Q. Evidence of Dr. Vander Weide: US versus Canadian utility risk Pages 30-39: Please confirm that the standard deviation falls as you add securities to a portfolio as long as returns are not perfectly correlated and that this is the central insight of modern portfolio theory.

A. Cannot confirm. Dr. Vander Weide agrees that the average standard deviation of return on a randomly-selected sample of securities falls as the number of securities in the portfolio increases. However, the standard deviation of return does not necessarily fall when particular securities are added to a portfolio. For example, the standard deviation of return on a one-stock portfolio whose only stock has a 15 percent standard deviation of return is 15 percent. When a second security with a 25 percent standard deviation is added to the one-stock portfolio, the standard deviation of return on the portfolio will generally increase, even if the two securities are not perfectly correlated. When the correlation is zero, and fifty-percent is invested in each of these two securities, the portfolio standard deviation of the two-stock portfolio is 20.22 percent, a number that is larger than the 15 percent standard deviation of return on the one-stock portfolio.