Do Not Spread American And Chinese Stocks

I may not have Georgia on my mind, but apparently China is occupying some cranial space left vacant following all those decisions by basketball's free agents. Yesterday's foray into the relationship between Chinese equities and U.S. Treasuries will be followed here today by a look at the spread between the two countries' stock indices.

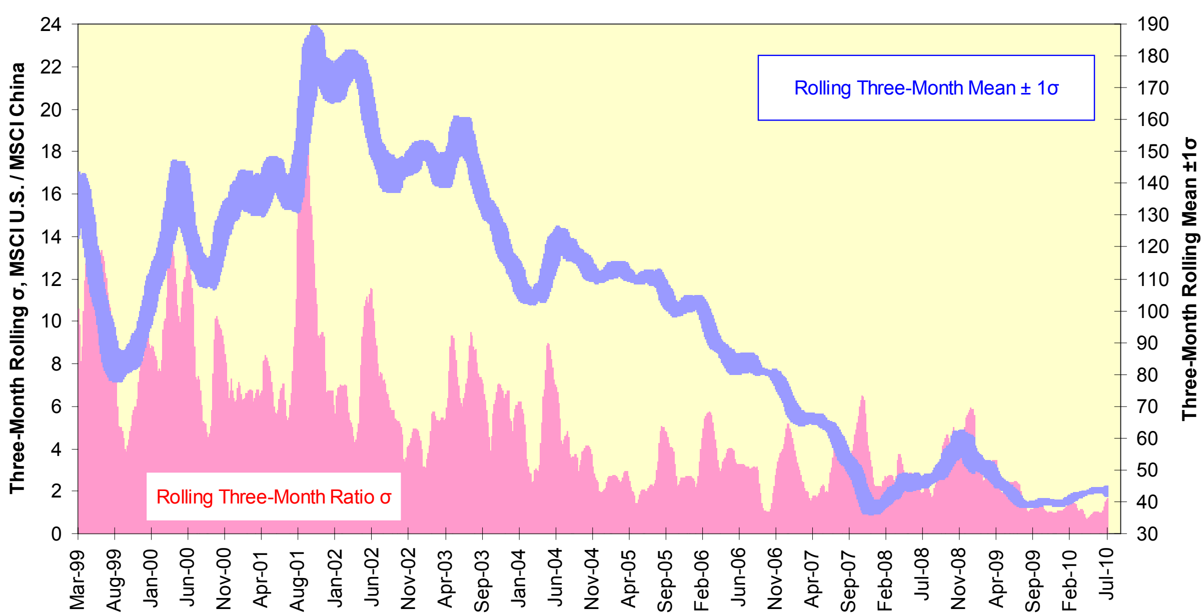
One of my favorite setup questions back in my teaching days dealt with spreads; suffice to say most newcomers to the business took the bait and thought spreads were inherently less risky than outright trades while market veterans knew better, generally via the hard way. This is why I started to get alarmed in early 2009 when the Chinese stock market started rising before we bottomed in March and I heard otherwise reasonable people recommending the trade of short China and long the U.S.

Types Of Spreads

The assumption behind this advice was global equity markets have become increasingly correlated in recent years and therefore the U.S. would have to outperform China to achieve reversion to the mean. However, even a cursory examination of the data reveals the spread to be what I term "related;" much like the spread between growth and value indices. These spreads can and do trend for long periods of time without a defined bound.

Let's illustrate this by mapping the three-month rolling ratio of the MSCI-Barra total return index for the U.S. against its Chinese counterpart in USD terms, ±1 standard deviation (σ) and the rolling three-month ratio of the two indices' standard deviation of returns. A mean-reverting spread, one that would work for the short China / long U.S. trade suggested by others, would have a flat trend in its mean and a generally stable ratio of variance. Here we see the exact opposite.

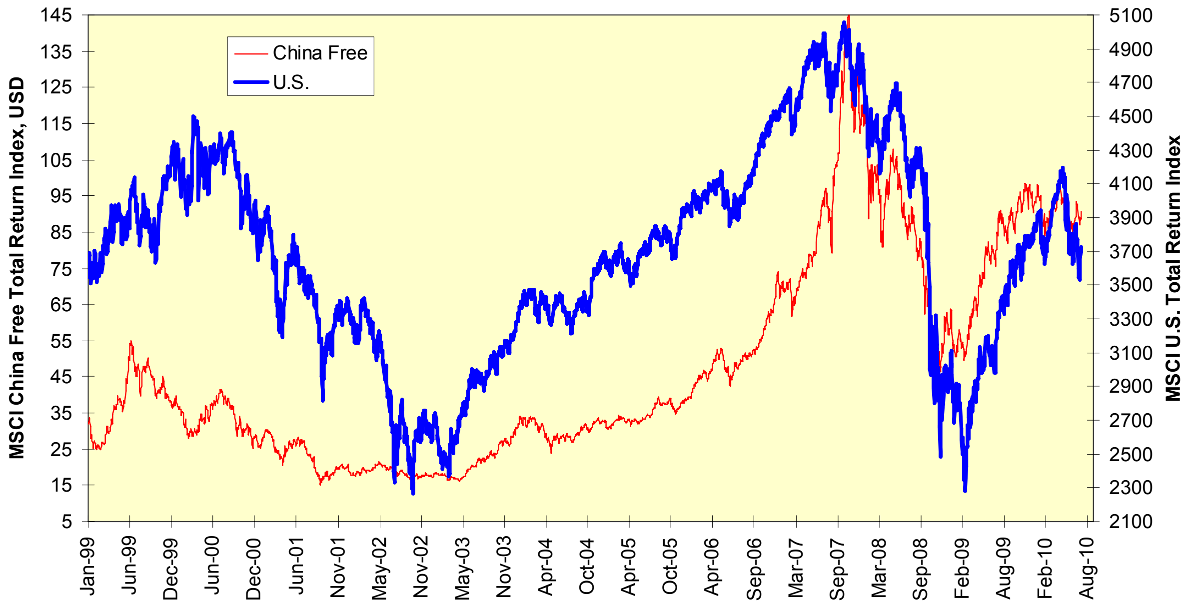
U.S. And Chinese Equities' Relationship Not Mean-Reverting



Convergence Only Recent

This should not be surprising at all if we look at the history of the two markets. Prior to the October 2007 global market high, the two indices never traded in convergence. China broke before the U.S. did during the financial crisis and then rebounded faster in 2009, but virtually all markets broke in 2007-2008 and rebounded in 2009. If there is something special in the case of the U.S. versus China, it is not apparent in the data.

U.S. And Chinese Markets Appear To Converge After October 2007 High



We could apply a battery of other tests, such as whether the relationship has statistically significant change-points; two before and after dates tested, the May 6, 2003 beginning of the Federal Reserve's courageous war on deflation and the October 12, 2007 market high confirm their difference.

The real coup de grace, though, is the spread between the two markets actually is riskier than their outright positions. The reason, replete with meaning to stat-hounds and no one else, is the covariance of the two markets during the post-October 2007 period has been low. This raises the probability you could lose on both legs of the spread simultaneously, and unless you enjoy smoking exploding cigars, where is the sense in that? Pick one market and go with it; as China is in a credit-tightening mode right now, you may want to stick with the U.S. for now.