

## Tutorial 11 (for Week 12)

1. Review Quiz 11 questions.
2. Briefly explain what is the equity premium puzzle, without using any equations.
3. The current market prices of zero-coupon bonds promising to pay \$100 at the listed maturities (from the present) are observed to be:

	1 year	2 years	3 years	4 years
price	\$96	\$90	\$84	\$80

A new coupon-paying bond, for which a market price is not yet observed, has a face value of \$100, and promises to pay a coupon of \$20 at the end of each of the next three years. At the end of the fourth year the bond will be redeemed by paying its face value (with no additional coupon).

- (a) Interpret the coupon-paying bond as a portfolio of several zero-coupon bonds.
  - (b) Using the information in the table to calculate the yield to maturity on each of the zero-coupon bonds.
  - (c) Define and calculate a ‘fair value’ for the new bond.
4. Discussion: The following figure depicts the US term spread, defined as the 10-year treasury bond yield minus 3-month treasury bill rate, where the shaded areas indicate the years in recession.



In view of this figure, discuss whether the observed US term spread is consistent with the theory of term structure, and why an inverted yield curve is often viewed as an

indicating an upcoming recession. Do you think the US economy is heading into a recession?

To see the recent trend of this term spread more clearly, refer to the following figure:

