Caselet #6 – Sparky Learns about Interest Rate Conventions

Learning Outcome Statement

After completing this caselet, students and trainees should be able to distinguish discount yield from CD yield and from bond equivalent yield. They should also be able to price money market instruments.

Caselet #6

Renowned Darla Moore School of Business graduate and bond analyst Ms. Jane Gotzrox is meeting with you, her new intern.

“Well, Sparky, are you starting to be able to control the Yield Book Add-in? Have you refreshed your understanding of the time value of money? Have you started to have visions of sugar plums dance in your head?”

“Now that you know that fixed income analysis is mainly TVM calculations, it is time to encounter the ugly truth that market conventions use multiple definitions for interest rates or yields. To keep from being a source of arbitrage profits, you have to know them all. You also have to know where they are applied. So, do the following:”

Stuff for Sparky:

- Find the 3-month Treasury bill in Yield Book Add-in. Hint: Its ticker is ‘3MO.’
- Then, for a variety of discount yields and settlement dates, calculate the bill’s price, CD yield and yield (which is bond equivalent yield).
  - Make sure that one combination is a 6% discount rate 30 days before the bill matures. What price do you expect for that combination?
- Using Excel’s Tbillprice function, confirm that Yield Book Add-in gets it right.
- Using Excel’s Pricedisc function, confirm that Tbillprice gets it right.
- Write your own Excel T-bill pricer to make sure they both got it right.
- Write Excel functions to figure out whether Yield Book Add-in is reporting each of the yield measures correctly.
- The money, Sparky, the money!! Make sure that the invoice amount for the cash flow analysis is right.
- Prepare copies of your Yield Book Add-in screens and Excel programs. They will form part of your interview notebook. It is important to show that you can handle the detail work of money market instruments before any manager will let you touch bonds farther out the curve.