Taking a hard look at asset allocation and manager selection

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Agenda

- Did Markowitz fail us?
- What is normal?
- Does asset allocation explain 90% of returns?
- Has passive finally beat active in the eternal debate?
- Is there value in qualitative manager selection?
- Does past performance matter?

A Few Taglines in our Industry

- “Markets are (or are not) efficient”
- “The new normal”
- “Asset allocation determine 90% of investor returns”
- “Market timing is futile”
- “Be fearful when others are greedy, and be greedy when others are fearful”
- “Active management is dead”
- Past performance is not indicative of future performance”

The Media Loves Headlines

- "Chocolate gives you a workout" *Daily Express*
- "Westerners are genetically programmed to drink alcohol and eat unhealthy foods" *The Daily Telegraph*
- "Sweets are 'good for children and may stop them getting fat in later life'," *The Daily Mail*
- "Glow in the dark cats may be vital in AIDS research," *the Daily Mirror*

The not so Modern Portfolio Theory

- Modern/Markowitz Portfolio Theory was first introduced by Harry Markowitz in 1952
- The theory is based on several assumptions including:
  - Asset returns are normally distributed and volatility is constant
  - Investors are rational (have a symmetrical view of downside risk and upside gain)

The not so Modern Portfolio Theory

What is does Harry have to say?

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The not so Modern Portfolio Theory

What does Harry have to say?

"I never—at any time!—assumed that return distributions are Gaussian."

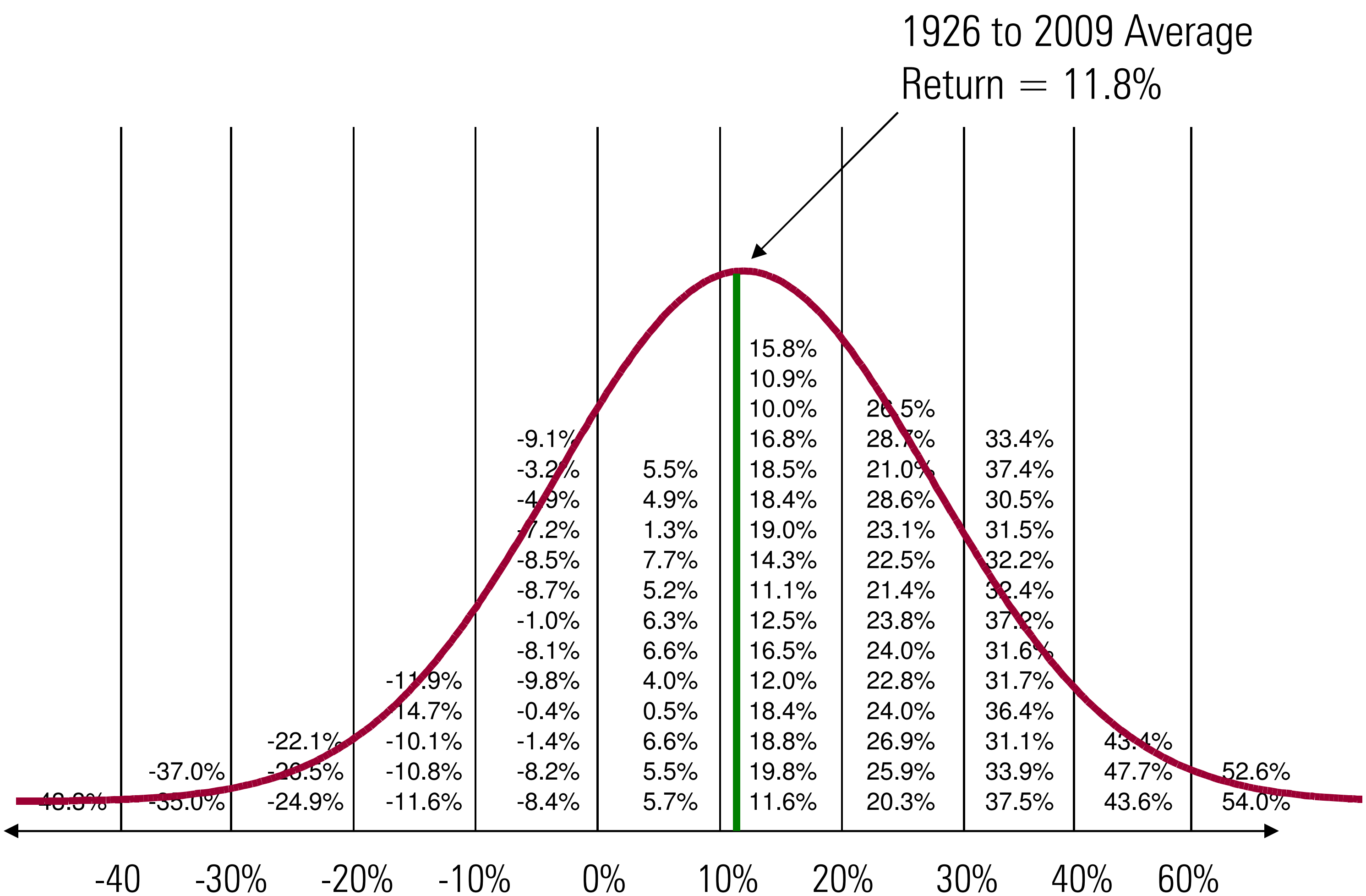
"Nor did I ever assume that the investor's utility function is quadratic."

Portfolio Theory: As I Still See It, 2010, Harry Markowitz

Black Turkey or Black Swan?

- "An event that is *entirely consistent with past data* but that no one thought would happen" Larry Siegel
- "Black Swans being *unpredictable*, we need to adjust to their existence (rather than naïvely try to predict them)" Nassim Taleb

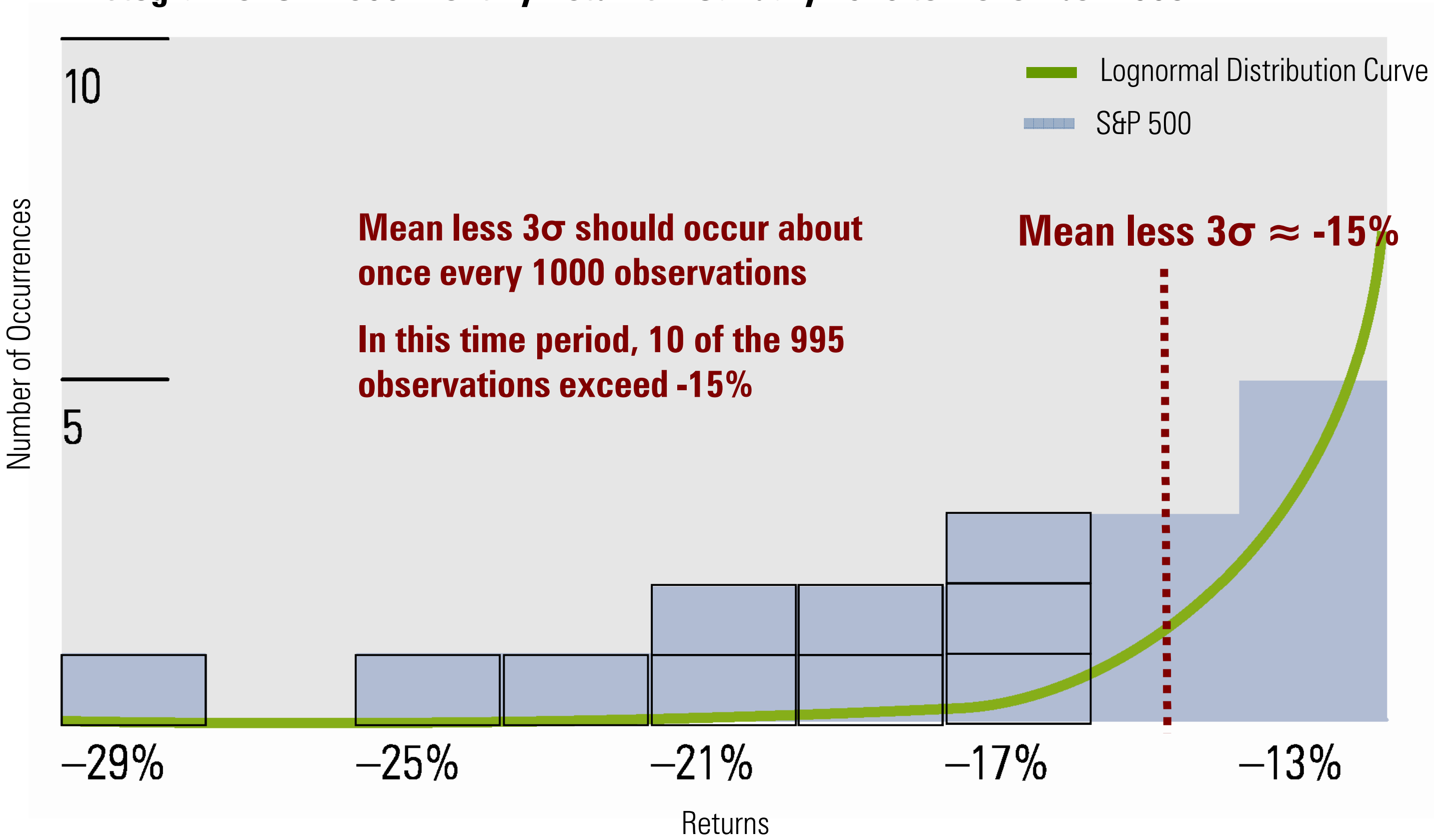
Distribution of S&P 500 Annual Returns



Performance data shown represents past performance. Past performance is not indicative and not a guarantee of future results. Indices shown are unmanaged and not available for direct investment. Performance data does not factor in transaction costs or taxes.

The Flaw of the Bell Shaped Curve

Histogram of S&P 500 Monthly Returns – January 1926 to November 2008



Source: Paul D. Kaplan, "Déja Vu All Over Again," in Morningstar Advisor Magazine, February/March 2009
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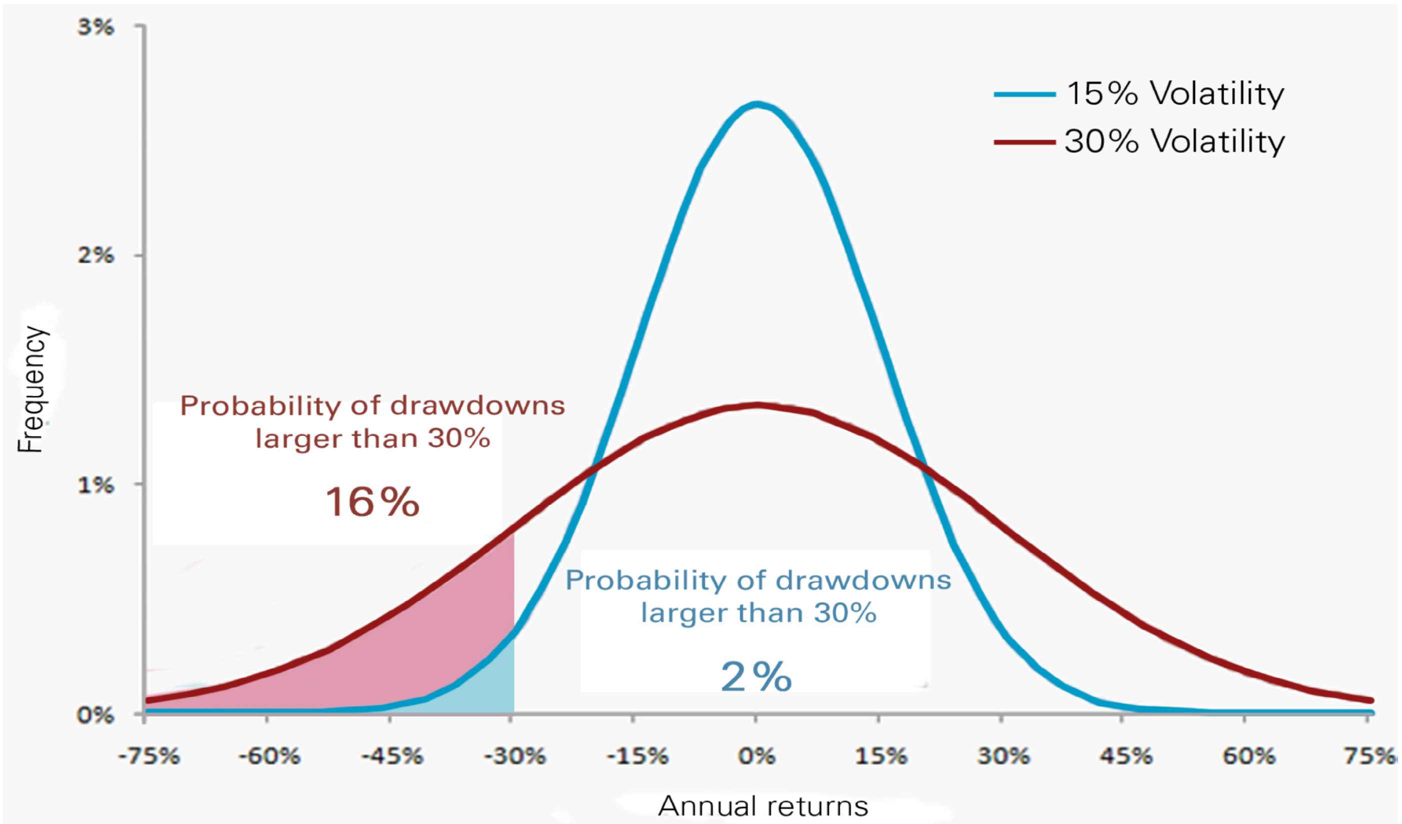
What are the Implications of changing volatility on tail risk?



Does Asset Allocation determine 90% of Investor Returns?

- In a 1986 study published by Brinson, Hood, and Beebower, they contended that 90% of a portfolio's **variability of returns across time** is explained by the asset allocation policy
- This statistic is often misinterpreted and does not address the following:
  - How much **variation in returns among funds** is explained by the asset allocation policy?
  - What portion of the **return level** is explained by the asset allocation policy?

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Does Asset Allocation determine 90% of Investor Returns?

Our research shows:

- **90% of the variability of returns across time** is indeed explained by the asset allocation policy
- **40% of the variability in returns among funds** is explained by the asset allocation policy
- **100% of the return level is explained** by the asset allocation policy

Is Active Management Dead?

- On average actively managed fund underperform their benchmarks and index funds after fees
- Research from Vanguard shows that:

# Funds in the Portfolio	5 Years	10 Years	20 Years
1 Fund	33%	29%	15%
2 Funds	17%	9%	3%
5 Funds	14%	8%	2%
10 Funds	9%	6%	1%

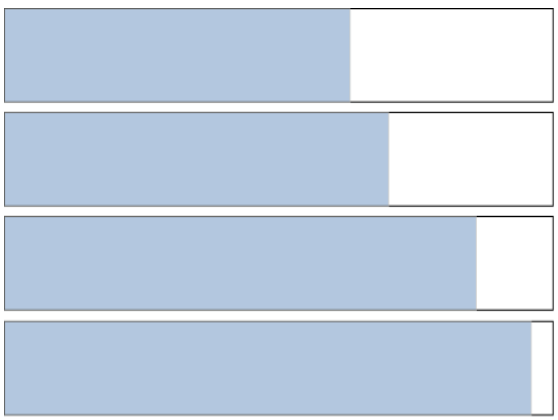
Fund investors do a good job selecting funds

Average Annualized Total Return, 2001-10			
Category	Equal Weighted	Asset Weighted	Difference
Large Growth	-0.77	-0.22	0.55
Large Blend	0.78	1.17	0.39
Large Value	2.3	2.58	0.28
Large Company U.S.			0.41
World Stock	4.74	3.85	-0.89
Large Blend Foreign	2.81	4.46	1.65
Large Value Foreign	4.63	6.01	1.38
Emerging Markets	14.47	15.72	1.25
Major International			0.82
Aggressive Allocation	3.14	2.85	-0.29
Moderate Allocation	3.12	4.2	1.08
Conservative Allocation	3.67	4.7	1.03
Allocation			0.83
Intermediate Bond	5.22	5.61	0.39
Municipal National Long	3.87	4.24	0.35

Source: Morningstar.

Does Qualitative Manager Selection Lead to Better Outcomes?

Fund Analyst Picks exceed 5-Year Category Average:



63% Equity Funds

70% Taxable Bond

86% Non-Taxable Bond

96% Balanced

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% of US Analyst Picks in the Top Quartile as of August 2011
(weighted average results of picks after they were added to the Picks list)

Asset Group	5 year	3 year	3 Month
Balanced	68.22	67.3	23.53
International Stock	43.33	36.83	8.82
Municipal Bond	38.31	38.08	22.73
Taxable Bond	44.1	36.31	31.76
U.S. Stock	32.76	37.58	36.36

Is Past Performance not Indicative of Future Performance?

- Morningstar's Risk-Adjusted Returns take's into account investor's utility function and does not assume normality
- Star Rating based on Morningstar's Risk-adjusted Returns:
  - Top10% (5 stars), next 22.5% (4 stars), next 35% (3-stars), (2 stars), next 22.5% (2 stars)and bottom 10% (1 star)

Aggregate results (ex-post):

- 5 star funds beat lower star funds
- 5 star funds beat their benchmarks

The more you know the more you realize that you don’t know!

- Markowitz was not wrong he was misinterpreted

The more you know the more you realize that you don’t know!

- Markowitz is often misinterpreted
- Markets are not normal

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- Brinson et al. is often misinterpreted
- It not possible to definitively conclude that active management is dead
- There appears to be some evidence that qualitative manager selection can lead to better investor outcomes
- It is not possible to definitively conclude that past performance is not indicative of future returns