

Mgt of Fin Institutions - MGT-6090-A  
ASSIGNMENT 10

Submission By: Abhinav Agrawal  
GTID: 903618080

### **Analysis of Plots:**

- Some results in mean DD after 2008-9 go to negative default as a lot of firms may have defaulted and they were bringing the whole mean to negative values. The values are not negative for median or p25 values which confirms the observation.
- BAAFFM does not have a fixed pattern with distance to default, but generally when BAAFFM is negative, the distances are high followed by extreme lows (maybe indicating the times just before recession are good for the firms and they look to last more, but the coming recession periods clearly ruins the strengths of companies). This also suggests that distance to default coupled with BAAFFM can be a more accurate indicator of default and we should discount the distance with BAAFFM somehow.

### **Comparison of Methods:**

- As noted before, the high magnitudes of DD (distance to default), of method 3 are due to the sampling.
- The graphs of method 2 and method 3 are much more stable (year by year) than the naïve method 1 because they are not directly linked with the market value of the firm and smoothen out the estimation of accurate distance to default
- Method 2 and method 3 are highly correlated as expected, because both are estimates of more general and correct estimation of distance to default rather than assuming some firm value.
- As clearly seen from NBER recession descriptive stats, recession years have lower mean distances to default than most of the non-recession years as expected
- Also, the distances to default for the following year of a recession are usually the LOWEST as the firm may be reacting to the recession because of the plummeting market values. And thus all the recession show a LATE effect on distances to default
- All the observations of DD can be verified from the corresponding PD(probability of defaults), so not all of them are plotted here.