

Antwoorden tentamenflyer economie blok 2.1

Statistiek 1b

- 1 d
- 2 c
- 3 d
- 4 d
- 5 d
- 6 a

Finance 2

1 The increase in the stock of raw materials increases current assets, and the credit increases the firm's current liabilities. Since net working capital is the difference between current assets and current liabilities, it will not change due to this transaction

2 The effective annual rate is calculated as $= \left(1 + \frac{\text{discount}}{\text{discounted price}} \right)^{365/\text{extra days credit}} - 1 =$

$$\left(1 + \frac{5}{95} \right)^{365/20} - 1 = 1.55 \text{ or } 155\%$$

3 No. The pecking order theory of capital structure tells us that internal funds will be a cheaper source of financing than external funds, and that debt financing will be a cheaper source of external funds than equity financing. Accordingly, firms prefer to finance their investments with internal funds, and first use debt and then equity if external funds are needed. They will therefore not be indifferent between retained earnings and new equity.

4. In the initial situation expected profit are $200 \times (1.010 - 800) = \text{€}2.000$ per month. If the credit arrangement is introduced expected costs will be $250 \times 800 = \text{€}200.000$, the present value of its expected revenues will be $(0.99 \times 250 \times 1.010) / 1.01 = \text{€}247.500$, and expected profits therefore $\text{€}47.500$. So the credit arrangement increases expected profits.

5a) The value of the unlevered firm, $\text{€}180$ billion, is equal to the cash flow from operations, $\text{€}20$ billion, divided by the rate of return of the unlevered firm, that is the rate of return on equity of an all-equity financed firm. This rate is therefore $11,11\%$ ($=100 \times 20 / 180$).

b) The WACC can be calculated as:

$$\frac{180}{243} (1 - 0.35) \times 6 + \frac{63}{243} \times 20.6 = 8.2\%$$

c) Since the value of the levered firm is equal to the cash flow from operations divided by the weighted average cost of capital the WACC is equal to 8.2% ($=100 \times 15 / 182.25$).