

Problem 7-7

Goal: Compare after tax preferred stock against bonds

Given: Total Investment \$20,000,000 **P**

from "non-capital" resources	50%		
from loan	50%	of	remaining
from stock or bonds	50%	of	remaining
Loan interest or stock dividend rate	8.0%	i_{effective}	
Bond interest rate	6.0%	i_{effective}	
income tax rate	35%	i_{tax}	

Approach: Determine total amount borrowed, then amount from stock or bonds
 ASSUME: no principal repayment, constant annual interest only
 Determine dividends on stocks which are not tax deductible
 Determine interest on bonds which are tax deductible

Calculations:

from "non-capital" resources	\$10,000,000	= 0.5 * \$20,000,000 = C6 * C5
from loan	\$5,000,000	= 0.5 * \$10,000,000 = C7 * C18
Loan interest or stock dividend rate	\$5,000,000.00	= other half = same as from loan = c19
stock 8% dividends =	\$400,000	per year
Bonds 6% interest payments =	\$300,000	per year
Tax savings on bond interest =	\$105,000	per year
net actual cost =	\$195,000	per year

Answer	difference =	\$205,000	per year
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Discussion: Issuing preferred stock whose dividends are not tax deductible will cost the company an additional \$205,000 per year when incorporating the income tax effects

prepared by: D. C. Drown
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