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# WHO SHOULD WORRY ABOUT DIVERSIFICATION?

In the end, it's the individual who cares about diversification. He cares about having a large number of stocks in his portfolio; about not concentrating his portfolio in the assets of any one sector of the world economy; about offsetting in his portfolio the risks of his human capital; and about diversifying his portfolio over time.

But other investors care about diversification to some extent because it is individuals who ultimately bear all risks. Sometimes the diversification of a corporate portfolio or a financial institution's portfolio or a broker's portfolio will affect the diversification of an individual's portfolio.

## Individuals

The typical individual's portfolio of stocks is not well diversified, according to studies by the New York Stock Exchange. The individual who owns stocks directly typically holds just 3 or 4 stocks. And he often has half of his money in just one of those stocks.

There are, of course, powerful forces that tend to keep an individual from having a well diversified portfolio of stocks. If he gets a "hot tip" about a stock, he tends to put more into that stock than he should, given the likely quality of the information he is getting. The way a small company usually raises money means that individuals close to the company put far more into it than they put into equally attractive companies that they are not close to. Even "insiders" often take larger positions in their companies than are justified by the facts.

Investing in options can also contribute to lack of diversificaton. If an individual buys an option, and it does well, it may quickly come to make up a substantial fraction of his portfolio. If he buys an option and it does badly, it will stop contributing to the diversification of his portfolio because he won't have much money in it.

If the individual changes his position in an option as its price changes, then he can dampen the effects of price changes on the diversification of his portfolio. But he can't change his position too often, or he'll be wiped out by trading costs.

Investing in stocks causes the same problems with keeping good diversification as investing in options, but the problems tend to be less severe with stocks. When a stock goes up, you may not want your position in the stock to go up as much, so you may want to reduce your position in the stock. You can use the dividend income on the portfolio to invest in other stocks, which will reduce your relative position. But also, if you're trying to hold something like a market portfolio, you will <u>want</u> to hold somewhat more of a stock that goes up.

Selling off stocks and options that go up and buying more of stocks and options that go down seems to go against what professionals often do and say. It's cutting your winners (at least part of your winners), and letting your losers run. (Worse, it's adding to your losing positions.) While this sounds bad, it really isn't. Securities that have gone up in the recent past are no more likely to go up in the future than securities that have gone down in the recent past. And this strategy sure does help to diversify a portfolio.

Short positions, like long positions, help to diversify a portfolio. (Though they may be costly to maintain.) But the individual will almost never want a net short position. It's very hard to forecast the market, and unless you're really sure the market will be going down, a net short position gives both a lower expected return and higher risk than short

term lending.

## Mutual Funds

Diversification is important in a mutual fund, because mutual fund shares may form the major part of the wealth of some individuals, especially retired people. For most people, though, mutual fund shares provide just one of many risks, and diversification within the mutual fund is not terribly important.

An individual can also diversify by holding the shares of several mutual funds. But this only partially offsets any lack of diversification in a single fund, because mutual funds tend to be concentrated in the same kinds of stocks at the same time.

Since we can't observe the market portfolio that is perfectly diversified (at least in theory), we can't tell exactly how well diversified a mutual fund is. This is another reason why it may not pay to spend too much on the search for peak diversification in a mutual fund.

## Corporate Investors

Who bears the risk in a coporation? The common stockholders normally bear most of it, though plenty of other people have a share. If there are warrants, the warrant-holders bear some. The company's creditors bear some. Its customers bear a little of it. The employees, especially the managers, bear a good deal of the risk in the corporation, too. These groups are often not distinct, so some people bear the risk of the corporation in several different roles.

To the extent that the stockholders bear most of the risk, and the shares of the firm are not concentrated in the hands of a few individuals, diversification is not important in a corporation. A stockholder will hold his shares as part of a much larger portfolio. He will get his diversification at the portfolio level, not at the level of the individual company or its stock.

The lenders, of course, like diversification, because it tends to reduce the risk of default. But what helps the lenders may hurt the stockholders, since they have different pieces of the same pie. When diversification increases the value of the firm's debt without changing the value of the firm, it reduces the value of the equity by the same amount.

The firm's managers and any large stockholders there are may also have an interest in diversification within the firm. The risk of the firm may form a rather large part of a manager's risks.

The fact that the managers of a firm may prefer diversification within the firm though the shareholders don't can cause some serious problems. The managers may even make unprofitable investments that improve the firm's diversification. Normally, there is little the shareholders can do to control this tendency.

Since diversification is not usually important to the shareholders, a corporation that is investing in options need not use hedging or spreading methods. All it needs to worry about is writing overpriced options and buying underpriced options.

A corporation may even have a net short position. Its shareholders, because they have other assets, will still have net long positions. They won't mind a net short position within the corporation so long as the prospective profits from the position exceed the costs of maintaining it.

Brokers

A brokerage firm is sometimes a partnership and sometimes a corporation. If it is a partnership or a closely held corporation, diversification will often matter to the principals. And the firm will probably want to work from a net long position.

If it is a widely held corporation, then diversification won't be important, and the firm may well want to work from a net short position, at least in its trading account. This will be true when (1) the firm can sell stock short in the trading account (perhaps customer stock in margin accounts) and get the full proceeds of the sale, and (2) the firm has taxable income that will be only partly offset by any losses in the trading account.

Working from a short position makes sense for this kind of brokerage firm because gains and losses in the trading account are taxed as ordinary income and loss.

For a long position, the lower an investor's tax bracket, the better. For a short position, assuming that gains and losses are treated symmetrically for tax purposes, the higher the investor's tax bracket, the better. So long as a broker has taxable income, the gains and losses in his trading account are treated symmetrically. So a short position is far better than a long position if he gets the use of the proceeds of the short sale.

Why? Because if the government is taking half the firm's gains and making up half of its losses, the firm will have to sell more stock short to get a given effective position than if it weren't taxed. It will come out ahead by the earnings on the proceeds of the extra stock that is sold.

Of course, it can be options instead of stock, or in addition to stock. One great advantage of options is that there is no problem for a brokerage firm in getting the use of the proceeds of a naked sale of options. Till now, other investors have received the same tax advantages from short options positions that a broker has in his trading account, which reduces the profitability of the operation for a broker. But that seems likely to change soon.

There is no need for a broker to have hedged or spread positions in options. Naked short positions will generally be better. And more short in the trading account will be better than less short, so long as the firm stays within the position limits and can use any losses that it generates. It usually can use losses on short positions, because when the market goes up its earnings on its other operations will tend to be high.

If you have any questions or comments, please call me at 617-253-6691, or write me at 50 Memorial Drive, Cambridge, MA 02139.