INVESTMENT BELIEF SYSTEMS[1]

A CULTURAL PERSPECTIVE

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Introduction

Investment management is a judgment-rich endeavor. The major components of managing an investment program – determining objectives, finding and exploiting opportunities, and evaluating the extent to which objectives have been achieved – all involve judgment as much as data. Judgments in turn are framed by one's system of beliefs about how the investment world works. Given this, it seems worthwhile to ponder where our beliefs come from, to assess their validity, and to attempt to improve them as opportunities exist to do so.

Not all beliefs are conscious. Some beliefs are taken for granted and have receded into the back of our minds until something draws our attention to them. Unconscious beliefs can have a significant impact on our decisions because they are unexamined. While I doubt we can ever become fully conscious of our beliefs, there are things we can do to become more conscious of them and to refine them over time. My goal in writing this chapter is to draw attention to the importance of beliefs in investment management and to suggest that active management of one's belief system can make one a better investor. Specifically, I will

- Illustrate by example that beliefs can be a determining factor in investment decisions and strategy.
- Discuss the unconscious aspect of beliefs, especially the role of culture in determining unconscious beliefs.
- Show how a cultural perspective on beliefs can illuminate investment behavior that otherwise seems puzzling.
- Offer some suggestions on how to make beliefs more conscious and deliberate.
- Argue that a key part of evaluating an investment manager is assessing the manager's belief system.

BELIEFS ARE COGNITIVE PHENOMENA. HOWEVER, THEY ALSO HAVE A CULTURAL ASPECT.

Section I begins with some basic concepts and definitions. Section II illustrates the centrality of beliefs and culture using two examples drawn from my consulting experience: liability-driven investing and equity style analysis. Section III addresses the management of belief systems, including how beliefs can be made more conscious and deliberate. Section IV addresses the role of beliefs systems in evaluating active investment managers. Section V summarizes the chapter.

Beliefs, Belief Systems, and Culture

A *belief* is a hypothesis one holds to be true. A *belief system* is an accumulated set of beliefs and the process by which this set changes in response to new information and ideas. Beliefs and belief

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systems are *cognitive* phenomena, and as such, reside within the minds of individuals. However, because beliefs tend to cluster within groups – such as organizations, occupations, or societies – they can also be understood as *cultural* phenomena. [3 4 5]

Beliefs differ from each other in the extent to which they are supported by evidence. Some beliefs are in obvious conflict with evidence (e.g. housing prices only go up), and others are solidly supported by evidence (e.g. bubbles eventually pop). In the middle is a vast array of potential beliefs which have varying degrees of plausibility (e.g. the expected equity risk premium is 3%, standard deviation is a good measure of risk, active management is more likely to succeed in inefficient asset classes, etc.) Investment management primarily operates within this "broad middle", where facts do not unambiguously lead to one conclusion or another, where one must make judgments which are framed by a belief system.

A KEY CHALLENGE OF LEADERSHIP IS TO FIND A BALANCE BETWEEN CULTURAL PRESERVATION AND CHANGE.

Beliefs also differ in the process by which they are acquired. Our experiences growing up, our professional training and organizational affiliations, our mentors and role models, and our successes and failures all influence our beliefs. Indeed, the whole sum of our accumulated experience contributes to our beliefs and the process by which our beliefs change in response to new experiences.

Culture is a particularly important determinant of beliefs. Culture can be understood as a shared set of not fully conscious assumptions that shape the behavior, attitudes, and beliefs of a group of people, including beliefs about what to pay attention to, what is "real", and what "works". Culture is a property of any group that has had a sufficient history, including organizations, occupations, societies, ethnic groups, and sub-units of these groups.

A particular culture emerges in a group because it serves a function for that group. Once established, culture tends to recede into the background – assumptions which are shared are not challenged – and becomes change-resistant. The stability of culture can be an asset if the environment is stable, but may become dysfunctional if the environment is rapidly changing. In such an environment, a key challenge of leadership is to find the right balance between preservation and adaptation. In an investment context the challenge is to find the right balance between longstanding, taken-for-granted practices and new approaches based on insights into the rapidly changing environment. This is the Noble Challenge, and belief systems are front and center.

Investment Belief Systems in Action

This section illustrates the power of culture and belief systems in investment management using two examples from my consulting experience, liability-driven investing (LDI) and equity style analysis.[6]

[3] The concepts of beliefs and belief systems used in the chapter are strongly influenced by Dennett (2006) and James (1896).

[4] The treatment of culture is adapted from Schein (2004). Schein's concept of culture is similar to that of Ware (2004). For both Schein and Ware the less visible aspects of culture (shared assumptions, beliefs, and values) determine the more visible aspects (behavior and artifacts), making it hard to change visible culture without surfacing the less visible elements. Schein is especially focused on shared unconscious assumptions as the most fundamental aspect of culture, but both agree that surfacing the less visible is necessary to manage the visible.

[5] Several times I have been asked how this chapter relates to the behavioral finance literature. I don't have a very complete answer at this point, but I do think that the cognitive concepts I use resemble those of Kahneman (2003), and could probably be reframed to more closely resemble Kahneman. I am not aware, however, of any strand of the behavioral finance literature that uses the cultural framework of Schein as I do. Nor am I aware of any strand of behavioral finance which is guided by the clinical methodological perspective as this paper is (see next footnote.) Ware, et al (2004, 2006) probably comes closest on both the cultural perspective and the clinical methodology. His work is not, to my knowledge, considered part of the mainstream behavioral finance literature, though perhaps it should be. I think the behavioral finance enterprise has much to gain by incorporating the cultural and clinical perspectives into its tool kit, and I hope this paper and Ware's work spark some interest in doing that.

[6] For the methodologically minded: the development of these examples was strongly influenced by the clinical perspective in fieldwork articulated by Schein (1987). The clinical perspective is defined in counterpoint to the ethnographic perspective. An ethnographer enters a human system as a "participant-observer" and tries very hard to not change the system being studied – the idea being that if you change it you are no longer getting clean data on the system. A clinician, on the other hand, enters a human system specifically in order to help members of the system solve problems. Schein argues that clinicians are often in a better position to gather cultural data than are ethnographers – the idea being that you can never really understand how a human system works until you try to change it. Schein also points out that many real-world work situations provide opportunities to act as a clinician even when one's role is not explicitly so defined. In my fifteen years experience in the pension consulting industry, I have often found this to be true.

Economic and Accounting Views of Liability-Driven Investing

When I talk about LDI[7] with my fellow economists, we take it as given that the accounting rules[8] for valuing pension liabilities are largely irrelevant to assessing the merits of LDI. We have all been trained to have a keen eye for the potential of "accounting illusion" – situations where accounting fails to adequately reflect the economics one is analyzing. In such situations our professional conditioning calls for decisions to be based on the best assessment one can make of the economics, and not on distortions introduced by poor measures of those economics. An implication of this perspective is that the attractiveness of LDI does not hinge on its accounting treatment.

THE POTENTIAL BENEFIT OF LDI DOES NOT HINGE ON THE ACCOUNTING TREATMENT OF LIABILITIES.

Accounting may make the benefit of LDI more or less transparent, but the benefits are still there even when the accounting treatment masks that benefit. The fact that some plan sponsor types (public and Taft-Hartley in the US) do not mark liabilities to market has little to no bearing on the potential benefits of LDI for those plans, in an economist's view.

A different perspective emerges if one talks to people responsible for administering public or Taft-Hartley funds. Numerous times I have heard such plan sponsors express frustration with money managers and consultants (presumably trained as economists) who want to talk to them about LDI. "Don't they know we are a public fund?" they scoff, or "Don't they know public funds don't mark liabilities to market?" The context of these questions is typically one where the plan sponsor is citing the LDI overture as an example of how clueless some money managers and consultants are about the objectives and problems of public or Taft-Hartley fund management.

Whether or not to hedge liabilities is one of the most significant decisions an investor makes. Yet here we have two diametrically opposed views, not because of any dispute about facts, but seemingly because of *beliefs* about the relative importance of economic and accounting frames of reference, beliefs which the holders may not even be aware of.

Here's what we can learn from this:

> **Beliefs matter.** The outcome of major investment decisions can hinge on beliefs as much as on facts.
>
> **Beliefs are not always conscious.** The beliefs which determine decisions may be so ingrained that the holder of the beliefs isn't aware that he or she is acting on a belief.
>
> **Beliefs tend to cluster in groups** (such as occupations) where they are reinforced by the social validation of others in the group holding the same beliefs.
>
> **The behavior and points of view of people in a different group with different beliefs can be quite puzzling.**

The LDI example is fairly straightforward. In some situations the role culture plays in determining beliefs is more nuanced, and can involve not just different cultures, but multiple subcultures in a single organization, multiple cultural identities in a single individual (e.g. an individual can be a member of a profession, an organization, and a society, all of which have different cultures), and a changing mix of these things over time. The following example attempts to capture some of these complexities.

[7] The phrase liability-driven investing means different things to different people. I use it to mean investing which treats a liability-mimicking asset portfolio as the risk-free benchmark against which all risk exposures are measured. LDI does not necessarily involve selecting the liability-mimicking portfolio, but it can. The commonly held view that LDI means holding a long duration bond portfolio identifies the term with a particular way of implementing LDI rather than with the approach broadly defined.

[8] I use the term "accounting rules" broadly to include valuation rules for funding purposes.

A Cultural Interpretation of the Relationship between Investment Managers and Consultants: The Case of Style Boxes

Many times I have evaluated value managers whose strategy might be summarized as follows: purchase stocks of companies which are fundamentally troubled, but where the manager believes a catalyst is present which will turn the situation around and that catalyst is not yet priced into the stock. Then hold such stocks until either the thesis has played itself out, or it becomes apparent that the thesis is unlikely to play out.

STYLE BOXES CAN CREATE PERVERSE INCENTIVES FOR MANAGERS.

I was new to the industry the first time I encountered such a manager. The manager came to my attention because she showed up in a holdings-based style analysis having migrated from value to growth, and this set off alarms regarding "style discipline". The manager had very good performance, and this happened during a period of time when growth was outperforming value, so on the surface it looked like the manager had broken her value discipline because growth was where the returns were.

A closer examination of the portfolio revealed that the manager had very little turnover during this period, and that the stocks which were now plotting as growth had plotted as value when the manager bought them. All that had really happened was that the manager was correct with many of these stocks: earnings were up and price even more, and the stocks starting plotting as growth stocks. She was able to explain the original investment thesis for any stock I asked about, and for those she still held, justify that the thesis was still intact. This led me to suspect that the style-box program I was using just wasn't subtle enough to accurately capture the manager's style, and that the style was in fact consistent through this period.

When I discussed my concerns with the more senior consultant with whom I worked on this account, he dismissed my interpretation. He claimed the style analyzer was "objective" whereas the manager's explanation was "spin". He told me that when I get a little more experience I will learn to be more skeptical of charming managers who will "say whatever it takes" to win or keep the business.

I have seen variants of this scenario play out many times, from both sides of the consultant-manager divide. The situation looks somewhat different from the manager's perspective. Not only are these situations very frustrating, but ironically, they can lead managers to make difficult decisions between staying true to their investment style or changing their style to conform to a consultant's notion of style discipline. I know of several cases where managers' product development efforts reverse-engineered consultants' evaluation criteria, and effectively said "Who are we to question what the market wants? If the market wants style boxes instead of superior returns, we can do that."

Some comments on and lessons from this example are:

Consultants and managers can have very different beliefs about what is important, about what information is valid, and about what kinds of information define a manager's style. Consultants are concerned with classification of managers so that performance can be assessed relative to a benchmark or peer group and multi-manager portfolios can be constructed to ensure a certain spectrum of market coverage. "Style consistency" for the consultant means having stable measures for those financial ratios that define style boxes. Managers are primarily concerned with exploiting their skill to find undervalued securities, and the intersection of skill and opportunity does not necessarily produce stable financial ratios through time. To many managers it is puzzling why that should be important.

A key mechanism by which culturally-based belief systems sustain themselves is the socialization and sorting of new members of the cultural group. An important part of this can be the "stripping down" of new members who, often inadvertently, violate the norms of the culture. Such new members will usually either adapt to the norms or exit the group, so that surviving members of the group share the norms, and validate them for each other. This sorting and subsequent social validation is a key reason why cultures resist change.

Social validation of a culture's beliefs does not necessarily mean that such beliefs contribute to the economic competitiveness of the culture. In the case of style boxes, a key dysfunction derives from the fact that they encourage uneconomic buying and selling of securities. For example, our value manager may feel pressed to sell a stock before the thesis has fully played out to insure that she still plots in her style box. This creates an incentive for managers not constrained by style boxes (e.g. hedge funds) to pick up the money left on the table by style-box managers. Although there are presumably many reasons for the rise of hedge funds in recent years, one reason may be the opportunity for flexible, skill-based investing left unexploited by managers constrained by style boxes. The poor performance of tightly constrained portfolios also puts pressure on the business model of consultants advocating such approaches. Interestingly, many consultants formerly constrained by the style box framework have now embraced "alternatives" due to their superior risk/return characteristics.[9]

CLIENTS AND CONSULTANTS CAN INFLUENCE THE CULTURE OF AN INVESTMENT MANAGEMENT FIRM.

Holdings-based style analysis is extremely useful, but the rigid use of it can be a crutch. I probably would never have come to understand the value manager described above as well as I did if holdings-based analysis didn't raise some questions for me. However, one has to wonder if the prevalence of rigidly-defined style boxes is due to their giving consultants a sense of purpose, a "substitute problem" if you will, which diverts attention from the fact that the real problem – finding talented investment managers and building sensible portfolios of them – is in some cases beyond the consultant's reach.[10]

The balance of cultures in a money management firm can be influenced by consultants and clients. It has often been noted that some investment management firms have an investing culture and others have an asset-gathering culture. I think this is an accurate observation, but I would add that some investment firms have both an investing subculture and an asset-gathering subculture existing in tension with each other. While one will likely dominate at any point in time given the direction from the top, as a firm's environment changes, there may be opportunities for the latent subculture to assert itself. Consultants and clients, as key elements of a manager's environment, are in position to influence the balance between subcultures. I believe that a rigid adherence to the style box framework on the part of consultants tips the balance of money manager cultures towards asset-gathering.

Managing Belief Systems

As time proceeds, beliefs are continuously put to the test. We are constantly immersed in new data and ideas. And, if we are fortunate, we encounter people who challenge our views. These situations present us with opportunities to reevaluate and perhaps refine our beliefs. Different belief systems respond in different ways to these opportunities, and we can classify them accordingly[11]:

A fixed belief system is one that does not consider new ideas and data, either because it is blind to them or because it responds defensively to them.

An adaptive belief system is one that is aware

[9] Unconstrained investing has its own challenges, not the least of which is the risk that managers and consultants will operate outside their skill set. Another challenge is determining the appropriate benchmarks for evaluating performance.
[10] A possible middle-ground between rigid style boxes and unconstrained investing is discussed by Surz (2008).
[11] This classification is influenced by Senge (1990) and Argyris and Schon (1978).

of new ideas and data and is open to learning from them.

A **proactive belief system** is one that explicitly seeks out new ideas and data with the purpose of improving beliefs over time.

Because investment management is judgment-rich and rapidly changing, there would seem to be little place for fixed belief systems among investment professionals. Not that stable core beliefs aren't an asset – they most certainly are – but even core beliefs should be open to examination

EXPOSURE TO DIFFERENT CULTURES CAN DRAW ATTENTION TO UNCONSCIOUS BELIEFS.

and should sometimes be refined. Also, the process of building stable core beliefs may benefit from periods of experimentation.

Below I discuss three aspects investment belief system management: self-awareness of one's beliefs, the relationship between investment theory and investment beliefs, and the role of evidence in managing beliefs.

Enhancing self-awareness of one's beliefs.

Because our beliefs are in part unconscious, management of them first involves becoming more aware of them. Three ways of doing this are:

Attempt to write your beliefs down.[12] Ambachtscheer (2007) encourages investment professionals to write an "Investment Belief Statement" and to have as a centerpiece of the statement one's views on the determination of expected returns; for example, do you believe the equity risk premium changes over time and are these changes predictable? I would add that any belief that shapes your decisions should be included. For example, do you believe there exists an economic reality distinct from accounting measurements? Do you believe style boxes are a useful way of organizing an investment program? Do you believing in active management? If so, under what circumstances?

Become introspective when you are surprised. Our expectations are generated by our belief systems. Every time we are surprised by the outcome of an investment, or by what happens in the markets even if it didn't effect our investments, it means our belief system missed something, and this provides us with an opportunity to reflect on and perhaps refine our beliefs.

Expose yourself to different cultures. Because people in the same culture have similar unconscious beliefs, they are less likely to challenge each other's most fundamental beliefs than are people of a different culture, especially if the different culture has its own well-developed views on a topic you care about. For example, as a financial economist I find my beliefs about liability valuation are challenged and refined by my discussions with actuaries, even though I continue to disagree with them on some points.

Cross referencing one's beliefs with investment theory is another useful device for enhancing self-awareness. This is a big enough topic to warrant its own subheading.

Using investment theory to refine your belief system.

Investment theory is part of the professional tool kit. Not that one should automatically "believe" theory, but a professional should be aware of what it can and cannot do, and use it effectively in those situations where it is applicable.

It is useful to distinguish two types of theory. Some theory is what one might call "bedrock theory" – theory that it would take an earthquake to move. Most bedrock theory is not open to inter-

[12] It is important to distinguish between an individual writing beliefs down for the sake of clarifying them and an organization publishing a statement of beliefs. As noted earlier, beliefs are cognitive phenomena residing in the minds of individuals. The members of an organization may share beliefs or may not. Even if we assume they share beliefs – or act as if they do because of strong leadership – what is written in a statement for external consumption may or may not reflect the actual beliefs of the organization. Often these statements reflect aspirations of the organization and/or how it would like to be perceived, which can be different than the beliefs that actually exist within the minds of the members of the organization. While creating external statements is a very worthwhile exercise, as is the study of them (Slager and Koedijk (2007)), such statements serve a different purpose than that of an individual writing down beliefs as part of a process of self-discovery.

pretation by a belief system. For example, the idea that diversification reduces risk has a status close to that of fact, as do many similar principles. Bedrock theory is very useful, but it does not tell us specifically what to do. It can be thought of as a set of guardrails which keep us from going off the road should our thinking go astray. The big decisions – where to drive, if you will – are still strongly influenced by judgment, judgment which derives from our belief system and the interpretation of all that we deem to be relevant.

INVESTMENT THEORY IS PART OF THE TOOL KIT. PROFESSIONALS SHOULD KNOW WHAT IT CAN AND CANNOT DO.

A different type of theory is the conceptual framework. These theories help professionals think a problem through, help us focus the issues needing judging, and help us identify data which would be useful to gather. Of particular interest for investment professionals are what economists call "irrelevance propositions". These are theories that take the form: "if a certain set of conditions are satisfied, then X doesn't matter". For example:

- The theory of perfect competition specifies conditions under which economic profits for the producers in an industry are zero.
- Efficient market theory specifies conditions under which excess returns from active management are expected to be zero.
- The Modigliani-Miller theorems specify conditions under which a firm's capital structure and dividend policy don't matter.

At first blush these theories may not seem useful for the business person or investor since they all seem to imply that the items of interest – profits, excess returns, financial policy – either don't exist or don't matter. Yet all of these theories are extremely valuable as "inversions" – if you have a list of conditions under which something is irrelevant, the inverse of these conditions constitute the reasons the item matters. For example, Porter's (1980) five competitive forces are a restatement of the list of conditions which imply zero profits. This inversion of competitive market theory takes an unstructured problem – how to formulate a strategy for a business – and narrows the focus to five key questions which must be explored and judged. Efficient market theory can play a similar role in investment management, as I will discuss in section IV. The take-away at this point is that a theory doesn't have to be "true" to be useful. Often the mere logical structure of a theory brings focus to the issues one must judge, and using theory in this manner is a key tool of belief system management for investment professionals.

The role of evidence in managing belief systems

The whole reason investment decisions must rely on beliefs is that we don't have enough information to determine the best course of action unambiguously. So we rely on our beliefs to fill in the gaps. Every time we experience the results of actions which were guided by beliefs, we get feedback which enables us to judge how well our beliefs filled in those gaps. An adaptive belief system pays attention to this data, and modifies beliefs as appropriate. For example, I suspect that in the last year many investment professionals have refined their beliefs about the potential for forced de-levering to damage the economy and investment returns.

While learning from experience – i.e. having an adaptive belief system – is an essential aspect of belief system management, proactive data gathering on those issues we have identified as needing judging and using that data to narrow the range of uncertainty – a proactive belief system – allows for even more powerful belief system management. Since this is the kind of belief system management one likes to see in an active investment manager, I discuss this further in the next section in the context of evaluating belief systems.

Evaluating Belief Systems[13]

When I evaluate an active investment manager, I usually try to uncover what I can about the man-

[13] Some of the material in this section first appeared in Minahan (2006).

ager's belief system, for two reasons. First, an active investment process is designed to exploit a manager's beliefs about how superior performance is generated, so understanding the manager's beliefs is central to judging the manager's investment process. Second, I want to know how proactive the manager is about using the available tools to self-assess his investment process and beliefs. At the very least I want to see managers with adaptive belief systems, and if they are proactive, all the better. While I don't have any hard evidence that adaptive or proactive belief systems affect performance – perhaps some data gathering is appropriate here – I have more confidence in managers that actively wrestle with learning and improving using whatever tools they can get their hands on, formal or improvised.

AN ACTIVE INVESTMENT PROCESS EXPLOITS A MANAGER'S BELIEFS ABOUT HOW GOOD PERFORMANCE IS GENERATED.

Talking about beliefs is difficult. Most managers are not accustomed to doing it in a substantive way. Consequently, approaching the topic directly ("So, what are your investment beliefs?") will likely generate superficial responses. It is better to let the manager tell his story on his own terms, and then seek opportunities to ask follow-up questions which flow from the manager's story, but which also serve the purpose of shedding light on the manager's belief system. Often, simple questions such as "why do you think that?" or "why do you expect that to continue?" can go a long way to uncovering a manager's beliefs. Other times using concepts from capital market theory to frame one's questions increases the mileage of the inquiry.

However the conversation goes, in the end I would like to have a sense for the content of the manager's beliefs and for the process by which the manager manages his beliefs. Let me discuss each:

Evaluating belief content

Every now and then I meet a manager whose beliefs seem to violate bedrock theory. For example, some managers pursuing a high dividend yield strategy cite the "compounding power of reinvested dividends" as a reason for expecting them to generate superior performance, as if dividends somehow compounded more effectively than capital gains. As Alfred Rappaport (2006) has so eloquently pointed out, as a purely mathematical matter, it is total returns that compound; the division of returns between capital gains and dividends, all other things equal, has no impact on how returns compound over time.[14]

So when I listen to a manager making his case, one of the questions I am alert to is, does the manager's case seem to rest on any violations of bedrock theory? If it does, after making sure I haven't misunderstood the manager, I usually dismiss these managers without a second thought. Of course there is always the possibility that it is merely the marketing pitch that violates the bedrock, and that I may reject a good manager because of poor marketing. But I am not worried about this. Having a marketing strategy that is at odds with what the manager actually does is itself a sign that something is wrong with the organization. No point in wasting time – on to the next manager.

With managers that get past the "no-bedrock violations" screen, I would like to have a sense of the managers' beliefs on the following:

- Where do superior opportunities come from? What is it about the workings of capital markets that cause some opportunities to be available for less than they are worth?
- What is it about the manager that allows him to pick up these opportunities before someone else bids the price up?
- How does the opportunity set change over time? What are the underlying causes of opportunities changing over time? What is the manager's view on his own possible need to change in response to a changing opportunity set?

[14] There may indeed be reasons to like stocks with a high dividend yield, but compounding power is not one of them.

I find efficient market theory extremely helpful in guiding an interview so as to uncover answers to these questions (assuming the manager has answers). More specifically, I find *inverted* efficient market theory helpful.

Although there are several variants of efficient market theory, the basic idea is that the process of trading on information or a point of view causes that information or view to be reflected in asset prices, and once reflected in prices, the information can no longer be used to generate superior returns. The inverse of this statement is this: "If a manager is to generate superior returns he must be able to trade on value-relevant information or perspectives before that information becomes reflected in price." This is the value of efficient market theory as a logical construct. It simplifies all the possible reasons for superior performance into one focused question: how does the manager trade before his perspective or information is reflected in prices?[15]

A MARKETING STRATEGY AT ODDS WITH WHAT THE MANAGER ACTUALLY DOES IS A SIGN SOMETHING IS WRONG.

Ultimately, every coherent belief about how to generate superior returns ought to be able to be translated into a reason why the manager can trade before his information or perspective is reflected in price. If the manager cannot make this translation, I am inclined to assume the manager doesn't have a coherent belief system. [16] [17]

Sadly, most traditional managers I interview are unable to credibly explain how they trade before their perspective gets into prices. Many managers appear to not even think in these terms, but instead focus on exploiting past patterns (e.g. "low price-book always works in the long-run") or buying "Mom and apple pie" stocks (e.g. "we only buy the highest qualities companies, the companies that made America great"). There is nothing necessarily wrong with attempting to exploit past patterns or with buying quality companies, but unless a manager can explain why his perspective is not reflected in the prices of what he buys and sells, there is no reason to expect he will outperform.[18] [19]

Evaluating belief management

The key questions I have regarding a manager's belief management are:

- How does the manager self-evaluate his investment process? What evidence does the manager look at to do this?
- Does the firm's culture support or retard greater awareness of potentially unconscious beliefs?

I will discuss each in turn:

How does the manager self-evaluate? The fundamental problem of performance evaluation is that returns have a substantial random element. This makes it difficult for an evaluator to conclude that good performance derives from successful execution of a sound investment strategy. This is obviously true for an external evaluator such as myself, but an internal evaluator faces the same problem.

Some managers don't put much thought into self-evaluation. If performance relative to a

[15] Most reasons for being able to trade before price reflects one's perspective fall into one or more of three categories: the manager has an information gathering advantage; the manager is able to make more accurate predictions with the same information; or the manager is able to react more quickly when circumstances are changing rapidly and prices have not yet found an equilibrium.

[16] I am often challenged on this point. Critics say that it is not uncommon for talented managers to be inarticulate, so one doesn't know what to conclude if a manager can't explain himself. I think there is merit to this point of view if one is talking about an individual. However, investment management firms put enormous effort and expense into articulating their stories. If, despite this, they can't explain something as basic as how they view and exploit the opportunity set, I don't see how one can come to any conclusion other than the firm doesn't have a coherent view of how they generate value for their clients.

[17] Another challenge I receive is that some managers don't wish to reveal how they generate superior returns. I think this is a legitimate issue, but it doesn't really come up that much in practice. Most managers want to provide consultants with whatever it will take for the consultant to get comfortable with their process.

[18] It is important to note that not all managers fail this test. Some managers understand that trading ahead of price is *the* central issue, and are very good at explaining how the opportunity arises and how they exploit it. I have had somewhat better experience with alternatives managers than traditional managers in this regard, but in both camps there are managers who do this very well.

[19] Even when a manager can offer a *plausible* reason for superior performance, there remains the question as to whether there is any evidence that the plausible reason is the actual reason. It can be very difficult to generate such evidence, but as an evaluator I want to see that the manager has tried. Any manager that is seriously attempting to outperform realizes that he has as much at stake as anyone in understanding whether good performance actually derived from the manager's strategy or just good fortune.

benchmark or peer universe is good, they stop there. If performance is poor they may put more effort into analysis so as to craft a favorable spin on the situation. These are not the managers I want to hire.

I prefer to hire a manager who is driven to make honest and careful assessments of his investment process in good times and bad, and who understands that good performance can occur for reasons other than successful execution of the investment strategy. That is, I prefer a manager with a proactive belief system with respect to self-evaluation of their investment process. There are two things such a manager can do to partially mitigate the fundamental problem of performance evaluation:

EFFICIENT MARKET THEORY IS EXTREMELY HELPFUL IN GUIDING AN INTERVIEW WITH A MANAGER.

Get the benchmark right.[20] This ought to go without saying. Yet the overwhelming majority of managers I review use a benchmark that is not meaningfully connected to either the investment process or a reasonably specified passive alternative. The simplest example of this is a manager that selects securities from a universe materially different than the index to which the manager is compared. Externally, a manager may have no choice about their benchmark. Internally, they can use whatever they find most useful. If they are not careful about this choice, that tells me they are not serious about self-assessment.

Supplement performance data with non-performance indicators of process success. A manager with a proactive belief system wants to know if his process is working, and recognizes that good performance (even relative to a good benchmark) is not sufficient to come to that conclusion. Therefore, such managers seek additional indicators that the process is working. For example:

- A manager who predicts earnings can track the accuracy of these predictions.
- A manager who predicts bond upgrades and downgrades can track those predictions.
- A manager who develops a fundamental view of the future can confirm whether the future actually plays out as predicted.

The key is that a manager recognizes that there is a wide variety of data that can bear on self-evaluation, and proactively seeks out and uses the data available. If a manager does not do this, it seems fair to conclude that it is not important to the manager to improve over time.

Does the firm culture support or retard greater awareness of beliefs? A strong culture is usually viewed as a good thing. However, since all the members of a culture by definition share a set of unconscious assumptions, a risk of a strong culture is a weak capability for surfacing beliefs. Below I give you two examples of how firms have dealt with this, one where culture is used to enhance awareness and one where it seemed to reduce awareness.

Using subcultures to enhance awareness. I once reviewed a manager whose investment process had two independent sub-processes, one quantitative and one fundamental. Each sub-process was run separately, but then each group critiqued the other's stock picks, and where they disagreed, each had to explain what they thought the other was missing. These debates were used to identify blind spots in both sub-process, and to improve them over time.

[20] Benchmarks are essential. As Waring and Siegel (2006) have argued, the universal goal of all active management is to add value over a benchmark. "Benchmark-free" investing is more a matter of not being clear about what the benchmark should be than it is an actual style of investing.

Hiring practices and culture. Another manager I once reviewed emphasized that they always hired inexperienced analysts and then trained them in their way of doing things. All of the senior investment people in the firm started as junior analysts. They considered this to be a positive thing, as it ensured consistency in their approach. However, it raised concerns in me about inbreeding. So I asked for clarification: did they *never* hire experienced analysts or was it just uncommon? They responded that a few times they hired experienced analysts but they never worked out. The analysts' thinking had been too "contaminated" by the outside world and could not adjust to the culture of this firm. So the firm "learned" from this experience that they shouldn't hire experienced analysts. I came to a different conclusion.

WHEN I EVALUATE A MANAGER, I WANT TO KNOW HOW THE INVESTMENT FIRM EVALUATES ITSELF.

Summary

1. **Beliefs permeate the investment business.** All investment decisions are framed by beliefs about appropriate objectives, about how to assess opportunities, and about how to organize an investment program. Our beliefs can determine what we pay attention to and what we consider important.

2. **Beliefs matter.** Important decisions can hinge on beliefs as much as on facts. Beliefs may shape what options we even consider. We illustrated this using the example of liability-driven investing, where we saw that attitudes towards whether or not to consider LDI hinged on seemingly unconscious beliefs about the comparative relevance of accounting and economic frames of reference.

3. **Beliefs are cognitive phenomena, but also have a cultural aspect.** We illustrated how differing beliefs about LDI seem to be determined by professional or occupational culture. We also showed how different beliefs about style discipline contributed to the cultural dynamics both within and between money management and consulting firms.

4. **When different cultures interact, there is potential for both great misunderstanding and for great learning.** The LDI and style analysis examples illustrated the potential for misunderstanding and bewilderment when observing the behavior of someone with different beliefs. Multi-cultural interaction also provides a vehicle for surfacing the unexamined assumptions of a culture, and is consequently a powerful tool of belief system management.

5. **Culturally-based belief systems resist change.** The cultural dynamics of organizations leads to social validation of conforming beliefs and ostracizing of deviant beliefs. This makes it difficult for beliefs to change. This can be a good thing if the organization is in a stable environment and the belief system "works" in that environment.

6. **Sometimes belief systems must change.** In a rapidly changing world, adapting to and even anticipating change is necessary. This means that some beliefs which previously helped an organization to excel may become dysfunctional. A key task of belief system management and of leadership more generally is balancing the value of cultural stability with the need to change.

7. **The first step to proactively managing beliefs is to become more aware of them.** Writing your beliefs down, reflecting on situations which surprise you, and exposing yourself to different cultures are all useful techniques for surfacing and clarifying beliefs.

8. **Cross referencing beliefs with investment theory is also a useful belief management tool.** Theory can bring focus to the issues which must be judged and can identify data which, if gathered, would narrow the range of

uncertainty in those judgments. Of particular help in investment management is "inverted" efficient market theory, which simplifies all the possible reasons for superior performance into a focused question: how does a manager trade before his point of view is reflected in prices?

9. **Evaluating belief systems is a key part of assessing active managers.** All attempts to generate superior performance are based on a belief system regarding how the capital markets work. If evaluators really want to know what drives an investment process, they need to understand the belief system behind its design.

10. **A manager who is serious about generating superior performance ought to be serious about self-assessment.** Such a manager should be *driven* to find tools and data which will enable objective self-assessment. At the very least, they should benchmark themselves right. If they don't it is hard to take seriously any claims they make about how they generate superior performance.

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