Renowned Thunderbird graduate and bond analyst Ms. Jane Gotzrox summons her intern into her office for a follow-up on a recent project.

“Sparky,” she says, “One of the results that is confusing to beginning fixed income analysts, and makes them think that their bond analytical software is broken, arises when they notice that even though 6% coupon Treasuries are priced to yield 6%, their flat prices aren’t always par. In fact, it happens for any coupon rate, of course. Their economics training has them say, ‘when the coupon rate equals the yield to maturity, a bond is priced at par’.

“Here’s what you’re going to do so that you don’t fall into that error. Log in to the Yield Book Add-in in Excel. Create a User Bond from the on-the-run 10s, but give it a 6% coupon. You’ve done this enough, now, that it should be getting easy, eh?

Then, put down 366 consecutive days in a column in Excel. Begin with the dated date for your 10-year Treasury and finish with the anniversary of the dated date. In the column next to the days, calculate the flat price at 6% yield. You will find it useful to put the accrued interest in the next column.”

“Plot the flat price and the accrued interest in separate graphs. Now, using the graphs and a little bond math, explain why the flat price looks like it does. Tell you what; let me give you a little hint. You might also find it useful to think about how interest should accrue in a compounding world.”

“As always, ‘the devil is in the details. Be sure to update your notebook with your results and comments.”