

## Exercises on Dividends and Share Repurchase Policy<sup>1</sup>

### 1. Constant pay-out ratio policy

Company X follows a constant pay-out ratio policy of 40%. Someone says this policy “creates high volatility to dividends and consequently to share price”.

From the table below:

- Do you agree with the previous sentences or does M&M theory applies to this case?
- If you were a pension funds manager would be this policy attractive for you?

Year	Earnings per share	Dividends per share	Average share price
1	€ 0.450	€ 0.18	€ 5.00
2	€ 0.200	€ 0.08	€ 4.60
3	(€ 0.150)	€ 0.00	€ 3.80
4	€ 0.175	€ 0.07	€ 4.80
5	€ 0.300	€ 0.12	€ 5.20
6 Today	(€ 0.050)	€ 0.00	€ 4.20

### 2. Regular dividend policy

Company Y is paying a fixed amount of 0.10 € dividend per year and increased to 0.15€ when it was clear that earnings would continue higher than 0.40 per share.

Considering this information and the table below:

- What is the pay-out ratio that the Board of Directors aims to achieve in the long term?
- Does the M&M dividend theory apply here? Why, why not?
- Are there other theories that might explain the share price levels?
- If you were a pension fund manager would be this policy attractive for you?

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Year	Earnings per share	Dividend per share	Payout ratio	Average share price
1	€ 0.285	€ 0.10	35.1%	€ 3.50
2	€ 0.270	€ 0.10	37.0%	€ 3.35
3	€ 0.050	€ 0.10	200.0%	€ 3.30
4	€ 0.075	€ 0.10	133.3%	€ 3.30
5	€ 0.300	€ 0.10	33.3%	€ 3.60
6	€ 0.600	€ 0.10	16.7%	€ 3.80
7	€ 0.200	€ 0.10	50.0%	€ 3.85
8	€ 0.500	€ 0.10	20.0%	€ 4.20
9	€ 0.420	€ 0.10	23.8%	€ 4.30
10	€ 0.460	€ 0.15	32.6%	€ 4.50
11	€ 0.390	€ 0.15	38.5%	€ 4.65
12 today	€ 0.450	€ 0.15	33.3%	€ 4.75

### 3. Low regular and extra-dividend policy

Company Z is in a highly cyclical business.

Suppose the management has a pay-out ratio target of 25% but they think that if they announce such a policy, the dividends will fluctuate each year very much and creates uncertainty to shareholders. So, they declare a regular dividend of 0.50€ per share with extra cash dividends to be paid when earnings justify them.

Internally they assume that they will pay extra dividend equal or higher than 0.10 € if the earnings justify this extra-payment.

- a) Based on the table below, calculate how much dividend the company has paid each year.

Year	EPS	25%	Regular dividends per share
1	€ 1.97	€ 0.49	€ 0.50
2	€ 2.15	€ 0.54	€ 0.50
3	€ 2.80	€ 0.70	€ 0.50
4	€ 2.20	€ 0.55	€ 0.50
5	€ 2.40	€ 0.60	€ 0.50
6 today	€ 3.00	€ 0.75	€ 0.50

- b) If the management of the firm expects that future earnings remains above 2.2€ per share in most of the years:
- What factors should be considered in making a revision to the amount of the regular dividend?

- b. If there is a revision, what should be the new regular dividend?

#### 4. Residual dividend policy

Company XY is a subsidiary of X and is highly committed to growth. So, the priority of the management is to use the profits to meet the investment required by the strategic plan for both organic and inorganic growth opportunities. As a consequence, dividend is only considered after given due consideration to these aspects.

However, one of the largest minority shareholders required information about the amount of dividend expected for the coming year.

The CFO has prepared the following three scenarios of capital expenditures:

	Scenario 1	Scenario 2	Scenario 3
1. Capital expenditure (M€)	20	30	40
2. Forecasted earnings	20	20	20
3. Target debt ratio	40%	40%	40%

Notice that earnings are constant in all scenarios and the debt ratio is targeted to 40%.

Based on these scenarios, what would you say to the shareholder?

#### 5. Share-repurchase

Consider the following information in relation to this XYZ company:

Earnings	€ 1 000 000
Number of shares	4 000 000
Earnings per share	€ 0.250
Share price	€ 5.00

The company is contemplating to use €800 000 to pay cash dividends or to repurchase its own shares with a premium of 4%.

Considering the players in the markets are rational and all have similar information and expectations, please do the calculations for the effect on the share price after the decision (dividends versus share repurchase) and analyse what is best for shareholders.