

Discipline Your Selling

Better Insights, Better Decisions, Better Results

Selling—A Source of Incremental Alpha

Your behavior affects fund performance. Behavioral Finance research proves it. Calibrating your behaviors and using this information to improve your selling leads to capturing incremental performance.

Whether your investment process is based on bottom-up fundamental analysis or driven by quantitative signals, the decisions you make impact performance. The majority of the time your decisions keep you on the path defined by your strategy, style and discipline. For most managers, however, a small persistent behavior can lead to wandering away from discipline and toward unintended decisions that undermine performance.

Buy / Sell Dichotomy

Extensive research by Cabot involving over \$250 billion of professionally managed assets shows that ...



For the most part, managers buy effectively, with many adding alpha as they establish and expand positions.



All managers, even those with superb performance, are susceptible to emotions shaping their sell decisions.



Overcoming behavioral tendencies that have crept into your sell discipline can lead to a large incremental improvement in performance.



Opportunities to capture 100+ bps of additional alpha and return through better selling are available in most portfolios.

“I included a description of the Cabot experience in my latest client letter. The responses I received were extremely positive, even from the consultants. Everyone simply wants us to do our best.”

—Manager of a small-cap, fundamentally driven, institutional portfolio

Our Service

Cabot Behavioral Analysis helps managers improve fund performance. We do this one fund at a time, through the rigorous application of Behavioral Finance.

SLEEPY WINNERS CAN BE EXPENSIVE

	Loser	Winner
Sold Sooner	Grey	Grey
Sold Later	Grey	Red

- **A negative value in this quadrant suggests that some winners are persistently being held too long. Selling these positions more effectively can enable a manager to capture incremental performance while creating liquidity for new buys.**

Everyone likes winners in their portfolio. Harnessing their performance to the fullest is a basic goal for any manager. Allowing winners to persistently remain in the portfolio well past their peak, however, can predictably dampen performance.

Cabot is working with a multi-billion dollar large-cap, growth fund that has beaten its benchmark on average for the past several years. Unknowingly, this highly effective manager has been giving back virtually all the alpha generated from strong buys through ineffective selling.

The manager is now implementing a custom behavioral shift that prompts her to consider selling older winners experiencing volatility preferentially to other positions. Doing this can add approximately 300 bps in return and alpha annually to this portfolio's performance.

The service consists of 4 primary elements:

Portfolio Analysis: Cabot Behavioral Analysis analyzes the actual history of your portfolio. We do this to identify opportunities for improvement unique to you and your fund. The results are custom shifts you incorporate into your investment processes that help you reach higher performance with better decisions. Most clients experience the greatest opportunities through more disciplined selling.

Daily Support: It takes more than insight to improve performance, it requires better decisions. Cabot Behavioral Analysis provides daily stock-by-stock signals that focus you on making better decisions. Daily support is highly customized for each manager reflecting the unique opportunities identified in the analysis. Most clients can capture 100+ bps of incremental alpha and return from their shifts.

Quarterly review and update: You get crucial feedback on how well your shifts are performing. Knowing position-by-position how your shifts are adding to return and alpha helps make these new decisions a permanent part of your discipline.

Just like improving a golf or tennis swing, our natural tendency is to revert back to ingrained behaviors. Cabot Behavioral Analysis combines with your personal resolve to help you achieve better performance through better decisions.

Portfolio Reviews are updated each quarter. This assures that the shifts you are implementing reflect current information and aim you toward the strongest opportunities available.

Annual comparisons: Staying committed to change requires no-nonsense measures of success. Measuring year-over-year changes in sell alpha lets you know exactly how your selling has improved. Similar metrics are used to quantify improvements in your buying as well. Clients typically set a 24 month horizon for fully capturing the benefits from a shift.

Capturing the benefits of your shifts will lead to higher performance. Clients and Cabot look to improvement in annual return, alpha, peer grouping and other relative measures to rate progress. Your success is our success.

Predictably Beneficial

Why do Managers choose to work with Cabot?

In a word, confidence. If you are going to evolve your investment processes there needs to be some assurance that the changes being made will pay off. You need predictable benefits. Here is how we help you get them.

Cabot Behavioral Analysis uses extensive testing and statistical analysis to identify behavioral shifts that deliver predictably.

Conceptual Model

Cabot Behavioral Analysis looks for persistent patterns within your portfolio history.

■ For example, these patterns or behaviors might be observed over 24 month timeframes. The impact that each observed behavior has had on actual performance during that timeframe is calculated (in-sample analysis). From these results a shift is formulated that will eliminate any behavior whose in-sample affect adversely impacted performance. The shift is an expression of actions to be encouraged or discouraged based on a pinpointed set of conditions. (e.g., Delay selling winners owned less than 18 months, when they are experiencing volatile price movement.)

■ Each shift reflecting an in-sample analysis is then applied to subsequent time periods of portfolio history (out-of-sample tests). The performance of these out-of-sample tests are then compared with the actual performance for the same time periods. Favorable outcomes are those where: a) the out-of-sample returns exceed those of the actual portfolio returns for the same time period; and b) the out-of-sample results are comparable to those from the in-sample analyses. In other words, the in-sample analyses are used to identify likely shifts. But, for a shift to meet the minimal requirement of predictiveness the same shift has to produce good results in a subsequent time period (out-of-sample).

“I always suspected that my selling was not as effective as my buys. Now I have the data to take corrective action. Most interestingly, the source of greatest opportunity was not even on my radar screen.”

—Manager of a large-cap, fundamental/quantitative mutual fund.

TURNING LOSERS INTO GAINS

	Loser	Winner
Sold Sooner	Grey	Grey
Sold Later	Red	Grey

- **A negative value in this quadrant suggests that some losers are persistently being held too long. Selling these positions more effectively can enable a manager to redeploy this unproductive capital into new positions that can lift portfolio performance.**

Holding on to losers in hopes of a rebound sometimes works, but for this manager it tended to lower performance.

This fundamentally managed \$6+ billion fund has beaten its benchmark on average by 75 bps, over the past five years. Yet, this successful manager persistently holds on to certain types of losers far too long. Rather than rebounding as hoped, these losers continue to under perform and drag down returns. The solution for this manager involves helping him better integrate a single quantitative factor into his sell discipline to trigger earlier fundamental reassessment and selling. Implementing his uniquely formulated, pinpointed shift the manager can add approximately 200 bps in return and alpha annually.

■ This process is repeated over and over and then statistical tests are performed on all the results to find those shifts whose benefit is most predictive. For example, a shift whose benefit is roughly 50 bps in every out-of-sample test will have a higher statistical predictiveness than another shift whose out-of-sample benefit flips from +75 bps to -25 bps every other test.

This intuitive yet rigorous approach enables Cabot Behavioral Analysis to deliver results that are both understandable and scientifically sound. It is just one of the many reasons why bottom-up fundamental managers and strongly quantitative managers alike are implementing Cabot shifts today.

What about market cycles?

The analysis uses established techniques for washing out the impact of cycles. Alpha, as this measure is known, provides a measure of return independent of which styles were hot and which were not. Behavioral shifts based on alpha are more predictive.

Quantitative note

Both the in-sample and out-of-sample results are based on alpha. Cabot Behavioral Analysis uses a four-factor risk model to determine alpha (the Fama-French 3-factors plus momentum). Predictiveness of a shift is determined as the P-value (statistical significance) of the alpha associated with the calendar time portfolio constructed from all the out-of-sample tests for a given shift.

Can This Service Help Fundamental Managers?

Yes. Bottom-up, fundamental managers are among those clients capturing the greatest benefits from our service.

Fundamental managers appreciate the intuitive insight gained from Cabot's analysis. It provides a welcome analytic complement to their current processes. The results plainly point out opportunities to improve, especially in selling. For instance, it is not uncommon for a manager to view a findings report and say:



"Yeah, I have always wondered about those positions ... and now I know how to sell them better."



"I thought that I might be holding on to my losers for too long, but now I see that it is the winners that are not being sold effectively."

Our daily recommendations are well suited for a fundamental team. Each day we provide gentle nudges that remind you of the shifts you are implementing. These daily reminders or signals can be viewed on our web-based on-line service or downloaded as PDF reports. Some managers integrate the Cabot signals into their company's internal systems. The key is that these just-in-time reminders add to your set of fundamental tools; enabling you to add incremental performance to your portfolio.

And for quantitative managers ...

Cabot Behavioral Analysis is fully in sync with even the most quantitative management style. The analytic software underpinning our service was painstakingly developed and tested over 4 years. Portfolio analyses and daily signals can be provided using Cabot's standard factors or your proprietary factors. Cabot output can be used as a behavioral overlay or incorporated as an additional factor in your decision models.

“We would have never found the 150 bps of sell opportunity on our own. You can not simply look around for these opportunities, it requires serious analysis of your portfolio and sell decisions.” —Co-manager of a fundamental, large-cap core fund

Is this Service For You?

RISK ADVERSE WITH GAINS

	Loser	Winner
Sold Sooner	Grey	Red
Sold Later	Grey	Grey

- **A negative value in this quadrant suggests that some winners are persistently being sold too soon. Selling these positions more effectively can enable a manager to capture incremental performance while lowering turnover.**

Cashing in on winners generally feels right, but can represent an expensive form of risk aversion.

Cabot is working with a highly successful \$2 billion small-cap, growth fund that has beaten its benchmark by 100 bps annually for more than 5 years. This brilliant buyer is, however, giving back some of her hard-earned alpha by selling some winners too quickly.

This manager now has an improved fundamentally based sell discipline. She now incorporates custom formulated Discouraged Sell signals into her daily decision making to help capture the full opportunity created by great buys. Successful implementation of this unique shift can add approximately 100 basis points of incremental return and alpha, annually.

Equity management is an increasingly competitive business. This is true for managers serving both retail clients and institutional investors alike. Your stakeholders want to be assured that you are harnessing all the performance possible from your strategy, style, research and discipline – while managing risks and expenses. Fund management has gained from several innovations over recent years such as more and better fundamental research and new analytic tools.

Now you have the ability to hone your selling. What will an incremental 50 bps, 100 bps or more annually contribute to client satisfaction? How will it enable you to achieve key goals of your business plan? What can it do to increase capital inflows and assets under management?

If you are looking to deliver superior performance and grow or maintain your portfolio, then Cabot Behavioral Analysis is for you. Our service and its underlying analytics are shown to greatly shorten timeframes and enhance outcomes if you are considering honing your discipline or strengthening your processes.

The Right Investment

Cabot Behavioral Analysis delivers superior benefits. You can improve your processes, add 100+ or more of incremental alpha and return, and bolster efforts at expanding assets under management. The exceptional benefit/cost provided by Cabot Behavioral Analysis is making it a favorite for soft dollar payment.

Are you the type of professional looking to be even more successful tomorrow? Then Cabot Behavioral Analysis may be the best investment opportunity to hit your screen. See why other managers are shifting towards Cabot.

About Cabot

Cabot Research assists equity managers in improving portfolio performance. We do this through the rigorous application of Behavioral Finance.

Our flagship service Cabot Behavioral Analysis has been applied to more than \$250 billion of professionally managed equities. The results are outstanding. Clients typically find opportunities to improve performance by 100+ bps. The majority of these benefits come from more disciplined selling.

Change your behavior for the better. Give us a call.

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“I’ve never seen analyses like this. Now I can see where my sells are not working and how to fix my process.” —Manager of a large-cap, fundamentally driven retail fund