Caselet #10 – Sparky Finds a Duration Sawtooth

Renowned Darla Moore School of Business graduate and bond analyst Ms. Jane Gotzrox walks into her intern’s cubicle.

“Well, Sparky,” she says, “your explanation of the pricing scallop was absolutely correct. Congratulations, you are building the skills needed to work in this industry.”

“Now that you know something about the time path of bond prices, I want you to see what happens to duration over time. Chances are that you will find it a real surprise.”

“Open Excel and login to Yield Book Add-in. Build a User Bond by modifying the 10-year to have a 6% coupon. Create 10 years of days in a column, beginning with the dated date for your 10-year Treasury. Then, calculate duration for a par price for every one of those days. Plot the duration time series, that’s the easy part. Then, plot the duration time series for one of those ten years – take the fifth, hah!"

“As a check, pick one day every two years from your spreadsheet and show that Excel gets the same duration for a 6% Treasury.”

“Then, give me a write up of why duration changes the way it does over time. This is an important entry in your interview notebook, so take extra care.”