Payout policy: tax, coverage and safety

Corporate Issuers

1 A story: the bakery and the tax office

- A company earns 100 before tax and pays it all out
- The company is taxed, then the shareholder is taxed
- Effective rate = total tax on each unit earned
- The answer depends on the tax system

IN THE LESSON

- Let me tell you about a small bakery.
- It earns one hundred dollars of profit before tax this year, and the owner wants all of it paid out as a dividend.
- First, the company pays tax on its profit.
- Then whatever is left reaches the owner, who pays personal tax on the dividend.
- So the same hundred dollars can be taxed twice.
- The question for an investor is simple.
- Out of each unit of profit the company earned, how much does the government take in total, and how much do you keep?
- That answer is called the effective tax rate on a unit of pre tax earnings, and it depends on the tax system.

2 Three tax systems

- Double taxation: tax at both levels, no relief
- Split rate: lower company rate on paid out profit
- Imputation: shareholder gets a credit for company tax
- Same profit, three different totals

IN THE LESSON

- There are three systems to know.
- In double taxation, the company pays corporate tax and the shareholder pays tax again on the dividend, with no relief.
- In a split rate system, the company is taxed at a lower rate on profit it distributes than on profit it keeps, which nudges firms towards paying out.
- The shareholder is then taxed on the dividend as well.
- In an imputation system, the shareholder receives a credit for the corporate tax already paid, so the company tax is treated as a down payment on her own bill.
- Same profit, same investor, three different totals.
- Let us work out each one.

3 Double taxation: the two taxes compound

Effective rate = tc + (1 − tc) × td

Company tax rate	Paid by the company first
What is left	One minus the company rate
Tax on the dividend	Her rate on the dividend
Tax per unit earned	Total tax on each unit earned

IN THE LESSON

- Here is the formula for double taxation.
- The effective rate equals the corporate rate, plus one minus the corporate rate, times the personal tax rate on dividends.
- Take the pieces in turn.
- The company tax comes off the top.
- What is left is one minus the corporate rate, because if the company pays thirty per cent, seventy per cent remains.
- The shareholder pays her dividend tax only on that remainder, not on the original hundred.
- Add the company's slice to her slice and you have the total tax per unit earned.
- Notice that the two rates compound.
- They do not simply add, and that is the most common slip.

4 Example 1: double taxation

Earn 100; company 30%; shareholder 25% on dividends

Company tax	100 × 30%	**30**
Left to pay out	100 − 30	**70**
Shareholder tax	70 × 25%	**17.5**
Total tax	30 + 17.5	**47.5**
Effective rate	0.30 + 0.70 × 0.25	**47.5%**

Adding the rates would give 55%: wrong

IN THE LESSON

- Now a number.
- The company earns one hundred before tax and pays it all out.
- Corporate tax is thirty per cent and the shareholder's dividend tax is twenty five per cent.
- The company pays thirty, leaving seventy.
- The shareholder pays twenty five per cent of seventy, which is seventeen point five.
- Total tax is thirty plus seventeen point five, so forty seven point five.
- She keeps fifty two point five.
- As a rate, thirty per cent plus seventy per cent times twenty five per cent gives forty seven point five per cent.
- If you had added the two rates you would have said fifty five, which overstates the tax by seven and a half.

5 Example 2: a split rate system

Distributed 20%, retained 45%; shareholder 25%

Company tax, distributed	100 × 20%	**20**
Left to pay out	100 − 20	**80**
Shareholder tax	80 × 25%	**20**
Effective rate	0.20 + 0.80 × 0.25	**40%**
Wrong: retained rate	0.45 + 0.55 × 0.25	**58.75%**

Use the rate for distributed earnings

IN THE LESSON

- Second example, a split rate country.
- The company's rate is forty five per cent on profit it keeps, but only twenty per cent on profit it distributes.
- The shareholder again pays twenty five per cent on her dividend.
- Our profit is all being paid out, so the distributed rate applies.
- The company pays twenty, leaving eighty.
- She pays twenty five per cent of eighty, which is twenty.
- Total tax is forty, so the effective rate is forty per cent.
- The trap is reaching for the forty five per cent retained rate.
- That would give forty five plus fifty five times twenty five per cent, about fifty eight point seven five, which is wrong for paid out profit.

6 Example 3: imputation and the credit

Company tax 30%; shareholder's marginal rate 25%

Dividend received	100 − 30	**70**
Grossed up	70 + 30 credit	**100**
Her tax before credit	100 × 25%	**25**
Net after the 30 credit	25 − 30	**−5 refund**
Effective rate	30 − 5 = 25 on 100	**25%**

At a 40% marginal rate she pays a net 10: total 40

IN THE LESSON

- Third, imputation.
- The company pays thirty per cent corporate tax on one hundred, leaving seventy to pay as a dividend.
- Under imputation the shareholder grosses the dividend back up to one hundred, the profit it came from, and pays her own rate on that.
- At twenty five per cent her tax bill is twenty five.
- But she is credited with the thirty the company already paid.
- Twenty five minus thirty is minus five, so she receives a refund of five.
- The total tax across company and investor is thirty minus five, which is twenty five.
- The effective rate is simply her own marginal rate.
- Had her rate been forty per cent, she would pay a net ten, and the total would be forty.

7 Same 100 of profit, three totals

Tax on 100 earned (%)

Double taxation	**47.5%**
Split rate	**40%**
Imputation	**25%**

Company 30% (20% if distributed), shareholder 25%

IN THE LESSON

- Here are the three results side by side.
- The vertical axis is the tax taken out of each hundred of profit paid out, in per cent.
- The tallest bar is double taxation, at forty seven point five.
- Both taxes bite, and they compound.
- The middle bar is the split rate system, at forty, because the company's slice is smaller on distributed profit.
- The shortest bar is imputation, at twenty five, which is just the shareholder's own marginal rate, because the company tax is credited back to her.
- So the order, from most tax to least, is double taxation, then split rate, then imputation.
- Remember that the tax system decides the bar, not the company and not the investor.

8 A story: the salary and the commission

- Salary: steady, creeps up slowly
- Commission: a fixed share, swings with sales
- Stable dividend policy is the salary
- Constant payout ratio is the commission

IN THE LESSON

- Think of two ways to be paid.
- One worker gets a steady salary that edges up each year.
- Another is paid pure commission, a fixed share of whatever she sells, so some months are feast and some are famine.
- Companies face the same choice about dividends.
- Shareholders who live on the income dislike surprises, and they often read a dividend cut as bad news about the business.
- So many firms pick a policy.
- A stable dividend policy smooths payments, raising them gradually as earnings improve for good.
- A constant payout ratio policy pays the same percentage of earnings every year.
- Let us see what each produces.

9 Two policies, defined

- Stable: rises gradually with sustainable earnings
- Constant payout: same percentage every year
- Stable can lag behind a real jump in earnings
- Constant payout moves one for one with earnings

IN THE LESSON

- A stable dividend policy aims to raise the dividend gradually, in line with sustainable earnings.
- It does not chase every wobble in profit.
- The board has a long run target payout, but moves towards it in small steps, and cuts only if it has to.
- A constant payout ratio policy sets the dividend at a fixed percentage of each year's earnings.
- Fifty per cent payout means half of whatever is earned.
- The dividend therefore moves one for one with earnings, and it can be very volatile.
- The cost of the stable policy is that the dividend lags behind a lasting jump in earnings.
- The cost of the constant policy is an unpredictable income.

10 The target payout adjustment model

D1 = D0 + (EPS1 × payout − D0) × AF
AF = 1 ÷ N

Next dividend	Expected dividend next year
Last dividend	Dividend paid last year
Target dividend	Expected EPS × target payout
Adjustment factor	One over N
Years to close the gap	Years the board takes

IN THE LESSON

- Analysts model the stable policy with a target payout adjustment.
- Next year's dividend equals last year's dividend, plus the gap between the target dividend and last year's dividend, times an adjustment factor.
- The target dividend is expected earnings per share times the target payout ratio.
- The gap is how far the current dividend sits below that target.
- The adjustment factor is one divided by the number of years over which the board wants to close the gap.
- So four years means a factor of one quarter, and five years means one fifth.
- The key point is that the factor is applied to the gap, not to the whole target.

11 Example 4: one year of each policy

D0 = 1.20; expected EPS = 5.00; target payout 50%; N = 5

Target dividend	5.00 × 50%	**2.50**
Gap to target	2.50 − 1.20	**1.30**
Adjustment factor	1 ÷ 5	**0.20**
Step this year	1.30 × 0.20	**0.26**
Stable dividend D1	1.20 + 0.26	**1.46**

Constant payout would pay 2.50 straight away

IN THE LESSON

- Fourth example.
- Last year's dividend was one dollar twenty.
- Expected earnings per share are five dollars.
- The target payout is fifty per cent, and the board aims to close the gap over five years.
- The target dividend is fifty per cent of five, so two dollars fifty.
- The gap is two fifty minus one twenty, which is one dollar thirty.
- The adjustment factor is one over five, so zero point two.
- One dollar thirty times zero point two is twenty six cents.
- The stable dividend is one dollar twenty plus twenty six cents, so one dollar forty six.
- A constant payout company, with the same earnings, would pay the full two dollars fifty at once.

12 The stable dividend closes the gap

Chart: Dividend per share vs Years

- Target 2.50
- Stable dividend
- Start 1.20

IN THE LESSON

- Here is the path of a stable dividend, drawn.
- Years run along the bottom and dividend per share up the side.
- The flat line is the target of two dollars fifty, which stays put because we assume earnings stay at five dollars.
- The rising curve is the dividend actually paid.
- It starts at one dollar twenty, jumps to one forty six in year one, then to about one sixty seven, one eighty three and one ninety seven.
- Each step is smaller than the last, because each year it closes a fifth of what is left of the gap.
- The dividend heads towards the target but never quite arrives.
- That shrinking step is the signature of a smoothed policy.

13 Example 5: four years of changing earnings

Expected EPS: 5, 4, 6, 5. Each cell: constant payout | stable

Year 1: EPS 5.00	constant 2.50	**stable 1.46**
Year 2: EPS 4.00	constant 2.00	**stable 1.57**
Year 3: EPS 6.00	constant 3.00	**stable 1.85**
Year 4: EPS 5.00	constant 2.50	**stable 1.98**

Constant payout swings; stable never falls here

IN THE LESSON

- Now watch what happens when earnings bounce about.
- Same company, same fifty per cent target and five year closing period.
- Expected earnings per share over four years are five, four, six and five dollars.
- The constant payout company pays half each year: two fifty, two, three and two fifty.
- Its dividend leaps around.
- The stable company starts at one twenty and moves a fifth of the gap each year.
- It pays one forty six, then one fifty seven, then one eighty five, then one ninety eight.
- Notice it never falls.
- Even in year two, when the target dips to two dollars, the target is still above what is being paid.
- That steadiness is exactly what income investors pay for.

14 Mistakes so far: tax and dividends

- 1. Adding the tax rates instead of compounding
- 2. Retained earnings rate used for paid out profit
- 3. Forgetting the imputation credit
- 4. Factor applied to the target, not to the gap

IN THE LESSON

- Before we move on, here are the traps we have met.
- One.
- Adding the rates under double taxation.
- Thirty plus twenty five is fifty five, but the right answer is forty seven point five, because the shareholder is taxed only on what is left.
- Two.
- Using the retained earnings rate under split rate.
- Distributed profit gets the distributed rate.
- Three.
- Forgetting the credit under imputation.
- Counting thirty of company tax on top of her twenty five would give fifty five, when the true figure is twenty five.
- Four.
- Applying the adjustment factor to the whole target.
- One fifth of two fifty is fifty cents, and that gives one seventy, when the right answer is one forty six.

15 A story: two ways to hand back cash

- Dividend: a cheque to every shareholder
- Buyback: the company buys shares from sellers
- Dividends feel like a promise
- Buybacks can be started and stopped freely

IN THE LESSON

- Imagine a shop owner with spare cash at year end.
- She can post a cheque to every shareholder, which is a dividend.
- Or she can use the same cash to buy some of the shares back from anyone willing to sell.
- That is called a share repurchase, or buyback.
- Cheques are a promise.
- Once people expect them, stopping looks like bad news.
- A buyback is a one off decision with no promise attached.
- Over recent decades, more and more companies have chosen the second route, at least for part of what they return.
- Understanding that shift, and its limits, is what the curriculum asks of you here.

16 How payout practice has shifted

- Buybacks a growing share of total payouts
- Fewer listed firms pay regular dividends
- Payers tend to be large and mature
- Practice still differs by country and by rules

IN THE LESSON

- Here is the broad pattern.
- First, repurchases have grown as a share of total payouts.
- This began in the United States and has spread to Europe and other markets.
- Two reasons stand out: buybacks are flexible, and they are often taxed more lightly for investors.
- Second, in several developed markets, including the United States, the proportion of listed companies paying regular cash dividends has fallen over the long run.
- And the firms that still pay tend to be large and mature.
- Third, practice still differs widely between countries, because taxes, ownership structures and regulation differ.
- The word to hold on to is broadly.
- These are trends, not laws.

17 Commitment versus flexibility

- Regular dividend
- Special dividend
- Share repurchase

IN THE LESSON

- This line explains why buybacks gained ground.
- On the left is the most committed way to return cash, and on the right the most flexible.
- Far left sits the regular dividend.
- Boards hate to cut it, and the market reads a cut as a warning.
- In the middle is the special dividend, a one off payment which announces itself as one off, so there is no promise of repeating it.
- On the far right is the open market share repurchase.
- It can be sped up, slowed down or paused without anyone calling it a cut.
- A company unsure of its future cash flows will naturally put more of its payout towards the right.

18 An illustration: the mix changes

Cash returned

Dividends, earlier	**600**
Dividends, later	**650**
Buybacks, earlier	**200**
Buybacks, later	**850**

An illustrative company, not real data

IN THE LESSON

- Let us put numbers on the shift, using an illustrative company.
- The vertical axis is cash returned to shareholders.
- In an earlier year it paid dividends of six hundred and bought back two hundred of shares.
- Some years later it pays dividends of six hundred and fifty and buys back eight hundred and fifty.
- Compare the two gold bars first.
- Buybacks have more than quadrupled.
- Now look at the two green bars.
- Dividends actually went up a little.
- So the company has not abandoned dividends.
- It has simply added a lot of repurchases on top.
- That is what a changing mix looks like.

19 Example 6: share of total versus amount

Earlier: 600 dividends, 200 buybacks. Later: 650 and 850

Earlier buyback share	200 ÷ 800	**25%**
Later buyback share	850 ÷ 1,500	**57%**
Dividend share	75% to 43%	**falls**
Dividend amount	600 to 650	**rises**

A falling share is not a falling dividend

IN THE LESSON

- Now the arithmetic, and the trap.
- Earlier, total payout was eight hundred, of which two hundred was buybacks.
- That is a twenty five per cent share.
- Later, total payout is fifteen hundred, of which eight hundred and fifty is buybacks.
- That is fifty seven per cent, now the larger part.
- The dividend share fell from seventy five per cent to forty three per cent.
- But the dividend itself rose from six hundred to six hundred and fifty.
- A falling share is not a falling dividend.
- The common error is to overstate the shift, saying firms are abandoning dividends everywhere.
- The evidence says repurchases are growing in importance, and that trends vary by market.

20 A story: can the bakery afford it?

- Can the company afford what it pays out?
- Test one: compare payout with net income
- Test two: compare payout with free cash flow
- Profit is not the same as spare cash

IN THE LESSON

- Suppose the bakery owner announces a generous dividend.
- A careful friend asks, can you actually afford it?
- There are two ways to check.
- One is to compare the dividend with the profit on the income statement.
- The other is to compare it with the cash the business really generated for its owners, after buying ovens and paying suppliers.
- Profit is an accounting number.
- Cash is what pays the cheque.
- A dividend that looks safe against profit can still be a strain on cash.
- These two tests are called coverage ratios, and they tell you how comfortably earnings or cash support what is being paid out.

21 The two coverage ratios

Net income cover = NI ÷ dividends
FCFE cover = FCFE ÷ (dividends + buybacks)

Net income	Profit on the income statement
Dividends paid	Cash paid as dividends
Share repurchases	Cash spent buying shares back
FCFE	Cash free for shareholders

IN THE LESSON

- Two ratios.
- The first is net income coverage.
- It equals net income divided by dividends.
- This is simply the inverse of the payout ratio: earnings of four hundred against dividends of one sixty gives two point five.
- The second is free cash flow to equity coverage.
- It equals free cash flow to equity, or FCFE, divided by dividends plus share repurchases, because both use up cash.
- A ratio above one means the payout is met from what the business generated.
- A ratio below one means the payout is bigger than internally generated cash, and the difference must come from reserves or borrowing.
- Always put the cash or earnings on top.

22 Free cash flow to equity

FCFE = CFO − FCInv + net borrowing

Cash from operations	Cash the business generates
Capital spending	Spent on plant and equipment
Net borrowing	New debt less debt repaid
FCFE	Cash free for shareholders

IN THE LESSON

- FCFE is the cash left over for shareholders after the business has paid for what it needs.
- Start with cash flow from operations, the cash the business generates from its day to day activity.
- Subtract fixed capital investment, the money spent on new equipment and buildings.
- Then add net borrowing, which is new debt raised less debt repaid, because cash from lenders is available to be paid out.
- So FCFE equals cash from operations, minus capital spending, plus net borrowing.
- That last term deserves a second look.
- Coverage that depends on fresh borrowing is weaker than it appears, since the borrowing has to be repaid one day.

23 From operating cash to FCFE

Example company, cash in the year

Operations 360 → Capital spending 280 → Net borrowing 30 → FCFE 110

IN THE LESSON

- Here is the cash flow of an example company, drawn as a chain.
- It is the made up company we will use for the next few slides.
- It generates three hundred and sixty of cash from operations.
- That is the first box.
- It then spends two hundred and eighty on new plant and equipment, which is cash that is already spoken for.
- That leaves eighty.
- The company also borrowed thirty more than it repaid, so net borrowing adds thirty.
- The last box is FCFE of one hundred and ten.
- Notice how far this is from net income.
- Profit does not know about the plant that had to be bought, which is why cash coverage can look so different.

24 Example 7: earnings cover versus cash cover

NI 420; dividends 140; buybacks 70; FCFE 110

Net income cover	420 ÷ 140	**3.0×**
FCFE cover, dividends only	110 ÷ 140	**0.79×**
Total payout	140 + 70	**210**
FCFE cover, all payouts	110 ÷ 210	**0.52×**
Shortfall	210 − 110	**100**

Reserves or new debt must fund the 100 gap

IN THE LESSON

- Example seven, the same company.
- Net income is four hundred and twenty.
- It pays dividends of one forty and buys back shares worth seventy.
- First, net income coverage is four twenty divided by one forty, which is three.
- Looks very safe.
- Now cash.
- FCFE is one hundred and ten.
- Against dividends alone, coverage is one ten over one forty, about zero point seven nine.
- Against dividends plus buybacks, two hundred and ten, it is one ten over two ten, about zero point five two.
- So the company distributes about a hundred more than it generated.
- Without the thirty of net borrowing, the gap would be bigger still.

25 Three coverage ratios, one company

Coverage (times)

Net income cover	**3.0×**
FCFE ÷ dividends	**0.79×**
FCFE ÷ all payouts	**0.52×**

Below 1 means paying out more than was generated

IN THE LESSON

- The same company, three coverage ratios, as bars.
- The vertical axis is coverage in times, and a value of one is the breakeven.
- The tall green bar is net income coverage at three.
- By this test the company looks very comfortable.
- The shorter bar is cash coverage of the dividend alone, at about zero point eight.
- Already below one.
- The shortest is cash coverage of all payouts, about zero point five.
- Everything depends on which question you ask.
- Net income says safe, cash says stretched.
- That is why analysts do not stop at the payout ratio.
- They check what the business is really generating after it has paid for its growth.

26 Coverage: what to watch for

- Below 1: paid from reserves or borrowing
- Net income can overstate the cash available
- Do not invert the ratio; cash goes on top
- Include repurchases in the FCFE denominator

IN THE LESSON

- A few cautions on reading coverage.
- A ratio below one means distributions exceed internally generated cash, so the shortfall comes from reserves or borrowing, and neither can last for ever.
- Net income can overstate what is available when capital spending or working capital absorbs cash, as it did in our example.
- The two ratios answer different questions, so quote both.
- Common slips: inverting the ratio, so that dividends sit on top.
- Leaving repurchases out of the cash flow denominator when the definition includes them.
- And forgetting that net borrowing flatters FCFE.
- Where it matters, strip it out and see what is left.

27 A story: the sinking boat

- A leaking boat can float for a while
- Payout funded by reserves or new debt
- The cheque looks the same until it stops
- Learn to spot the leak early

IN THE LESSON

- Picture a boat taking on water, with the crew bailing it out using the ship's own reserves.
- For a while the boat floats and nobody panics.
- Then the reserves run dry.
- An unsustainable dividend works like that.
- The company keeps paying, month after month, but only by drawing on something that cannot last: savings, new debt, or an asset sale.
- Shareholders see the same cheque and may think nothing has changed.
- The skill we want is to spot the leak early.
- We look at five warning signs, then at a pair of examples, and then at the most common mistake, which is chasing a high yield.

28 Warning signs of a dividend cut

- Net income cover near or below 1
- FCFE that does not cover the dividend
- Rising debt that seems to fund the payout
- Falling, volatile earnings
- Dividend yield far above peers

IN THE LESSON

- Here are the signs.
- One, net income coverage close to or below one, so the company pays out nearly all or more than it earns.
- Two, FCFE that does not cover the dividend, which means the cash is not there.
- Three, rising leverage, which suggests the payout is being borrowed.
- Four, declining or volatile earnings, which make any fixed payment harder to maintain.
- And five, a dividend yield far above peers, which often means the market already doubts the payment.
- One more point: a long record of unchanged dividends is not proof of safety.
- A record shows the past.
- It says nothing on whether today's cash flow can carry the payment.

29 The dividend that outlives its cash

Chart: Amount (millions) vs Years

- Dividend 200
- FCFE falling
- Gap: reserves

IN THE LESSON

- Here is the classic picture of an unsustainable dividend.
- Years run along the bottom and amount in millions up the side.
- The flat line is the dividend, held at two hundred every year, and the record looks perfect.
- The falling line is free cash flow to equity, starting at three hundred and forty and shrinking by forty eight each year.
- In the early years cash comfortably covers the dividend.
- Around year three, the lines cross.
- After that, every cheque is partly paid from reserves or new borrowing.
- By year five, free cash flow is one hundred, only half of the dividend.
- Nothing visible has changed, but the payment now rests on something that cannot last.

30 Example 8: two firms above the line

A: NI 250, div 200, FCFE 140. B: FCFE 200, div 100, buybacks 160

A: net income cover	250 ÷ 200	**1.25×**
A: FCFE ÷ dividend	140 ÷ 200	**0.70×**
B: FCFE ÷ dividend	200 ÷ 100	**2.0×**
B: FCFE ÷ all payouts	200 ÷ 260	**0.77×**

A's dividend is at risk; B's excess is buybacks it can stop

IN THE LESSON

- Eighth example, two firms.
- Firm A has net income of two fifty, pays dividends of two hundred and does no buybacks.
- Its FCFE is one forty.
- Net income coverage is one point two five, and cash coverage is zero point seven.
- A has no discretionary payment to trim, so the shortfall sits right under the dividend.
- That is a classic cut candidate.
- Firm B has FCFE of two hundred, pays dividends of one hundred and buys back one sixty.
- Its dividend is covered twice, but total payouts of two sixty exceed FCFE, so total coverage is about zero point seven seven.
- The excess is buybacks, which the board can stop.
- So B's dividend may be secure after all.

31 Example 9: the yield trap

Dividend 2.00 a share; peers yield 4%

Yield at a price of 50	2.00 ÷ 50	**4.0%**
Yield after fall to 25	2.00 ÷ 25	**8.0%**
Gap to peers	8.0 − 4.0	**4 points**
What the market is saying		**doubts it**

Ask why the yield is high before calling it cheap

IN THE LESSON

- Last example: the high yield trap.
- A share pays a dividend of two dollars.
- When the share price is fifty dollars, the yield is two over fifty, four per cent, in line with peers.
- Now bad news arrives and the price falls to twenty five.
- The dividend has not changed yet, but the yield is now two over twenty five, eight per cent.
- That is four percentage points above peers.
- Is it a bargain?
- Usually no.
- A yield that far above peers often means the market already expects a cut.
- Do not treat a high yield as attractive without asking why it is high.
- First test the dividend against earnings and cash, and only then decide.

32 Recap: the formulas to remember

Tax = tc + (1 − tc) × td D1 = D0 + (target − D0) × 1/N
NI cover = NI ÷ Div FCFE cover = FCFE ÷ (Div + Buybacks)

Tax per unit earned	Imputation: her own marginal rate
Next dividend	Add a fraction of the gap
Net income cover	Earnings over dividends
FCFE cover	Cash over all payouts
Dividend yield	Dividend ÷ price; compare peers

IN THE LESSON

- Let us pull it together.
- Tax first.
- Under double taxation the effective rate is the corporate rate plus one minus the corporate rate, times the dividend tax rate.
- Split rate uses the same formula with the distributed earnings rate.
- Under imputation, it is the shareholder's own marginal rate.
- For a stable dividend, next year's dividend is last year's plus the gap to target times the adjustment factor.
- Constant payout is just the payout ratio times earnings.
- Coverage: net income over dividends, and FCFE over dividends plus buybacks, with a ratio below one a warning.
- And a yield far above peers asks for a hard look at why.

33 Try three quick questions

1. Double tax: company 25%, shareholder 20%. Effective rate?
   Answer: 0.25 + 0.75 × 0.20 = 40%
2. D0 = 2.00, EPS 6.00, payout 50%, N = 4. Stable D1?
   Answer: 2.00 + (3.00 − 2.00) × 0.25 = 2.25
3. FCFE 240, dividends 200, buybacks 100. FCFE cover?
   Answer: 240 ÷ 300 = 0.80: below 1, so a warning

IN THE LESSON

- Time for three quick questions.
- Pause after each one.
- Question one.
- Corporate tax is twenty five per cent and the shareholder's dividend tax is twenty per cent, under double taxation.
- What is the effective rate?
- Twenty five plus seventy five per cent of twenty, which is fifteen, makes forty per cent.
- Question two.
- Last dividend two dollars, expected earnings per share six dollars, target payout fifty per cent, gap closed over four years.
- What is the stable dividend?
- Target is three, gap is one, a quarter is twenty five cents, so two twenty five.
- Question three.
- FCFE is two forty, dividends two hundred, buybacks one hundred.
- What is cash coverage?
- Two forty over three hundred is zero point eight, so the cover is thin.
- Well done.