

Klausur: Taxes and Business Strategy

Sommersemester 2006

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Veranstaltungs-Nr.: 2163

Disclaimer: You may use a non-programmable pocket calculator

This exam consists of 4 questions. All questions must be answered.

Good Luck!

Question 1

(9 Points)

What different types of tax effects on investment decisions do you know? Give one example for each effect. A verbal description will do, no numeric example is required.

Question 2

(8 Points)

Give some pros and cons for a foreign investment in form of a subsidiary compared to a branch investment?

Question 3

(12 Points)

According to Sureth/Langeleh (2004) the value of a corporation to its founder who sells the firm after z years is given by:

$$V_0^T = I_0 \cdot \varphi \cdot \left(1 - \beta \tau_g \frac{(1 + \gamma i_{\tau_c})^z - \frac{1}{\varphi}}{(1 + i_\tau)^z} \right)$$

with:

$$\varphi = \frac{(1 - \beta \tau)(1 - \gamma)(1 - \alpha \tau_c)}{(1 - \tau) - \gamma(1 - \tau_c)}$$

$$0 \leq \gamma < 1$$

- Please specify V_0^T for a full imputation system
- Does the decision to found the firm depend on the investor's tax rate? Assume the firm to pay out 100 % of its profit every year ($\gamma = 0$). Besides, it is $\tau_g = 0$ %.
- How can profit retention influence the investor's wealth? Distinguish investors with different personal tax rates τ ($<$, $>$, $= \tau_c$).

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Question 4**(31 Points)**

Foxy Fox is a resident citizen of Foxyland. At date $t = 0$ he plans to make a fully equity-financed investment of 650.000 \$ for the purchase of a production machine. He expects the investment to generate the following cash flows:

t	1	2	3	4	5
CF	200.000	175.000	150.000	135.000	119.000

F. Fox wants to maximize his wealth. The market rate of interest is 7 %.

- a) Calculate the NPV of the investment in a world without taxes. Should Fox make the investment?
- b) According to his country's tax code, the investment asset must be written off over its useful life of 5 years. Taxpayers can choose between straight-line depreciation and declining-balance depreciation at a rate of 25 %. Switching from declining-balance to straight-line depreciation is allowed, but not vice versa. The state of Foxyland levies a personal income tax at a flat rate of 35 % on business and interest income. Calculate the post-tax NPV of the investment. You may assume an immediate loss offset. Should Fox make the investment under these conditions?
- c) The Chancellor of the Exchequer of Foxyland plans to introduce a new tax regime which taxes true economic income at a rate of 35 %. Re-calculate the NPV basing on the new tax system. What effect does the tax reform have on Fox's investment and which legal restriction would occur in reality?