Caselet #53 – Sparky and Sequential Pay CMOs

**Learning Outcome Statement**

After completing this caselet, students and trainees should be able to explain how to construct a sequential pay CMO and to explain extension and contraction risk in sequential pay CMO tranches.

**Caselet #53**

Renowned Darla Moore School of Business graduate and bond analyst, Ms. Jane Gotzrox, seems unusually pleased."

“Sparky,” she says, Your PSA spreadsheet is a thing of beauty; that’s for sure. Next, to show your fixed income chops is to build a sequential pay CMO. It is really just an extension of the sheet you just finished.”

“Here’s the first step. Using the mortgage prepayment calculator that you just built, I want you to show the simplest sequential pay CMO. For starters, put 25% of the principal in each tranche. For now, don’t worry about setting coupons and what to do with any extra money. We just want you to show the compression and extension risk of each tranche.”

“Please don’t bother to split the principal piece during the ‘crossover’ months. So, the first tranche gets the principal payments until less than or equal to 75% of the original balance is outstanding. That way it probably will get a little extra principal, but your program will be much simpler to write.”

“Graph the amount of principal going to each tranche each month. Of course, only one tranche at a time gets principal payments, but that graph will let you see the beginning and ending dates of payments to each tranche.”

“Finally, I want you to find the definition of weighted average life for CMO tranches and calculate WAL for varying PSA speeds, especially, 0%, 100% and 200%.”

“Sparky, you’re getting close to the end of your internship. A terrific job awaits, eh?”