
Question 3: Equity Valuation and Analysis**(32 points)**

a)

Forecast earnings per share this year = E(EPS) = (BVPS of last year) · ROE
= 100 · 0.1 = 10 euros

Forecast dividends per share this year = E(DPS) = E(EPS) · (Payout ratio)
= 10 · 0.3 = 3 euros

Sustainable growth rate = $g = \text{ROE} \cdot (1 - \text{Payout ratio})$
= 0.1 · (1 - 0.3) = 0.07

Using the constant growth dividend discount model, the implied return (implied k_E) of JUN's shares is:

$$\text{Implied } k_E = \frac{\text{E(DPS)}}{\text{Share price}} + g = \frac{3}{95} + 0.07 = 0.1015$$

Required rate of return under the capital asset pricing model (CAPM) = k_E
= Risk-free rate + Stock market risk premium · beta
= 0.03 + 0.07 · 1.1 = 0.107

The implied return of 10.15% is less than the required return of 10.70% under the CAPM, so JUN's shares are at a premium.

b)

Forecast residual income per share this year:
= E(EPS) – BVPS · $R_E = 10 - 100 \cdot 0.107 = -0.7$ euros

Earnings per share and book value per share will grow at the sustainable growth rate of 7% from next year onwards, so the residual income per share (or in this case, residual loss) will also increase by the sustainable growth rate of 7%.

Theoretical share price =
(BVPS at end of last year) + (PV of residual income per share in and after this year)
= 100 + $\frac{-0.7}{0.107 - 0.07} = 81.08$ euros

The theoretical price for JUN's shares is thus 81.08 euros, and the current price of 95 euros is at a premium.

With this approach, one obtains the same result as with the constant growth dividend discount model:

$$\text{Theoretical price for JUN shares} = \frac{\text{E(DPS)}}{k_E - g} = \frac{3}{0.107 - 0.07} = 81.08 \text{ euros}$$

c)

Even if the share price is below the liquidation value, JUN's shares are still at a premium to the theoretical price calculated from forecast earnings and dividends. Therefore, JUN's shares should not be considered as an investment.

d)

- Assuming the balance sheet accurately reflects the company's asset values, a PBR below 1 indicates that the shares are trading for less than the company's liquidation value, which makes the company a potential take-over target. If the company becomes a take-over target, the share price is likely to rise above the liquidation value, which would make it a good investment.
- Empirical evidence suggests that in most countries stocks with low PBRs have high risk-adjusted returns. Therefore, as a general rule a stock with a low PBR could be a promising investment.