

# GLOBAL GROWTH AND MARKET INTEGRATION



*Is there evidence of common drivers across international markets?*

## STEPHAN SIEGEL

*Doctoral candidate, Columbia University  
Graduate School of Business.*

Economists have studied the integration of financial markets for quite some time, but have not yet reached a definite conclusion on the status of this phenomenon. Studies focusing on asset prices typically find relatively high and increasing co-movement of market returns as well as price-earnings (PE) ratios. On the other hand, home bias in portfolio choice and high correlations between domestic savings and investment continue to persist, casting doubt on complete market integration. By using global financial data to predict local macroeconomic growth, we develop tests of market integration and segmentation that combine the pricing and quantity perspective of previous research.

### SHIFTING IN SYNC

If markets are fully integrated and industry earnings growth is the same across countries, local and global PE ratios should move together and contain the same information about an industry's growth opportunities.

Viewing countries as portfolios of industries, an appropriately weighted average of global industry PE ratios should therefore predict future GDP as well as investment growth. Consequently, one source of local macroeconomic growth relative to the rest of the world is the weighting of industries in a given country. If a country has a large concentration in high-PE (i.e., high growth opportunity) industries, then it should grow faster than the rest of the world. Furthermore, the difference between local and global PE ratios should contain no information about the country's future economic performance relative to the world economy. This, however, is not true for markets that are not fully integrated and in which growth opportunities are priced locally. Under complete segmentation, only local PE ratios would be informative about local growth opportunities, and the difference in the weighting of industries between a country and the world would not explain the country's economic performance relative to that of the world.

### LIBERALIZATION = INTEGRATION

Using a sample of 50 developed and emerging-market countries with data between 1980 and 2002, we investigate these implications empirically. In a first step, we find that a weighted average of global industry PE ratios can indeed predict local GDP and investment growth, both in developed and emerging-market countries. This association is strongest for countries that have liberalized their capital accounts, equity markets, or banking sectors, indicating that financial liberalization is effective. We also provide evidence that international capital flows are relatively more important for aligning global growth opportunities with actual local growth than local financial development or the quality of local institutions.

Next, we compare local and global PE ratios in a test of market integration. While we find that for developed countries local PE ratios are still more informative about future growth than global PE ratios, the difference between local and global PE ratios has been decreasing over time. Furthermore, for developed and emerging market countries with open capital accounts, local and global PE ratios seem to contain the same information with respect to a country's future economic performance.

### SHRINKING SEGMENTATION

Finally, considering the importance of a country's industry composition relative to the world, we reject market segmentation for the complete sample of developed and emerging market countries. While emerging market countries on average still appear segmented, we find that liberalized equity and banking markets reduce segmentation significantly.

Overall, our results suggest that market integration depends on certain country characteristics that vary over time. Capital account as well as equity and banking market liberalization in particular have, over the past twenty years, led to an increase in market integration for developed as well as emerging market countries. ■