- If firms underinvest, firms die.
- Should assume that firms make optimal reinvestment

Hold asset - get capital gain

equity → sell to get that cap gain in cash

FCF -500
Div -150
RE → 350
Book value of equity fatter
Mkt value ↑

Session 14
Theories of Dividend Policy

Objective

By the end of this session, students are expected to be able to exhibit a critical understanding of the clientele effect hypothesis, and implications of taxes and information asymmetries on dividend decisions.

Introduction

[The news articles and part of this session's lecture materials are taken from materials prepared by Professor Theo Vermaelen of INSEAD. His generous contribution is fully and gratefully acknowledged.]

Last session, we got to know several patterns of dividends. We also saw that a dividend policy can be viewed essentially as a financing decision in disguise, which is consistent with the dividend irrelevance theorem.

In this session, we will discuss the potential impacts of capital market imperfections on corporate payout policies. In doing so, we shall see particular conditions under which dividend policies can matter to shareholders' wealth. In other words, it is the capital market frictions that make dividend policies matter to firm valuation.

Clientele Effect Hypothesis

จ่าย div ไม่ได้กระทบราคาหุ้น

shift กันไปมาระหว่าง 2 กลุ่ม

prefer capital gain / dividend

e.g. มีเงินเดือนเยอะขึ้นเล่ม ใช้ภาษีสูงขึ้นเล่ม prefer cap gain

สนับสนุน MM : แบ่ง investors เป็น 2 ประเภท

It was MM (1961) themselves who pointed out that capital market imperfections, such as taxes and brokerage fees, can lead investors to have a systematic preference for dividends or capital gain. With such investor preferences, a firm's adopted payout ratio is likely to attract a group of investors with a particular preference. Hence, there should exist a clustering of firms that pay dividends and do not pay dividends. MM (1961) calls this clustering the *clientele effect*. Each dividend clientele may arise from:

group of div clients

(i) Differing personal tax brackets for individual investors; or
(ii) Differing consumption preferences of individual investors.

trade ST : cap gain
LT : dividend

If they change div. policy from payers to non-pay value might drop

Don't want cash dividend as have to pay high tax

Investors in the higher marginal income-tax brackets are likely to prefer a capital gain to a cash dividend. The opposite then applies to investors in the lower marginal income-tax brackets. } Tax clientele

In another dimension, individual investors may simply have different consumption preferences. While some investors are used to receiving cash dividends, some others enjoy seeing a capital gain and have no need for dividend income. For example, some investors hold a portfolio of only blue-chip stocks while some others invest only in growth stocks. } Age Clientele - prefer cash Div as cannot wait 10 years or so.

large var.

In equilibrium, investors will migrate to firms which have a payout policy that closely matches their preferences. To this extent, firms on average should not have lower value for making a high or low payout. Thus, if a firm has its own investor clientele, then its choice of a payout ratio should not affect the valuation of its equity. That's right. The MM (1961) irrelevance should then obtain. As MM (1961, p. 431) put forward, ". . . , but

Inv. might sell shares of company that pays div. to a company that doesn't. Vice versa

According to preferences

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When firm change payout policy → value of equity should not be affected

Investors can migrate across stocks - comes with cost

one clientele would be entirely as good as another in terms of the valuation it would imply for the firm".

Considering the logical mechanism of the clientele effect, one crucial issue facing members of an investment community is to what extent dividend clienteles exist, and what type of clienteles are common. Is there any empirical evidence of dividend clienteles? Is there any evidence of investors' ability to migrate as in MM (1961)? Recall that the clientele effect as in MM (1961) assumes perfect capital markets. So, if clienteles exist, how might their existence affect stock valuation in the presence of capital market frictions? ▶ taxes : personal income tax : มากกว่า capital gain tax

เทียบกับ dividend income

T_p(income) > T_p(cap gain)

costless

means inv can migrate easily w/o cost

then should not affect value of equity

Dividend Irrelevance and Personal Taxes

Recall that the MM (1961) irrelevance is derived in the world with only corporate tax. In real-world situations, however, there are also personal taxes. With personal taxes (i.e., income tax and capital gain tax), do you think the MM (1961) results will change?

Yes, will change

In Thailand Retail Inv 0% capital gain tax 10% tax for cash div

In particular, how does the existence of personal taxes affect firms' payout decisions? Of course, the answer is largely to do with shareholders' wealth. In most countries, the personal tax rate on dividends is higher than the personal tax rate on capital gains. Thus, shareholders are typically better off with capital gains, predicting is that firms should pay no cash dividend. To this extent, any distribution made to shareholders should be in the form of a capital gain, e.g., via a share repurchase. The opposite holds true if shareholders pay less tax on dividends than on capital gains.

Income Tax is "progressive" capital gain tax is "fixed"

Even when the dividend tax rate is equal to the capital gain tax rate, shareholders are still generally better off with capital gains. In reality, the capital gain tax is levied only upon realization rather than recognition of the gain. Thus, investors generally prefer capital gains to cash dividends even when the tax rates for both dividends and capital gains are identical. Consequently, almost all dividend taxation systems in real world discourage the payment of cash dividends.

can defer tax until they sell

income = capital gain } INDIFFERENT

inv. pay tax on div & cap gain at the same time

With an obvious push towards capital gains, why do firms still pay dividends especially outside of the U.S. and U.K. markets? For investors, there more important factors than tax? What are the dividend and capital gain tax regimes in Thailand? In consideration Thailand's of personal tax regime, why do investors in the Thai market demand dividends?

สาเหตุที่ dividend ดีกว่า certain - safer

Bird-in-the Hand Fallacy

False belief

It has often been argued firms pay dividends because investors prefer *a bird in the hand* to *two in the bush*. That is, investors prefer dividends to capital gains because while dividends are certain, capital gains are uncertain.

as it is safer

This supposition is flawed simply because the choice is not between certain dividends today and uncertain capital gains in the future. Note that the phrase *a bird in the hand* refers to return being received today. The phrase *two in the bush* refers to return to be received in the future.

* ต้องเปรียบเทียบ ณ เวลาเดียวกัน!

Comparing two amount with diff in time. Div today & cap gain in future

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(−Δ dividend income) = (+Δ capital gain)
∴ vice versa

on ex-date: dividend paid already
price drop by the amt of div declared

ถ้าเกิด XD ; ราคา ↓ ตาม dividend 8 + 2 (dividend) = vs. ราคาก่อน XD 10 ควรเท่ากัน

capital gain today

* The valid comparison must be between dividends *today* and price appreciation *today*, i.e., dividends vs. capital gains at the same point in time. From last session, recall that less dividend income to investors means more of capital gain to them and *vice versa* — making the total value accruing to them identical across otherwise equivalent firms. Alternatively, when a firm pays a dividend, its share price drops approximately by an amount equivalent to the increase in its share price due to the dividend expected today. Also recall our discussion on the important dates. Share price increases when the shares go *cum-div*, but decreases once they go *ex-div*. Specifically, share price increases corresponding to the expectation of a dividend payment, and decreases once the payment is made and the expected dividend becomes uncertain again.

Risk come from: volatility of inc. Stream it is expected to generate (EBIT)

Current dividend payments do not make the firm's assets any less risky, or say anything about the firm's risk. Riskiness of the firm is determined by riskiness of its underlying cash flows. Holding constant the firm's expected cash flows, raising the current payout therefore does not increase the value of the left-hand side of the firm's balance sheet. If investors want to resolve uncertainty about the firm, they can always sell their shares to realize cash in the current period.

▸ แล้วจับเงินปันผล → ราคาลงอยู่ดีเพราะมี uncertain in future vs. ▸ capital gain → ขายเลย, certain

Why then is a dividend increase associated with an abnormal price rise, and a dividend cut associated with a price drop? Could these empirical patterns be related to capital market frictions? — Info problem

↳ can make a prediction that price will increase.

การจ่าย dividend เป็น ↓

Informational Signaling Theory?

don't know which is which

In the world of adverse selection, a firm's payout decision is likely to have valuable information content.

So if a firm inc. div from ฿5 to ฿7, will this be a signal?

How would you perceive a change in a firm's payout policy, either a dividend increase or decrease? เหมือนเป็นการนำข้อมูลกับตลาดเพื่อลด adverse selection → ทำให้เกิด pooling equilibrium ↓ pecking order theory ↓ under investment

It is highly likely the market will perceive any change in a firm's payout policy as containing valuable new information about the firm. Such information, which is (i) valuable and (ii) new, can be either good news or bad news. One plausible reason why investors pay attention to a dividend policy is because a dividend is one of the two components of their total return.

costly + benefit to firm

With adverse selection, the market always views any action by firms with doubts. Along with the market's doubts, some firms with positive-NPV projects are truly undervalued. One way for undervalued firms to send a credible signal to the market that they are undervalued given their positive-NPV projects is *to take actions that are expensive for firms without positive-NPV projects to mimic*. [Talks are cheap!] One such an action is to increase dividends or its payout ratio.

Why would/should a dividend increase be a *credible* signal about the firm's future earnings or prospects? – paying div. is risky for firms

free will decision not forced

For a start, the payout increase is voluntary. Second, there are *costs* of increasing dividends, not just the benefit. The benefit is higher share price today (i.e., upward revaluation of the firm by the market). On the cost side, if the firm's future earnings fall

Benefit of paying dividend – Inv. will think the firm is a good one

↳ Right hand side of B/S should go up

Future earnings < Increased dividend

↳ แปลว่าในอนาคต manager มั่นใจว่าอ่านปันผลในอนาคตได้ → กก ↑ earning ต้องพอ

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Low EBIT (Low mean, High var) → Low quality firms → will be underinvesting if increase dividend → lead to underpricing "Pecking order Theory"

ขึ้นแล้วลงยาก cost! ความคุ้มค่า รุนแรงว่า ตลาดเดิม → make investors wonder - uncertainty goes up

cut Cash Div ↓ firm is in bad shape EBIT ↓

short of the increased dividend, it will have to: (i) cut dividends in the future and/or make a costly issue of equity to finance the required reinvestment; and/or (ii) forego positive-NPV projects to maintain the increased dividend (i.e., underinvestment, which is very costly to shareholders). By increasing its payout ratio, the firm thus effectively commits itself to maintaining the higher dividend. Obviously, only firms with good investment projects or earnings prospects can expect to be able to afford these costs. That is, if you want to increase dividends, you will have to put your money where your mouth is. For low-quality firms, these expected costs will exceed the expected benefit. Low-quality firms are unlikely to sustain any rise in their earnings.

บริษัทคงน้อย

Size of Benefit for Good-Bad is the same. But E[cost] for bad firm is higher

Given its costs, the decision to increase a payout therefore sends a *positive* and *credible* signal to the market about the managers' confidence and capacity to generate cash flows sufficient to sustain the payout increase at least in the foreseeable future. This positive signal is expected to make investors reassess upwards the firm's expected cash flows and hence valuation (i.e., share price). ↳ revalue the EBIT stream

Good Firm E[Benefit] > E[Cost]

Bad Firm E[Benefit] < E[Cost]

• Cut div → bad signal!

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Dividends being used to send a message

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By Vincent Boland in New York

US companies are paying higher dividends as they emerge from recession anxious to reassure investors about the health of their business and to signal a revival of shareholder value.

Qualcomm and Bank One said yesterday they would increase dividends. Their statements followed similar commitments this week by Citigroup, Bank of America, Goldman Sachs and Washington Mutual. US Bancorp and Wells Fargo are also considering increases.

Subodh Kumar, chief US market strategist at CIBC World Markets, said "Dividend increases are considered statements of confidence in the underlying fundamentals of companies.

"They also send a signal to competitors that 'we are stronger than you'."

The trend towards higher dividends, coinciding with a sharp rise in share prices in recent weeks, follows a controversial move by George W. Bush, US president, to cut the tax on dividends to 15 per cent. Several company heads cited this step in their decision to raise dividends.

Analysts said it was no surprise the biggest rises in dividend payments were by banks.

As they emerged from a prolonged downturn, those with strong capital bases and enhanced competitive positions wanted that message to get through to the market and their competitors.

This was clear in the dividend stances of two big US bank groups. While Citigroup was sending a signal of strength on Monday with a dividend increase of 75 per cent, Dina Dublon, chief financial officer at JP Morgan Chase, admitted yesterday her bank would not raise its dividend until earnings reached "a high level on a consistent basis."

Bank One increased its dividend to four cents a share.

The more surprising trend was among technology companies. Qualcomm's decision to raise the dividend payout from 5 cents a share to 7 cents a share is part of a trend among technology companies to focus more on enhancing shareholder value through dividends.

Irwin Jacobs, Qualcomm's chairman, said the move was possible because of the company's strong cash position, earnings and revenue growth, and the cut in dividend tax.

Microsoft, the bellwether stock for the sector, is under particular scrutiny as it ponders ways of distributing its $46bn (€40.9bn) cash pile to investors. Analysts said the company could increase its annual dividend, which is currently 8 cents a share, buy back shares, or make a special dividend payout.

www.ft.com/business July 16, 2003

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Dividend cut – reveals problems ex.10 probs.
Dividend inc. – reveals 10 good news? Not really
↳ may have just 1 good upturn.

More extreme price drop

The above logic also applies to a dividend decrease, but just potentially more forcefully. Managers usually reduce dividends only when they have no other choice, e.g., when there is a cash flow crisis with no turnaround insight. Thus, the market reaction to a dividend cut is usually very severely negative. → larger than mkt reaction to div inc. } Mkt reaction is asymmetric

Do firms actually use dividends to send a signal about their quality? The news article above (*Dividends being used to send a message*) provides a piece of anecdotal evidence. See also easyJet's statement discussed in session 13. Apparently, investors reassess the firm's value upon the announcement of a dividend change because they learn about the firm's future earnings potential. – at the declaration / announcement date

Dividends are paid out of FCF.

Now, an interesting question is what signal a dividend policy of high-growth firms * (such as hi-tech firms) is likely to send to the market. Since the key feature of high-growth firms is investment (i.e., growth options), a dividend *increase* could signal either (i) *increased profits* or (ii) *reduced investment*. Empirically, the signal can be ambiguous, which may not be welcome by investors. As shown in the news scoop below, Compaq's dividend initiation makes an interesting case in point.

ไม่ใช่ signal ที่ดี

THE HOUSTON CHRONICLE
October 17, 1997, Friday
Headline : Compaq Computer to Pay First Dividend

Awash in cash from record sales and profits in its latest quarter, Compaq Computer Corp. executives said Thursday they are finally going to show their stockholders the money, *offering a quarterly dividend for the first time in the company's history*.

The Houston-based computer maker will pay shareholders a 3-cent-a-share cash dividend, but also will split its stock 2-for-1, cutting the subsequent dividends to 1.5 cents a share.

Compaq reported sales of $6.47 billion for the quarter ending Sept 30, up 31 percent over revenues of about $5 billion in the same period last year. Profits for the quarter were $562 million, or 71 cents a share, up 54 percent from last year's $365 million and 48 cents a share in the same quarter. The earnings figures don't include a $44 million charge taken as part of its *acquisition* of Tandem Computer. Including the charge, Compaq had profits of $517 million , or 65 cents a share.

Compaq's profit margin – the percentage of revenues left after expenses are subtracted – was at 27.5 percent, up from 26.3 percent in last year's third quarter.

That left Compaq wallowing in cash : $6 billion of it, up 83 percent from last year.

collecting faster than paying

"We are taking in money faster than we pay our bills", said Mason.

He said the company is now giving some of it back to shareholders with the new quarterly dividend, which also will open Compaq's stock up to some new investors. "There are some large pension funds in other parts of the world, particularly in Europe, that will only invest in companies that pay a dividend", he said. The dividend should also satisfy some disgruntled stockholders who complain routinely at the company's annual meetings about Compaq's traditional refusal to pay cash returns.

hoping to inc. liquidity of stock

Change policy to chase investors.

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Compaq's stock closed Thursday at 73 ¼ down 4.

$R_{\text{Compaq}} = -5.18\%$; $R_{\text{Market}} = -1.03\%$; $\beta_{\text{Compaq}} = 1.56$

Abnormal return [market model] = $-5.18\% - [1.56 \times (-1.03\%)] = -3.57\%$

This story of Compaq's new dividend policy also points to the possibility of dividend clienteles. Considering the expectation that its new dividend policy "*will open Compaq's stock up to some new investors*", how might have the first dividend payment attract a new clientele and deter the existing clientele? What types of clienteles might have made up Compaq's shareholder base? → Investors migrate or Firms change policy to please inv.? (go back to Fisher Separation (MRT, MRS))

ทำไมถึงเป็นปัญหา

adverse selection

① signal

② agency cost

moral hazard

*

cash dividend

Agency Cost Model of Dividends

A typical signaling theory (at least the one discussed above) assumes that managers act in the best interest of their shareholders. When moral hazard is allowed, managers (being unable to diversify their employment risk) have incentives to hoard cash within the firm as well as to hide information from shareholders who are outsiders to the running of the firm.

on-the-job cons.

FCF problem in the firm → a lot of cash available, also a lot of exp

firms monitor

examined

Since reinvestment is essential for keeping firms going and keeping managers' employment, regular cash dividends keep them in the capital market for new capital. The need to secure new external capital (either equity or debt) in turn forces firms to be scrutinized by investment banking underwriters and/or commercial banks as well as buyers of the new securities. Such scrutiny serves as a monitor for the collective interest of shareholders. As long as the agency costs in the firm (= ผลรวม) exceed the underwriting or issuance (monitoring) costs, shareholders are willing to bear the issuance costs and receive regular cash dividends. In this setting, agency costs are one explanation for observed cash dividends in the presence of capital market frictions. Indeed, this may also in part explain why we observe firms that both pay dividends and issue securities. [For more details, see Easterbrook (1984)]

EBIT constant, Interest exp ↑ → ↓ for leverage

Financing demand dividend

underwriters only under-write good quality firm → as they get paid

DEBT – managers have to get issue rating for the bond + prospectives } intended uses of process is very imp if issuance is public.

EQUITY managers have to behave well before talking to under-writers to get under-written

Given the unobservability of managers' incentives, a dividend cut can also be interpreted as a symptom of the Jensen (1986) *free cash flow* problem. Specifically, bad managers have incentives to hoard the firm's excess free cash flow instead of distributing it back to shareholders. To the extent that agency costs are large enough to justify issuance costs as in Easterbrook (1984), a dividend cut may very well lead to a severely negative market reaction. Through this mechanism, a dividend increase therefore can potentially send to the market a credible signal that moral hazard in the firm is inherently low.

How do S/H make decision to demand sizeable regular cash div.? → drain $ out

Alternatives to Cash Dividends

↳ compare trade-off.

1) Reduce FCF problem (on-the-job)

Is there an alternative to increasing cash dividends when it comes to signaling and alleviating an agency problem?

Is it possible for firms use stock dividend to signal their expectation of their share price to the market?

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More shares = More cuts from the same pie

ex 1 share + 1 DPS → 2 share & get 0.60DPS x 2 = 1.2 div return
เพิ่มเงินสด cash ดี

ไม่ได้เกี่ยวกับ firm → ไม่ได้ส่ง signal & agency cost แต่เพิ่ม liquidity

As discussed earlier, the effect of stock dividends should be *neutral* on shareholders' wealth, all else in the firm remains unchanged. However, something may have changed and stock dividends may have information content. 2 for 1 split

→ no. of shares double
→ S/H end up owning more shares worth half the price

If pay div. DPS should be cut in half as well.

Would it be possible to test this conjecture?

Some firms use a stock split ① as a means to distributing cash back to their shareholders. For example, in a 2-for-1 split, the number of shares doubles and price per share should drop by 50%. Shareholders therefore end up owning a greater number of shares that have a smaller price. If the amount of dividend per share is not cut to the extent that it reflects the split factor (e.g., cut by less than 50% in a 2-for-1 split), then shareholders will end up receiving a larger amount of dividends in total. → for Ex. 1 BAHT DPS – before split
After split – reduce to 60% not 50%. receive 1.2 BAHT in total for 2 Shares.

like throwing away cash

Buyback → Making an ann. of buying share back

Another alternative to making a cash dividend is to conduct a stock buyback ② or share repurchase. A repurchase is usually an alternative to a *special* cash dividend. Both cash dividends and repurchases reduce *free cash flow* in the firm. There are several claimed reasons why firms make a repurchase. These include:

Repurchase: If share price go up beyond offer price, can cancel

(I) It is easier to cancel and spread over time repurchases than to do the same for an equivalent special cash dividend
less stricky (extra) — only declare dividend, no cash → cannot cancel

(II) Repurchases allow managers to signal to the market that the firm's share price is too low or its equity is currently undervalued, and
more info — repurchase at higher price than mkt price → signaling

(III) Repurchases give shareholders a choice to tender or not to tender their shares depending on their need for cash. hold or sell shares
→ ได้ option to defer tax

When firm sell shares, sell both new & existing (secondary) shares

How could a repurchase send a credible signal of undervaluation? What good exactly would (III) do for shareholders? Repurchase gives Tax timing option for S/H.

Buybacks do get cancelled due to mkt conditions

Capital cancellation → Firm shrinks

Recommended Reading

Black, F., 1976. The dividend puzzle. *Journal of Portfolio Management* 2, Winter, 5-8.

Miller, M.H., Rock, K., 1985. Dividend policy under asymmetric information. Journal of Finance 40, 1031-1051.

Easterbrook, F.H., 1984. Two agency-cost explanations of dividends. American Economic Review 74, 650-659.

can buyback serve as a credible signal for good quality?

High quality EBIT
↳ default prob low
↳ good quality firm

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Like Stock Dividends:

Splits in and of itself should have neutral wealth effect

One commonly cited reason split:

Share price has got too high such that shares are becoming irregularly traded or illiquid

few people can afford to trade

If liquidity improves following the split:

split creates value ex ante – Main reason why manager conduct split

for ex, in 2 for 1 split – cut by less than 50%.

It is also plausible that such net price increase reflects an effective increase in dividend per share.

But if split and get same amount, how does it create value?