

Memo to: Oaktree Clients

From: Howard Marks

Re: What's It All About, Alpha?

With apologies to Burt Bacharach and Dionne Warwick, whose 1966 rendition for the movie "Alfie" was much more artistic, I couldn't resist adapting their title for a memo on investment theory.

What's it all about, indeed? Everyone talks about alpha . . . and beta, risk and return, and efficiency and inefficiency. But I believe few people use them to mean the same thing, or correctly. Thus the thinking I did about alpha while writing "Safety First" in April has convinced me to set out my views on all of these subjects.

In this connection, my 1967-69 attendance at the University of Chicago Graduate School of Business was pivotal. I had previously been at a non-theoretical Wharton, where I learned investment practice à la Graham and Dodd but not one word on what I'm about to discuss. At Chicago I found a new theory of investments that would revolutionize the field. My exposure to it was eye-opening and kept me from becoming an unquestioning member of what I call the "I know" school of investing (where people think a little effort is all it takes to know the future direction of any stock or market). The 32 years since Chicago have given me enough time to forget a lot of the theory I learned . . . but also, most importantly, the real-world experience needed to leaven it, leading to my own synthesis of theory and practice.

Market efficiency – A great deal of how one views the investment world depends on one's position on the subject of market efficiency. Rather than reinvent my own wheel, I'll lift parts of my memo "Irrational Exuberance" from May 2000. (Thankfully, when you copy from yourself it's not plagiarism.)

First, I'll provide my take on the efficient marketeers' view. Then, I'll describe my own version of market efficiency. I'll admit again that academicians don't share my view and theory says I'm wrong. But my approach works for me, and I'll restate it below.

While at Chicago, one of the first things I studied was the Efficient Market Hypothesis, which states:

- There are many participants in the markets, and they share roughly equal access to all relevant information. They are intelligent, highly motivated and hard working. Their analytical models are widely known and employed.
- Because of the collective efforts of these participants, **information is reflected fully and immediately in the market price of each asset.**

- Thus, market prices provide accurate estimates of assets' intrinsic value, and no participant can consistently identify and profit from instances when they are wrong.
- Assets therefore sell at prices from which they can be expected to deliver risk-adjusted returns that are "fair" relative to other assets. Riskier assets must offer higher returns in order to attract buyers. The market will set prices so that appears to be the case, but it won't provide a "free lunch." That is, there will be no incremental return that is not related to (and compensatory for) incremental risk.

I believe strongly that some markets are quite efficient, including those for the world's leading stocks and bonds. Take international fixed income, for instance. Here, people try to decide whether British, French or German government bonds are the cheapest at a given time and establish portfolio weightings accordingly. The primary differences between these bonds, it seems to me, relate to their issuing countries' rates of economic growth and inflation. But it's to make allowance for those differences that there exist differential interest rates and floating exchange rates. And aren't those some of the world's most closely watched phenomena, with hundreds of sophisticated financial institutions on both sides of every question? Can any one participant realistically expect to be able to do a superior job in such a market?

Stocks are less homogenous, and there's more to choose between them, but I still think the market for popular stocks is efficient. That's the reason why, when I left equity research in 1978, I told Citibank I would "do anything other than spend the rest of my life choosing between Merck and Lilly." I believed in efficient markets then, and I believe in them now. But what do I mean?

When I say efficient, I mean it in the sense of "**speedy**," not "right." I agree that because investors work hard to evaluate every new piece of information, asset prices immediately reflect the **consensus view** of the information's significance. I do not, however, believe the consensus view is necessarily correct. In January 2000, Yahoo! sold at \$237. In April 2001 it was at \$11. Anyone who argues that the market was right both times has his head in the clouds; it has to have been wrong on at least one of those occasions. But that doesn't mean many investors were able to detect and act on the market's error.

If prices in efficient markets already reflect the consensus, then sharing the consensus view will make you likely to earn just an average return. To beat the market you must hold an idiosyncratic, or non-consensus, view. But because the consensus view is as close to right as most people can get, a non-consensus view is unlikely to make you more right than the market (and thus to help you beat the market).

The bottom line for me is that, **although the more efficient markets often misvalue assets, it's not easy for anyone person – working with the same information as everyone else and subject to the same psychological influences – to consistently hold views that are different from the consensus and closer to being correct.** That's what makes the mainstream markets awfully hard to beat – even if they aren't always right.

Inefficiency – Although I spent a lot of time last year discussing efficiency, I didn't touch on inefficiency. This is a word I've heard misused terribly, usually as a synonym for "cheap," as in "the oils were fully priced last year but now they're really inefficient." First of all, inefficiency doesn't come and go in quick bursts. Markets are inefficient for longer-term structural reasons relating primarily to shortcomings on the part of their participants and infrastructure. Second, "inefficient" absolutely does not mean "cheap" (or "dear").

To me, an inefficient market is one that is marked by at least one (and probably, as a result, by all) of the following characteristics:

- Market prices are often wrong. Because access to information and the analysis thereof is highly imperfect, market prices are often far above or far below intrinsic values.
- The risk-adjusted return on one asset class can be far out of line with others. Because assets are often valued at other-than-fair prices, an asset class can deliver a risk-adjusted return that is significantly too high (a free lunch) or too low relative to other asset classes.
- Some investors can consistently outperform others. Because of the existence of (a) significant misvaluations and (b) differences between participants in terms of skill, insight and information access, it is possible for misvaluations to be identified and profited from with regularity.

This last point is very important in terms of what it does and does not mean. **Inefficient markets do not necessarily give their participants generous returns. Rather, it's my view that they provide the raw material – mispricings – that can allow some people to win and others to lose on the basis of differential skill.** If prices can be very wrong, that means it's possible to find bargains or overpay. For every person who gets a good buy in an inefficient market, someone else sells too cheap. One of the great sayings about poker is that, "In every game there's a fish. If you've played for 45 minutes and haven't figured out who the fish is, then it's you." The same is certainly true of inefficient market investing.

In inefficient markets, then, it's essential that a manager have superior personal skill, or "alpha" (see below). It's actually far more important than in efficient markets, where prices are so well aligned that it's hard to perform far off the average. Good evidence on this subject is found in the table on the next page, from "Pioneering Portfolio Management" by David Swenson of Yale.

Dispersion of Active Management Returns
Identifies Areas of Opportunity
Asset Returns by Quartile, Ten Years Ending December 31, 1997

Asset Class	First Quartile	Median	Third Quartile	Range
U.S. fixed income	9.7%	9.2%	8.5%	1.2%
U.S. equity	19.5	18.3	17.0	2.5
Int'l equity	12.6	11.0	9.7	2.9
Real estate	5.9	3.9	1.2	4.7
Leveraged buyouts	23.1	16.9	10.1	13.0
Venture capital	25.1	12.4	3.9	21.2

As the table shows, the range between the 25th percentile and the 75th percentile of investors in what I think are relatively inefficient markets (venture capital and leveraged buyouts) is much broader than it is in more efficient markets (mainstream stocks and bonds). This supports the belief that in inefficient markets, either (a) prices diverge more from intrinsic values, (b) there's more variation among investors in terms of skill, (c) that variation has more impact, or (d) all of the above. Any way you slice it, hiring a superior manager is more crucial in the inefficient markets.

Return – The terms alpha and beta are derived from the basic form of an algebraic equation, which is:

$$y = a + bx$$

Thus in investments we say a portfolio's result can be predicted by the equation:

$$\text{return} = \text{alpha} + (\text{beta} \times \text{the market's return})$$

Beta is a coefficient equal to the proportion of the market's return that the portfolio can be expected to capture. It can best be described as "degree of responsiveness" to the market, or "relative volatility." An S&P index fund will have a beta of 1.0 relative to the S&P 500 (that is, it will go up and down at the same rate as the S&P). An S&P index fund leveraged two to one would have a beta of 2.0 (i.e., it will have twice the response). A portfolio consisting of half S&P index fund and half cash will have a beta of .5. A defensive equity portfolio might be expected to have a beta of .7.

Turning up your beta, whether through the use of leverage or by emphasizing more volatile holdings, is certainly one way to try to add to your return. Under investment theory it's the only way, since "beta x the market's return" is the only non-zero term in the above equation (more on this later). The trouble with relying on a high beta to enhance your return is that it's entirely symmetrical. It cuts both ways, subtracting as much when it's wrong as it adds when it's right, which means that it does nothing to increase your expected return unless the underlying decisions are right. It epitomizes the Las Vegas

saying that "the more you bet, the more you win when you win" (but also, as I like to point out, the more you lose when you lose).

Alpha is a variable equal to the contribution resulting from the skill of the portfolio manager. As I wrote in "Safety First," alpha is the ability to profit consistently from things other than the movements of the market, to add to return without adding proportionately to risk, and to be right more often than is called for by chance. Examples of its ingredients include superiority in (a) collecting and analyzing information, (b) discerning which factors are most important in determining future value, and (c) resisting the market's manic-depressive fluctuations.

Alpha is what's lacking when a market is efficient. But just as I believe there are some relatively efficient markets, I'm also sure people with alpha exist, as well as less efficient markets where it can be put to good use.

It's essential to recognize that investment skill isn't distributed evenly – that the investment world isn't democratic or egalitarian. That's why Peter Vermilye, the Citibank boss who steered me toward convertibles and high yield bonds, says only the top 10% of analysts contribute anything. It's also why I think so little of investment management firms that describe their edge in terms of head count; an army of average analysts will do you no good.

That's because, in my view, alpha is best thought of as "differential advantage," or skill that others don't possess. Alpha isn't knowing something, **it's knowing something others don't know**. If everyone else shares a bit of knowledge, it provides no advantage. It certainly won't help you beat the market, given that the market price embodies the consensus view of investors – who on average know what you know.

Alpha is entirely personal. It's idiosyncratic, an art form. It's superior insight; some people just "get it" better than others. Some of them are mechanistic quants; others are entirely intuitive. Hard work is a common thread among the best investors I know, but hard work alone is absolutely insufficient to explain their superior performance.

Alpha is zero for someone with no skill (i.e., a dart thrower). Warren Buffett, on the other hand, seems to have lots of alpha – even in a market most people think of as efficient. It's possible to have negative alpha if you're wrong more often than not. Someone who's always wrong would have lots of negative alpha, but he'd be a great guy to know (since you could be right all the time by doing the opposite of what he says).

Everyone knows it's a cornerstone of investment theory that there's no such thing as alpha . . .

Clearly this underlies the Efficient Market Hypothesis. The market is more right than any investor. No investor is better than any other. No one is capable of consistently outperforming. Anecdotal evidence of superior performance is dismissed by academicians who attribute it to luck or a too-short trial period.

... but there's something of an oxymoron afoot. Even though thousands of people expect to make a living from active investment management, much of traditional investment thinking is built on the realization that alpha is severely limited (even though the practitioners don't state it that way).

Why do I say that? Most investors claim they can outperform the market – that is, can see, assess and understand better than the average investor – because of superior intelligence and hard work. Doesn't everyone think he can beat the market? But much of what's actually practiced, even by Oaktree, subtly acknowledges that the ability to know more – and if you think of it, that's a lot of what alpha really is – is quite limited.

It's a common assumption that if an investor's portfolios are highly concentrated, they're risky. But that assumes he can't see the future. If he could, it would be perfectly safe to have a low level of diversification. In fact, if his foresight were perfect, then the safest portfolio would hold only one asset, because that's the one he would think of most highly (and, since he could see the future, he would of course be right). Thus diversification, which is widely practiced even in the "I know" school of investing, represents a tacit acknowledgement that there's a lot that investors don't know.

Investors' strong preference for liquidity is another indicator that this limitation is accepted. Even the "I know" investors, who buy on the assumption they're right, insist on liquidity – because they know there's a good chance they'll be wrong and need to beat a retreat. But the more you can see the future, the less likely you'll be wrong, and the less risk there is that exiting could be difficult.

In reality, then, not just investment theory, but also a great deal of everyday practice, is built around the acknowledgement that alpha – skill and foresight – is a scarce commodity.

Risk – It's essential that investors consider risk. In the time since I entered the investment field, return has increasingly come to be evaluated in risk-adjusted terms. Everyone knows that if two portfolios return 8% a year for five years, the two managers didn't necessarily do an equally good job of investing. If one did it with T-bills and the other with emerging market stocks, the first manager almost certainly did a better job – since he earned the same return with far less risk. That's real added value, just like earning more return with the same or less risk. **To know how good a job a manager did, then, you have to have a good idea how much risk he took.**

Yet I think risk may be the area where both theory and many aspects of practice are furthest from right. The first thing you learn in investment theory, and one of the most widely agreed-on assumptions in practice, is that "volatility equals risk." This premise underlies a great deal of portfolio theory, asset allocation, portfolio optimization and performance assessment. But what are its merits?

I believe the academicians of the 1950s and '60s were influenced to accept volatility as the measure of investment risk by its two outstanding virtues: it is (a) absolute and (b) quantifiable. They can tell you precisely what the standard deviation of a stock or a portfolio's return was in the past, and thus it only takes a little extrapolation to project what it's going to be in the future.

I will suggest some other ways to think about risk, but (a) they will vary from person to person and from situation to situation, and/or (b) they will not be easily quantified. Thus they won't permit you to say that one asset or portfolio would be riskier than another (other than possibly in a given application). You won't even be able to say how risky an asset or portfolio was in the past.

What is risk? First of all, I don't think risk is synonymous with volatility. And second, the indicia of risk vary by asset class.

At Oaktree, when we think about adding an asset to a portfolio, we ask whether the risk entailed is tolerable (i.e., within our charter from our clients) and offset by the likely return. And by risk we mean the chance of losing our clients' money.

In high yield bonds we concentrate on the risk of default and how much principal would likely be unrecoverable. In distressed debt we wonder whether the company's assets will turn out to be worth less than we think or the reorganization will go against us. In convertibles and emerging market equities we worry about the chance a stock will decline and the likelihood that our protective efforts will fail to insulate us.

We do not think about volatility. With our capital in either locked-up funds or long-term relationships, we worry only about whether the ultimate result, perhaps years down the road, will be positive or negative, and by how much. We think this is what our clients pay us to do.

But we make no claim that this approach to risk is subject to quantification or numerical manipulation. Bruce Karsh probably couldn't have quantified the riskiness of Consec bonds at the time we bought them last June. Richard Masson and Matt Barrett probably wouldn't have agreed with him, or with each other, on the probability of loss. Any figure they settled on probably wouldn't have been in a form that could be equated with risk.

And even today, a year later and after having sold the bonds, we still can't quantify the risk we took. It's a concept, a notion, a worry . . . but not a number.

This might be the right way to think about risk – it's certainly how we do it – but it wouldn't work at all for a "quant." He'd have no way to state our portfolio's risk, or its risk-adjusted return, or tell whether our performance was superior or inferior.

Will an investment lose money? Will a pension fund fail to earn its actuarial assumption? Will an endowment be unable to cover its spending rate? Will a retiree have less than he needs to live on? Will a manager lose an account? These are the risks – the perils – that we think matter.

Most pension funds have a very long time horizon, and for a university endowment it's theoretically infinite. Volatile quarterly returns wouldn't be a meaningful source of risk for them as they would be for a retiree scraping by. But once you say a given portfolio is risky for one investor but not another, there ceases to be a unique number that measures its absolute riskiness. In that case, how can you talk about its risk, or its risk-adjusted return?

Correlation – The final analytical element to be considered when assembling securities into portfolios is their degree of connectedness, or **correlation**. As discussed above, a one-asset portfolio would be optimal for someone who can see the future. The main reason for holding more than one asset is diversification. But the principal virtue of diversification, protection from catastrophic error, is wiped out if the underlying assets will react the same to environmental change and move together.

Thus it's not enough to be able to estimate return and risk in isolation; we must understand correlation. Even if we can estimate the separate potential of two assets, we cannot know how a portfolio combining them will behave unless we know how they will move relative to each other. Two stocks in the same industry may be highly correlated, but two companies whose products compete directly may not (that is, whichever one wins, the other is likely to lose).

Let's say there are two assets with high prospective return and risk. A portfolio consisting of the two can have high risk if they are correlated but low risk if they are not. Thus adding an uncorrelated, high-risk asset can reduce the overall riskiness of a portfolio. This understanding revolutionized investing by enabling risk-averse investors to hold high-return, high-risk assets as long as they are uncorrelated with the rest of their portfolio. Certainly Oaktree owes much of its very existence to the understanding of how assets behave in combination.

Tracking error, which lately has been of increased interest, refers to a specific type of connectedness: that between a portfolio and a benchmark. More and more, clients are asking about managers' tracking error in the past and monitoring it after hiring them.

A client hires managers to play specific roles in its portfolio, and it wants to be sure they will do so. In considering whether to include high yield bonds in its portfolio, for example, the client may model the performance of the portfolio incorporating the Salomon Cash-Pay Index as a proxy for the high yield bond component. Then if the client hires a manager, it wants to be sure the manager will track the Salomon Index closely (of course while outperforming!)

Thus clients have reason to want low tracking error. But if you think about it, the two principal sources of tracking error are (a) over- and under-weightings of the securities in the index and (b) inclusion of off-index securities. So it's obviously possible for tracking error to be too low; an index fund would have zero tracking error, but that's not what clients hire active managers to create. Thus we have a client who monitors our tracking error and complains when it's too low, because they want to see active bets being made.

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This last point illustrates what I think should be the role of theory in our industry. In short, I think, **theory should inform our decisions but not dominate them.**

If we entirely ignore theory, we can make big mistakes. We can fool ourselves into thinking it's possible to know more than everyone else and regularly beat heavily populated markets. We can buy securities for their returns but ignore their risk. We can buy fifty correlated securities and mistakenly think we've diversified. When I think of the impact of being blind to theory, I flash back to 1970 and the frighteningly simplistic rationale behind my colleagues' expectation of 12% a year from stocks: if they could emulate the historic 10% return with ease through indexing, it should be a snap to add a couple of percent with just a little effort.

But swallowing theory whole can make us turn the process over to a computer and miss out on the contribution skillful individuals can make. The image here is of the efficient-market-believing finance professor who takes a walk with a student. "Isn't that a \$10 bill lying on the ground?" asks the student. "No, it can't be a \$10 bill," answers the professor. "If it were, someone would have picked it up by now." The professor walks away, and the student picks it up and has a beer.

So how do we balance the two? By applying informed common sense. At Chicago, I spent a wonderful semester with Professor James Lorie. Students loved his anecdote-filled course, which we nicknamed "Lorie's Stories," and its visits from active investors. True-believing theorists may have sneered at it, but it was this class that inspired me to integrate my practical Wharton foundation and the Chicago theory, rather than stick exclusively to either one.

A year after graduating, I had lunch with Jim Lorie and asked – off the theoretical record – how he would manage a portfolio. His simple advice was informed by theory but realistic: "I would index the core and manage the hell out of the periphery."

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The key turning point in my investment management career came when I concluded that hard work and skill would pay off best in inefficient markets. Theory informed that decision and prevented me from wasting my time elsewhere, but it took an understanding of the limits of the theory to keep me from completely accepting the arguments against active management. Theory and practice have to be balanced in this way. Certainly neither alone is enough.

July 11, 2001