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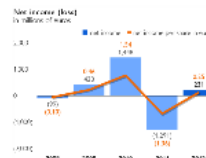
- Cash
- Stock
- Property

# Signalling Theory

Month	Cases	Deaths
Jan 2020	23	0.36
Feb 2020	16	0.13
Mar 2020	21	0.46
Apr 2020	246	0.46
May 2020	832	0.52
Jun 2020	24	0.52
Jul 2020	472	0.64
Aug 2020	472	0.64
Sep 2020	472	0.64
Oct 2020	472	0.64
Nov 2020	472	0.64
Dec 2020	472	0.64
Jan 2021	472	0.64



Country	2008 Contribution (%)	2009 Contribution (%)
EU27	0.42	1.24
UK	0.15	2.25



- Increase - strong - higher earnings
- Decrease - weak - investment or lower earnings

- Evidence
  - Not conclusive
  - Miller and Rock (1985) suggested that dividends announcements convey information to investors.
  - Earlier studies by Bhattacharya and others - stock prices increase with dividend increases and vice versa
  - Watt (1973), Gedenes (1978), Penman (1983) and Benartzi, Michaely and Thaler (1997) show dividends have no effect on earnings.
  - Healy and Palepu (1996) have shown that dividend signaling is sometimes when companies increase or decrease dividends.
  - Some studies show that companies announce large dividends when future prospects are good
  - HOWEVER, studies also show that is the case due to good past financial records

## CLIENTELE EFFECT

- Low tax bracket — high dividend pay rate
- High tax bracket — low dividend payout
- A high investor dividend strategy that has a low tax bracket



- Dividends used to monitor and control agency problems, instead of signal information.
- A firm with excess cash may distribute dividends in order to avoid agency problems.
  - Financial cost will be lower than agency
  - Firms with increased agency problems will pay high dividends.

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- Dividends are irrelevant under the traditional view, should most investors are not concerned with a company's dividend policy since they can sell a portion of the portfolio of equities if they want cash.
- Size of dividends should have little to no impact on stock price.
- Shareholders should not be leaving on a shareholder wealth because cost of capital and share price is independent – therefore shareholders can differentiate capital gains and dividends.
- Dividends can be made through "income dividend"
- Firm's value declines if it reduces its dividend
- Not beneficial: changes in dividend payout ratios and information they may convey

Full et al (1973) found that numerous conditions support the theory made it hard to test

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Changes in dividends can be used to signal asymmetric information such as:

- expected future cash flow
- investment activity

Div in hand theory suggests shareholders prefer dividends to capital gains.

HOWEVER

Changes in dividends can also be used:

- as a solution to reduce agency problems
- to cater to different classes of investors.

**THE END!**

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A fairly sensitive (but still not great) test of quality

A firm's business should be based on good and investments of the economy

Overall, high dividend policy may have concerns regarding its financial flexibility due to:

- Crowding out investment in R&D projects
- Low growth firms to accept a greater NPV on debt

Consequently may have an adverse effect on a firm's performance.

On the other hand, paying dividends may have negative consequences if a share price has just to be too low even when a firm's NPV is good.

Future 2014 world investment and dividend outlook were investigated. It shows:

[www.imc.com.au/ncr/ncr\\_110](http://www.imc.com.au/ncr/ncr_110)

項目	単位	履修人数	履修率
1. 基礎科目			
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Expanded on the previous version, and Julia K. Johnson

- Risk of unsustainability of future cash flow
- Reduces cost of capital
- Credit Agencies offer high dividend paying firms

**Evidence**

**Support for Discretionary Theory**

- **Chen and Gode** – a index of dividends that has been lagged on stock prices (1970s and 1980s)
- **Chen**, **LaRcker** (1987), and **Neuber** (2002) – **HOMERUN**: limited support from single test statistics.
- **Gordon** (1963) found that dividends had a greater impact on share value than retained earnings do.
- **Statutes with high dividend payout rates** have lower market prices and hence lower costs.
- **MM** states that firm's risk is based on risky operating cash flow, not earnings distribution.

# Strides Arcolab Limited's Dividend Pay-Out Decision

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## Dividends

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A distribution of a portion of a company's earnings to its shareholders, in the form of

- Cash
- Stock
- Property

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## CLIENTELE EFFECT

Changes in dividends may be used to cater different types of investors in a firm

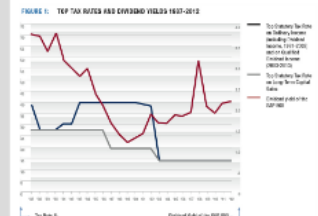
- will not be aiming to signal asymmetric information and therefore
- will not affect the value of the firm.

A particular pattern of dividend payments may suit one type of stock holder more than another.

- Low tax bracket ---high dividend pay out
- High tax bracket ---low dividend payout
- a 'high income' investor may want low dividends due high tax bracket

Dividend levels may be used to attract different kinds of investors

- e.g institutional investors



AGENCY THEORY

# Dividend Pay-Out Decisions

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## Dividends

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A distribution of a portion of a company's earnings to its shareholders, in the form of

- Cash
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## Signalling Theory

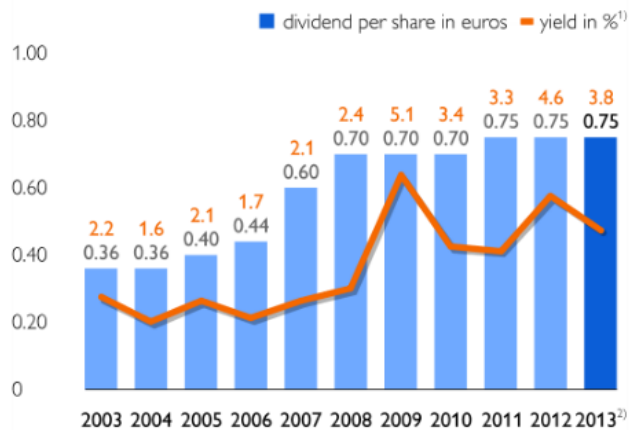
Dividend and dividend yield per common share

1.00 ■ dividend per share in euros ■ yield in %<sup>(1)</sup>

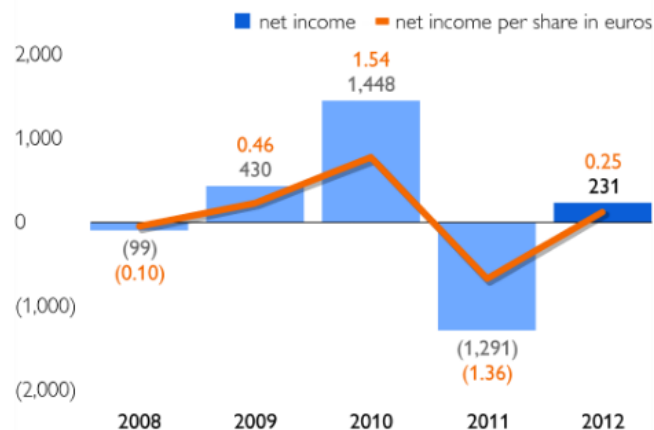
Based on the idea of asymmetry information

# Signalling Theory

Dividend and dividend yield per common share



Net income (loss)  
in millions of euros



Based on the idea of asymmetry information

Announcements of dividends - indicator of the firm's future prospects

- Increase - strong - higher earnings
- Decrease - weak - investment or lower earnings

"A manager who has good investment opportunities is more likely to "signal" than one who doesn't because it is in his or her best interest"

Evidence

- Not conclusive
- Miller and Rock (1985) suggested that dividends announcements convey information to investors.
- Earlier studies by Bhattacharya and others - stock prices increase with dividend increases and vice versa
- Watt (1973), Godenes (1978), Penman (1983) and Benartzi, Michaely and Thaler (1997) show dividends have no effect on earnings.
- Healy and Palepu (1998) have shown that dividend signaling does occur when companies either increase or decrease
- Some studies show that companies announce large dividends when future prospects are good
- HOWEVER, studies also show that is the case due to good past financial records

## INVESTMENT DECISIONS

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A firm's revenue should also be used on growth and investments of the company.

Constant high dividends should raise concerns regarding the firm's investment decisions.

- Overlooking potential positive NPV projects
- Not enough funds to invest in potential NPV projects

Consequently may have an adverse effect on future performance.

On the other hand, paying low dividends may have negative connotations but these firms may just be taking on more positive NPV projects.

Farma (1974) found investment and dividends decision were independent. However, misconceptions are still rife.

**Table 1** Level of importance attached to factors influencing dividend policy by managers of Indonesian firms

F no.	Factor	Level of importance				Rank				
		None 0	Low 1	Mod 2	High 3	Mean	IDX	NYSE	NASDAQ	TSX
1	Stability of earnings	0.0	7.7	17.3	75.0	2.67	1	6	2	2
3	Level of current earnings	0.0	11.5	15.4	73.1	2.62	2	1.5	3	4
4	Level of expected future earnings*	0.0	13.5	15.4	71.2	2.58	3	1.5	4	1
11	Liquidity constraints such as the availability of cash	0.0	7.7	28.8	63.5	2.56	4	8	14	5
5	Concern about affecting the stock price	1.9	9.6	21.2	67.3	2.54	5	4	5	7
14	Needs of current shareholders such as the desire for current income	1.9	9.6	30.8	57.7	2.44	6	10	9	9
2	Pattern of past dividends	0.0	17.3	28.8	53.8	2.37	7	3	1	3
10	Projections about the future state of the economy	3.8	11.5	32.7	51.9	2.33	8	16	18	17
20	Investment considerations such as the availability of profitable investment opportunities	3.8	13.5	32.7	50.0	2.29	9	7	15	11
13	Desire to pay out, in the long run, a given fraction of earnings	3.8	21.2	38.5	36.5	2.08	10	9	7	6
21	Signalling incentives such as using dividend changes to convey information to financial markets	13.5	21.2	32.7	32.7	1.85	11	NA	16	16
7	Availability of alternative sources of capital	17.3	23.1	25.0	34.6	1.77	12	NA	17	15
6	Current degree of financial leverage	13.5	32.7	21.2	32.7	1.73	13.5	NA	10	8
16	Preference to pay dividends instead of undertaking risky reinvestments	11.5	28.8	34.6	25.0	1.73	13.5	19	20	21
15	Contractual constraints such as dividend restrictions in debt contracts	13.5	30.8	28.8	26.9	1.69	15	15	21	20
19	Financing considerations such as the cost of raising external funds (debt and equity)	13.5	28.8	36.5	21.2	1.65	16	12	19	14
12	Desire to conform to the industry's dividend payout ratio	15.4	32.7	36.5	15.4	1.52	17	14	13	18
8	Expected rate of return on the firm's assets	23.1	30.8	30.8	15.4	1.38	18	13	11	10
9	Desire to maintain a target capital structure	17.3	44.2	28.8	9.6	1.31	19	11	6	13
18	Legal rules and constraints such as paying dividends that would impair capital	17.3	50.0	25.0	7.7	1.23	20	16	12	19
22	Stockholder characteristics such as the marginal tax rates of the firm's current shareholders	36.5	32.7	21.2	9.6	1.04	21.5	17	22	22
17	Desire to avoid giving a false signal to investors by changing the dividend	40.4	23.1	28.8	7.7	1.04	21.5	5	8	12

**Notes:** This table presents the survey responses for 52 dividend-paying Indonesian firms on the importance of 22 factors in determining the respondent firms' dividend policy. The rankings are based on a four-point importance scale where none=0, low=1, moderate=2, and high=3, and are listed in declining order of the means of the Indonesian firms. Baker and Powell (2000) and Baker et al. (2001) provide the rankings for the NYSE and NASDAQ firms, respectively, and Baker et al. (2007) supply the rankings for the TSX-listed (Canadian) firms. \*Baker and Powell (2000) combine these two factors into a single factor (i.e., level of current and expected future earnings)

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# BIRD-IN-HAND THEORY

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Developed by Myron Gordon and John Lintner:

Investors prefer dividends to capital gains because:

- Risk of unpredictability of future cash flow
- Reduces cost of capital
- Credit Agencies prefer high-dividend paying firms

Evidence

Support for Bird-in-hand theory

- Graham and Dodd - a dollar of dividends has four times impact on stock price (Graham and Shapiro (1961), Lintner (1962) and Walter (1963)). HOWEVER, limited support from empirical evidence.
- Gordon (1959) found that dividends had a greater impact on share value than retained earnings did.
  - Stocks with high dividend payout ratio have higher market price and hence firm's value.
- M&M argue that firm's risk is based on risky operating cash flow, not earnings distribution.

## CLIENTELE EFFECT

Changes in dividends may be used to cater different types of investors in a firm

- will not be aiming to signal asymmetric information and therefore
- will not affect the value of the firm.

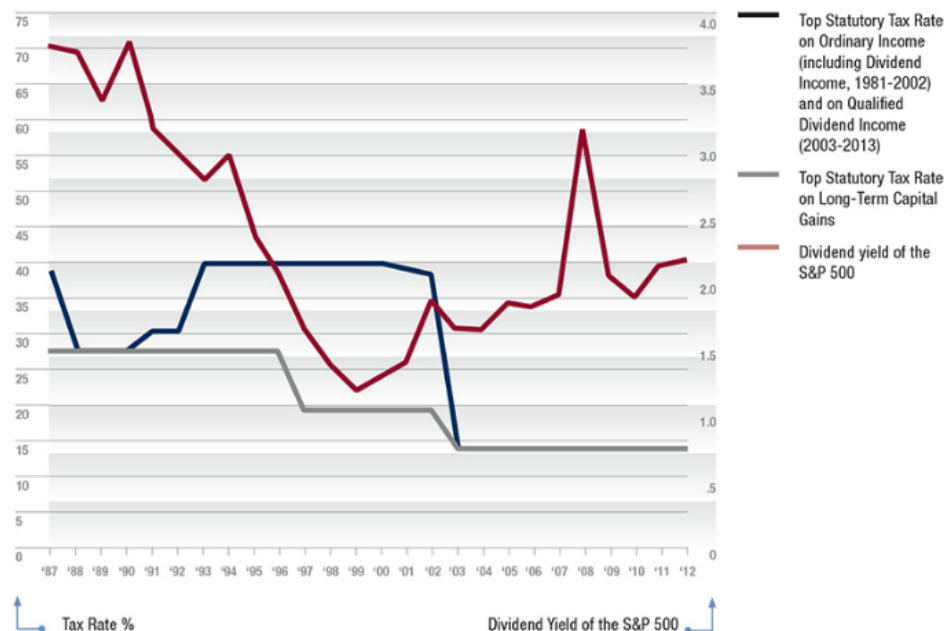
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- a 'high income' investor may want low dividends due high tax bracket

Dividend levels may be used to attract different kinds of investors

- e.g institutional investors

FIGURE 1: TOP TAX RATES AND DIVIDEND YIELDS 1987-2012



# AGENCY THEORY

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Dividends used to monitor and control agency problems, instead of signal information.

A firm with excess cash may distribute dividends in order to avoid agency problems.

- Financial cost will be lower than agency
- Firms with increased agency problems will pay high dividends

On the other hand:

Dividend payouts signal that managers are meeting their main objective of increasing shareholder wealth.

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# DIVIDEND IRRELEVANCY MODEL (M&M)

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The theory states that:

- dividends are irrelevant conditions that markets should meet
- investors are not concerned with a company's dividend policy since they can sell a portion of their portfolio of equities if they want cash.
- Issuance of dividends should have little to no impact on stock price.
- state dividends have no bearing on shareholder wealth because cost of capital and share price are independent - therefore shareholders are indifferent capital gains and dividends.
  - Dividends can be made through 'homemade dividends'
  - Firm's value dictated by investment decisions
  - Not bothered by changes in dividend payout ratios and information they may convey

Evidence

Ball et al (1979) found that numerous conditions upon the theory made it hard to test

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