

FN 312
Pop Quiz 1

For the following questions, refer to the T-bill that expires on February 9, 2006.

Treasury Bills						
MATURITY	DAYS TO		ASKED	CHG	ASK	YLD
	MAT	BID				
Jan 26 06	141	3.51	3.50	0.04	3.60	
Feb 02 06	148	3.53	3.52	0.05	3.62	
Feb 09 06	155	3.52	3.51	0.04	3.61	
Feb 16 06	162	3.54	3.53	0.04	3.64	
Feb 23 06	169	3.55	3.54	0.06	3.65	
Mar 02 06	176	3.57	3.56	0.06	3.67	

- a) Explain what the last column (ASKYLD) represents. How is it different from column 4 (ASKED)? Which is a more meaningful measure of the return on investment?
- Both ASKYLD and ASKED represents the annualized rate of return if the T-bill is held until maturity based on the ask price.
 - However, the calculation of the return is slightly different as ASKYLD is based on the Bond Equivalent Yield while ASKED is based on the Bond Discount Yield formula.
 - ASKYLD is a more meaningful measure as it is based on 365 rather than 360 days and calculates the return relative to the ask price rather than T-bill's face value.
- b) If the face value of the T-bill is \$1,000 calculate the current T-bill price.
- The ask price is 984.88
 - Students can either use BEY or BDY formula:
- $$\begin{aligned} r_{BDY} &= (FV - P) / FV * 360 / n \\ P &= FV * (1 - n / 360 * r_{BDY}) \\ &= 1000 * (1 - 155 / 360 * 0.0351) \\ &= 984.88 \end{aligned}$$
- c) What is the LIBOR? If the return on the LIBOR is 2.5 percent, is it a better investment than the T-bill?
- LIBOR is the interest rate for interbank loans based on surveys of large banks in London. It is used as a reference rate for many financial transactions around the world.

- **The T-bill offers a higher return than the LIBOR, hence the T-bill is considered a better investment.**

d) What does the difference between the T-bill and LIBOR rates represent?

- **The difference between the LIBOR and T-bill rate represents the TED spread and is a measure of credit risk. The larger the difference, the larger amount of credit risk there is in an economy since it signifies that bank's have a larger default risk (hence the higher rate) and investors are willing to accept a lower rate on a safe investment like the T-bill.**
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