Evaluating Active Managerswith Active Share & SCOPE

Tim Paulin, CFA

Senior Vice President, Research



Touchstone Investments

Distinctively Active

- 15 sub-advisers with demonstrated success implementing truly active strategies
- Focused on investment categories making up 70-80% of advisor allocations

Partners in Practice

- Deliver a tangible combination of investment and practice value
- Distinguish ourselves with high level of accountability and follow-up



Our Sub-Advisers































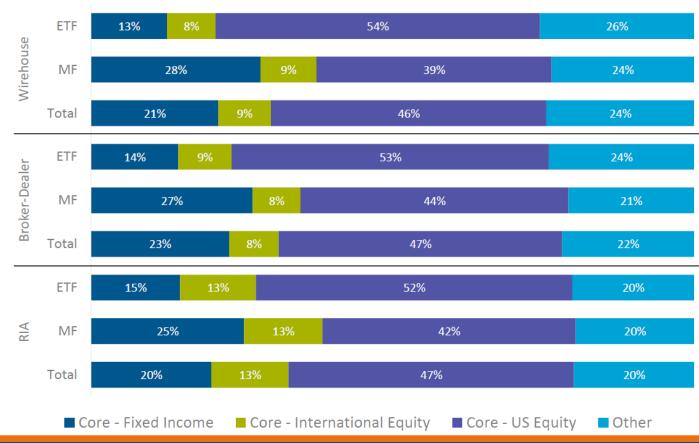
Fund Roster Serving Asset Allocators

	Income		U.S. Equity				International/Global Equity	
Ultrashort	Ultra Short Duration Fixed Income Ultra Short Income ETF Fort Washington Investment Advisors		Value	Core	Growth	Growth	Sands Capital Emerging Markets Growth Sands Capital Management	
Short- U.	Securitized Income ETF Fort Washington Investment Advisors	Mid		Large Cap The London Company Large Cap Focused US Large Cap Focused ETF Fort Washington Investment Advisors Focused Fort Washington Investment Advisors	Large Company Growth DSM Capital Partners Sands Capital Select Growth Sands Capital Management Growth Opportunities Westfield Capital Management	Large-Cap	Sands Capital International Growth Equity Sands Capital Management	
Core	Impact Bond EARNEST Partners LLC					Large-Cap Core	Climate Transition ETF Lombard Odier Investment Management Dynamic International ETF	
Core	Active Bond Fort Washington Investment Advisors						Los Angeles Capital Management Non-US ESG Equity Rockefeller & Co.	
Multi- sector	Flexible Income Bramshill Investments, LLC Strategic Income Opportunities Strategic Income Opportunities ETF Fort Washington Investment Advisors		Mid Cap Value Leeward Investments	Mid Cap The London Company	Mid Cap Growth Westfield Capital Management	Large-Cap Value	International Value LSV Asset Management	
High Yield	Ares Credit Opportunities Ares Capital Management					7	Multi-Asset Fund	
Municipal Y	High Yield Fort Washington Investment Advisors Core Municipal Bond Sage Advisory Services	Small	Small Cap Value Leeward Investments	Small Cap The London Company Small Company Fort Washington Investment Advisors		Growth & Income	Balanced Fort Washington Investment Advisors	



Allocation Preferences of U.S. Financial Professionals

- ▶ 3 Principal Broad Categories well represented in Advisor portfolios
- Not Dabbling in higher margin but very low allocation spaces





Source: Broadridge, October 2023

Dedicated Resources & Proprietary Process



Credentialed Research & Product Management Team

- 7 professionals across Research & Product
- 6 CFA Charterholders
- Coverage ratio of ~5 firms / 12 strategies per Analyst



What is Distinctively Active?

- Distinctively Active is a subset of what we all generally refer to as "Active Management"
- In its simplest form, Active means not passive, i.e. not cap-weighted indexing
- Distinctively Active strategies are those demonstrating characteristics that have historically been associated with generating alpha



Why is Distinctively Active Important?

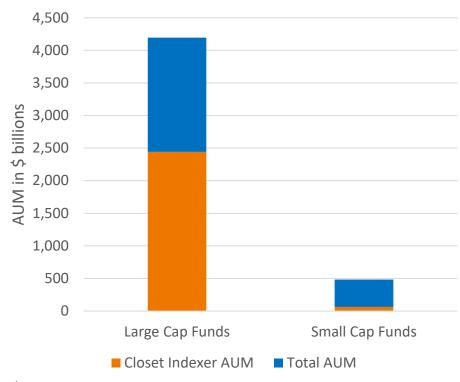
- Active Fixed Income appreciated as an alpha-generator
- Negative conventional wisdom regarding Active Equity Why?
- Many equity strategies suffer from maladies like:
 - Closet Indexing High overlap with index holdings (while charging active fees)
 - **Bloating** AUM level that prevents managers from liquidly investing in a large portion of their opportunity set (e.g., U.S. large cap stocks)
 - Dilution Lack of access to manager's best ideas due to investment in 100, 200, or more stocks



Closet Indexing

- Standard definition of Closet Indexing: under 60% Active Share
- Importance: Are you getting what you are paying for?
- Relevant Consideration: Cause of Low Active Share?
 - Lack of Opportunity (is Active Share consistently low?)
 - Flexible Exposure (does Active Share vary with time and portfolio positioning?)

Closet Indexing in US Large Cap and Small Cap Funds



12/31/23 data; Source: Morningstar Direct Active Share data for funds in nine US Fund Morningstar Categories; Touchstone computation of assets invested in funds with Active Share < 60%

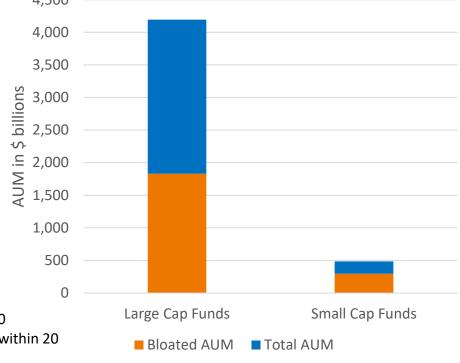


Asset Bloating

- At what point do assets potentially impede alpha?
 - US Large Cap: \$45.0 billion
 - US Small Cap: \$2.6 billion
- Importance:
 - Are too much assets forcing my manager to invest in less promising stocks? Larger market caps? Only the most liquid securities?
 - Are these limitations hurting my return?

and Small Cap Funds 4,500 4.000

Asset Bloat in US Large Cap



Apply Liquidity model to determine AUM level at which 50% of opportunity set (Russell 1000 constituents for Large Cap; Russell 2000 constituents for Small Cap) can't be bought or sold within 20 days while trading 20% of average daily volume; Assume active managers conviction-weight securities at index weight + 1%

Source: Touchstone

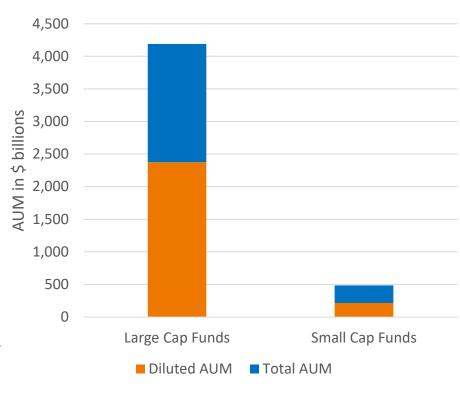


Best Ideas Dilution

- How much diversification is enough?
 - Reputable research says far fewer than 100 stocks are required to diversify away systematic risk (some say as low as 15-30 stocks)
- Importance:
 - Am I getting my manager's best ideas?
 - Why am I paying for your 100th, 200th or 500th best idea instead of owning more of what you really like?

> 100 stocks for Large Cap and Mid Cap funds; > 200 stocks for Small Cap Funds. 100 stocks represent ~10% of Russell 1000 Mid/Large Cap Index and ~12.5% of Russell Mid Cap Index constituents. 200 stocks represent ~10% of Russell 2000 constituents.

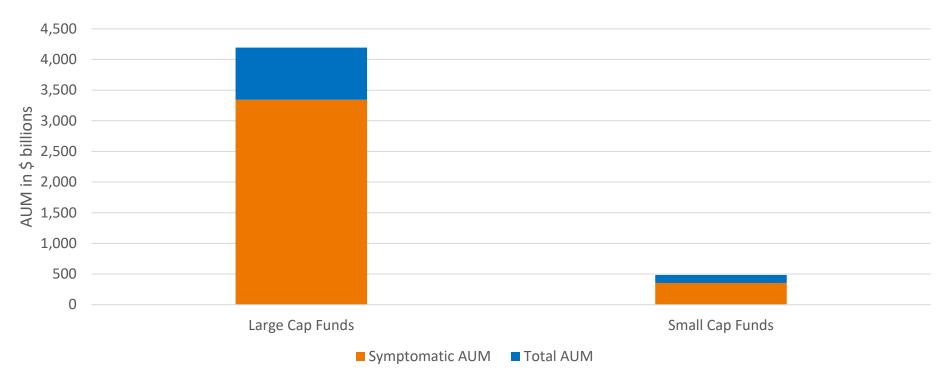
Best Ideas Dilution in US Large Cap and Small Cap Funds





What proportion of U.S. Fund AUM is symptomatic?

At Least One Symptom among US Large Cap and Small Cap Funds



AUM of funds that are Closet Indexer, Asset Bloated OR Best Ideas Diluted Source: Touchstone



Evaluating Active Share & SCOPE

Identifying Truly (Distinctively) Active Strategies

"An active equity fund manager can attempt to outperform the fund's benchmark only by taking positions that are different from the benchmark."

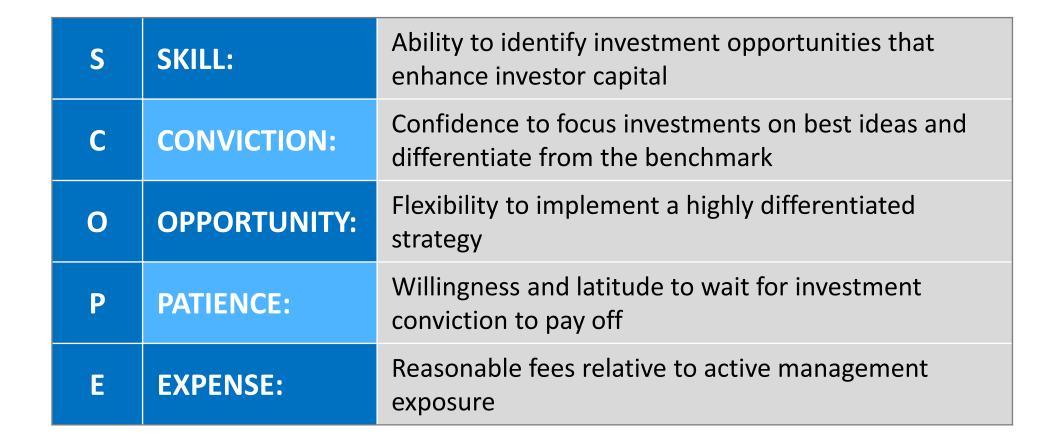
- Martijn Cremers and Antti Petajisto, How Active is Your Fund Manager? A New Measure That Predicts Performance

- Basic Definition: "Active" means "Different"
- Question: How to measure "Activeness"
- Active Share = 100% Overlapping Weights in Portfolio and Benchmark

Act	ive	Closet	Passive	
100%-80%	80%-60%	60%-40%	40%-20%	20%-0%

Active Share is not a performance measurement. A high level of Active Share does not assure outperformance of a fund relative to its benchmark index. There are no assurances that any strategy or investment approach will meet its objectives.

Novel Lenses to Enhance Active Management Evaluation





Skill: How do we measure? How is that working for us?



- "Among the different signals explored, Morningstar star ratings and past unadjusted returns best explain which funds attract flows...Given the prominence of Morningstar star ratings in explaining flows, we explore potential explanations for why investors use these ratings. Our analysis supports the simplest explanation, that is, that star ratings are seen by investors as a simple way to identify funds with high past performance, regardless of how performance is defined. Crucially, our analyses suggest that investors either do not know or do not care about how Morningstar computes the rankings used to assign ratings." 1
- "Our annual study of dollar-weighted returns (also known as investor returns) finds investors earned about 9.3% per year on the average dollar they invested in mutual funds and ETFs over the 10 years ended Dec. 31, 2021. This is about 1.7 percentage points less than the total returns their fund investments generated over the same period. This shortfall, or gap, stems from poorly timed purchases and sales of fund shares, which cost investors nearly one sixth the return they would have earned if they had simply bought and held."

¹ What Do Mutual Fund Investors Really Care About? 2021 ² Morningstar Mind the Gap, 2022



Conviction: Getting the Best of Active Managers?



- "We document a positive relation between mutual fund performance and managers' willingness to take big bets in a relatively small number of stocks.
 Focused managers outperform their more broadly diversified counterparts by approximately 30 basis points per month, or roughly 4% annualized."
- "We find that the stocks in which active mutual fund or hedge fund managers display the most conviction towards ex-ante, their "Best ideas," outperform the market, as well as the other stocks in those managers' portfolios, by approximately 2.8 to 4.5 percent per year, depending on the benchmark employed."

Best Ideas (Harvard); Fund Managers Who Take Big Bets (Emory)

Measuring Conviction (and other SCOPE factors)

- Morningstar: Active Share on portfolio page of Morningstar.com
- Fund Company Resources (we will come back to this!)
- ► ActiveShare.Info: Active Share on ~1400 U.S. Equity Funds
- Common Conviction Measures:
 - Active Share
 - # of Holdings
 - % of Assets in top 10 (or top 50)



Relevance of Conviction – Asset Class/Benchmark Fit

- Relevant exposure is critical to implementing Financial Plans & Asset Allocation
- Poor Relevance? Well-known US Growth Fund...
 - Prospectus Benchmark: Russell 2000 Growth Active Share: 99%
 - Must be a really active small cap growth manager, right?
 - Portfolio Exposure: Russell 2000 stocks: 7%; Russell Mid Cap stocks: 93%
 - Hmmm, they don't really invest in small caps, do they?
 - Conclusion: Highly Active...but not relevant to advisor allocating to Small Caps

Opportunity Constraints

- ▶ Bloating: 21 "Active" US Large Cap Funds each > \$45 billion AUM represent over \$1.8 trillion in AUM, in aggregate (over 40% of assets in US large cap funds)
- ▶ Dilution: Well-known Large Growth Fund: 139 of 322 stocks in fund have 0.10% weight or lower; Just 21 stocks have greater than 1% weight
- Tracking Error: Some investors seek not to stray to far from benchmark returns by applying a tracking error budget; Tracking Error limits opportunity for skilled stock pickers
- Cost of High Conviction Approach: Higher Tracking Error vs. Index Returns
 - Differentiable Return Pattern, but...
 - More significant periods of underperformance (and outperformance) to explain
 - Are we really trying to match the pattern of S&P 500 returns?



Patience: Not Just a Virtue

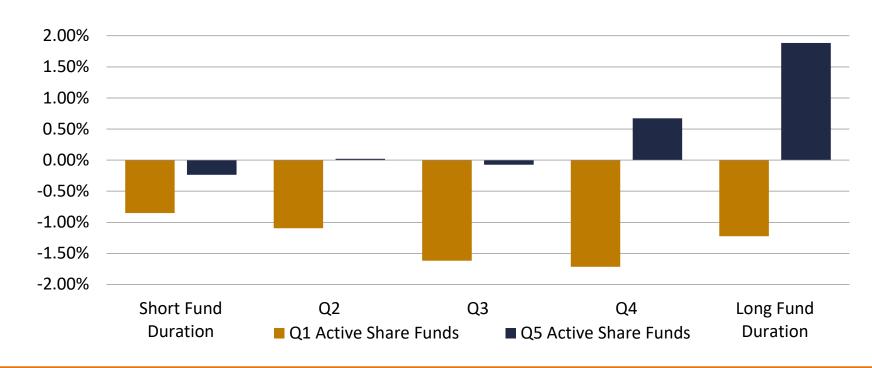
- Rare quality among market participants
 - Discretionary Fundamental Traders represent ~10% of equity trading volume
 - Don't believe the "Zero Sum Game" argument!
- Rare form of conviction for active managers
 - Low Active Share Passive also tends to be Patient
 - Increasing AUM to Passive has increased Patience among funds in aggregate
- Digging below the surface, beneficial to differentiate:
 - Position Turnover
 - Trading Turnover
- Practical Considerations:
 - Given number of holdings and position turnover, how many new ideas must each investment team member come up with each year?
 - Are team size, experience and credentials adequate to generate that many new ideas applying the fund's process?



Patience: Rare, Virtuous...and Lucrative

How long do the manager's convictions last?

Annualized Abnormal Performance of Fund Duration Quintile Portfolios, Low and High Active Share Funds Separately 7-index factor alpha p/y, 1990-2015

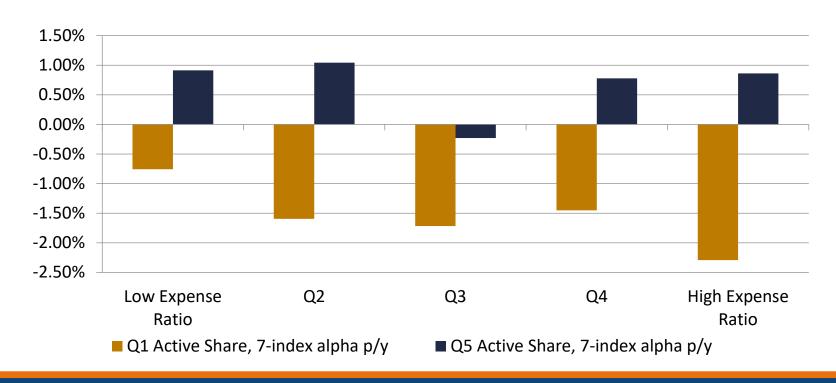




Expenses: Why Not Just Pick the Cheapest Fund?

How Much Are You Paying for Stock Picking Skills?

Annualized Abnormal Net Performance of Expense Ratio Quintile Portfolios – Separately for Low and High Active Share Funds



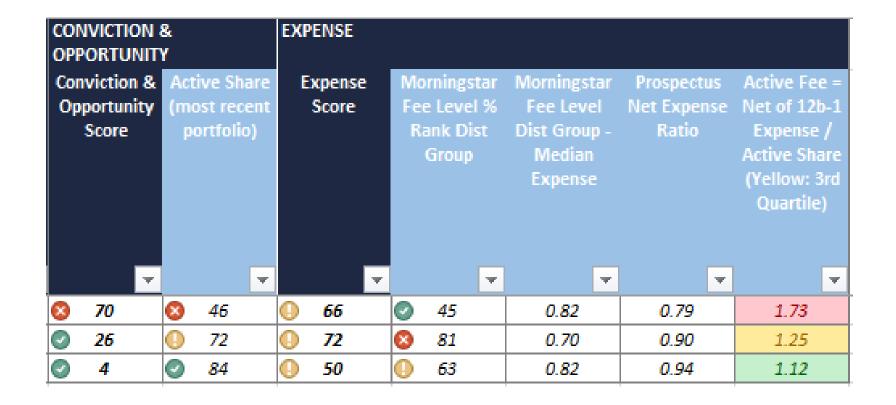


Expenses: Getting What You Pay For vs. Minimizing Cost

- Expense Ratios are naturally higher for Active Management it is more costly to deliver than indexing
- Sole Focus on Expense Ratio ignores that Active Fund performance is presented net of fees (already taking expenses into account)
- ► Active Fee concept:
 - How much am I paying for non-benchmark exposure (i.e., active management)?
 - What excess return must the portfolio's active portion produce for the fund to outperform? (i.e., the hurdle rate?)



Expenses: Applying Active Fee



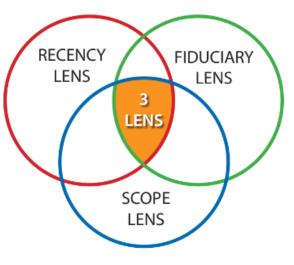
Touchstone's Multi-Pronged Approach: Three Lenses

RECENCY LENS – Important but not comprehensive

Recency Lens is evaluation based on data points that look backwards. You are likely familiar with this type of assessment, which involves readily available information and industry tools. It is beneficial to include but if it is the only method used, it can result in the potential for behavioral-biased decision-making such as buying at peaks or selling at lows of relative performance.

FIDUCIARY LENS – Expands the breadth of characteristics being considered

The Fiduciary Lens is based on the Fi360 Fiduciary Score, which provides a peer percentile ranking of an investment against a set of quantitative due diligence criteria selected to reflect prudent fiduciary management.



SCOPE LENS – Critical component for a comprehensive view

Exclusive from Touchstone is the SCOPE Lens. This proprietary model combines an asset manager's historical consistency of success with the academic research on elements that have shown to drive future success. The research is largely based on that of Dr. Martijn Cremers* of The University of Notre Dame. Touchstone believes it is critical to evaluate these specific elements of asset managers: Skill, Conviction, Opportunity, Patience, and reasonable Expenses — otherwise known as SCOPE.

TOUCHSTONE'S THREE LENS REVIEW

Holistically combining the SCOPE Lens with the Recency and Fiduciary Lenses, helps provide a distinctive way of evaluating your book for consistency of success. The incorporation of the SCOPE Lens as part of Touchstone's Three Lens Review helps to evaluate risks and opportunities to achieve a more defensible, scalable and efficient practice.

Active Share measures the percentage of the Fund's holdings that differ from those of the benchmark. It is calculated by taking the sum of the absolute difference between all of the holdings and weights in the portfolio and those of the benchmark holdings and weights and dividing the result by two. Index performance is not indicative of fund performance. Investing in an index is not possible. Active Share is not a performance measurement. There are no assurances that any strategy or investment approach will meet its objectives. This information should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. Past performance is not indicative of future results.

Performance data quoted represents past performance, which is no guarantee of future results.

Please consider the investment objectives, risks, charges and expenses of the Fund carefully before investing. The prospectus and the summary prospectus contain this and other information about the Fund. To obtain a prospectus or a summary prospectus, download and/or request one at TouchstoneInvestments.com/resources or call Touchstone at 866.610.6673. Please read the prospectus and/or summary prospectus carefully before investing.

Touchstone Funds are distributed by **Touchstone Securities**, Inc.

A registered broker-dealer and member FINRA and SIPC

Touchstone and Fort Washington are members of Western & Southern Financial Group

Please consider the investment objectives, risks, charges and expenses of the ETF carefully before investing. The prospectus and the summary prospectus contain this and other information about the Fund. To obtain a prospectus or a summary prospectus, download and/or request one at TouchstoneInvestments.com/resources or call Touchstone at 833.368.7383. Please read the prospectus and/or summary prospectus carefully before investing.

Touchstone ETFs are distributed by Foreside Fund Services, LLC

A registered broker-dealer and member FINRA