

C A M B R I D G E A S S O C I A T E S L L C

GLOBAL MARKET COMMENT: GLOBAL SECTORS

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Global Sectors: Finding New Ways to Slice the World

Global sector strategies are becoming one of the hottest products on Wall Street. In the agelong debate about the relative importance of global, country, and sector factors on equity returns, the pendulum has swung away from countries to sectors. According to a recent Goldman Sachs report, global sectors now account for 18% of the variation in global stock performance, up from 7% in 1995. In contrast, country and global market effects on individual stock performance currently account for 15% each, relative to 23% and 16%, respectively, in 1995 (the rest of the variation is due to stock-specific factors). Morgan Stanley Dean Witter has recently pointed out that in Europe and the United States, industry performance accounts for two-thirds of a stock's performance, and country performance one-third. The September-October 2000 edition of *Financial Analysts Journal* contains two rigorous studies arguing that diversification across global industries provides greater risk reduction than diversification by countries.

Investment banks and brokerages are, of course, keen to promote any new idea that might lead to portfolio restructuring, new products to sell, or new asset management mandates. Many firms are reorganizing their internal structure to emphasize sector research and sales, reassigning country experts, and expanding their menu of global sector products. In this newly sliced world, they envision sector-based exchange-traded funds and swaps playing a major role in asset allocation strategies.

To a large extent, investing by global sectors makes intuitive sense. Business cycles are converging, markets are becoming more integrated, and global trade is growing. However, generalizations about correlations among global sectors need to be treated with some skepticism (this echoes our discussion about global regional correlations in "Developed Market Comment" in last month's *Market Update*).

To explore the issue, we examined FTSE data that date back to 1994 and cover ten sectors¹ among the developed regions: the United States, the United Kingdom, Europe ex U.K., Japan, and Pacific ex Japan. We calculated the correlations using 36-month rolling returns, and consider correlations below 0.70 as providing adequate levels of diversification. We denominated the calculations in local currency because single-currency correlations tend to diminish the impact of local conditions on equity returns.

¹ FTSE calls these "economic groups," but to be consistent in this report, we use "sector."

The Various Ways of Slicing and Dicing

Not all global sectors offer equal opportunity for diversification, since correlations vary according to region and sector. For example, the 36-month rolling correlations for the resources sector among the United States, United Kingdom, and Europe ex U.K. are consistently in the 0.70 to 0.81 range, and that of cyclical services lies between 0.44 and 0.59 (see Exhibits A-E). In contrast to these fairly tight ranges, correlations of the utilities sector (not pictured) is much wider: U.S./U.K., 0.14; U.S./Europe ex U.K., -0.11; and U.K./Europe ex U.K., 0.45.

The underlying determinants of these data are, of course, the differing characteristics of the underlying economic activity in which companies are engaged. The resources sectors consist of global mining and energy, whose products are globally traded commodities. Consequently, specifically local conditions in such companies' home countries have relatively little influence on their earnings and profitability, and therefore on the performance of their stocks. In contrast, the non-cyclical consumer goods sector is comprised of industries that appear to be primarily domestically driven: beverages, food producers, health, personal care, and tobacco. As a result, this sector's correlations in the U.S./U.K. are 0.57, and U.S./Europe ex U.K., 0.58, and the U.K./Europe ex U.K., 0.67. This underscores the point that global investors seeking portfolio diversification should focus on sectors that are primarily domestic.

It is important to note, however, that correlations have been far from stable, having varied considerably over the years. This volatility raises another question: when analysts report that correlations are high, are they referring to the current point or to their trend? The differences can be quite striking. For example, in the information technology sector, the current level of correlations between the United States and United Kingdom is 0.58, which is double its seven-year mean of 0.29; and, similarly, with the U.K./Europe ex U.K., the current level is 0.60, while its mean is 0.27. Given the instability of correlations, is the dramatic rise in the sector's correlations between U.K./Europe ex U.K. (0.06 in 1997 to 0.60 in February 2001) assumed to be sustainable, or will they revert to their mean of 0.27?

Then There's Japan

Sector correlations between Japan and each of the three Western regions are almost consistently the lowest, compared with the same sectors among only Western regions. (The two exceptions are information technology and utilities, which have the highest and lowest correlations, respectively, among all ten sectors.) The average correlation among sectors between Japan and each of the Western regions is in the 0.20 to 0.30 range, while the average is 0.51 for U.S./U.K., 0.48 for U.S./Europe ex U.K., and 0.63 for U.K./Europe ex U.K.

Summary

Generalizations about correlations among global sectors need to be treated with some skepticism. While studies may rightly highlight the prominence of sector diversification over global or country diversification, investors should be cautious about assuming that this trend will continue for the foreseeable future or that in all cases sector-based strategies are the optimal way to maximize risk-adjusted returns.

Table A

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Resources

January 1, 1994 - February 28, 2001

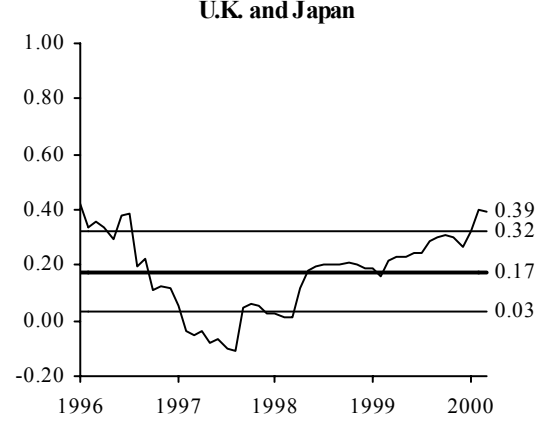
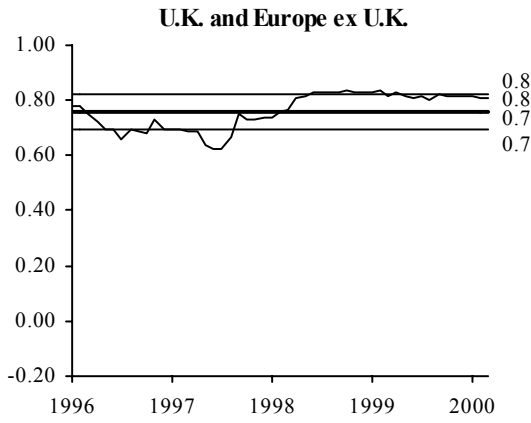
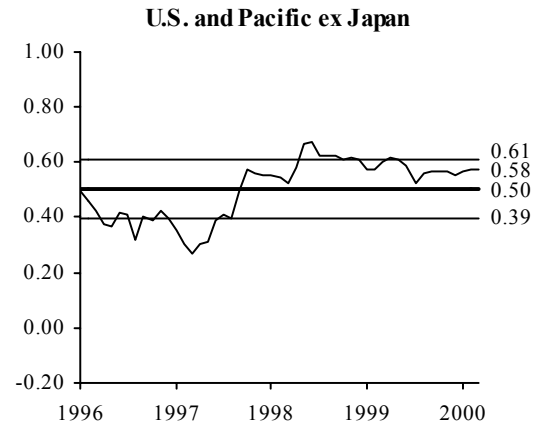
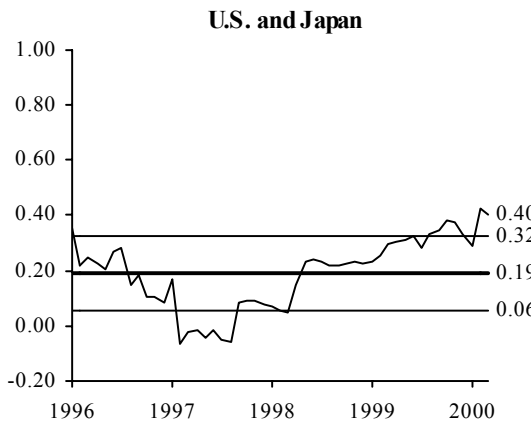
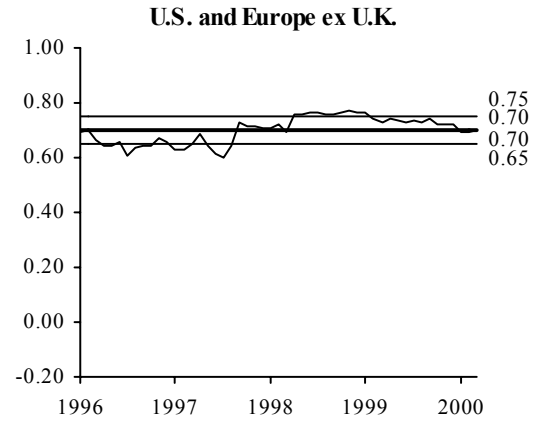
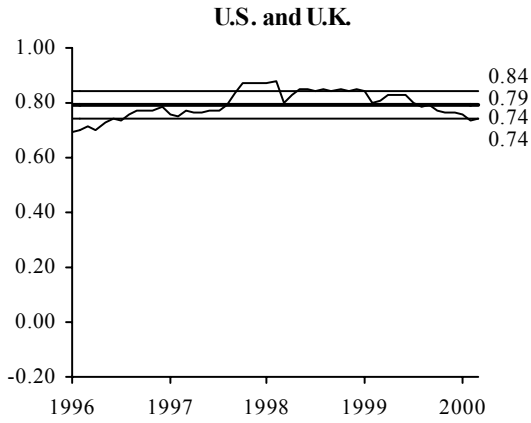
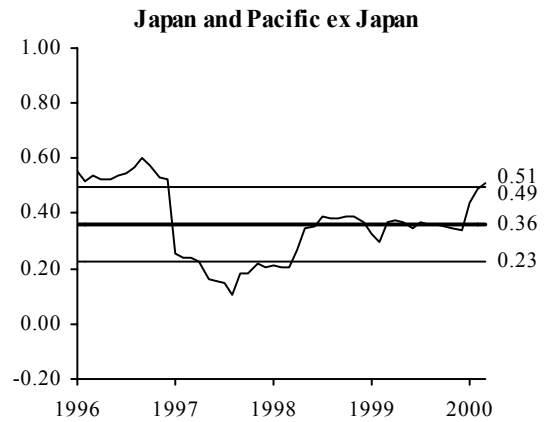
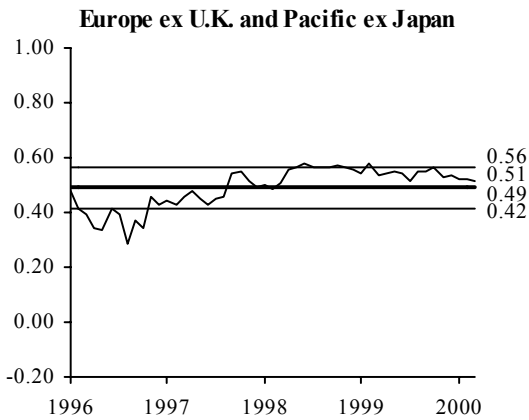
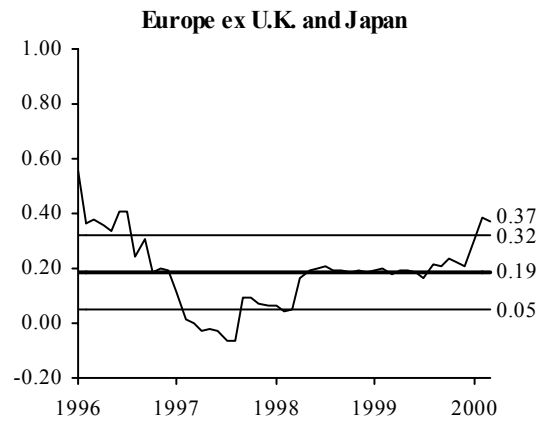
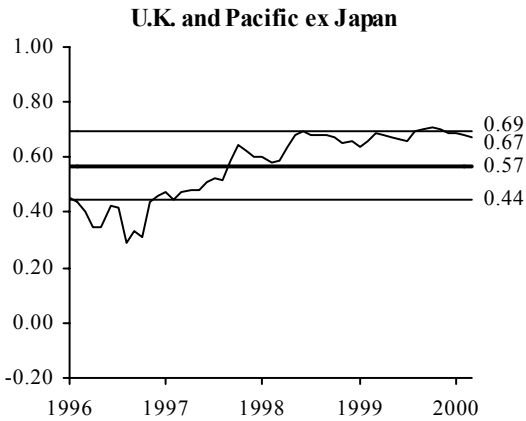


Table A (continued)

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Resources

January 1, 1994 - February 28, 2001



Source: Datastream International.

Table B

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Cyclical Services

January 1, 1994 - February 28, 2001

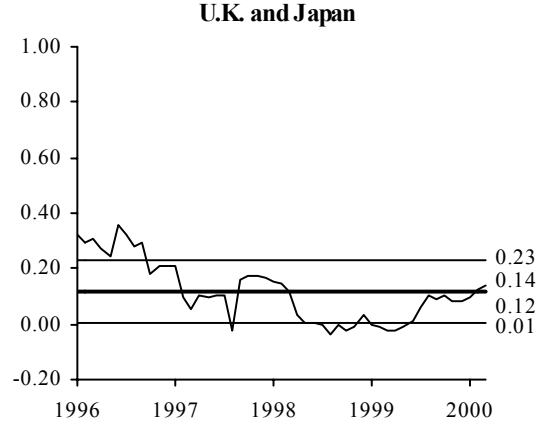
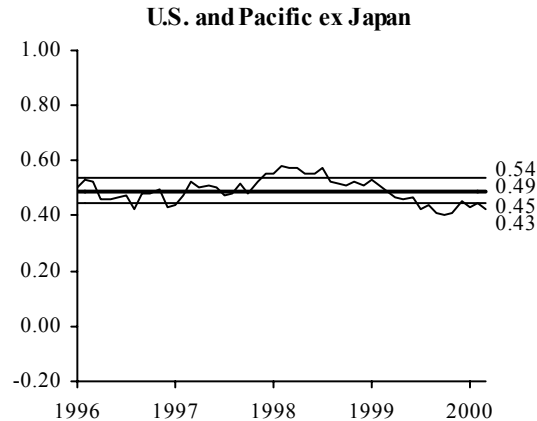
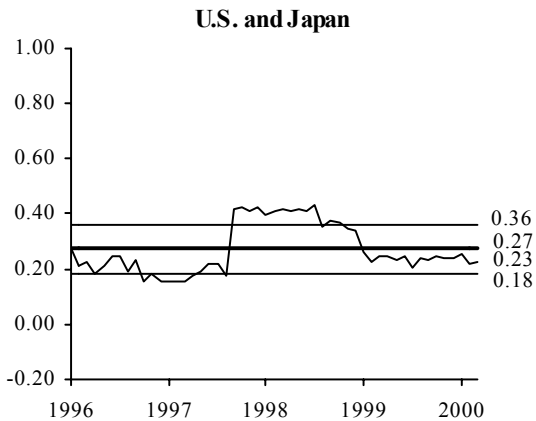
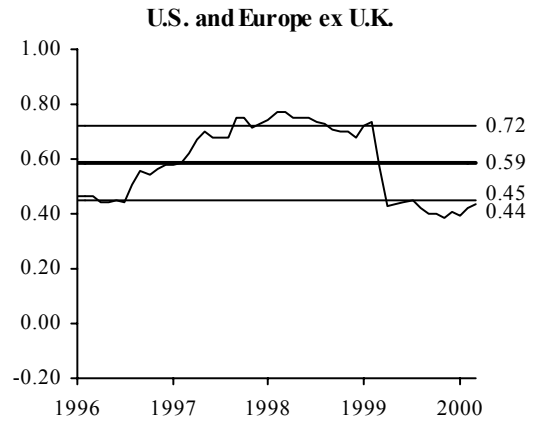
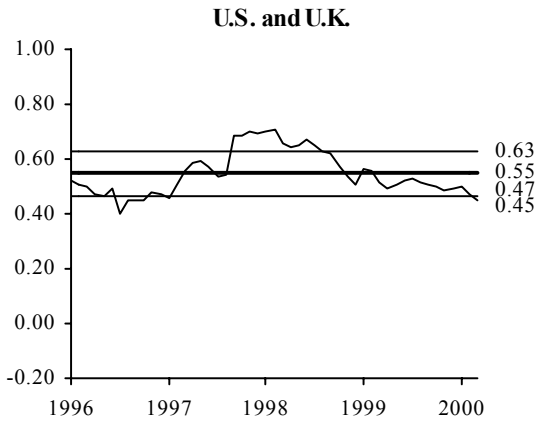
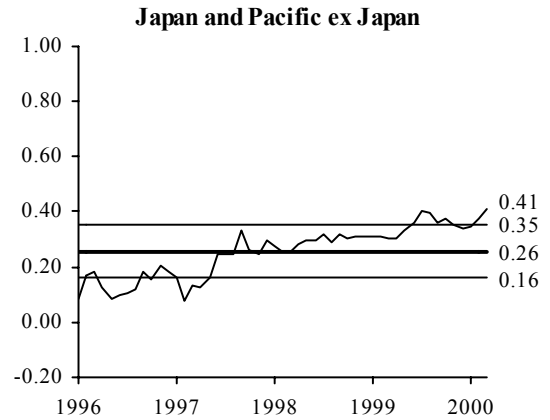
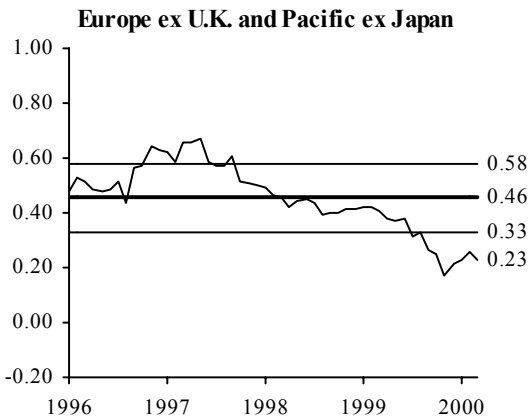
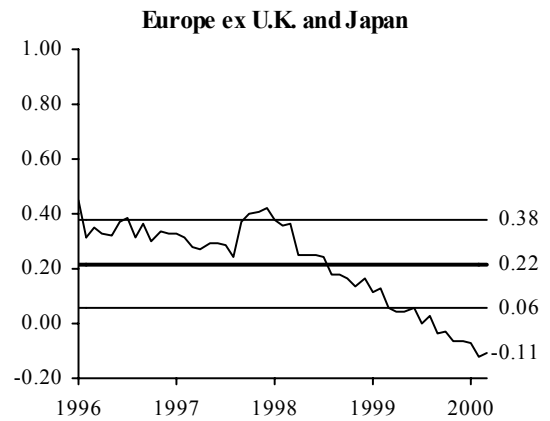
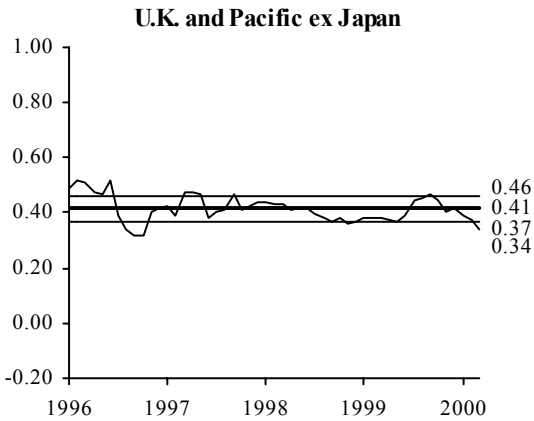


Table B (continued)

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Cyclical Services

January 1, 1994 - February 28, 2001



Source: Datastream International.

Table C

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Information Technology

January 1, 1994 - February 28, 2001

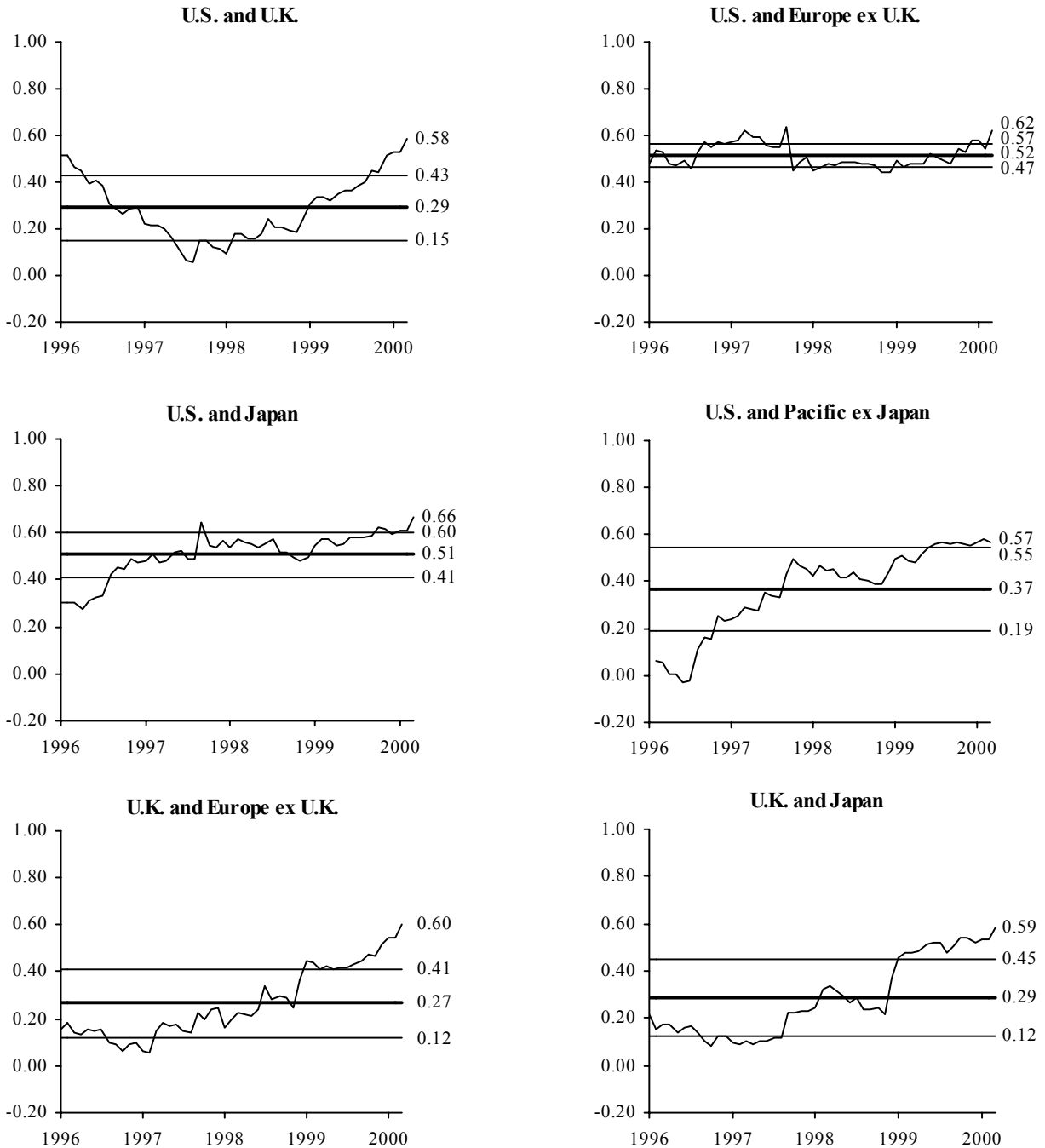
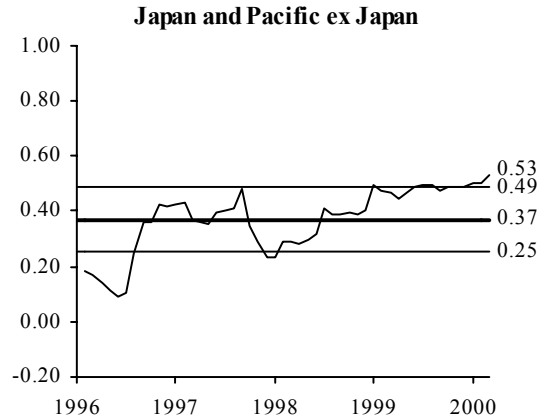
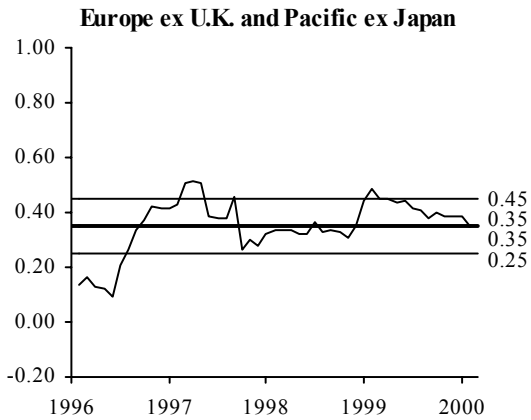
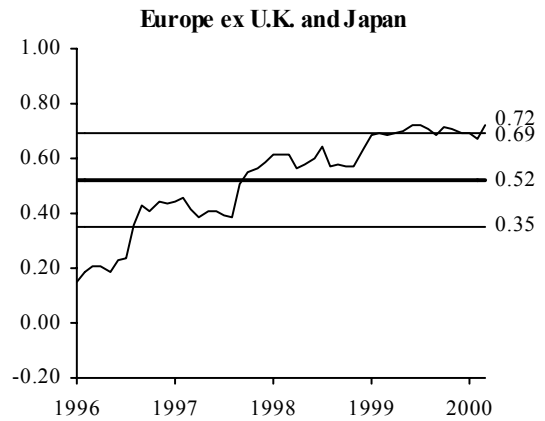
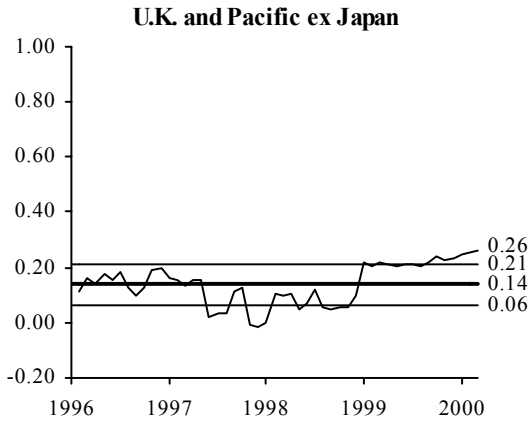


Table C (continued)

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Information Technology

January 1, 1994 - February 28, 2001



Source: Datastream International.

Note: Pacific ex Japan data begin February 1994.

Table D

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Financials

January 1, 1994 - February 28, 2001

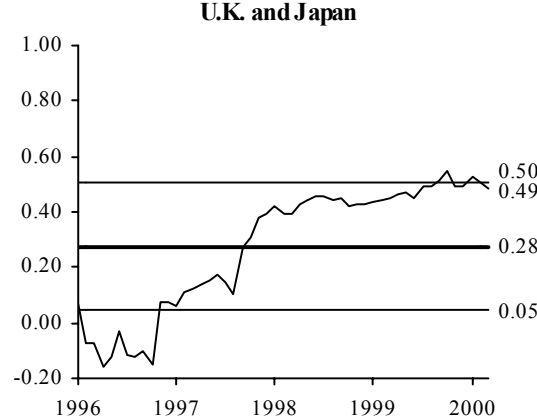
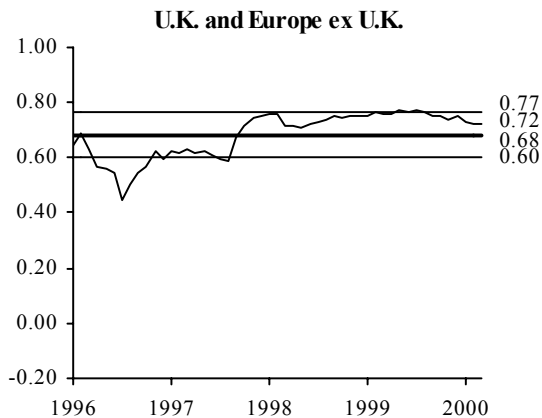
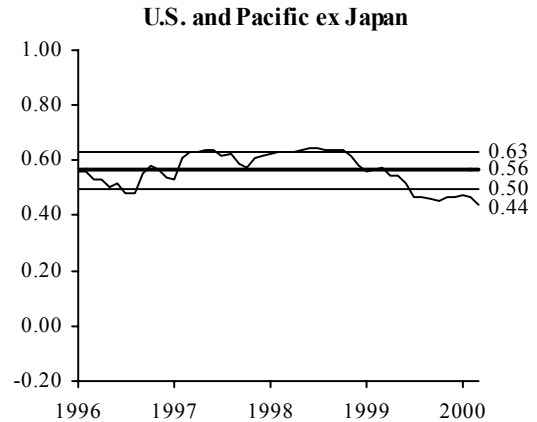
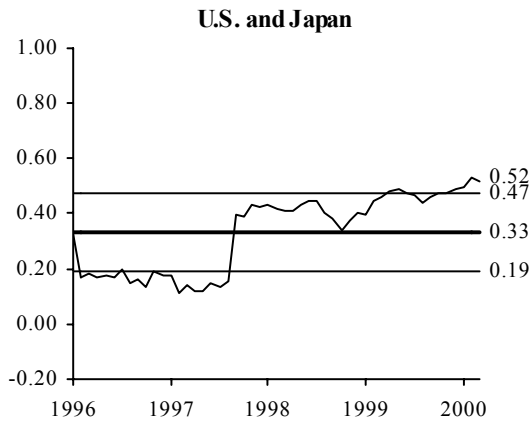
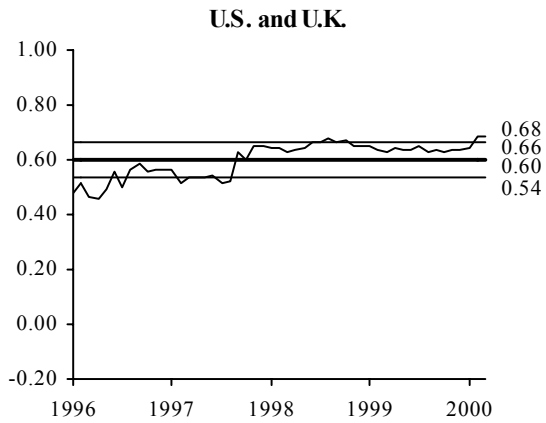
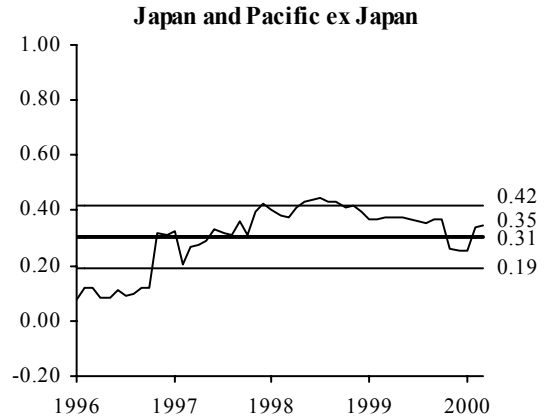
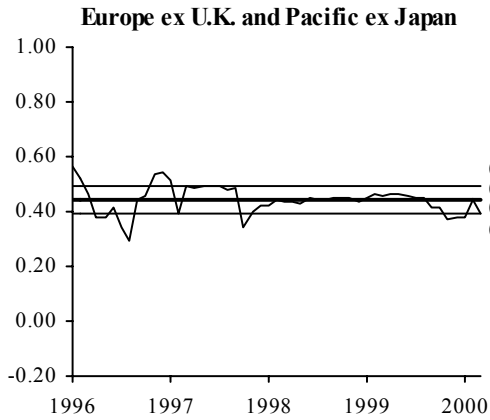
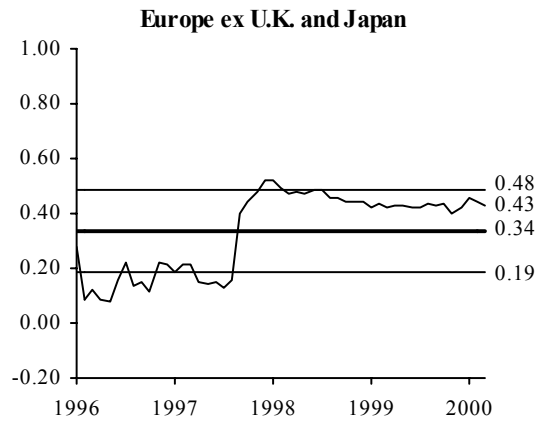
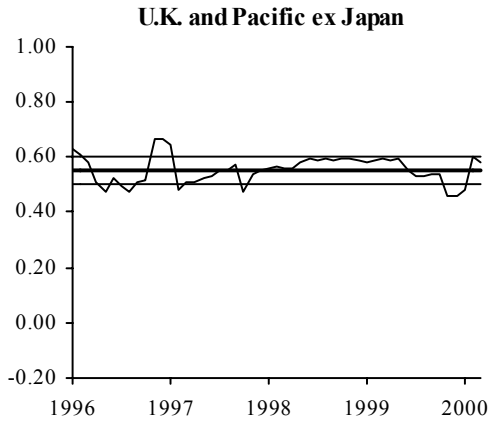


Table D (continued)

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Financials

January 1, 1994 - February 28, 2001



Source: Datastream International.

Table E

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Non-Cyclical Services

January 1, 1994 - February 28, 2001

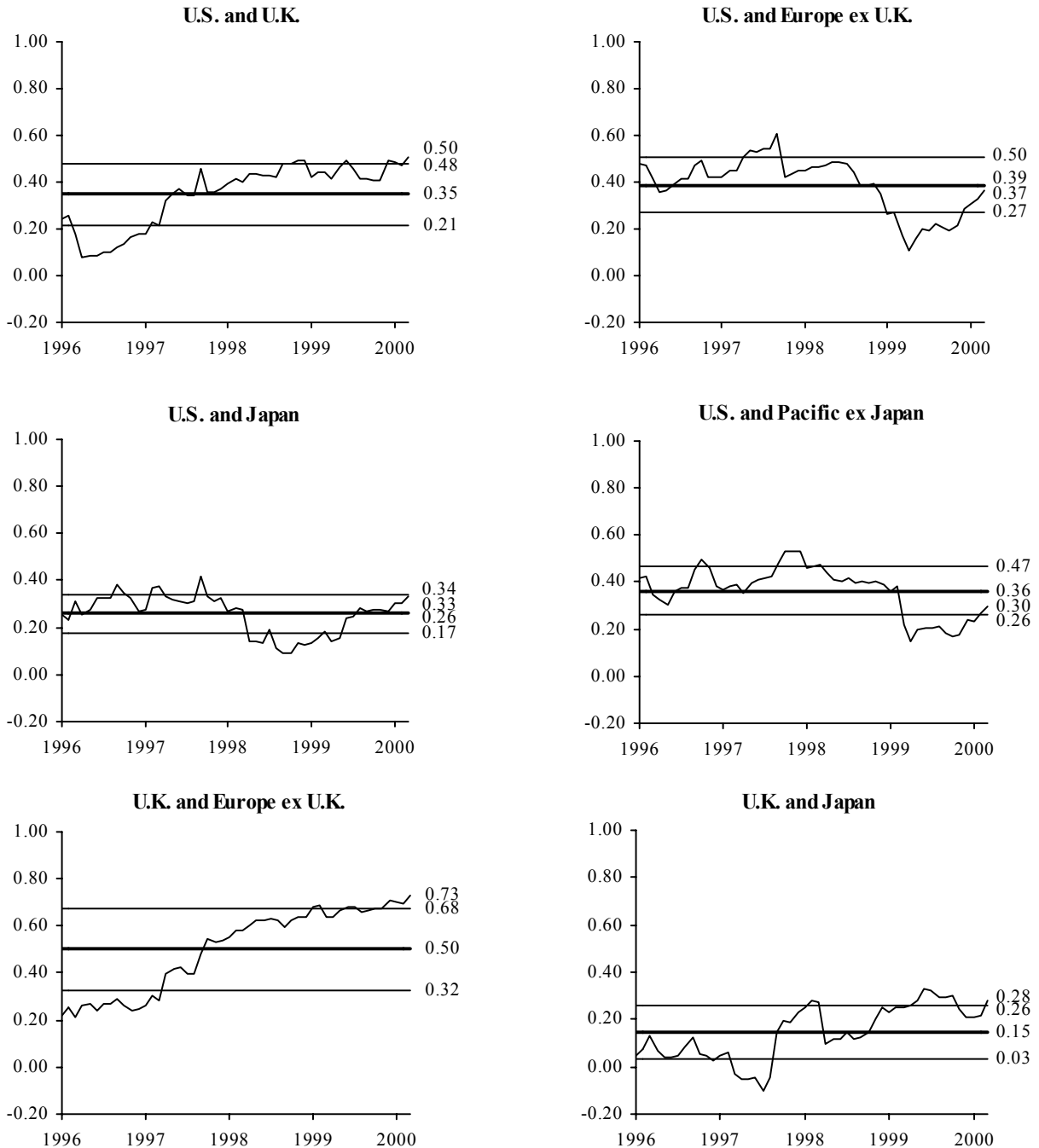
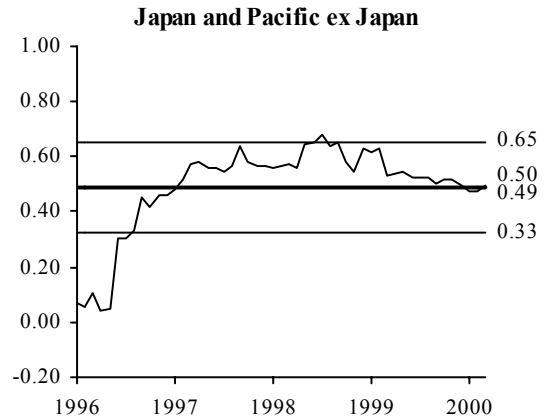
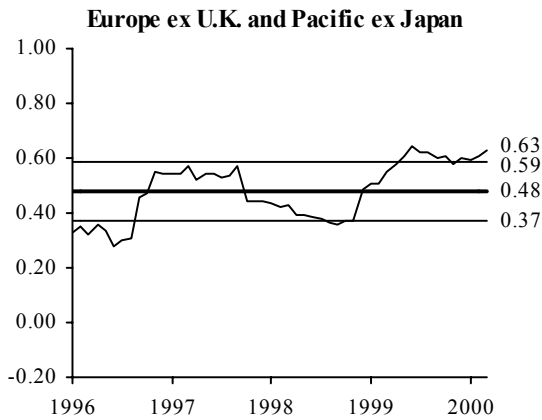
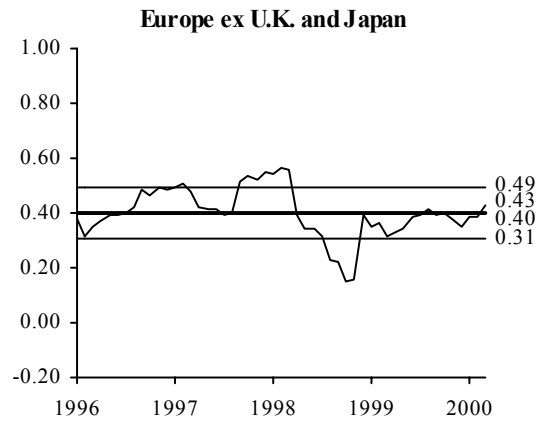
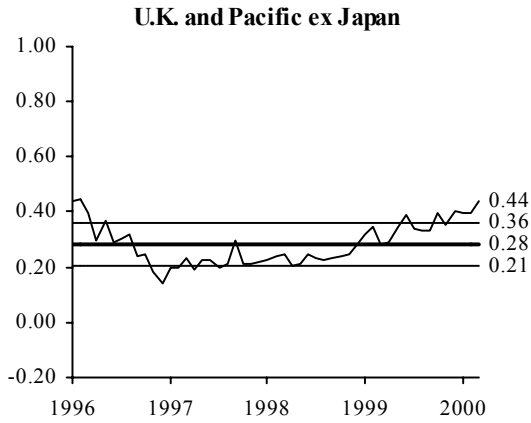


Table E (continued)

36-MONTH ROLLING CORRELATIONS IN LOCAL CURRENCY

Non-Cyclical Services

January 1, 1994 - February 28, 2001



Source: Datastream International.