Foreign Investing and Diversification Lessons From Berkshire Hathaway

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Whenever I read interviews with Warren Buffett and Charlie Munger or the commentary provided for investors in Berkshire Hathaway, I am struck by the fundamental common sense that Buffett and Munger bring to issues of economics, investing, and policy. Buffett and Munger have repeatedly noted that given uncertainty in tax laws, currencies, regulations, and political stability, a desirable way to invest in foreign markets is to purchase stocks in U.S. companies that have substantial foreign sales in local currency. In recent years, Berkshire Hathaway (BRK) has been investing more heavily in a direct form in foreign firms, but BRK's equity holdings clearly show the philosophy of gaining international exposure by buying U.S. firms with strong foreign sales. Coke (KO), Anheuser Busch (BUD) and Procter and Gamble (PG) all have large and growing international sales and these are top equity holdings in BRK:

http://holdings.nasdaq.com/asp/OwnerPortfolio.asp?FormType=OwnerPortfolio&CIK=0001067983&HolderName=BERKSHIRE+HATHAWAY+INC

The massive recent increase in BRK holdings in JNJ was also partly motivated by JNJ's international sales. The working concept here is that **investors can gain fairly low-risk exposure to foreign markets by investing in U.S. based firms that do a lot of their business overseas and in local currency.** This approach can provide strong portfolio diversification and access to forign markets with moderate incremental portfolio risk**.**

I recently wrote an article looking at diversification effects within BRK's equity holdings (prior to the substantial increase in JNJ):

http://www.quantext.comBuffettMC.pdf

In this analysis, I ran Berkshire Hathaway's top twenty equity holdings in their appropriate proportions through ***Quantext Portfolio Planner***, our portfolio management tool. The results showed that BRK's holdings provided remarkable diversification in the total portfolio, resulting in a high return on the portfolio relative to the total risk. Another recent article showed that it is quite simple to build a portfolio that shows very low correlation to the S&P500 using a series of well known stocks:

http://www.quantext.com/SampleLowBeta.pdf

There are some international stocks in this portfolio but most are U.S. based, with JNJ as one of the featured holdings. When I read that BRK had increased it's holdings of JNJ so

substantially, I wanted to look at the correlations between the returns on BRK's major equity holdings and the S&P500 (via SPY), a foreign developed markets index such as EAFE (via EFA), an emerging markets index (I used EEM) and a utilities index (IDU, for example). I included utilities because BRK owns MidAmerican Energy and Pacificorp, so it is desirable for BRK's equity holdings have low correlation to utilities: BRK has sufficient exposure to utilities, without adding stock in other firms. Given that a number of BRK's top holdings have substantial overseas sales, I particularly wanted to see how these stocks correlated to one another and to various U.S. and foreign indices.

When I calculated the trailing three-year correlations between returns from BRK's top ten equity holdings with each other and to the major indices (captured using index ETF's), the results demonstrated that BRK's holdings exhibit very low correlation to each other and to the broader markets:

	SPY	EFA	EEM	IDU	VBIIX
SPY	100%				
EFA	75%	100%			
EEM	73%	85%	100%		
IDU	37%	47%	53%	100%	
VBIIX	2%	7%	11%	40%	100%
KO	36%	27%	11%	23%	2%
AXP	68%	50%	51%	30%	17%
WFC	24%	6%	10%	3%	1%
PG	49%	40%	43%	39%	10%
MCO	47%	29%	38%	7%	35%
WSC	29%	31%	22%	6%	1%
BUD	25%	17%	-5%	15%	10%
JNJ	9%	0%	-23%	17%	-4%
WPO	29%	24%	15%	12%	-20%
COP	26%	43%	55%	36%	-26%

Trailing Three Year Correlations in Return for Index ETF's and Berkshire Hathaway's Ten Largest Equity Holdings (data through 10/31/2006)

The table above shows the correlations between monthly total returns (i.e. including dividends) for BRK's ten largest holdings. Coke (KO) sells a lot of its product in local currency in diverse foreign markets. KO exhibits a correlation to the S&P500 (SPY) of only 36% (see above). EFA, an index ETF which tracks developed foreign markets, has

a correlation of 75% to SPY. There is a similar correlation (73%) between SPY and the emerging markets ETF, EEM. Coke has less correlation to the S&P500 than an emerging markets index fund or a developed foreign markets index fund! The same phenomenon shows up very strongly for Anheuser Busch (BUD) and for Johnson and Johnson (JNJ)—both of which also provide foreign exposure via sales in foreign countries. The same is true of Procter and Gamble (PG). Low correlations mean that you will have better ability to achieve higher returns for the level of portfolio risk using these stocks in a portfolio. In terms of sheer diversification power, these stocks are phenomenal. A portfolio including U.S. firms with large overseas sales (such as KO, PG, JNJ, and BUD) allows BRK to gain exposure to international markets with even better portfolio diversification than investing the foreign market indices. These results suggest that these U.S. companies provide better diversification effects than either of two foreign index funds.

Note also that these stocks have very low correlation to IDU, an index ETF that tracks the Dow Jones Utilities Index. This means that these holdings also provide good diversification against BRK's large utilities subsidiaries.

What risk are we taking if we buy a small number of individual stocks to achieve their phenomenal diversification power and exposure to foreign markets? First, you will be taking on company-specific risk (think Enron). A major disaster at any single company will have a far greater effect on your portfolio than if you hold the S&P500. On the other hand, the companies shown here are not Enron in any way, shape, or form. You must look more closely at details of a firm if you want to take on higher company-specific exposure. Can you trust Warren Buffett to do this for you? You could do worse.

BRK has other holdings that Buffett will want to diversify against—such as BRK's utilities companies—so this equity portfolio is not a model of what most investors will want to pursue. While Buffett has long advocated gaining foreign market exposure with U.S. companies that have a lot of their business in foreign markets, BRK gains substantial foreign exposure with a $4 billion stake in ***Iscar Metalworking***, an Israeli

firm, and others. Put another way, these equity holdings complement a broader portfolio with some very large concentrated overseas investments.

In summary, there is an increasing tide of advice suggesting that U.S. investors allocate a larger fraction of their money overseas. Foreign investing is motivated on the basis of two factors:

1) faster growth in foreign economies
2) good diversification against the U.S. markets

Wharton professor Jeremy Siegel advocates investing 40% of your equity holdings in foreign stocks (in a quasi-related note, Charlie Munger recently referred to Siegel as 'demented'). There are special risks associated with investing across borders. See for example this discussion:

http://www.quantext.com/GlobalRisk.pdf

My feeling is that a substantial part of the popularity of overseas investing mirrors the momentum that has generated high returns over the past several years: an awfully large fraction of investors simply play follow-the-leader. Further, there are factors that can lead to very high risk in foreign markets. Certainly there is more growth potential in developing countries, but there is also far more risk—they go hand in hand. Warren Buffett and Charlie Munger at Berkshire Hathway have repeatedly advocated the idea of gaining foreign exposure from solid U.S. companies that sell overseas (in local currency) and our analysis supports this idea. Further, these consumer goods companies (JNJ, KO, BUD, PG) not only have low correlation to the S&P500 but also to developed foreign markets (see low correlations to EFA) and developing markets (see EEM). This strategy seems like common sense, as well as looking good on the basis of quantitative analysis. Adding these types of companies to a portfolio can provide both substantial international exposure and result in a portfolio that is remarkably uncorrelated to major market indices.

Utilities (in which Berkshire Hathaway has substantial holdings via Pacificorp and MidAmerican) add another important layer of diversification power to a portfolio. Utilities tend to exhibit this same type of low correlation to market indices.

The proper combination of these types of stocks in a portfolio will depend on your specific goals and situation. If you want a portfolio that is relatively immune to swings in the broader market, you will want to understand this kind of strategy. A great deal is made of Berkshire Hathaway's performance record and how BRK-A manages to generate good returns even in bad markets. The trailing three-year correlation between returns from BRK-A and the S&P500 is only 26% and the Beta is 39%. The trailing ten-year correlation between BRK-A and the S&P500 is 40% and Beta is 59%. These statistics suggest that Berkshire Hathaway is increasingly pursuing investments that are de-coupled from the broader market. Given Buffett's stated concerns regarding the U.S. economy, it is not surprising that Berkshire Hathaway is trying to avoid being driven by the market as a whole:

http://www.businessweek.com/investor/content/may2006/pi20060508_947761.htm

Now, I have been told that Mr. Buffett does not even have a computer in his office, so I don't know how he manages to build such a low-Beta / low-correlation portfolio. For myself, I rely on portfolio tools to help in managing my portfolio's total risk/return balance and correlation to the market as a whole. I have no aspirations of being the next Warren Buffett (lucky for me), but it is reassuring to me that Berkshire Hathaway's portfolio components are consistent with principles of quantitative finance on what makes a good portfolio: you want to generate the maximum possible diversification, and this requires choosing assets that have low correlation to one another. Further, if you have a bearish (or uncertain) outlook about the future prospects of the U.S. economy, you can build a portfolio that does not depend on a rising market to generate solid returns.

Disclosure: The author owns shares in JNJ

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