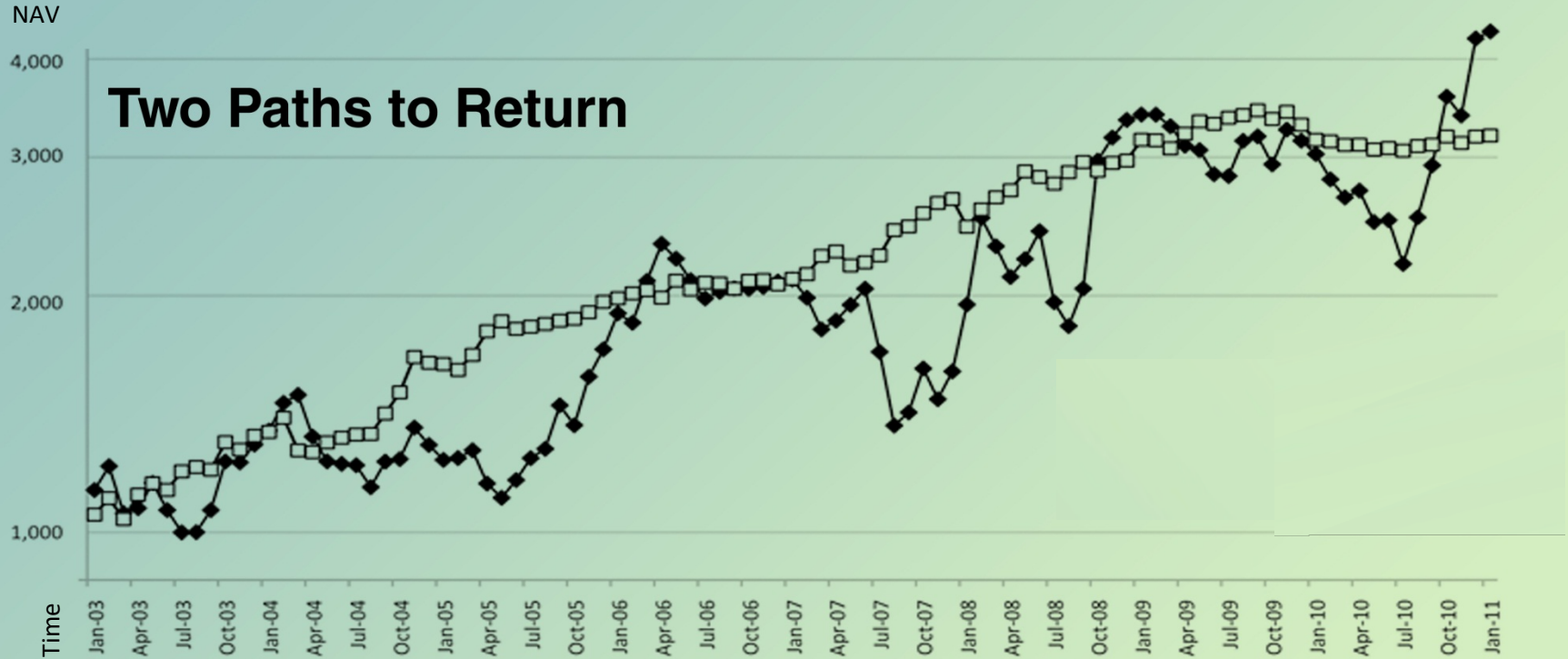
Risk is the denomination of return

The Leverage Shovel

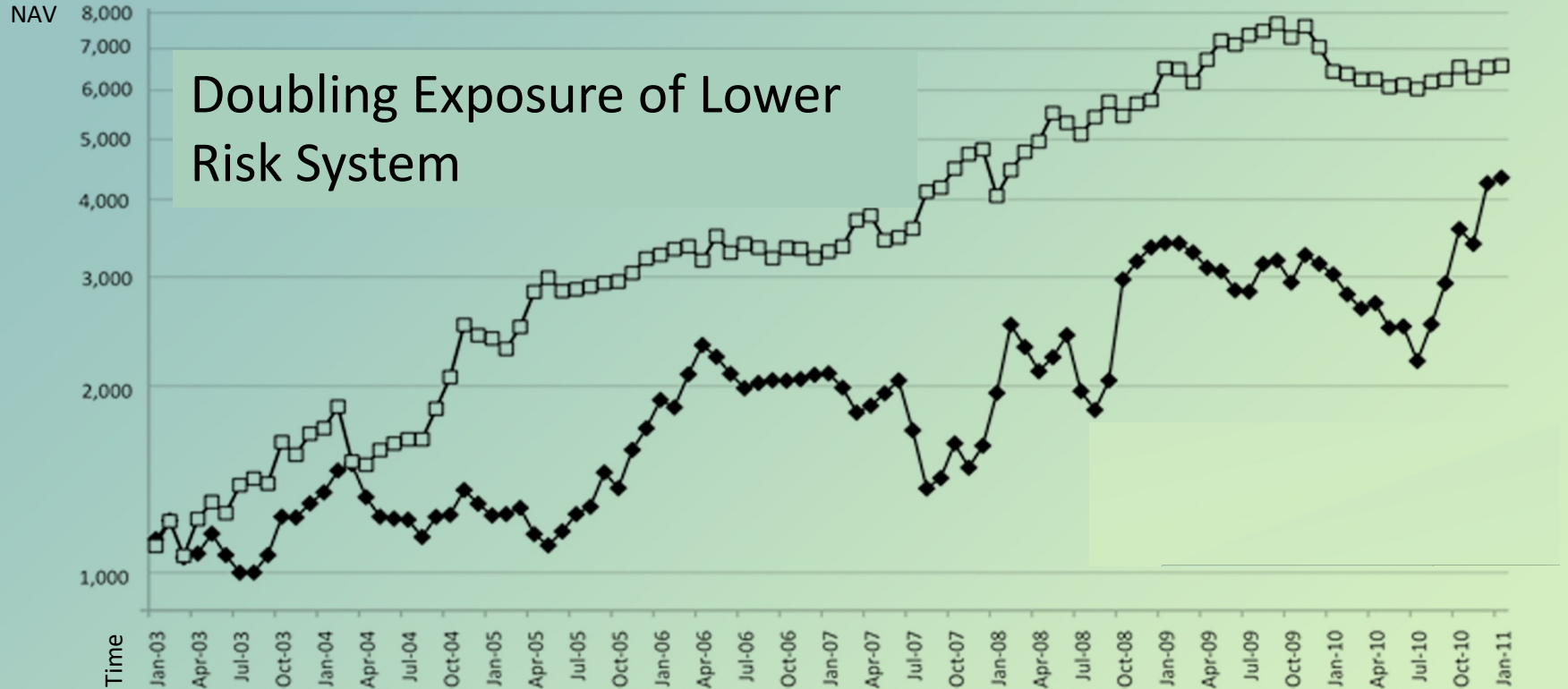
RETURN

RISK

Comparison of Two Systems



Comparison with Notionalization(2X)



Standard Deviation (Volatility) as Risk Measure

- A measure of dispersion
- If returns normally distributed, 95% of returns will be within 2 standard deviations of mean
- For example, if average annual return is 15%, then 95% of the time we would expect return to be in range of:

For SD = 20: -25 and +55

For SD = 5: +5 and +25

Sharpe Ratio

Sharpe Ratio = $(R - I) / SD$, where

- R = return
- I = risk free interest rate
- SD = standard deviation

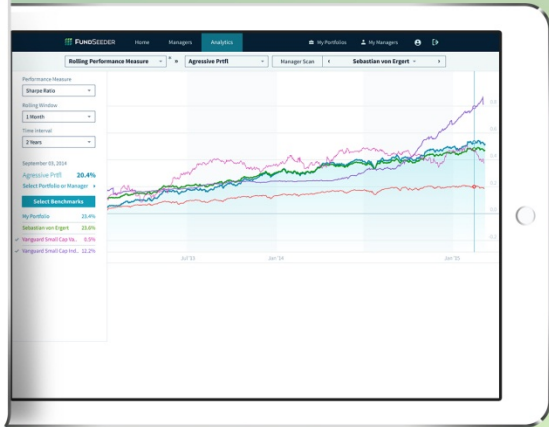
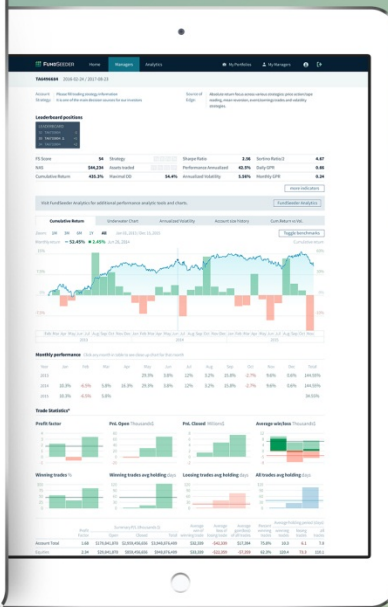
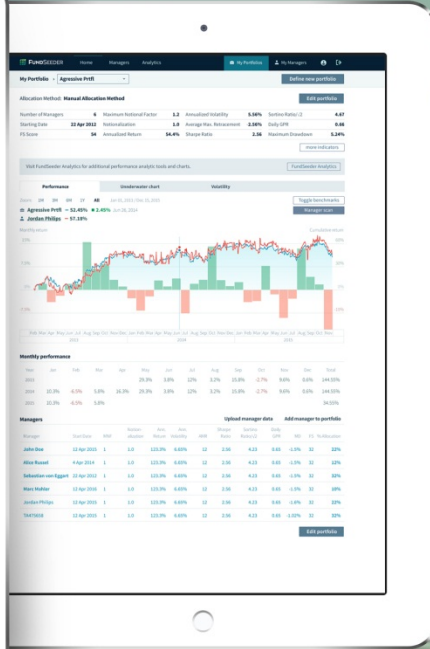
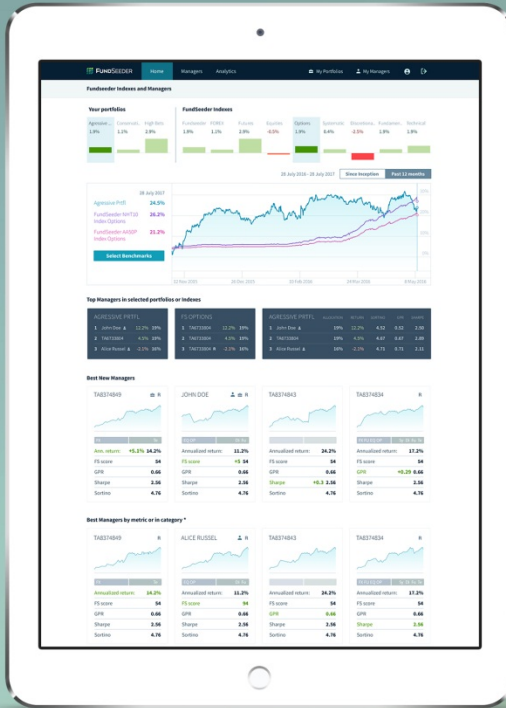


Other Return/Risk Measures

- Sortino Ratio: Uses DD instead of SD as risk measure
- Calmar and MAR Ratios: Uses MD as risk measure
- Gain to Pain Ratio: Sum of Returns/ Sum of Losses



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- The FundSeeder Concept
- [FundSeeder.com](https://www.fundseeder.com)

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