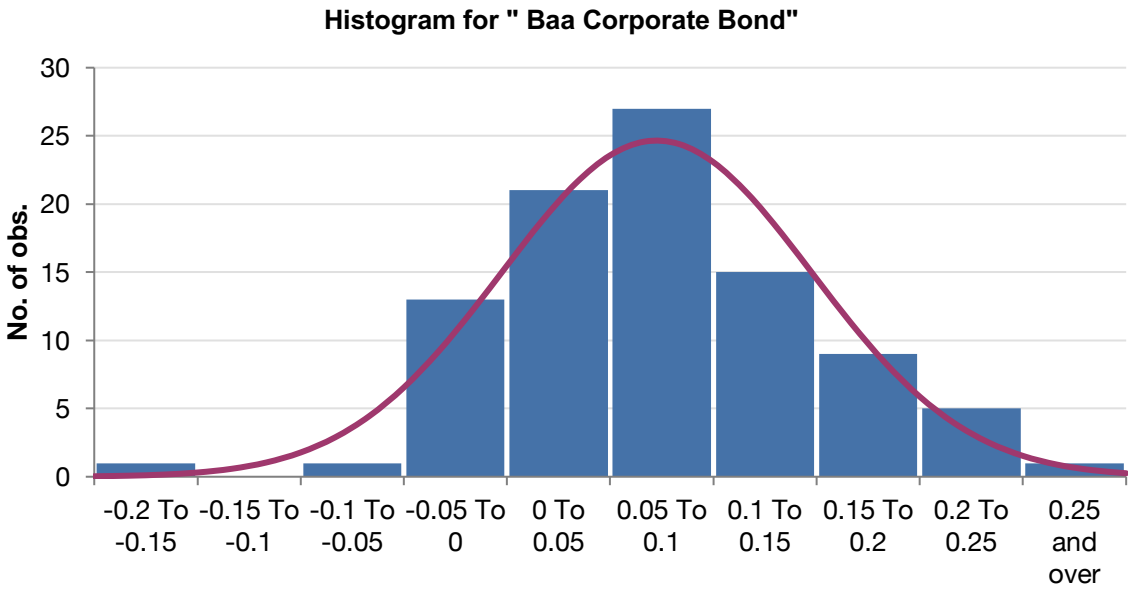
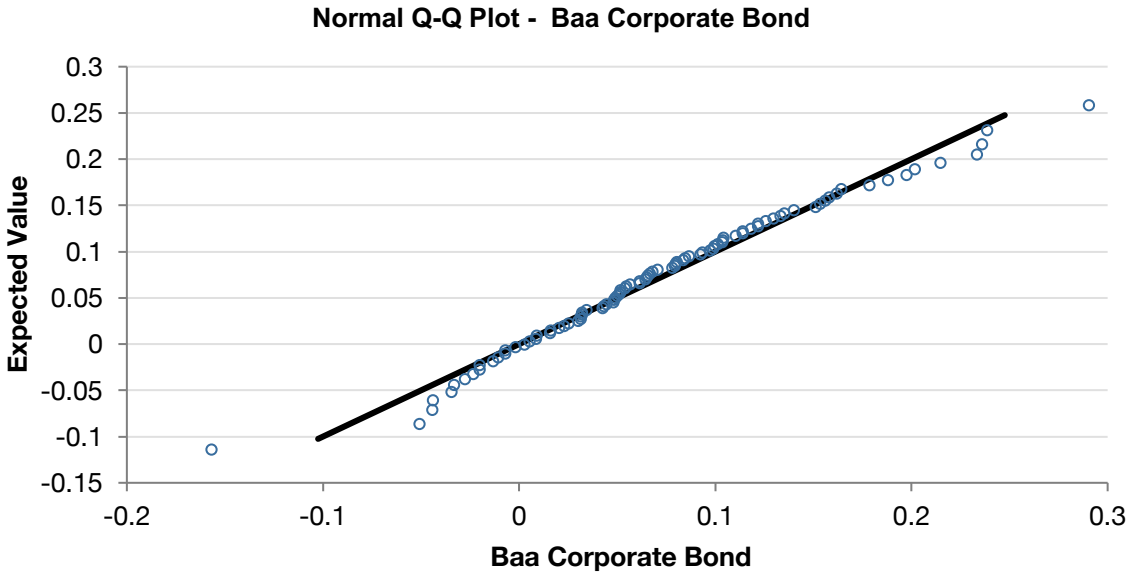
Session 4A: Post Class Test

1. The following is a histogram of investment-grade corporate bond annual returns from 1928 to 2020, with a normal distribution super-imposed on it, and a Q-Q plot for the data. Explain whether you would feel comfortable assuming that corporate bond returns are normally distributed and why or why not.





2. The link below contains data on operating profit margins for all software companies in 2020.
   https://www.stern.nyu.edu/~adamodar/pdfiles/Statistics101/postclass/SoftwareMargins2020.xlsx
   Using Excel or your favorite statistics package,
   a. Does the data fit a normal distribution?
   b. If not, what type of standard distribution (if any) will be the closest fit?
3. The link below contains data on dividend yields for all US power utilities in 2020.

https://www.stern.nyu.edu/~adamodar/pdfiles/Statistics101/postclass/UtilityDivYld2020.xlsx
Using Excel or your favorite statistics package, estimate
   a. Does the data fit a normal distribution?
   b. If not, what type of standard distribution (if any) will be the closest fit?
4. The link below contains data on the US consumer price index, each year from 1960 to 2020.
   https://www.stern.nyu.edu/~adamodar/pdfiles/Statistics101/postclass/CPI2020.xlsx
   Using Excel or your favorite statistics package, estimate
   a. Does the data fit a normal distribution?
   b. If not, what type of standard distribution (if any) will be the closest fit?
5. The link below contains data on the price to book ratios of US banks in 2020.
   https://www.stern.nyu.edu/~adamodar/pdfiles/Statistics101/postclass/USBanks2020.xlsx
   Using Excel or your favorite statistics package, estimate
   a. Does the data fit a normal distribution?
   b. If not, what type of standard distribution (if any) will be the closest fit?