

Question 1 (35 Points)

Win Hom Production has **book value** balance sheet as shown below:

Current assets	\$30,000,000	Long-term debt	30,000,000
Fixed assets	<u>50,000,000</u>	Common stock	<u>50,000,000</u>
		(1 million shares)	
Total Assets	<u><u>80,000,000</u></u>	Total Claims	<u><u>80,000,000</u></u>

Under this capital structure, the long-term debt consists of 30,000 bonds, each with a par value of \$1,000, an annual coupon interest rate of 12%, and a 20-year maturity with 15% yield to maturity (YTM). The company has a dividend yield of 4%, an expected constant growth rate of 8%, and the market price of common stock at \$60 per share. The company's marginal tax rate is 40%.

1.1 Calculate Win Hom's **market value** capital structure. (10 Points)

1.2 Find the component after-tax costs of debt and cost of common stock. Then, calculate weighted average cost of capital (WACC) under the current market capital structure. (10 Points)

1.3 If Win Hom Production plans to raise \$40 million capital for new projects, in order to maintain the present market capital structure, how much of the new investment must be financed by common equity? What could be the reason why Win Hom wants to maintain the current capital structure? (5 Points)

1.4 (10 Points) *Qualitatively speaking*, what will happen to the WACC if:

- (1) There is not enough internal cash flow and Win Hom must issue new shares of stock with the flotation cost?
- (2) The new projects of Win Hom are riskier?