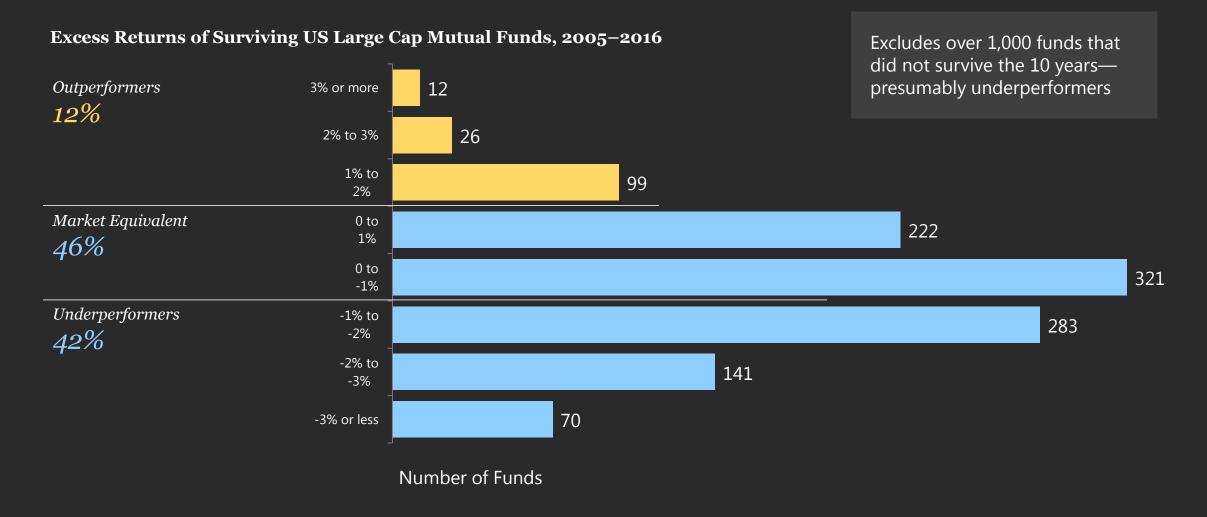


Timing Poorly and Other Related Investment Sins

Active Outperformance

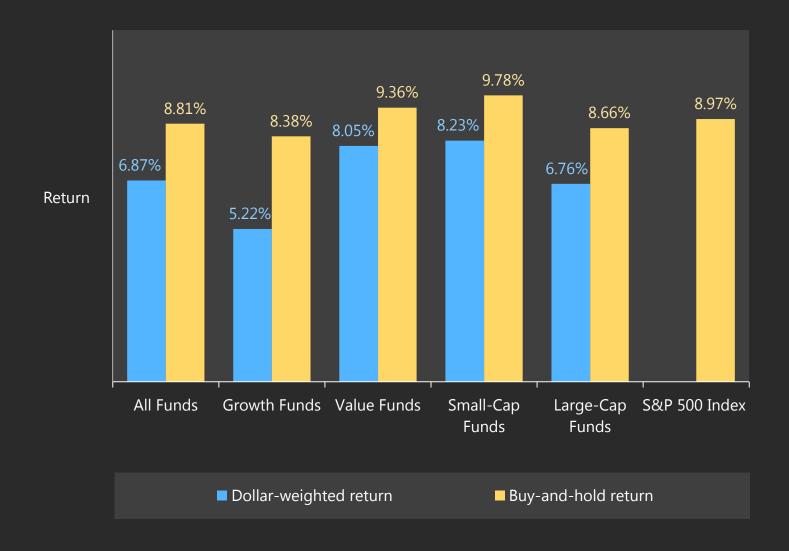




The Real Issue

Empirical Evidence of Bad Investor Outcome

Investor Outcome Is Ubiquitously Poor

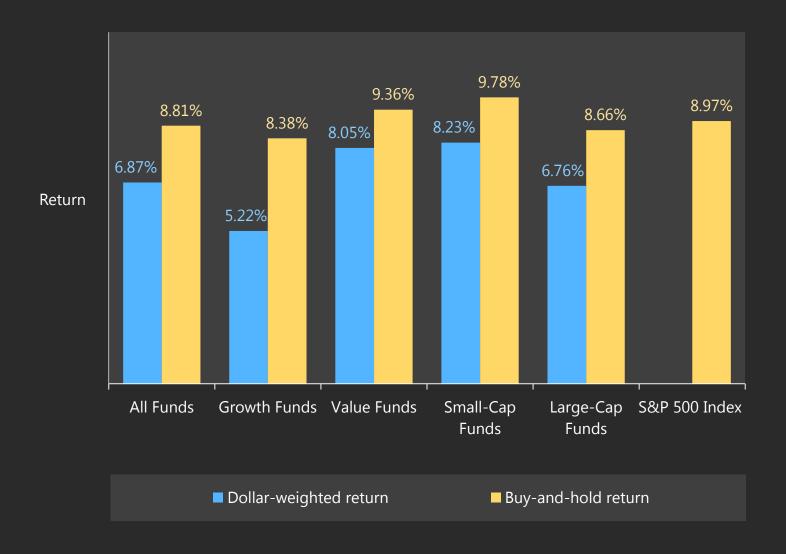




Computing Investor Success

- » Dollar-weighted vs. Time-weighted returns
 - Time-weighted: manager performance
 - Dollar-weighted: investor outcome
- » Return gap = Dollar-weighted Time-weighted returns
 - Driven by timing of investor flow

Investor Outcome Is Ubiquitously Poor





Value of Standard Financial Advice?

- » Morningstar 3-star funds outperform
 4 & 5-star funds (M* whitepaper)
- » Institutional managers selected by pension consultants underperform those they recommend against (Goyal & Wahal)

Modern Manager Selection Process Sucks

	Winner Strategy	Median Strategy	Loser Strategy
Raw Return	7.43%	8.89%	10.04%
Sharpe Ratio	0.25	0.42	0.48
CAPM Alpha	-3.61%	-0.85%	0.40%
Carhart Four-Factor Model Alpha	-3.19%	-1.16%	-0.17%



We Are All Bad at Market Timing

Recent Factor Returns

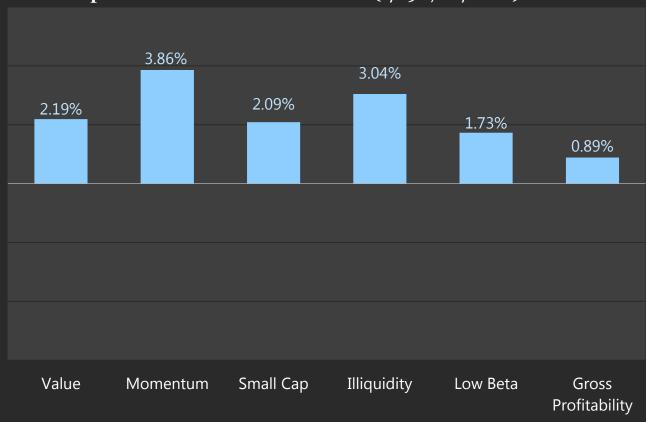






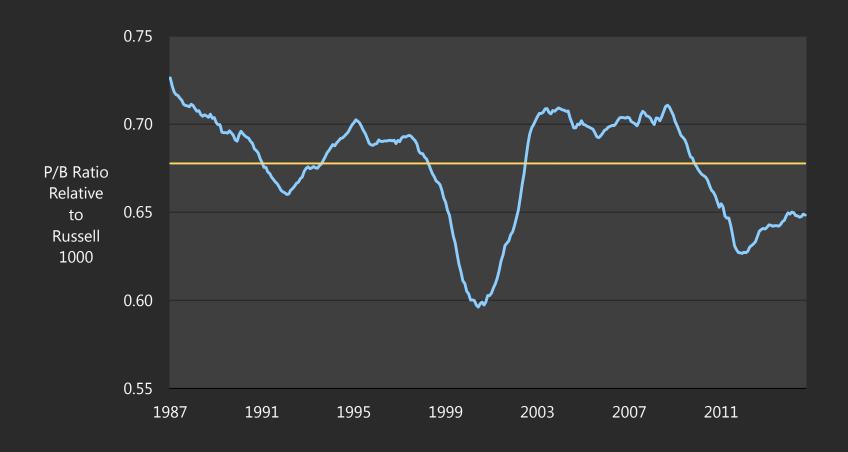
Full Sample Factor Returns





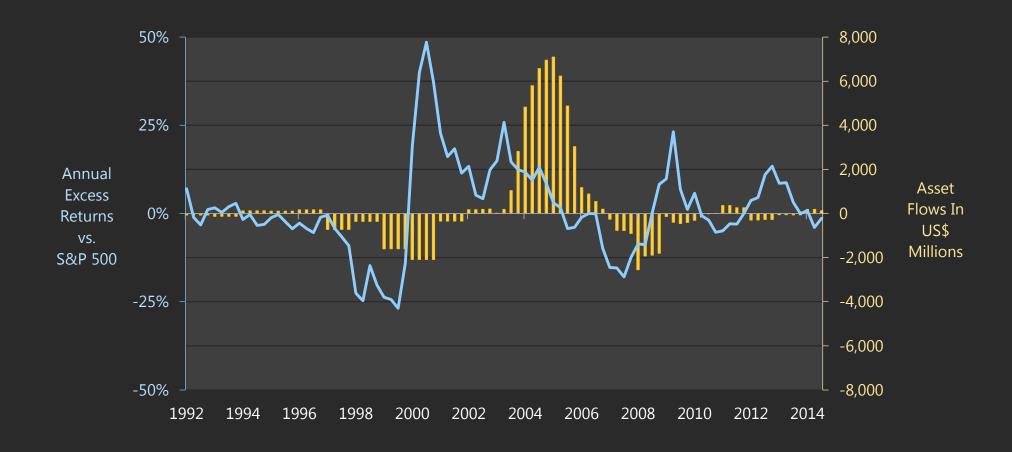


Why Investors Do So Poorly?



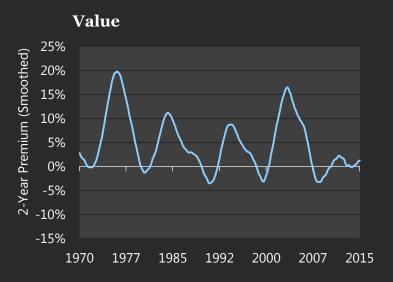
—3 year smooth P/B ——Average P/B

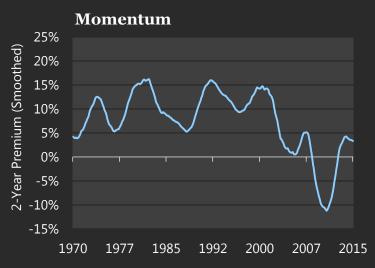
Underperformance Is Due to Trend Chasing

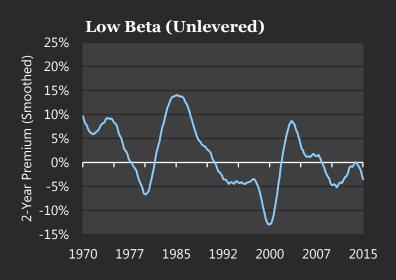


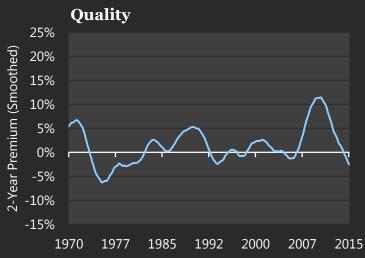
Net Assets Gain/Lost - Last 12 Months (RHS) ——Annual Excess Returns (LHS)

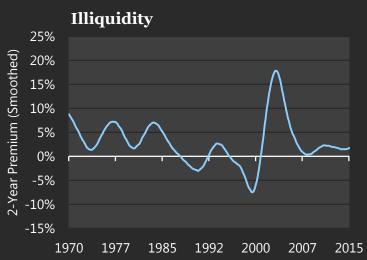
The Style Premium Is Cyclical

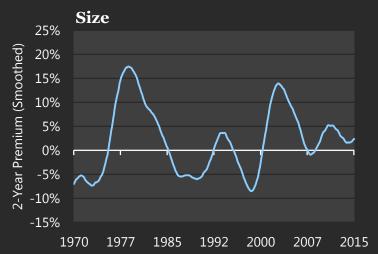












Flow Responds to Recent Performance

Strong style return attracts performance-chasing flows

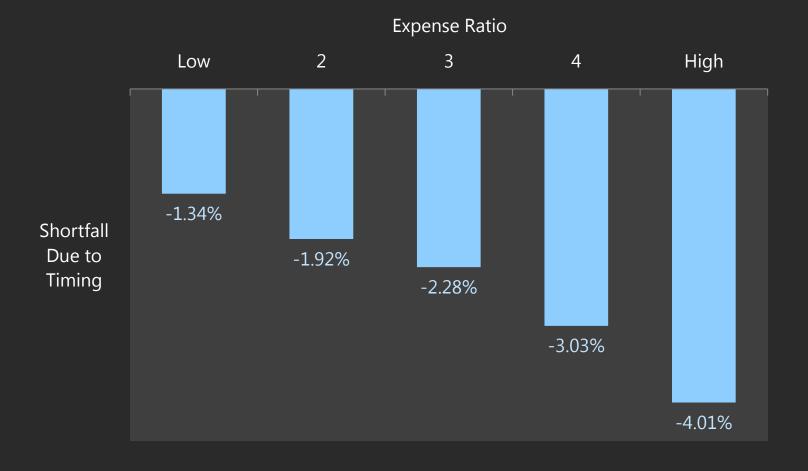
Flow reverses locking in investor underperformance

Return Gap Cycle

Short-term flows elevate price

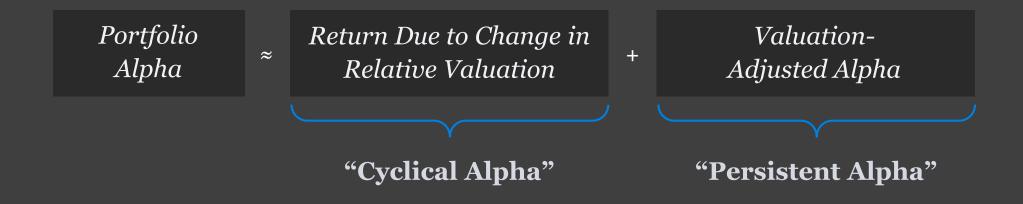
Performance-chasing flows drive style premiums negative

Investor Shortfall by Expense Ratio



How Should You Really Estimate Performance?

Alpha Decomposition



- » Alpha due to change in relative valuation
 - Is mean reverting and averages roughly zero in the long run
 - Contributes significantly to strategy performance in the "short run"
 - > "Short run" can mean decades!
- » Alpha adjusted for change in relative valuation is a good measure of unconditional expected return of a strategy

Recent Factor Returns







Full Sample Factor Returns

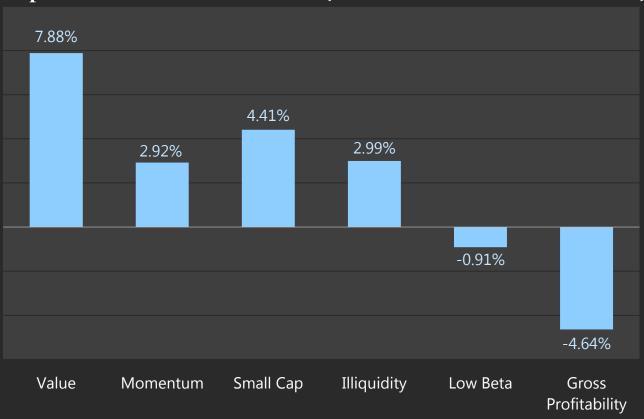






The Journey Ahead

Expected Five-Year Excess Returns (Conditional on Current Valuations)





Summary

- » Poor investor outcome is not driven by managers but by how the ecosystem sells products
- » We time aggressively as a result of our manager/product selection, and we time very poorly
- » We have a fundamentally flawed understanding about performance generation

