

## International Diversification

We have seen that investors can reduce their risk by diversifying *within* a country, but what about diversifying *across* countries?

The following table shows the correlations between the monthly returns of ten market indexes during an 8-year period that included the financial crisis. You can see that the returns are quite highly correlated. Nevertheless, risk could have been reduced further by diversifying internationally rather than just domestically. For example, the *average* risk (standard deviation) of these ten market portfolios was 19.7% a year. If you had invested equal amounts in each of these markets, the risk of your portfolio would have been reduced to 16.9% a year.

Correlations between the monthly returns of major equity markets, May 2004 to April 2012. Returns are measured in the local currency (i.e., the correlations are those for an investor who was hedged against changes in exchange rates).										
	Australia	Brazil	Canada	China	France	Germany	India	Japan	UK	USA
Australia	1.00	.71	.80	.66	.86	.81	.67	.66	.87	.85
Brazil	.71	1.00	.77	.71	.67	.63	.68	.61	.70	.67
Canada	.80	.77	1.00	.68	.73	.70	.68	.66	.78	.80
China	.66	.71	.68	1.00	.62	.62	.69	.53	.65	.63
France	.86	.67	.73	.62	1.00	.92	.68	.71	.91	.86
Germany	.81	.63	.70	.62	.92	1.00	.69	.71	.87	.86
India	.67	.68	.68	.69	.68	.69	1.00	.59	.69	.66
Japan	.66	.61	.66	.53	.71	.71	.59	1.00	.71	.67
UK	.87	.70	.78	.65	.91	.87	.69	.71	1.00	.88
USA	.85	.67	.80	.63	.86	.86	.66	.67	.88	1.00