

1. Use the Ibbotson data that provides returns on different asset classes in the U.S. from 1926 through 2004. Calculate annualized summary statistics about the returns to the stock market, the bond market, the short-term interest rate and inflation. Also compute statistics for the equity premium defined as the return on the stock market less the return on short-term treasuries. Report summary statistics over ten-year sub-periods, as well as over the entire history available, and whatever other statistics or figures you deem useful. Report arithmetic and geometric returns. Test whether the returns on each series are normally distributed.

What general characteristics about the equity premium do you observe? Is there a relation between risk and return?

2. Estimate the 5% and 95% confidence bands for the growth of a \$1 investment in each asset class at the one-month, one-year and ten-year horizon. You can use both standard statistics as well as create bootstrapped distributions using the programs that are provided.