



ABSTRACT

The evaluation and selection of investment managers is both an art and a science. The process entails both qualitative and quantitative analysis, and it is the qualitative aspects we focus on in this paper. We review Meketa's framework for manager analysis and discuss how managers are evaluated and selected. We also provide insights into how portfolios are managed and highlight attributes we prefer to see incorporated in the portfolio management process.

INTRODUCTION

Manager analysis requires a mosaic approach in which different pieces of information are thoughtfully assembled in order to develop a clear picture of a manager's capabilities. Quantitative analysis is a critical part of the analytical process, but it is, by definition, backward looking. We believe that qualitative assessment is even more critical in determining how a manager will perform in the future.

At Meketa Investment Group, we use a consistent framework in our qualitative assessment of investment managers. Based on our understanding of how portfolios are managed and our experience interviewing managers, we ask a series of questions during our meetings with managers and critically evaluate the responses we receive. Through our interaction with a large number of investment managers, we compare and contrast the investment teams we meet with, and the investment strategies and processes we review. The art of selecting investment managers involves evaluating multiple pieces of information and analyzing these managers from different perspectives. Ultimately, we seek to understand how a manager thinks about their portfolio and the securities in it, and develop a high degree of confidence in the manager and their approach to investing.

Analysis of an investment manager requires an evaluation of the manager's organization, investment team, investment philosophy, investment process, portfolio construction and holdings, historical performance, and fee structure. Although there are many ways to manage a firm and a portfolio, many of which can produce acceptable returns, there are certain characteristics and qualities that we prefer to see present. Just as investment managers have an investment philosophy or core set of beliefs that underpin their investment process, we have a manager selection philosophy that is the foundation for how we evaluate and select managers. We discuss our philosophy in the sections that follow.

MANAGER SELECTION PHILOSOPHY

The traits we look for in an organization and in an individual are based on our collective experience in the asset management and consulting industries, along with the lessons we have learned evaluating numerous investment management firms over long periods of time. Investment management is an experience-based business and our collective experience gives us a deep understanding of how managers operate. We have an appreciation for the subtleties of the business and realize that investment management is both an art and a science.

While most managers know the science, the “art” is more difficult to learn. In the investment business, we ask managers to forecast the future. Rarely is a situation black and white. After all, in theory, if all the available information on a stock was clear to all investors, the stock would be correctly priced and there would be no opportunity for a manager to add value. To exploit mispricings, an investment manager must assemble a mosaic using disparate pieces of information and then make a forecast about what will happen in the future. Few investors are truly skilled at this task and can perform consistently well over a long time horizon. We seek to identify those few individuals and investment teams that are skilled in this way.

We also acknowledge that portfolio management is a “batting average” business. In order to succeed, managers must select stocks that outperform the index they are benchmarked against, but the other important aspect of successfully managing a portfolio is minimizing mistakes. In any portfolio, especially one that is concentrated, a small number of good stock picks can make a manager’s year. By the same token, a few big mistakes can wipe out a lot of good work that has otherwise been done in a portfolio. While almost anyone can pick a good stock on occasion, the greatest challenge of investment management is consistently assembling a *portfolio* of attractive securities. Meketa Investment Group seeks to identify strong managers who are consistent batters.

In addition, we have a bias toward managers who place a greater emphasis on protecting investors on the downside, rather than making all of their money in strong “up” markets. Our rationale for this bias is simple math. Over time, if a manager has significant periods of underperformance in “down” markets, much greater outperformance is required in “up” markets in order to compensate. Managers whose first priority is to protect on the downside have a certain mindset. When they evaluate an investment, they think about not only the upside reward, but also the downside risk.

ORGANIZATION

While there is no “correct” way to organize an asset management effort, we believe that the optimal investment management organization has most of the following elements:

1. Focused on a single investment style or a focused team within a larger organization.
2. Appropriately sized for the firm’s assets under management, with a reasonable growth plan and a willingness to close capacity-constrained strategies.
3. Stable, investment driven, independent, and employee-owned (or majority employee-owned).
4. Performance driven with a team-oriented, supportive culture.
5. Organized in such a way to ensure that information flows efficiently so that investment decisions can be made easily and, if necessary, quickly.
6. Financially and operationally sound.

Focus

The first step in our analysis of a manager is an examination of the firm's organization. We prefer investment firms that focus on one investment discipline, like value or growth, for example. Despite what a manager says, too many strategies can dilute a firm's efforts. Just as in industries where innovation and market leadership often come from companies with a singular focus, we value the same degree of focus at investment management firms. The fewer strategies managed, the more time a team can dedicate to security analysis and portfolio management for each product. In our view, a firm that adheres to just one discipline is more likely to be successful.

Size

A firm's investment team should be adequately sized for the products and strategies it manages. Investment teams should not be stretched too thin and should not try to do too much. For this reason, we always inquire about the firm's growth plans. In addition, the size of the investment team must strike a balance between research capability and communicating effectively. The team must be large enough to perform deep due diligence, but small enough to ensure efficient communication among its members. Based on our experience, teams of as little as 3 or 4 are adequate for small cap strategies, while 5 to 15 investment professionals are appropriate for mid and large cap portfolios using a fundamentally based approach. A manager who invests based on fundamental analysis should know what they own in their portfolio and have a solid grasp of why their stocks are attractive. If a portfolio manager or analyst tries to follow too many stocks, knowledge of individual stocks diminishes.

Investment managers should willingly close strategies at appropriate asset levels. There is a significant economic temptation to gather assets at the expense of performance. Closing products early, or leaving them open too long, says a lot about an organization and its stated goal of putting its clients first. When assets in a strategy become too large, we become concerned that the integrity of the portfolio could potentially be undermined. "Asset bloat" in a strategy also indicates to us that a manager's interests are not necessarily aligned with those of our client's. Two common signs of "asset bloat" in a portfolio are a significant increase in the number of stocks and the presence of larger capitalization names in small and mid cap strategies. Both of these changes can potentially lead to weaker relative returns and a deviation from the original client mandate.

Stability

Stability of the investment team is a critical variable in evaluating an organization and sheds light on the firm's culture. High personnel turnover at an investment manager is a red flag and usually signals that there are organizational issues. The backgrounds of senior management can also raise concerns about stability and often determines whether a firm is investment-driven or marketing-driven. Good investment managers prefer to work for investment-driven organizations. Senior managers with investing backgrounds know what kinds of resources are required to build a strong investment firm. They appreciate that investment managers go through difficult performance periods and are savvy enough to stick with people they have confidence in, even though their style may be out-of-favor.

Conversely, our belief is that marketing-driven firms tend to be more benchmark-oriented and often impose constraints on portfolio construction. The directive from senior management is to avoid significant performance deviations so that the firm can continue to grow its asset base.

If a firm is a subsidiary of a larger organization, it is important to always look closely at the parent company. A number of investment firms are owned by banks or insurance companies. During the market meltdown of 2008 and even in today's environment, ownership by a financial services firm is often a liability and may be a potential source of organizational instability. In addition, we want to understand how autonomous the money management subsidiary is from its parent, who is responsible for making important business decisions, and how those decisions might impact our clients.

We prefer employee ownership of investment management firms and a significant personal investment by the manager in the strategy they are responsible for running. Employee-owned investment managers have a vested interest in the firm's success and are more likely to take prudent risks. Broad ownership generally breeds stability, continuity, and teamwork. It also signals an owner, as opposed to employee, mentality. If a firm requires its employees to invest their assets in only the firm's strategies or requires a substantial personal investment, it sends an important signal about the alignment of a manager's interests with those of our clients.

Culture

A firm's culture is critical to its success. We look for firms that are performance-driven, team-oriented, and create a supportive environment for their employees.

The culture of a firm is influenced by whether it is retail or institutionally focused. All managers will say they strive to maximize performance, but if a firm is more retail, as opposed to institutionally, oriented, asset gathering may be of paramount importance. In some cases, a strong distribution network and solid relationships at a retail-oriented firm can compensate for mediocre investment results.

The strongest investment firms we know encourage thoughtful debate and open challenging of ideas. In fact, some firms appoint one person to play devil's advocate and take the opposing viewpoint on an investment idea. Ideas need to be debated, challenged, and vetted. This process only works at a firm where the culture is supportive and where the team is working toward a common goal. In these environments, members of the investment team do not take it personally when they are challenged. In contrast to firms that are genuinely team-oriented, organizations that utilize a "star" system, and do not support their employees, can create an "every man for himself" culture. This kind of culture creates competition among investment professionals, causes high personnel turnover, and can lead to the decline of previously solid organizations.

One of the reasons on-site visits are so important is that they give us an opportunity to observe and assess a firm's culture. Our visits entail meeting with investment team members both individually and together. We are always cognizant of the interplay within the group.

We determine if there is a dominant personality or if the team encourages open debate. We inquire as to why certain members of the investment team have left a firm and often talk to these individuals in order to get a more complete picture of the work environment.

Information Flow

Evaluating the efficiency of information flow within an organization, or investment team, and how quickly managers act on that information is imperative. In today's environment, information is incorporated into stock prices faster than ever before. As a result, we always assess how quickly investment managers are able to act on information they receive in order to capitalize on opportunities they identify.

Information dissemination and how it is processed varies greatly by the size of the organization. At big asset management firms with large central research groups, the flow of information is voluminous. In these situations, there is more opportunity for "leakage" in the flow of information to the decision-makers (i.e., not all of the relevant research may be looked at by the appropriate portfolio manager.) In a well-structured team, the obstacles to information flow are minimal. A focused team of no more than 10 to 15 investment professionals, where information can be exchanged easily through a combination of informal discussions and regularly scheduled meetings, allows groups to synthesize and act upon information more efficiently.

Firms require different levels of analysis to buy and to sell stocks. In some cases, where the team is experienced, has worked together for a long period of time, and where everyone's judgment is trusted, a simple discussion might be sufficient to make an investment decision. At other firms, a 20-page report that has been vetted multiple times through an investment committee can be required. There is no right or wrong approach, as long as the information flows efficiently, is available for decision-making, and, if need be, can be acted upon quickly. What works depends on the style, approach, and culture of the organization.

Soundness

A thorough evaluation of a firm's operational soundness is the final step in our review of a firm's organization. There is not much art in assessing a firm's financial strength and depth of staff in non-investment areas. However, it is important to examine the firm's operating, portfolio accounting and compliance systems, its risk management process, as well as the functionality of client reports.

INVESTMENT TEAM

In addition to understanding the organization, we evaluate the members of the investment team responsible for managing the strategy in order to assess their competitive "edge" and to determine if they will be able to add value in the future. We also want to know how they spend their time and what proportion of this time is devoted to investing. In a profession where intellectual capital is the greatest differentiator between managers, an investment strategy is only as good as the people behind it.

Qualities of Successful Investors

We closely evaluate the background of each member of the team. Specifically, we want to know what motivated them to work in the investment business, what experiences they bring, how they came to the firm, and how long they have worked in the industry and at the investment manager. Very often, an individual becomes interested in the stock market because they had invested their own money and decided to do it professionally. We love to hear the story of the individual who started investing money he earned while he was a teenager and whose only goal in life was to work as an investment manager. People like this tend to be passionate about investing and have the level of enthusiasm required for success in this competitive industry. Rather than “dial it down” after they have achieved financial success, managers who genuinely enjoy investing are more likely to sustain their interest in the markets and managing portfolios. Like many businesses, investment management is intellectually challenging, emotionally trying, and all-consuming. We liken it to running a marathon. It requires mental stamina and inner strength.

In analyzing the members of an investment team, be they portfolio managers or analysts, we look for specific qualities that we believe make a good investor. These qualities include intelligence, inquisitiveness, analytical ability, and natural skepticism. In addition, we like investors who have a command of the details and are able to assimilate lots of information, yet are able to tie this information together and make a decision. We look for individuals whose industry knowledge is deep and who possess the ability to articulate their reasons for buying or selling a stock. We seek out investors who think differently than the consensus, understand why their viewpoint deviates from the mainstream, appreciate how the markets behave, and are cognizant of the way stocks trade. Decision-making skills are especially important because the investment business requires managers to continually make decisions, sometimes quickly and often with imperfect information. A manager must be confident enough to have the courage of his or her convictions, a quality that is especially important when large positions are established in portfolios, while also being a prudent risk-taker.

In addition to these qualities, there are other attributes we find appealing. We prefer managers who possess a little humility and are able to step back from a stock and look at it objectively. Smart and introspective managers understand that the investment business requires ongoing self-evaluation and continuous learning. Ultimately, through the interview process, we seek to understand how a manager thinks about stocks, the stock market, and their portfolio. We want to know the thought process behind why they do what they do. Most importantly, we want to find managers who can tie all the pieces of the puzzle together and who possess great investment intuition.

There is no textbook that instructs us during this phase of manager evaluation. Insights we draw from the interview process come with experience and understanding what money managers really do. These insights are another element of the art of manager analysis.

Team Structure

We spend significant time evaluating how the investment team interacts, their tenure together, and their depth. In some instances, we have found firms where the investment

team has successfully worked together for 10, 15, or 20 years. During this long period of time together, if these teams have generated an impressive track record of consistently adding value, it indicates to us that they likely know how best to execute their investment process.

Although some firms have been successful using the generalist model, we prefer specialization. Based on our experience, we believe there is value in an analyst having expertise in a specific sector and following an industry through multiple cycles. As a result of this focus, it often gives them a research edge and enables the manager to differentiate their research from that of other investment firms. We also value work experience in the industry an analyst covers. Analysts with relevant industry experience, or those who have actually run a business, often bring unique insights and a network of contacts that benefit them when doing research on a company and when making investment decisions.

Our analysis focuses on each individual's role on the investment team. Some firms are portfolio manager-centric, while at other firms the portfolios are driven by the analysts. In a firm that is analyst driven, the portfolio manager should still have a strong understanding of the important factors that drive the stocks owned in the portfolio, even if they delegate the details to the analysts.

Portfolios are often team-managed and, as long as the team is not too large and the decision-making process is not too cumbersome, this approach can work well. On all our on-site visits, we interview several analysts at the firm to assess their industry and investment knowledge. We explore the depth of their knowledge and the rigor with which they analyze individual stocks. This task is best accomplished by asking them about specific holdings in the portfolio or discussing topical industry issues. Based on just our interview, however, we do not know if the analysts we meet with are able to translate their research into successful stock selection. As a result, we review security-level portfolio attribution over multiple time periods to determine who the good stock pickers have been and who has been adding or detracting value. Attribution is a good example of quantitative research helping to validate our qualitative assessment of a portfolio management team.

Compensation and Incentives

In evaluating the investment team, the final topics we examine are compensation structure and incentives. The typical compensation package consists of salary plus bonus, with the latter determined by objective and subjective factors. How compensation is determined will vary with the structure and investment process of the firm, and the role of the individual. Owners of the firm usually receive a pro rata portion of the annual profit. For a portfolio manager, compensation is usually heavily dependent on performance of the strategy they manage. Compensation is commonly tied to performance over multiple time-periods, 1, 3, and 5 years, for example. Rather than rewarding short-term performance (and providing an incentive to adopt a short-term mentality), we prefer that compensation be more closely linked to long-term performance. A subjective component of compensation can also be determined by factors like idea sharing, mentoring, and overall contribution to the firm. We prefer to see elements that incent the portfolio manager to place the interests of the client first, to maximize portfolio performance while taking on an amount of risk consistent with

their strategy, and to contribute to the investment process, as well as the development of the investment team. Importantly, asset growth should be de-emphasized in an investment manager's compensation.

Similarly, we want to see the compensation scheme for a firm's analysts incent them to focus on analysis, stock selection, developing their industry expertise, and contributing to the investment process. Most firms track analyst recommendations. These systems give credit for recommending good stocks as well as for keeping the firm out of stocks or sectors that perform poorly, while penalizing analysts for recommending stocks that detract from performance. Any compensation scheme should incent the analysts to focus on the real portfolios, rather than paper portfolios, and encourage them to work as a team, not as individuals. A team-oriented approach is often reinforced by the culture of the organization. Depending on the investment style of the firm, multiple investment horizons should also be considered, again with an emphasis on longer-term performance.

INVESTMENT PHILOSOPHY

An investment philosophy is a set of beliefs about what factors drive changes in stock prices, what factors cause securities to be mispriced, and how security mispricing can be exploited through active management. A manager's investment philosophy also incorporates their beliefs about what their competitive edge is and how they distinguish themselves from their peers. Collective investment experiences build an investment philosophy, which often evolves over time. In our view, an investment philosophy is the foundation for a manager's investment process.

The majority of investment managers we talk to struggle to explain their investment philosophy. They often do not know what we are talking about. In our manager due diligence work, we try to find managers who have a clear investment philosophy, and who can articulate how they are able to identify undervalued securities and take advantage of the opportunities they uncover. We seek to understand where this philosophy comes from, how it has developed over time, and how the manager identifies and selects attractive securities using their investment process. We also understand that some managers may not have formally thought about their philosophy, and are therefore not able to articulate what they believe. Their philosophy often becomes evident when they explain their investment process and discuss the stocks they own in their portfolio.

The managers we evaluate have a range of investment philosophies. For example, a manager might believe that return on invested capital (ROIC) is the most important measure of value and that there is a positive correlation between the performance of a company's stock and improvements in its ROIC. The firm's investment process seeks to identify companies with improving ROIC and those that have the potential to improve this financial metric. The investment team analyzes companies in great detail and focuses their research on how company managements allocate capital. They consider themselves to be private equity investors in the public market and try to purchase a stock at a discount to the value they believe the company is ultimately worth. The investment team has a defined

philosophy about what moves stock prices and a process designed to take advantage of temporary mispricings.

Another manager may believe that the financial markets are rich with change and that the market continuously presents investors with opportunities from divestitures, restructurings, new management teams, new products, and expanded markets. In addition, they argue that change tends to be greeted with uncertainty, especially in its early stages, and that this uncertainty manifests itself in the form of neglect (i.e., low analyst coverage, negative to neutral stock ratings, and low institutional ownership). When change and neglect are present, the intrinsic value of a company may exceed the current stock price. Factoring valuation into the equation, this firm will invest in stocks characterized by both change and neglect, and where they believe the potential exists for substantial outperformance with lower downside risk. They utilize intensive original research to develop conviction in an idea and try to invest in a company before the rewards of change are realized.

Another element of a manager's philosophy is how they think about the benchmark they are evaluated against. The managers we recommend are either benchmark aware or believe in managing portfolios in a benchmark-agnostic manner. We are biased toward managers who have conviction in their ideas and reflect that conviction by establishing relatively large positions in their portfolios. Academic studies¹ have shown that managers who structure their portfolios in a concentrated manner have a higher probability of generating superior returns. In addition, we favor managers who believe that bottom-up stock selection is the primary source of their excess return.

INVESTMENT PROCESS

Every analysis of an investment manager must entail an examination of how they pick stocks for their portfolio and why they sell stocks from the portfolio. We like investment processes that are straightforward and easy to understand. "Repeatability" is a popular buzzword in the consultant community. Although we want to see consistency in the process, we also appreciate that there is considerable art to investing. A repeatable process, in and of itself, does not guarantee good investment results. It is in the *execution* of the process where managers differentiate themselves and add value. Most managers adequately describe their investment process, but it is *how* they do their research and whether they make the correct decisions with the information they uncover that is most important.

As a starting point, we determine whether the portfolio is bottom-up driven (most are), or if there is a significant top-down element to the process. While most managers find it more effective to pick stocks based on fundamental analysis, every manager must make assumptions about where the economy is headed. If a manager's holdings are spread across many sectors, it provides them with a good window on what is really happening in the economy at a grass roots level. They obtain real time information from talking to the companies they follow and get a sense of where the economy might be going in the future.

¹ See: Cohen, Polk, and Silli; 2009.

This information can then be used to alter the positioning of the portfolio and help to determine what sectors will perform best in the future. For this group of managers, their viewpoint can influence how they construct their portfolio.

Themes can also play a role in how portfolios are managed. These themes can be very broad, like the aging of the baby boomers, or more specific like software as a service. We ask managers who structure their portfolios using this technique to explain some of their themes and give examples of how these themes are expressed in their portfolio.

Idea Generation

With this information as a backdrop, our analysis of the investment process initially focuses on how new ideas are generated and how these ideas find their way into the portfolio. Managers often use quantitative screens as an initial step in the idea generation process. What they screen for depends on a manager's philosophy and investment style. Quantitative screens range from simple factor screens that are applied broadly across a universe, to industry- or sector-specific screens. If screens are an important part of a manager's process and the primary source of ideas, we like to see screens that incorporate industry- or sector-specific variables. These screens are often proprietary and make the process more efficient by helping to direct the research effort.

Many managers do not use quantitative screens as the exclusive source of investment ideas. A minority of managers do not utilize screens at all. In most processes that are based on fundamental research, the analysts are given the latitude to generate potential investment ideas based on their industry knowledge. Ideas can come from a variety of sources and the wider the net is cast, the better. If a firm's investment team consists of experienced analysts, they usually understand their sectors well and constantly monitor a list of companies in their areas of coverage. Analysts should know the companies in their universe, have a list of stocks they may be interested in purchasing, and monitor the price action of these candidates to see if they become attractive. They should be attuned to developments that influence the stock prices of companies within their universe. These developments may create investment opportunities or cause the analyst to recommend sale of a holding.

Stock Analysis

In the traditional model, once the manager has narrowed the opportunity set and has identified a list of candidates (an on-going process), the manager conducts fundamental research. The investment business is information rich and we prefer managers who thoroughly research potential investment ideas. We believe that superior managers generally perform intensive due diligence and their level of understanding of the businesses in which they invest often gives them a research edge. We want to make sure they know what they own in their portfolios.

Many managers fall into the trap of always listening to what the senior management of a company is saying. The best investors we know do not rely on what they are told, are naturally skeptical, and incorporate multiple viewpoints and opinions on a company and an industry into their analysis. When conducting their research, we like to see analysts go

outside of management to gather information. This entails talking to suppliers, customers, and competitors. This work is an important part of examining a company's industry position and the competitive environment in which it operates. Many managers claim they do this kind of work, but they often do not. Based on our experience, we know that this kind of "in the trenches" due diligence is very time-consuming, but can be very beneficial in completing the research mosaic. We press managers on whether they really do this kind of work and, as a result, often learn that their due diligence is not as thorough as they profess.

Once this information has been assimilated, the next steps are to create a proprietary financial model, assess the valuation of the equity, and establish an investment case for the stock. Some managers derive a target price for the security within a specific time frame, though some do not because they believe price targets can change or they view a stock's valuation relative to the market or peer group. Using the price target or their estimate of intrinsic value, the reward to risk tradeoff is usually assessed. By acquiring information from multiple sources and by combining quantitative and qualitative analysis, managers create an investment "mosaic" from the different pieces of information they accumulate. We seek to understand how this mosaic is created, what distinguishes a manager's research from their peers, and how they gain a competitive edge.

We like the "multiple eyes" approach to research. This approach is indicative of a manager who is thoughtful in how they make investment decisions. Although one individual often champions an idea and does the work, our experience has been that multiple viewpoints about an investment increases the amount of information the team uncovers and adds additional rigor to the analytical process. Multiple members of the investment team may get involved in the analysis at different stages of the research process. We look for firms that encourage peer review and healthy debate.

We believe that good equity managers will accumulate information from multiple sources and viewpoints. For example, some equity managers find that input from the bond market can be useful and they incorporate this information into their equity analysis. Similarly, evaluation of a company's balance sheet, and especially its capital structure, can be very important. We also want to know if a manager uses technical analysis in their research process. Many fundamental managers do utilize some technical analysis, though it usually does not drive the process. We think this is a smart thing to do because it is another input to the mosaic the manager is developing and a potential source of information.

The investment horizon of a manager is an important consideration. Many market participants are extremely short-term oriented and just focused on the next data point. Information is incorporated into stock prices faster than it ever has been before, forcing some managers to shorten their investment horizon. While the investment horizons of the managers we recommend to clients vary, we have a bias toward long-term oriented, low turnover investors. In today's market environment, a long-term perspective differentiates a manager and can enable them to add value through time arbitrage (i.e., being patient). A low turnover approach also minimizes trading costs, a hidden expense to investors.

Decision-Making Process

Once the research on an idea has been completed, an investment decision must be made. Ultimately, successful active management requires exercising good judgment. Thorough research does not guarantee success; though with any luck it increases the chances a manager will make the correct call. We always want to know how managers make investment decisions and who makes them. A portfolio manager, a group of portfolio managers, or an investment team, can make the investment decision.

Usually, an investment idea is either presented to a broad group, vigorous discussion ensues, and a consensus is built, or an analyst presents the idea directly to a portfolio manager and a decision is made. Very often, questions are raised about an idea and the idea's sponsor will be required to do additional work. We always ask managers how they resolve disagreements. Interestingly, many managers who use a team-based approach tell us that they effectively build a consensus most of the time. While surprising, consensus building occurs because experienced groups anticipate other members' reactions. Unappealing ideas tend to be declined before they make it to the full group level.

We prefer to see some structure to the process in terms of formal meetings and material required to evaluate an idea, though we appreciate the importance of ad hoc discussions and decision-making in an ever-changing investment world. Most investment teams meet formally at least once a week to review the portfolio and to discuss new ideas, as well as existing holdings. We always ask if we can come to this meeting to see firsthand what occurs. Writing requirements vary by firm, as do the depth of earnings models. From a process standpoint, we recognize that investors have varied styles and many different approaches work. What is important to us is that investment ideas are thoroughly researched and vetted so that a high level of conviction is built in each one. We also want the decision-making process to be efficient and responsive to changing dynamics in the market.

RISK MANAGEMENT AND PORTFOLIO CONSTRUCTION

Managers think of risk in different ways. Some managers think of risk in an absolute sense and try to minimize the chances of a permanent loss of capital. Many managers consider risk on a relative basis. In this case, they size individual positions relative to the stock's weighting in the relevant benchmark. Industry and sector weights are also evaluated in relation to the index they are trying to outperform. We do not view benchmark awareness as a negative, but it does shed some light on how a manager thinks about and constructs their portfolio.

Most of the managers we research tell us that their portfolios are "bottom-up" driven. This means that the selection of individual stocks creates the portfolio. A manager's level of "conviction," which means their confidence level in the potential reward and risk of a stock, very often drives the size of the weightings.

When evaluating managers, we calculate the "active share" of their portfolio. "Active share" captures the difference between portfolio holding weights and the index weights. This

calculation is a quantitative measure of a manager's conviction level. The higher the percentage, the greater the active share, and the greater the conviction a manager expresses in relation to the index.²

Even though many of the managers we evaluate do a lot of good research work before the investment decision is made, no one's crystal ball provides perfect clarity. As more information becomes available and a thesis plays out as expected, their confidence level may increase and they may purchase more of the stock. The price action of a stock may also influence position size. Many managers use increased market volatility to trade around positions, trimming successful stocks and adding to other high conviction ideas.

Adherence to a sell discipline is an important part of risk management. Good managers continually review the investment case for a stock and evaluate it in the context of an ever-changing stock market, economy, political regime, and regulatory environment. Most managers will say that they sell a stock when its price target is reached, when the fundamentals deteriorate and the investment thesis is undermined, or when they need the money for a better opportunity.

We are always interested in understanding how managers handle "mistakes." Some managers are quick to sell, while others wait for a bounce before selling. Competent managers will re-evaluate the situation based on the new information that has become available and make a decision on a thoughtful course of action. If a manager knows a company well, they can make this assessment quickly. Some managers use specific percentage price declines (i.e., 20%) as a reason to automatically review a stock. The investment case is revisited, often by a different individual than the person who recommended the stock originally, and a decision is made to either sell the stock or increase the size of the position. We like this "fresh set of eyes" approach. Adhering to a disciplined process forces the manager to test their level of conviction.

We ask a manager to discuss mistakes they have made, what they learned from these experiences, and how what they learn gets incorporated into their thought process going forward. One advantage of working with experienced managers is that during their tenure managing money, they have learned many important lessons from both their losers, as well as from their winners. These lessons often lead them to establish investment "rules" they utilize to manage their portfolios. For example, a rule might be to never invest in a bad business no matter how good the management is or to avoid investing in companies with a concentrated customer base. We are heartened to hear from people who have been in the business for forty years that investing is a process of on-going learning, even after many decades. We prefer managers who practice self-evaluation and analyze their mistakes, revisit their thought process at the time of their decision, and apply those lessons in the future.

² Cremers, Martijn, and Antti Petajisto. "How Active is Your Fund Manager? A New Measure that Predicts Performance." Yale IFS Working Paper No. 06-21.

In portfolios that have a large number of stocks, most managers will tell us they control risk through diversification and by imposing constraints on their holdings in each sector relative to the benchmark. Many managers also use portfolio analysis tools to quantify factor exposures, though these models tend to be backward looking. Good managers will articulate this weakness and recognize that these kinds of software packages are just helpful tools. Ultimately, the success of any manager is determined by their security selection.

PERFORMANCE ANALYSIS AND FEES

Just because a manager has performed well in the past does not guarantee they will be able to continue to do so in the future. We do feel that if we can find strong organizations with bright, motivated, knowledgeable, and experienced people, combined with a history of long-term, consistent success, we significantly increase the chances that managers we recommend to clients will add value in the future. If we are correct in our assessment of the quality of the organization and the people, then the performance should follow.

In addition to assessing managers on a qualitative basis, portfolio performance over multiple time horizons is evaluated. We review calendar-year results over as long a period as possible. We also examine rolling time periods to eliminate the impact of end point bias. We do not expect a manager to outperform the relevant index every year, but we do believe they should outperform over a full market cycle. What we are looking for is consistency. In addition, we analyze each manager's risk-adjusted returns. We want to make sure that investors are being compensated for the risk the manager is taking. For each manager, we also look at the standard deviation, beta, tracking error, and correlation with the benchmark. Our analysis of upside and downside capture gives us a sense of which managers can be expected to perform well in up and down markets. We have a bias toward managers who protect their clients on the downside because of the compounding effect of returns over time.

We evaluate the portfolio holdings of each manager to verify their investment style, to assess where their biases are, and to determine where they have been able to add value. We always look at security-level performance attribution for each portfolio over multiple time periods. This analysis tells us exactly what helped and hurt the portfolio. Security level attribution also highlights the industries in which a manager is particularly adept. Most of the managers we research profess to be strong stock pickers, so the majority of their value-added should come from stock selection.

We also look at the distribution of returns within the portfolio. For example, during 2008, financial holdings detracted from the performance of many value managers. They might have been hurt by only a handful of stocks, but the magnitude of the losses in those holdings was so great that the impact overwhelmed the rest of the portfolio. In most years, managers will have a handful of winners too, but 2008 was a difficult year to make up for big losers. Avoiding losers, or minimizing their impact, is an important part of managing a diversified portfolio and is even more imperative in concentrated portfolios.

The final step in our analysis is evaluating an investment manager's fees and the expenses they incur in managing the portfolio. Minimizing fees and expenses is important because these costs reduce the return to an investor. This effect can be very pronounced over time, so we seek to negotiate lower fees whenever possible. In addition to the standard asset-based fee schedule, we often ask managers to provide a performance-based fee schedule that might better align the interests of our clients with those of the manager. Trading costs are another hidden expense to investors and must also be evaluated. In general, portfolio managers with higher turnover, trading small capitalization, less liquid stocks, will incur the highest trading costs.

CONCLUSION

Manager analysis and selection requires considerable experience, an understanding of what investment managers really do, and the ability to evaluate information from multiple sources. We employ a consistent analytical framework and develop a thorough understanding of a manager's organization, investment team, investment philosophy, and investment process. Through our interactions with numerous managers, we are able to compare and contrast these elements across a broad spectrum of investment firms and strategies. During our tenure evaluating managers, we have identified attributes we like to see in the managers our clients hire. While we incorporate quantitative analysis into our evaluation process, we emphasize assessing the qualitative aspects of money management. Through the evaluation process, our goals are to identify and to select managers who have:

- Strong, stable organizations and focused investment teams
- A clear, well articulated investment philosophy
- A straightforward investment process that is consistent with their philosophy
- A thorough understanding of their portfolio and appropriate risk controls
- A demonstrated ability of generating attractive long-term returns above the benchmark at an appropriate level of risk

If we are correct in our evaluation, we should be able to identify superior investment managers who have a high likelihood of producing attractive risk-adjusted returns for our clients in the future.