



Adviser Soapbox

Ranking Exchange Hook-Ups

Michael Pagano and Thomas Miller 05.04.07, 3:20 PM ET

Just like the popular TV show *Dancing With the Stars*, where judges and the audience evaluate various dance partners, securities exchanges are engaged in a similar competition. However, instead of judges and an audience, there are securities analysts and investors--all of whom are trying to assess which securities exchanges will merge. And, when they do pair up, these "judges" and "audience" must decide which "dance partners" will generate the biggest kick in terms of post-merger stock returns.

Recent mergers such as **NYSE Euronext** (nyse: [NYX](#) - [news](#) - [people](#)) and **Nasdaq** (nasdaq: [NDAQ](#) - [news](#) - [people](#))-INET, as well as currently proposed deals such as **Chicago Mercantile Exchange Holdings** (nyse: [CME](#) - [news](#) - [people](#)) and **CBOT Holdings** (nyse: [BOT](#) - [news](#) - [people](#)), or possibly **InterContinental Exchange** (nyse: [ICE](#) - [news](#) - [people](#))-CBOT and Deutsche Boerse-**International Securities Exchange Holdings** (nyse: [ISE](#) - [news](#) - [people](#)), have been spurred by rapid technological change, major regulatory reforms in the U.S. and Europe, and growing intermarket competition.

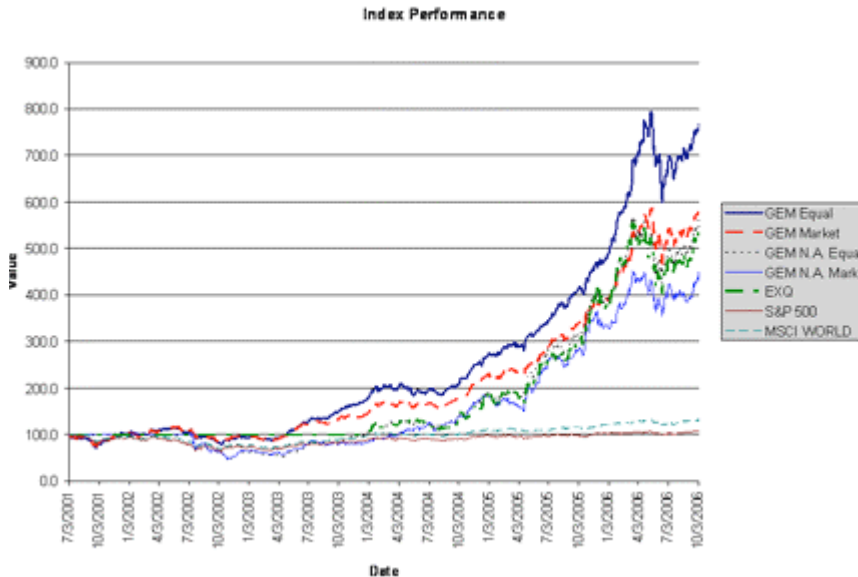
These changes have occurred swiftly and represent an important advance in terms of integrating international securities markets. In a recent article with my co-author, Tom Miller, that recently appeared in the *Journal of Trading*, we attempt to offer some insights about the outlook for international securities markets by examining the history of the risk and return relationships for 17 securities exchanges that have become publicly traded companies since 2001.

We use portfolio theory and historical risk-return relationships to consider "what-if" scenarios (78 in total) based on hypothetical mergers between possible pairings of several of these 17 exchanges. We identify both the "best" and "worst" merger pairs solely based on these historical risk-return and correlation patterns.

In addition, we examine the risk-return effects of some combinations that have recently been in the headlines. (However, we do not have sufficient data to analyze the current CME-CBOT-ICE merger competition.) Our hypothetical merger analysis is most consistent with securities exchange mergers where the combined exchanges operate as stand-alone business units under a holding company umbrella. (Note that this is similar to the structure that NYSE and Euronext have employed for their merger.)

To gain a better sense of the risk-return characteristics of the aggregate securities exchange industry, we have also created the first-ever Global Exchange MarketsSM

index, or GEMSM, in both market cap- and equal-weighted formats (see graph below). This graph illustrates the performance of the GEMSM index over time as well as some variations on this index (e.g., the North American regional sub-index and the equal-weighted version of the GEMSM index). In addition, the graph displays some relevant benchmarks, such as the S&P 500, MSCI World Index and the EXQ Index (CBOE's new index for U.S.-only securities exchanges).



As noted earlier, one important caveat related to our analysis is that we are not explicitly including any possible merger-related synergies. Thus, the rankings reported in our paper could change substantially if, for example, mergers with Nasdaq, Deutsche Boerse and **OM Group** (nyse: [OMG](#) - [news](#) - [people](#)) are more "actively" managed. Actions by the combined entity's management might result in large amounts of cost savings and revenue synergies (thus raising returns and possibly lowering risk) which, in turn, would make these exchanges' merger pairs look more attractive than, say, the hypothetical "passively" managed merger pair results of the Sydney Futures Exchange and the Toronto Stock Exchange.

Thus, our results are meant to be suggestive of possible exchange merger performance only if: a) the merged entities are managed as separate, stand-alone operations and b) the historical return, risk and correlations persist in the future.

We identify both the "best" and "worst" merger pairs solely based on historical risk-return and correlation patterns during 2001-2006. We find that Asian Pacific exchanges such as those based in Australia and Singapore consistently represent the strongest combinations of risk and return. In North America, the mergers associated with the Toronto Stock Exchange and Chicago Mercantile Exchange offer the best risk-return relationships.

Regarding the exchange pairings currently proposed or discussed in the business media, we find that the hypothetical merger of the **Nasdaq Stock Market** (nasdaq: [NDAQ - news - people](#)) and the London Stock Exchange represents one of the lower return-to-risk combinations (ranging from 34th to 74th place, depending on the relevant return-to-risk metric), while the NYSE Euronext merger offers a better return-to-risk ratio but is still not one of the highest performers (ranging from 23rd to 55th place, depending on the metric).

Overall, our approach suggests there is wide variation in the risk-return characteristics of passively managed mergers of securities exchanges, and that the "best" pairings typically include an Asian Pacific exchange as a partner, whereas some of the weaker hypothetical mergers include European and North American exchanges.

Michael Pagano is an associate professor of finance at the Villanova School of Business at Villanova University. Co-author Thomas O. Miller is a Ph.D. candidate at Smeal College of Business at Pennsylvania State University.

[More Adviser Soapbox Columns](#)