TAM Asset Management, Inc.

Asset Class[sm]

An update of performance, trends, research, & topics for long-term investors

August 2006

Asset Class Returns

July 31, 2006 (YTD)

	2003	2004	2005	Last 10 yrs.	YTD 2006
Bonds					
Short-term	1.6	0.9	2.3	4.3	2.5
Five-Year	3.0	2.9	1.7	6.1	1.6
Intermediate	2.5	4.3	1.6	6.2	0.1
Long-term	2.7	7.1	6.6	7.1	-3.0
U.S. stocks					
Large Market	28.5	10.7	4.9	8.9	3.3
Large Value	34.4	18.2	10.2	11.9	6.5
Small Micro	60.7	18.4	5.7	13.6	2.6
Small Market	51.5	17.9	6.1	11.8	3.2
Small Value	59.4	25.4	7.8	15.9	7.0
Real estate	35.6	32.1	13.2	15.1	17.6
Int'l stocks					
Large Market	36.7	18.8	13.5	6.2	10.9
Large Value	49.4	28.8	15.3	9.2	14.2
Small Market	58.8	30.9	22.0	N.A	7.2
Small Value	66.5	34.8	23.2	10.2	9.3
Emerg. Mkts.	60.2	29.9	29.9	8.5	5.4

Descriptions of Indexes

Short-term bonds	DFA One-Year Fixed Income fund
Five-Year bonds	DFA Five-Year Global Fixed
Intermediate bonds	DFA Intermed. Gov't Bond fund
Long-term bonds	Vanguard Long-term U.S.Treas.
U.S. Large Market	DFA US Large Co. fund
U.S. Large Value	DFA Large Cap Value fund
U.S. Small Micro	DFA US Micro Cap fund
U.S. Small Market	DFA US Small Cap fund
U.S. Small Value	DFA US Small Value fund
Real Estate	DFA Real Estate Securities fund
Int'l Large Market	DFA Large Cap Int'l fund
Int'l Large Value	DFA Int'l Value fund
Int'l Small Market	DFA Int'l Small Company fund
Int'l Small Value	DFA Int'l Small Cap Value fund
Emerging Markets	DFA Emerging Markets fund

"Last 10 yrs." returns are ended 12/31/05.

This newsletter is published by
TAM Asset Management, Inc.
1100 Mar West St., Suite D
Tiburon, CA 94920
Phone: 415-435-5045
eFax: 781-623-4691
email: jefftroutner@tamasset.com
Web Site: www.tamasset.com

Editor: Jeffrey C. Troutner

Submerging Markets?

Jeff Troutner, TAM Asset Management, Inc.

Would you be interested in an asset class that has generated an annual return of 45.1% per year, provides excellent diversification benefits to a U.S. stock portfolio, and is touted by renowned academics and Wall Street gurus alike for its potential to generate high returns in the future? Sounds pretty amazing, right? That was emerging markets in 1994. Coincidently, both DFA and Vanguard launched their emerging markets index funds in the first half of that year.

For the next 10 years, emerging markets stocks returned just a bit more than U.S. Treasury Bonds with *five times* the annual volatility. The 6.5% annual return was 40% less than the S&P 500, 50% less than international small value stocks, and 60% below U.S. small value stocks.

So it's not surprising that after riding the down side of the emerging markets roller coaster once again in May and June, I mentioned in a TAM quarterly letter to clients that I was seriously questioning the value of the asset class in diversified portfolios. A few weeks later, I read an article on Bill Bernstein's[1] web site that shares some of my concerns, but from a perspective I hadn't considered. I'll summarize some of Bill's points below and then add my perspective. I encourage you to read his article in full (it's very entertaining as well as informative, as usual).

Dr. Bernstein's article was prompted by a new trend developing on Wall Street toward the sale of "BRIC" funds to investors looking for the next great investment idea. BRICs are emerging markets funds investing in the high growth countries of Brazil, Russia, India, and China. The idea is that high growth will lead to high returns, and since developed countries like the U.S. are considered by some as "fuddy-duddy old nations," investors would be wise to diversify where the action is (or was, or will be). Given the current limits on free markets, the rule of law, and personal property rights in these countries, I think the funds should be called CRIB[2], but maybe I'm an old fuddy-duddy as well.

In any case, Bill correctly points out that there is a huge body of research showing that high growth often leads to *low* returns. We've seen this in the "Excellent vs. Unexcellent Company" study by Michelle Clayman (see "Multifactor Investing"[3]) and from research showing the lower expected returns of growth versus value stocks. As an anecdote, Bill also points out that, "…during the past quarter century Malaysia, Korea, Thailand and, of course, China have simultaneously had some of the world's highest economic growth rates and lowest stock returns."

So what are we to think of emerging markets stocks? What kind of expected return should we expect over time? Our favorite academics, Eugene Fama and Ken French, would say that since companies in emerging markets have a higher cost-of-capital than companies in the developed markets, *return* on capital should be higher as well. Over the relatively short time period that we have data on stock returns in the emerging markets (18 years), it appears that this assumption is correct. But the numbers can be deceiving.

Using the DFA equally-weighted emerging markets index, we find that between 1988-2005 emerging markets stocks did, in fact, produce a higher return than less risky asset classes[4] (Chart 1). But that higher return came with much greater risk (return volatility).

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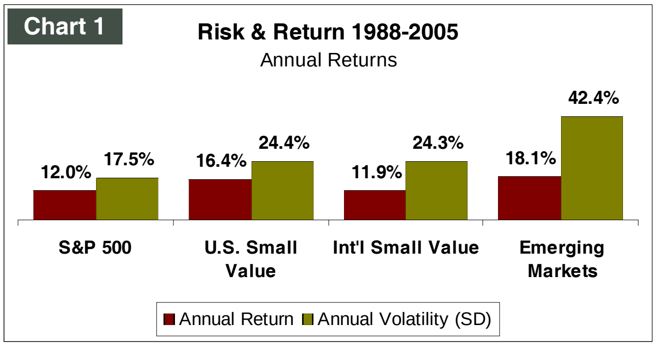
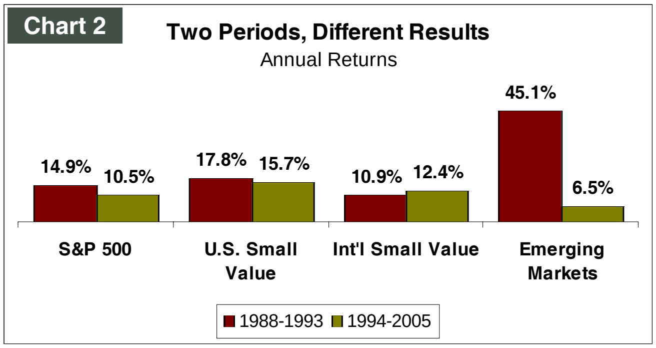
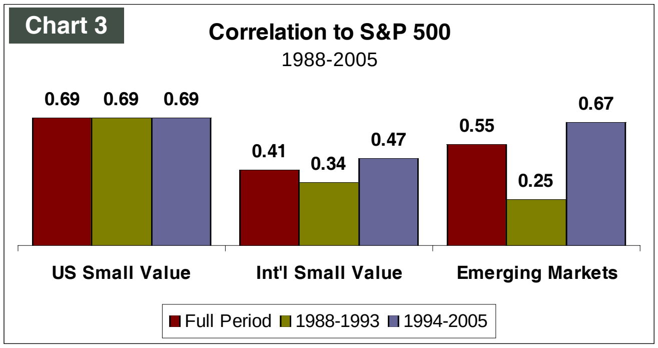
And, as Chart 2 shows, most of the emerging markets return occurred between 1988-1993.



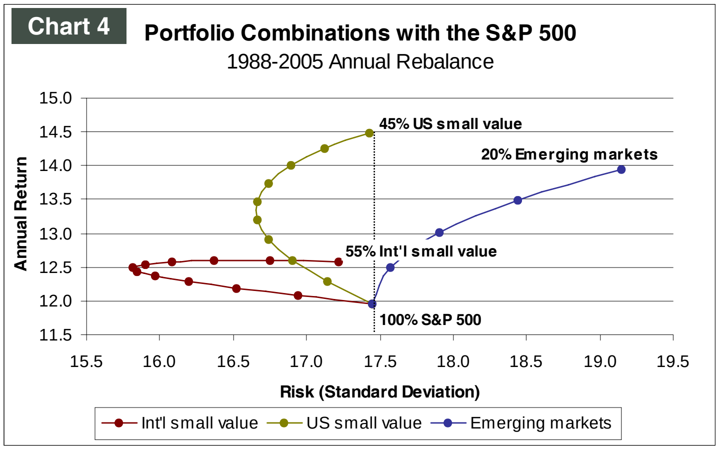


Okay, so we know emerging markets are volatile and they can have extended periods of really good and really bad performance. But isn't the reason we add emerging markets due to their low correlation to U.S. stocks, thereby offering a potential diversification benefit? That's certainly what the experts say. In fact Dr. Bernstein states in his article, "About the best thing you can say for the asset class is that it's still one of the finest diversification plays around." Is it really?

Chart 3 shows that emerging markets are indeed less correlated to the S&P 500 than, say, US small value stocks (.55 vs. .69). But they were more highly correlated than international small value stocks for the full period (.55 vs. .41). More notable—and troubling—is the fact that the correlation increased from .25 in the first period to .67 in the second. Looking strictly at correlations would suggest that emerging markets are a no better diversifier than good old US small value stocks.



Let's take this analysis a step further and look at the actual return experience of various combinations of these asset classes for the past 18 years. Chart 4 plots annual return on the vertical axis and volatility (standard deviation of returns) on the horizontal axis. We can see that adding international small stocks in 5% increments to an S&P 500 portfolio increased return and *decreased* risk up to a 45%/55% mix. The return contribution was "only" about 0.6% annually, but there was a diversification benefit nevertheless. The diversification benefit was much more dramatic with U.S. small value stocks (added return of over 2.5% per year). There was no diversification benefit with emerging markets stocks. Every portfolio combination resulted in higher returns with an increasing amount of risk (I stopped the pain at 20% on the chart).



There's even more to the story, however, and it doesn't get any better. If one were to simply observe the monthly returns for the S&P 500 and emerging markets since mid-1994, a disturbing pattern emerges. Almost every time the U.S. market dropped, emerging markets dropped as well—usually much steeper and longer. I don't have the space in this article to present these numbers, but they will be posted on the TAM web site.

Should we continue to invest in emerging markets stocks? When you consider their extreme volatility, their increased correlation to the U.S. market, the unique risks associated with developing countries (social, political, financial, legal, etc.), and the fact that we have a very good alternative in small value stocks of *developed* countries, my inclination is to say no. Simulated models that substitute international small value stocks for emerging markets suggest that portfolio returns could be enhanced by twenty basis points (0.20%) with less risk. I've seen financial academics drool over just a few basis points improvement!

And contrary to what some experts might say, I believe seeking "better" diversification and higher expected returns using emerging markets small and/or value stocks has the potential of putting good money after bad. Or, as my cousin in Kentucky might ask, "Isn't that like putting lipstick on a pig?"

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[1] www.efficientfrontier.com, "Thick as a BRIC." As you all *should* know, Bill is the author of *The Intelligent Asset Allocator* (in which he mentions yours truly), *The Four Pillars of Investing, and The Birth of Plenty*—all excellent books.

[2] CRIB, since these economies are still too young to tell how they'll develop; For a ranking of these countries based on the 2006 Index of Economic Freedom, go to www.heritage.org/research/features/index

[3] www.tamasset.com/pdf/multifactor_investing.pdf

[4] Comparative indexes are the S&P 500 index, the Fama/French US Small Value index, and the DFA Int'l Small Value index.