

Editorial: Of Active Portfolio Managers, Market Efficiency, and Sandwiches

When they address the notion of market efficiency, finance academics almost inevitably meet with resentment, confusion and mockery from finance practitioners. In comparison, students with little practical experience can easily be turned into fanatical believers of efficient markets, though the infatuation rarely survives the first two months of their business careers. The tendency of practitioners to dismiss the notion of market efficiency as just another figment of the academic imagination has much to do with the contradictory evidence they feel they have: they know colleagues with outstanding historical performance, almost daily they read stories of fantastic success, and they have probably practiced stock picking with decent results. On the other hand, some academics have concluded that, for investment purposes, stock picking and active strategies are useless. Part of the disagreement arises because people don't always mean the same thing when they talk about efficient markets and because they tend to forget about the highly competitive nature of capital markets. But the disagreement could also be rooted in a failure to understand that markets do not just wake up one day efficient;

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efficiency is a characteristic that has constantly to be renewed. The first two sections of this editorial clarify the notion of efficient markets and stresses the competitive nature of capital markets; the second argues that active portfolio managers, i.e., managers who believe that there are mispriced securities, are not only compatible with efficient markets, they are also part of the mechanism that causes markets to be efficient.

1. Informationally Efficient Markets

Informationally efficient markets are markets in which prices are set so that, given the available information, the average returns you can earn on a given investment strategy correspond to the returns you could earn on a passive (buy-and-hold) strategy with the same maturity and risk characteristics. In these markets, it is not possible to design investment strategies that yield returns systematically higher or lower (ignoring transactions costs) than the opportunity returns (the benchmark). So, on average, you can't really beat the benchmark nor should you be able to do worse (ignoring transactions costs), otherwise, it would be profitable to simply reverse your strategy.

This definition of efficient markets is much more harmless than it first appears. First, it only applies "on average." And second, it depends on unspeci-

fied “available information” and equally unspecified “opportunity returns.” That markets are efficient “on average” means that over- and underpricing are not only possible, they are the rule. It also means, however, that the market cannot make systematic mistakes. So, while you can beat the benchmark some of the time, you shouldn’t be able to beat it most of the time. Unfortunately, on hindsight, it is often difficult to tell systematic from coincidental. If we examine last year’s performance of one-hundred portfolio managers, and note that ten performed exceptionally well, we can attribute their success to either coincidence or skill. Telling the difference is difficult. Remember, if we let a large number of people flip coins ten times, we are almost certain to find people with streaks of heads. In fact, if we let 100 people do it, the probability that at least one of them will have a score of 8 heads is 99 percent. Thus, success doesn’t necessarily imply superior skills.

As for the “available information,” it has to be specified for the hypothesis of efficient markets to have any practical relevance. Academics usually postulate “publicly available” information, that is, information accessible to anyone at low marginal cost—press reports, company releases, and, for their many subscribers, the Bloomberg and similar news services. That’s the assumption I will make. Accordingly, you cannot rely on the report of a takeover bid for Holvis in yesterday’s *Neue Zürcher Zeitung* to earn money by buying Holvis stock today and selling it one week later.

Finally, to know whether a given investment strategy will yield abnormal returns, i.e., returns in excess of the benchmark, we have to be able to distinguish the normal from the abnormal. We need to know the return we could earn at any time on a passive investment with similar risk and maturity. That’s what a model of equilibrium (“opportunity”) returns tells us.

Critics of the idea of market efficiency often fall into error because they generalize from individual observations, fail to deduct benchmark returns from investment returns (as pointed out below, they should also deduct the costs of operating a given investment

strategy), or equate inside information with available information.

2. The Importance of Competition

People who object to the notion of market efficiency also appear to ignore the effectiveness of competition. They don’t have any problem believing it’s difficult for firms to be profitable in the markets for goods and services. They go out to get sandwiches during lunch break and are not in the least surprised to find out that the sandwich vendors do not earn high returns on their investment. In fact, these practitioners wouldn’t think of becoming sandwich salesmen. But when it comes to capital markets, they are suddenly unwilling to see that the same principles apply. And yet capital markets, particularly organized exchanges, are the most competitive markets we know. Information is quickly distributed, entry and exit are essentially free, transactions costs are comparatively low, suppliers and demanders are numerous and sophisticated, and there are neither patents to shield innovators nor customs duties to ward off competition. Why should it be easy to earn economic profits in these markets? And how can any profitable investment strategy survive the onslaught of imitation?

3. Active Portfolio Managers and Efficient Markets

True, market prices do not somehow magically come to reflect publicly available information. Prices incessantly capitalize the torrent of news that floods the market every day: overall economic conditions change, firms take on new projects, expand, divest, restructure, merge, discontinue product lines, pay dividends, announce earnings figures, raise funds, negotiate contracts with creditors and suppliers, etc. Prices are therefore constantly trying to catch up with new information. And there is not only new information, there’s also old information that needs to be interpreted correctly. And until prices do

adjust (quite possibly a matter of seconds), there are profit opportunities for traders and active portfolio managers. That's what some academics fail to recognize when they are surprised by the existence of hundreds of active portfolio managers in a supposedly efficient market - their only explanation is that investors like to gamble. They see no reason why active portfolio managers should be any better than a bunch of monkeys throwing darts at daily quote sheets. And they are even more puzzled by the fact that active portfolio managers earn zero abnormal returns, *after* deducting their operating costs, on average unlike monkeys, these managers do beat their benchmarks systematically, though by no more than their operating costs. Active portfolio managers contribute to the continuous updating of prices in efficient capital markets. And to do so, they must at least cover both their opportunity costs of money and their operating costs.

Again, goods and products markets do not behave much differently. The daily gush of tidbits into the capital market is comparable to customers' tastes changing unpredictably in the sandwich market. One week, they all want ham and cheese on white bread; the next, bologna and lettuce on rye bread. The vendors who are able to anticipate the new tastes and adjust their supply more promptly capture the biggest market share. As in the capital market, however, these profit opportunities are not up for grabs by just anyone. Only the most skillful operators can obtain the new information without delay, process it, and react in time to make extra profits. But the quickest individual today is not necessarily the quickest tomorrow. In the capital market, some traders are better at gauging overall market conditions, others specialize in gathering and interpreting information about individual companies, and others still are closer to the source of new information and have a shorter reaction time. Thus, since new information favors one skill one day and another the next, and since many traders share the same skills, it is unlikely that the same traders will systematically come out on top of the others. The same argument can be made about news that's been around for a while but needs correct interpretation. The most

diligent analyst today is not necessarily the most diligent analyst tomorrow. Competition and imitation will tend to prevent that. Of course, depending on the situation, it may take longer for competition and imitation to work. In some cases, because of locational advantages and special skills, it will take a very long time, possibly years. But sooner or later competition and imitation always set in. And that happens in a number of ways. Competitors simply find out and follow the same investment strategy. Alternatively, employees quit and replicate a successful strategy. Or, competition by other investment houses raises the wages of skilled employees and thereby reduces profits.

Yet if systematic profits are difficult to come by, who can afford to be in the capital market? What guarantees the presence of professional financial analysts, traders, and active portfolio managers necessary to move prices and constantly capitalize the stream of new information? Remember, while these financial intermediaries have opportunity costs of money (the benchmark returns, i.e., what they could earn with passive investment strategies), they also incur other costs, such as the income they would earn if they did something else. So, somehow the market has to allow professional portfolio managers to earn enough money to at least cover their opportunity costs of money and their operating costs, i.e., their total costs. Intermediaries who, because of location and abilities, are able to react more quickly than others will at least cover these costs. It isn't easy, yet it happens all the time.

Of course, as pointed out above, competition makes it very hard for anyone to always be better than others. Still, to generate enough income to cover their total costs, it is sufficient to be better some of the time. Free entry in and exit from the capital market will tend to wash away any income above total costs. Unless they have advantages that competitors cannot replicate, the surviving financial intermediaries will just meet their costs. That's what the efficient market hypothesis predicts: zero profits net of total costs, on average. Think again of sandwiches. Current vendors cannot earn profits for extended periods of time since that would entice

equally skilled vendors to start selling sandwiches. Yet some vendors obviously earn enough money to cover their costs; otherwise, they would be looking for another job, and there would be no sandwiches for anyone to buy.[1]

4. Implications

What does this all mean? Market efficiency implies that it is difficult to be an above-average portfolio manager. Just as in the markets for goods and services, you need skills or other advantages that other managers don't have. And even then, you are going up against literally hundreds of other managers trying to outsmart and imitate you. If you don't have any superior abilities, active portfolio management is not for you.

Market efficiency also doesn't mean private investors are as skillful as the professional portfolio managers who survive the test of competition. Professionals know more, just as the vendors of sandwiches know more about their business than their average customer. But the intense competition of the capital market, entry, and imitation will erode any extra returns professional portfolio managers can earn. If the capital market is efficient, these managers will, on average, just cover the sum of opportunity costs of money and operating costs. Of course, it is conceivable that some market operators, thanks to locational advantages and other skills, will be able to secure extra returns that competition cannot easily trim. One could argue, for instance, that the market value of Swiss banks reflects, at least in part, expected future benefits from trading and arbitrage, and is therefore tell-tale evidence of market inefficiency.

Competition among market participants is what causes the market to be informationally efficient. But since there is a constant flow of new information, market prices are always adjusting. That's why market efficiency does not mean that stock picking, and other active investment strategies are foolish. It doesn't mean active managers are bound to lose money, any more than it means producers in compe-

titive goods and services markets are condemned to lose money. Competition, however, will tend to weed out all forms of unnecessarily expensive strategies - possibly those based on frequent trading, and certainly those based on the most naive forms of fundamental and technical analysis that anyone can replicate (unless customers are willing to pay for that analysis).

Traders, financial analysts, and active portfolio managers not only are compatible with efficient markets, they are necessary. Without them, prices would not incorporate the relevant information. But why is that important? What do capital market operators gain if prices adjust quickly to new information? One benefit, after the dust of active trading has settled, is that passive traders can trade at fair prices without needing to gather information about the individual firms they want to invest in. Another benefit accrues to the stockholders of widely-held corporations. When analysts and active portfolio managers peek into the internal affairs of corporations, they expose managers' activities and thereby discourage practices that deviate too far from firm-value maximization. Lenders, suppliers, and employees also benefit because they can use that information when negotiating with firms. And finally, firms themselves benefit when issuing new securities. If more disclosure means less uncertainty, investors will be willing to pay higher prices for these securities.

Footnotes

- [1] In an interesting article, RICHARD ROLL (1994) uses models from evolutionary biology to explain the coexistence of active and passive management strategies in efficient markets. "In the model of the 'hawks and the doves,' biologists note that competition for food results in a stable evolutionary equilibrium characterized by multiple strategies. When competitors meet at a food site, they can either fight over the prize and risk injury - the 'hawk' strategy - or withdraw and lose the food - the 'dove' strategy. If every individual fights, a mutant who withdraws would eventually have a greater probability of procreating than the average fighter because of the risk of injury and the fact that only one fighter can win. (The dove occasionally finds uncontested food.) On the other hand, if every individual followed the dove strategy, a single fighter would gain a lot of food. The evolutionary equilibrium can be shown to involve either (a) part of the population always follows the hawk strategy and the complementary part follows the dove strategy or (b) every individual follows a randomized strategy, sometimes behaving as a hawk and sometimes as a dove. We can definitely rule out a world in which everyone follows the same fixed strategy." (p. 72) In the analogy, the hawk strategy is like security analysis, the dove strategy, passive investing (expending no effort on information analysis). Of course, in the capital market, the hawks are necessary for the adjustment of prices to new information. Moreover, because of locational advantages and superior skills, some managers will always be hawks, which means that equilibrium (b) cannot apply.

References

- ROLL, R. (1994): "What every CFO should know about scientific progress in financial economics: What is known and what remains to be resolved", *Financial Management* 23, pp. 69-75.