LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

DIVIDENDS AND SHARE REPURCHASES

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LEARNING GOALS

1. How to measure and analyse the dividend policy
2. How relevant is the dividend policy for shareholders
3. What are the factors to consider in establishing a dividend policy
4. Why do firms change their dividend policy
5. What are the relationship between competitive and financial strategies

REWARDING SHAREHOLDERS IN DIFFERENT FORMS

1. Regular cash dividends
2. Special cash dividends
3. Stock dividends – is much like a stock split
4. Share repurchase
5. Capital gains

INTRODUCTION

1. A dividend is the amount paid to shareholders in cash or shares
2. A share repurchase is a program that allows the company to buy back its own shares from the market. In some countries there are limitations to owning its owns share (in Portugal is 10% of the issued capital)
3. The board of directors submits the company's payout policy and the share repurchase program to the shareholders meeting.
4. Cash dividends and share repurchases are both methods of distributing cash to shareholders.
   - The effects on financial ratios and on shareholders' return are different in these two methods.
   - According to financial theory these distributions signals some information about the future prospects of the firm.

DIVIDENDS: FORMS

Cash Dividends

Regular cash dividends

- Annually, Quarterly, Semiannually depends on the tradition of the country. Dividend policy tends to be stable

Dividend reinvestment plan:

- Shareholders are allowed to reinvest automatically all or a portion of the dividends.
- Issuer obtains additional equity without flotation costs.
- Investor pays taxes similarly to cash

Special cash dividends:

- It is a extra-payment that may result from special circumstances (a takeover, etc.).
- Pay out in strong years without investors expecting an increased dividend.

Liquidating dividend

- Liquidation of the company or a business

Noncash dividend

Stock dividend

- Number of share per a number of shares owned. Doesn't change the ownership structure and no taxes
- More shares outstanding, potential for more shareholders, lowers the share which may be accessible to smaller investors, No economic effect and no impact on financial ratios.
- More prevalent in some countries or on companies with high share prices

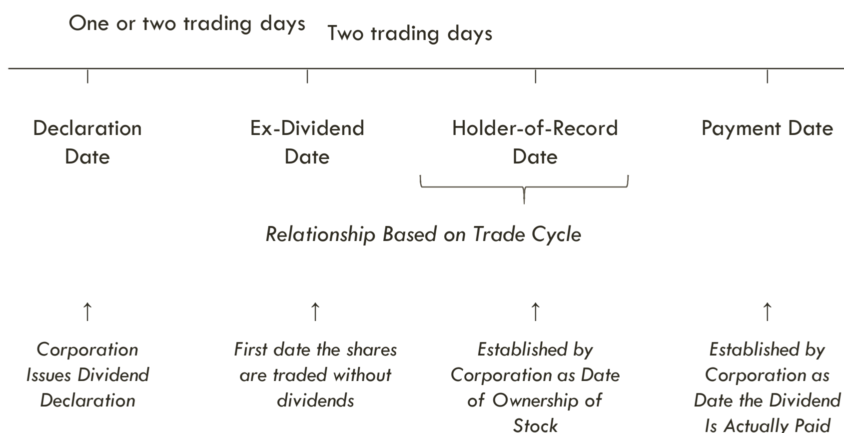
Stock split

- Similar to stock dividend. No change in total value. Reduction of value per share. The same dividend yield, same P/E ratio

Reverse stock split

- The objective is to increase the price of the share to a more marketable range

DIVIDENDS: PAYMENT CHRONOLOGY



MEASURES OF DIVIDEND POLICY

Pay-out ratio	$d = \frac{DPS}{EPS}$
Dividend growth	$g = \frac{\Delta DPS}{DPS}$
Dividend Yield	$y = \frac{DPS}{P}$

DPS - Dividend per share
EPS – Earnings per share
ΔDPS – Annual increase of dividend per share
P – Share Price

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MEASURES OF DIVIDEND POLICY FOR COMPANY X

	US$
Year	2019
Earnings per share	2,30
Earnings power per share	2,76
Dividends per share	2,47
Share price 2019	34,00
Measures:	
Payout ratio	107%
Dividends growth	1,6%
Dividend yield	7,3%

Is this what shareholders expect for return?

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SOURCES OF INFORMATION

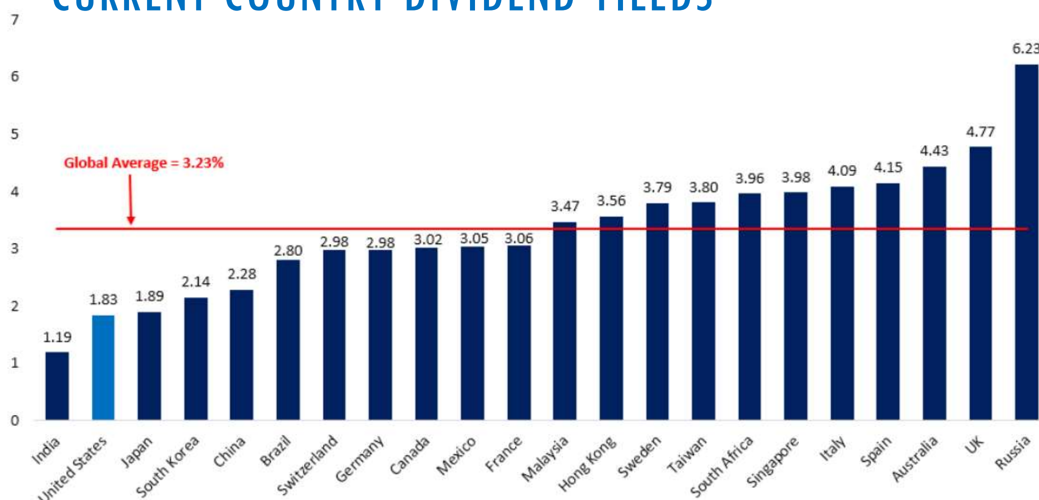
1. Capital markets:
   - CAPM
     - r_e = 11,8%
     - y = 7,3%
     - Expected capital gains 4,5%
2. Peer's Benchmarking
   - 6% < y < 9%
   - 60% < d < 90%
3. Other industries' Benchmarking
   - 1% < y < 4%
   - 20% d < 60%

Capital Gains

Yield

$$TSR = \frac{P_1 - P_0}{P_0} + \frac{DPS}{P_0}$$

CURRENT COUNTRY DIVIDEND YIELDS



Differences in stage of growth
Differences in tax treatment
Differences in corporate control

DIVIDENDS POLICY

Typology	Pay-out ratio	Description
Healthy	35-55	The company is well established and reinvest half of its earnings for growth. The market finds this fair.
High	55-75	Higher payout ratio is good but this means low retained earnings for growth which is ‘bad’ there is not much room to grow in the future.
Very high	75-95	The company is unable to invest and there is the risk of cutting its dividends. The company would either not grow its dividend or cut it down
Unsustainable	95-150	Two things may happen here: the dividend would be cut or eliminated altogether.
Very Unsustainable	150^{+}	This is unsustainable. The dividends has to be reduced in the future
Investors should always prefer healthy payout ratios over high payout ratios. Very high dividend distributions may be attractive in the short term, but they may not last going forward.		

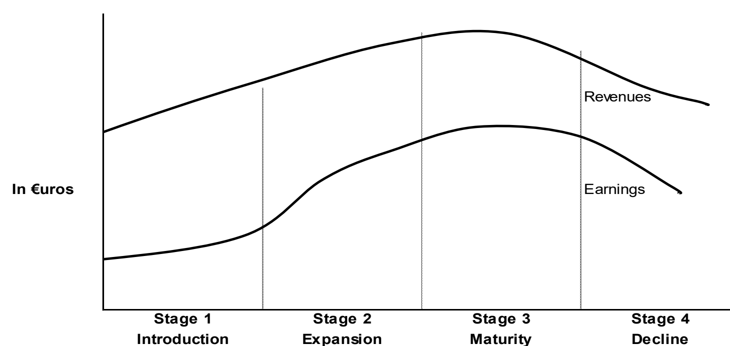
WHAT ARE THE EXPECTATIONS FOR FUTURE?

1. Trends in the Industry?
   - Deregulation / more regulation
   - Higher / lower competition
   - Etc.
2. How vulnerable is the company to the expected changes according to its competitive position
   - Market growth
   - New entry threat
   - Customer mix
   - Cost efficiency
   - Production capacity

MANAGEMENT BEHAVIOUR
(LINTNER, 1956)

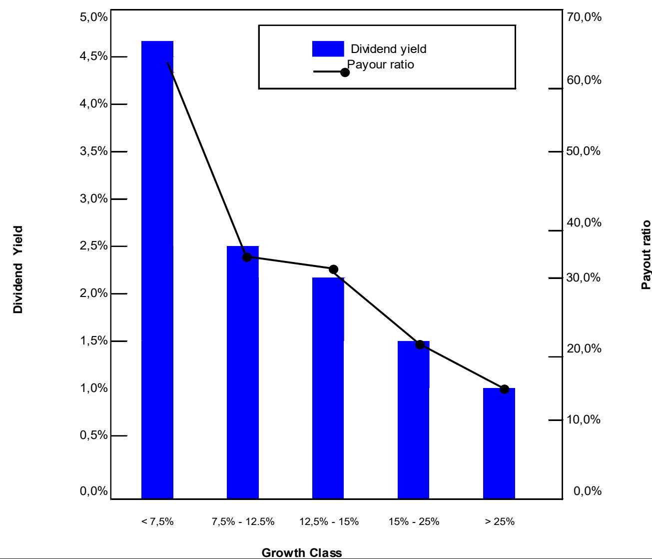
1. Dividends tend to follow earnings - Firms have long-run target dividend pay-out ratios;
2. Dividends are sticky - managers are reluctant to change dividends from period to period – they focus more on dividend changes than on their absolute levels
3. Dividends changes follow expected shifts in long-term sustainable earnings
4. Managers are reluctant to make dividends changes that might have to be reversed – so dividends follow a smother path than earnings

DIVIDEND POLICY TENDS TO FOLLOW THE LIFE CYCLE OF THE FIRM



Funding requirements	Depends on the size of investments	High: relative to firm value	Moderate: relative to firm value	Low, as projects dry up
Free Cash Flow	Negative: Capex and Working Capital Requirements	Low: Sales growth requires additions of working capital	High or at a growing pace	Stable or decreasing
Dividend Policy	No dividends New issues	No or very low dividends	Increase dividends Repurchase shares	Reduction of dividends Repurchase shares

INVERSE RELATION OF GROWTH WITH PAYOUT AND DIVIDEND YIELD



$$r_e = \frac{D}{P_0} + \frac{P_1 - P_0}{P_0}$$

M&M
DIVIDENDS IRRELEVANCE?

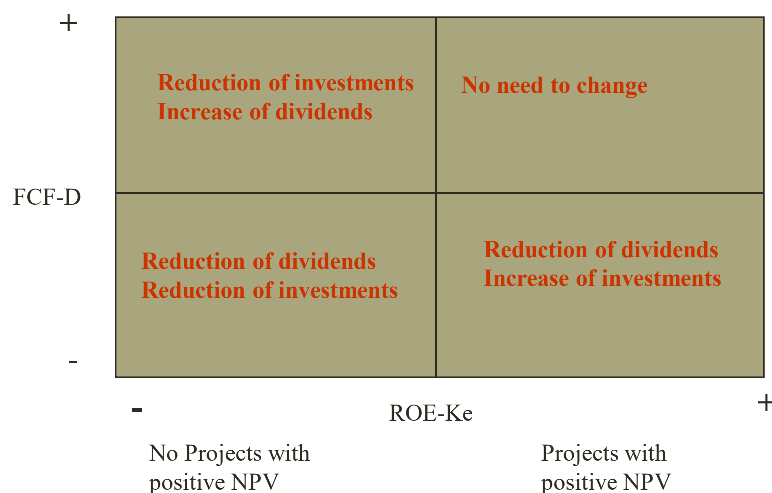
1. No transactions costs
2. No taxes
3. The share is fairly priced
4. Easy access to financing at any time, as long as the investment NPV > 0
5. There are no asymmetric information
6. Investments decisions are unaffected by dividend decisions
7. No agency problems

It is easier to find reasons for not paying dividends than for paying.
So, why do firms pay dividends?

GOOD REASONS FOR PAYING DIVIDENDS

1. Some Investors like dividends – Clientele effect:
   - Investors tend to buy shares that meet their preferences (dividend vs. capital gains) – Firms have their own clientele
   - Clientele might be hungry with a change of dividend policy
2. Signalling theory
   - Positive signals – increase of dividends – commitment to keep dividends high in the future
   - Negative signals – Increase of dividends as an indication of lack of opportunities to invest
3. Agency Theory
   - As much dividends as possible, to minimize agency problems

A PRACTITIONER'S FRAMEWORK FOR DIVIDEND POLICY



SHARE REPURCHASES

1. A share repurchase (or share buy back) is the transaction in which the firm buys back its shares from its shareholders. The firms uses cash to buy back the shares
2. The shares acquired become treasury shares (or treasury stock). Are in the balance sheet as a negative capital and have no rights to dividends or votes
3. Some countries have restrictions to share repurchases
4. Motives for repurchasing shares are as follow:
   - Signaling theory: shares are undervalued
   - Flexibility of paying cash to shareholders
   - Change of ownership structure
   - Tax efficiency: if tax rate on capital gains is less than on cash dividends.
   - To be used on stock options remuneration plans

SHARE REPURCHASE METHODS

1. **Buy in the Open Market**
   - Use brokers to buy shares.
   - Method provides flexibility for the company.
2. **Fixed Price Tender Offer**
   - Specify the number of shares and the share price.
   - Buy pro rata if oversubscribed.
3. **Dutch Auction Tender Offer**
   - Specify the number of shares and the range of prices.
   - Shareholders determine the number of shares they will sell back and specify the price within the range.
4. **Direct Negotiation**
   - Negotiate with a specific shareholder.
   - Method may be used to prevent "activist" shareholder from getting on board.

SHARE REPURCHASE AND EARNINGS PER SHARE

1. The XYZ Company is planning a €100 million share repurchase.
2. Its current share price is €25 per share, and there are 16 million shares outstanding prior to the repurchase.
3. Earnings per share without the repurchase would be €3 per share. What is the earnings per share under each of these two scenarios?
   - Scenario 1: Use idle cash on hand.
   - Scenario 2: Borrow funds at after-tax rate of 7%.
4. Scenario 1:
   - Net income = €3 × 16 million = $48 million
   - EPS Scenario 1 = €48 million ÷ (16 million – 4 million) = €4 per share
5. Scenario 2:
   - Net income = €3 × 16 million – (0.07 × $100 million) = $41 million
   - EPS Scenario 2 = $41 million ÷ (16 million – 4 million) = $3.41 per share

SHARE REPURCHASE AND BOOK VALUE PER SHARE

1. When the market price per share is greater than the book value per share, the book value per share of equity will decrease with a share repurchase.
2. Continuing the XYZ Company where you know that book value per share is €20:
3. Scenario 1:
   - Book value = (€20 × 16 million) – €100 million = €220 million
   - BVPS Scenario 1 = €220 million ÷ (16 million – 4 million) = €18.33 per share
4. Scenario 2:
   - Book value = (€20 × 16 million) – €100 million – €7 million = €213 million
   - BVPS Scenario 2 = €213 million ÷ (16 million – 4 million) = €17.75 per share

SHARE REPURCHASE VS. CASH DIVIDENDS

1. If…
   - The tax consequences of dividends and capital gains are the same and
   - The information content of cash dividends and stock repurchases is the same,
2. Then the effects of cash dividends and repurchases on shareholder value will be the same.
3. Both cash dividends and stock repurchases:
   - Reduce assets by the amount of the dividend or repurchase.
   - Reduce equity by the amount of the dividend or repurchase.
   - Provide investors with the same cash flow.

CONCLUDING REMARKS

1. Share repurchases have a positive effect on share prices.
2. Dividend initiations have a positive effect on share prices.
3. Dividend increases have a positive effect on share prices.

SUMMARY

1. Dividends can take the form of regular or irregular cash payments, stock dividends, or stock splits.
2. Regular cash dividends represent a commitment to pay cash to stockholders on a quarterly, semiannual, or annual basis.
3. The key dates for cash dividends, stock dividends, and stock splits are the declaration date, the ex-date, the shareholder-of-record date, and the payment date.
4. Share repurchases, or buybacks, most often occur in the open market. Alternatively, tender offers occur at a fixed price or at a price range through a Dutch auction.
5. Share repurchases made with excess cash have the potential to increase earnings per share, whereas share repurchases made with borrowed funds can increase, decrease, or not affect earnings per share, depending on the after-tax borrowing rate.

SUMMARY (CONTINUED)

1. A share repurchase is equivalent to the payment of a cash dividend of equal amount in its effect on shareholders' wealth, all other things being equal.
2. Announcement of a share repurchase is sometimes accompanied by positive excess returns in the market when the market price is viewed as reflecting management's view that the stock is undervalued.
3. Initiation of regular cash dividends can also have a positive impact on share value.

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DIVIDENDS AND SHARE REPURCHASES: ANALYSIS

INTRODUCTION

1. A payout policy is a set of principles regarding a corporation's distributions to shareholders.
   - May be established with regard to a dividend payout, a dividend per share, a growth in dividend per share, or any other metric.
   - May include stock splits and stock dividends.
   - May include stock repurchases.

DIVIDEND POLICY AND COMPANY VALUE: THEORY

1. **Dividends Are Irrelevant**
   - Based on MM theories.
   - If owners want a leveraged position, they can make it themselves.
2. **Bird in the Hand**
   - Cash dividends are more certain than share price appreciation.
3. **Tax Argument**
   - How dividends are taxed relative to capital gains affects investors preferences for dividends.
4. **Other**
   - Clientele effect.
   - Signaling.
   - Agency cost effects.

DIVIDEND POLICY DOESN'T MATTER

1. In Miller and Modigliani's Theory (a world with no taxes, no transaction costs, and homogeneous information), dividend policy has no impact on the value of the company.
   - The decision of financing the business is separated from the investment decision
   - If a shareholder needs money, he/she can sell some of his/her shares
   - If a shareholder wants more risk than the corporate risk, he/she can borrow to buy shares
   - An investor is indifferent about a share repurchase or a dividend
   - Conclusion: Dividend policy does not affect a firm's value.
2. However the real world is different from MM world:
   - Companies (and shareholders) incur in transaction costs to issue (to buy) new shares. Flotation costs about 4% to 10% of the capital raised. Investors pay bank fees.
   - If a shareholder need money and sell the share pays bank fees and capital gains taxes. If the share price declines, the investors needs to sell more shares for the same amount of dividend

DIVIDEND POLICY MATTERS: THE BIRD-IN-THE-HAND ARGUMENT

1. Shareholder prefer cash dividend (bird in the hand) to capital gain that are uncertain and volatile
2. If this is true, than a company that pays cash dividend will have higher value than a similar company that does not pay cash dividend. And more cash dividend is better than less cash dividend
3. Conclusion: Dividend policy affects the value of the firm.

DIVIDEND POLICY MATTERS: THE TAX ARGUMENT

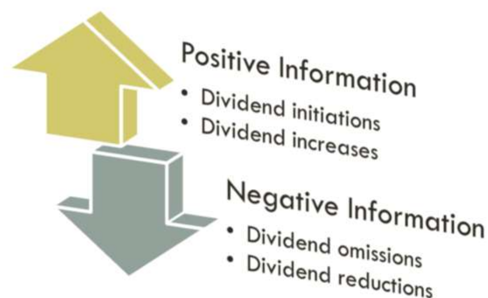
1. If dividends are taxed at a rate higher than capital gains, shareholders would prefer those companies that reinvest cash flow back into projects that create value to the firm, because investors prefer the lower-taxed capital gains to the higher-taxed cash dividends.
   - This argument may result in zero dividend payout when dividends are taxed at a rate higher than that of capital gains
2. Conclusion: Dividend policy affects the value of the firm.

DIVIDEND POLICY MATTERS: THE CLIENTELE EFFECT

1. The clientele effect theory says that certain type of investors are attracted to companies that have specific dividend policies. Clientele are the investors who have identical preferences
2. Types of clientele:
   - Pension funds and insurance firms that have long-term financial responsibilities
   - Investment funds that are cash hungry and need to evidence their actual performance
   - If an investor has a marginal tax on capital gains lower than the marginal tax on dividends, the investor prefers a return in the form of capital gains (less dividend)
   - Investors who are tax exempt are indifferent about dividends or capital gains
   - Some investors, by policy or restrictions, only invest in shares that pay dividends
3. The importance of this theory is that the company has a shareholder structure that has a preference for its specific dividend policy. Consequently, changing dividend policy will have an impact in the ownership structure
4. Conclusion: The clientele effect does not necessarily imply that dividends affect company value.

DIVIDENDS AND SIGNALING

1. While under MM's theory, everyone has the same information, when there is asymmetric information, the change of dividend policy may convey information:



AGENCY COSTS AND DIVIDEND POLICY

1. The separation of ownership and management may lead to suboptimal investments: Management may invest in negative NPV projects because he is more interested in the company's size or the management's control.
2. Jensen's free cash flow hypothesis says the high level of free cash flow tempts the management to make investments with negative NPV.
   - Paying dividends or interest on debt makes use of this excessive free cash flow and reduces the agency costs.
3. If a type of loan or bond has a restriction on the payment of dividends for some reason, to reduce the risk of the bank or the bondholders, it comes at the expenses of shareholders.
4. Conclusion: Dividends may reduce agency costs and, therefore, increase the value of the firm.

FACTORS AFFECTING DIVIDEND POLICY

1. Investment Opportunities
2. Expected Volatility of Future Earnings
3. Financial Flexibility
4. Tax Considerations
5. Flotation Costs
6. Contractual and Legal Restrictions

FACTORS AFFECTING DIVIDEND POLICY

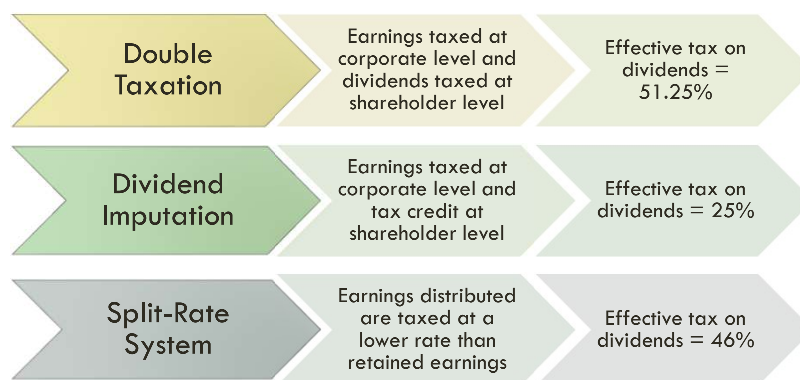
1. **Investment opportunities:**
   - Companies with more investment opportunities are more likely to pay less in dividends.
   - Companies with fewer investment opportunities are more likely to pay more in dividends.
2. **Expected volatility of future earnings:**
   - Companies with greater earnings volatility are less likely to increase dividends
   - Companies with greater chance of not maintaining their level profits, are more likely not to increase dividends
3. **Financial flexibility:**
   - Companies seeking more flexibility are less likely to pay dividends or to increase dividends because they want to preserve cash

FACTORS AFFECTING DIVIDEND POLICY

4. **Tax considerations**
   - The tax rate on dividends and how dividends are taxed relative to capital gains affect investors' preferences and consequently the corporate dividend policy.
5. **Flotation costs**
   - These costs make the newly issued stock more expensive compared to the use of funds generated internally
   - Smaller companies face higher flotation costs.
6. **Contractual and legal restrictions**
   - In certain countries (Brazil for example) dividends are legally mandated
   - Forms of restrictions:
     - Impairment of capital rule (net value of assets in the balance sheet must be equal to a certain amount)
     - Contractual restrictions imposed by bank loan contracts or by bond indentures
     - Requirement of preferred shares (dividends on common capital may not be paid until the preference shares are paid).

TAX SYSTEMS AND DIVIDEND POLICY

Consider a company that has earnings before tax of €100 million and pays all its earnings as dividends. The company's tax rate is 35%, and individual shareholders have a marginal tax rate of 25%. In countries with a split-rate system, dividends are taxed at 28% at the corporate level.



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4. PAYOUT POLICIES

1. **Stable dividend per share policy:** Constant dividend with occasional dividend increases is most common
   - Companies have a target pay-out ratio based on long-term sustainable forecasted earnings
   - Managers are more concerned with dividend changes than with the level of dividends
   - Companies will cut or eliminate dividends in extreme circumstances or as a last resort
   - Increases may represent an adjustment to a target payout ratio. In theory (John Lintner's 1956), companies may adjust to the target using an adjustment factor that is less than or equal to 1.0:

$$\text{Increase in dividends} = \text{Increase in earnings} \times \text{Target payout ratio} \times \text{Adjustment factor}$$

   - Example: Earnings expect to increase from 1€ to 1.5€. Target pay-out ratio 50%. Adjustment factor 0,2. What is the expected increase in dividends?

2. **Stable dividend payout:** this policy is infrequently adopted in practice
   - Dividends fluctuate with earnings in the short-term.
   - Some companies include a floor based on historical dividends

3. **Residual dividend payout:** Pay out earnings full amount of remaining after capital expenditures.
   - This creates highly volatile dividends. As such is very uncommon
   - It is necessary to have high return on equity to compensate investors from the volatility of dividends. This only attracts a clientele of investors interested in the long-term, without a need for cash in the short term.

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EXAMPLE: PAYOUT POLICIES

1. Consider the financial information for company ABC

Fiscal Year Ending	2019	2018	2017
Net income (millions)	€41 773	€25 922	€14 014

2. What are the occasional dividends for 2019 and 2018 if the company followed a stable dividend policy, with a target dividend payout of 10% and an adjustment factor of 0,3?

Fiscal Year Ending	2019	2018
Increase in earnings	€15 851	€11 900
Multiply by target	0,10	0,10
Multiply by adjustment factor	0,30	0,30
Special dividends	€475,53	€357,24

EXAMPLE: PAYOUT POLICIES

1. What are dividends for FY2011 and FY2012 if the company followed a constant dividend payout at 60%?

Fiscal Year Ending	2019	2018
Net income (millions)	€41 773	$25 922
Multiply by 60%	0,6	0,6
Dividends	€25 064	€15 553

2. What are dividends for 2018 and 2019 if the company followed the full residual payout policy?

Fiscal Year Ending	2019	2018
Net income (millions)	€41 773	€25 922
Less: capital expenditures	€9 402	€7 452
Dividends	€32 371	€18 470

THE PREFERENCE FOR CASH DIVIDENDS OR SHARE REPURCHASING?

1. Reasons for preferring share repurchasing
   - Potential tax advantages
   - Signaling
   - Managerial flexibility
   - Offset dilution from incentive remuneration stock options plans
   - Increase financial leverage
   - Change the structure of ownership
2. A stock repurchase may be a good alternative to an increase in cash dividends.

GLOBAL TRENDS IN DIVIDEND PAYOUT

1. Current:
   - Large and quoted, profitable companies tend to have a stable payout policy
   - Smaller and private and/or less profitable companies tend not to pay dividends or paying a small amount
2. Trends:
   - In developed countries share repurchases tend to be more common to quoted firms
   - The dividend amounts and payout ratios are increasing for quoted companies

DIVIDEND COVERAGE RATIOS

1. $\text{Pay out ratio} = \dfrac{\text{Dividends}}{\text{Net income}}$

Dividend yield

2. $\text{Dividend coverage ratio} = \dfrac{\text{Net income}}{\text{Dividends}}$

3. $\text{FCFE coverage ratio} = \dfrac{\text{Free cash flow to equity}}{(\text{Dividends} + \text{Share repurchase})}$

A company has €200 million in net earnings, pays €40 million in dividends, has cash flow from operations of €180 million, and had capital expenditures of €60 million and zero net borrowing. The company spent 10 million for share repurchases.

Therefore:

- $\text{Payout ratio} = \dfrac{€40}{€200} = 20\%$
- $\text{Dividend coverage ratio} = \dfrac{€200}{€40} = 5 \text{ times}$
- $\text{FCFE coverage ratio} = \dfrac{€180 - €60}{(€40 + €10)} = \dfrac{\$120}{\$50} = 2{,}4 \text{ times}$

ANALYSIS OF DIVIDEND SAFETY

1. We can evaluate the "safety" of the dividend by examining the company's ability to meet its dividends.
   - "Safety" pertains to the ability of the company to continue to pay the dividend or maintain a growth pattern.
   - Possible ratios: Dividend coverage and free cash flow coverage
     - Using dividends plus repurchases may be more appropriate for some firms.
     - Values greater than 1.0 indicate ability to meet the dividend and repurchase, although the greater the coverage, the greater the liquidity and ability to pay.
2. It is sometimes difficult to predict changes in dividend because of "surprises," such as the financial crisis.