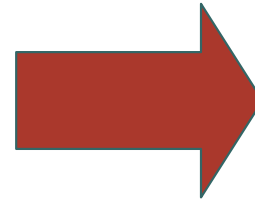


Reaching Our Students with On-Line Tutorials



Use the Tablet PC and Camtasia to create animated, online tutorials for our students



Students can listen and watch as the instructor explains concepts

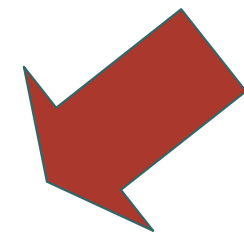
Website tutorials available 24/7

Bond Duration - "Macaulay"

$$D = \frac{\sum_{t=1}^N \frac{c_t(t)}{(1+i)^t}}{\sum_{t=1}^N \frac{c_t}{(1+i)^t}}$$

The denominator is the sum of the present values of all the future cash flows. This is the bond price.

In the numerator, each future cash flow is multiplied by the period in which the cash flow occurs. Those values are then discounted at the yield to maturity and summed.



Students work problems along with the instructor

Question 30 - York Industries has an outstanding bond issue with the following characteristics: \$1000 Par, 8% coupon rate (paid annually), 20 years to maturity. The bond is priced at yield 11%. The duration of this bond is 9.33 years. Use modified duration to estimate the percentage price change if the yield increases to 12%.

$$\frac{\Delta P}{P} = -D \left[\frac{\Delta y}{1+y} \right] = -9.33 \left[\frac{.01}{1.11} \right] = -.08405$$

Observations

It is well documented that:

- ❖ Students learn at different speeds
- ❖ Some students are audio learners, others are visual learners
- ❖ Some students learn best through “hands on” activities
- ❖ It is difficult to meet the individual learning needs of each student in a typical classroom setting.

The Tablet PC creates opportunities for instructors to tailor different tools to enhance learning for all students.

- ❖ In addition to the benefits of archived notes (saving whiteboard notations) and use in the virtual classroom (Elluminate), another real benefit is the use of the Tablet PC to develop tutorials for students.
- ❖ The use of the Tablet PC in conjunction with screen capture software (Camtasia) and traditional software used in class (e.g. PowerPoint, Excel) can result in powerful learning tools for all students. Tutorials can be screen recorded. The audio and video files can easily be linked to Blackboard.
- ❖ Advantages: instant access - the tutorials are available anytime, anywhere the student has an internet connection.
- ❖ The instructor can create a virtual library of topics that are important to the discipline. It is relevant for essentially any subject matter.
- ❖ This tutorial tool is particularly well-suited for complex formulas and problems solving areas. The students benefit as the instructor identifies and defines variables in formulas.
- ❖ Students can work problems along with the instructor. They can follow the instructor’s approach/thought processes in problem solving. They can also pause, fast-forward, and rewind.

Conclusions

- ❖ The Tablet PC is useful for efficient and effective development of teaching tools.
- ❖ It has certainly changed my approach to teaching preparation as well as content delivery. I accept the challenge to continue to find ways to better reach and teach my students.



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