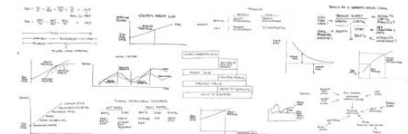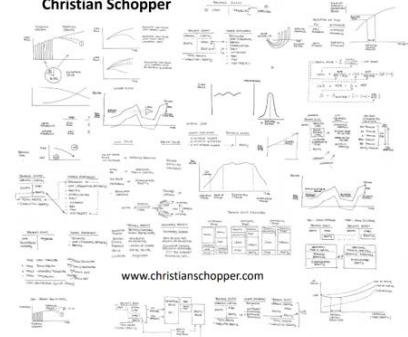# Mature Companies

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Introduction

- The end of the growth stage is often marked by some very **aggressive price competition** among rivals who have been left with considerable **excess capacity** as the anticipated continued sales growth in the industry fails to materialize
  - The level of business risk has reduced as the company should enter the maturity stage with a good relative market share as a result of its investment in marketing during the growth stage

- The **reduction in business risk** enables the **financial risk** to be **increased** through the introduction of debt financing

- The positive cash flow and ability to use debt funding for reinvestment needs are also important to shareholders as they allow the company to pay much **higher dividends**

- The lower growth prospects are reflected in a **lower P/E ratio**, thus shares are given a lower rating by the financial markets, but this does not necessarily lead to a decline in share prices

Mature businesses	
Business risk	Medium
Financial risk	Medium
Source of funding	Retained earnings plus debt
Dividend policy	High payout ratio
Future growth prospects	Medium to low
Price/earnings multiple	Medium
Current profitability, i.e. eps	High
Share price	Stable in real terms with low volatility

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Managing the Transition to Maturity

- One of the great problems of the product life cycle is that most management teams do not accept that it is inevitable that their main **product** will eventually **mature** and that it should be managed accordingly
  - Thus companies continue to spend large amounts of money searching desperately for ways to prolong the earlier high rates of growth, even though the financial justifications for such expenditures become increasingly tenuous

- This inevitability of product maturity should lead to a significant change in managerial focus and much **greater concentration on profitably**

- As the market matures, users become less willing to pay for certain types of differentiation benefit. - This would normally require a price reduction as part of the product's repositioning

- This means that the business risk associated with a mature business is reduced to the medium range, which implies that **investors** should be prepared to accept a **lower return** than in the earlier higher risk phases of the life cycle
  - Such a lower return will only be accepted if the required change in shareholders´ expectations is positively managed by the company

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Adding Value through Financial Strategy

- As a company matures, its level of unique risk normally reduces because the **cash flows** become much more **predictable and stable**
  - The proportionate impact of the systematic risk component of the company therefore becomes greater, but the beta factor which drives this level of risk also tends to normalize towards a beta of one, the beta of the markets as a whole

- The base cost of equity capital for all such companies will be much closer to the expected return on the stock markets as a whole
  - Thus it is important that the company convinces its shareholders that it does now have a lower risk profile, so that they should accept this lower rate of return without reducing the share price to restore the actual rate of return to the previously higher levels

- One obvious way to communicate this lower risk profile is by **delivering less volatile financial results** and to start to change the way in which shareholders expect to receive their return
  - Future growth will come mainly as a result of improvements in efficiency

- Thus the reducing business risk can be offset by **increasing the financial risk** through raising some **debt funding**
  - Although gearing up the financial structure is a logical way to proceed in the financial life cycle, many management teams would prefer not to do so, as their job is made more comfortable by having a cushion of equity in a lower risk business

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Developing a Dividend Policy

- An **increasing dividend payout ratio** signals to shareholders that future growth prospects are not as exciting as in the past
  - The company now has the ability to support a consistent high level of dividends and the cash required to pay these dividends is also readily available from within the company
  - The reinvestment needs of the business can be met from the lower retention ratio on existing profits supplemented by raising a reasonable proportion of debt funding

- The **P/E multiple will reduce** as the market reassesses the potential for future growth
  - However, If substantial future growth expectations are allowed to be believed by shareholders for too long, the share price may rise too high and subsequently overreact in the opposite direction

- With the arrival of the maturity stage the **need for reinvestment reduces** significantly just as the availability of finance increases substantially
  - The company runs a potential risk of retaining profits for which it has no profitable use, which can lead to a declining overall rate of return for the business
  - Alternatively, the company can start to diversify, which frequently destroys shareholder value

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From Growth to Maturity

- Today's share price of 125 p for Solar Technology And Resources plc (STAR) is supported by an expected 1p dividend to be paid out of expected eps of 5.0p
- Shareholders expect future growth to be maintained at 15% per annum,
- The steady state cost of equity for an equivalent company to STAR is 10%
- The present dividend policy represents a 20% payout policy

$$K_e = D_1/P_0 + g$$
$$= 1/125 + 15\%$$
$$= 0.8\% + 15\%$$
$$= 15.8\%$$

- Only 0.8% of shareholders' requirement for a 15.8% return is met by the dividend yield, …
- … therefore 15% must represent required capital growth
- Hence, STAR is seen by the markets as a growth company

(a) Present Value of Growth Opportunities

At steady state, STAR's P/E ratio would be 1/0.1

$$= 10 \text{ times}$$

Share price at steady state is $10 \times 5\,p$

$$= 50p$$

Current share price is 125 p

Therefore, 75 p of the current share price represents PVGO – 60% of the price.

(b) Steady State P/E

Current P/E is 125/5 = 25 times
Steady state P/E is 10 times
Therefore current P/E is considerably greater than steady state P/E, demonstrating the market's growth expectations.

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Relationship between Growth and RoI

- The rate of internally funded sustainable organic growth is determined by the retention ratio and the return which is achieved on these reinvested funds; so that:

$$g = \text{retention ratio} \times \text{return on reinvestment}$$
$$= (1 - \text{payout ratio}) \times \text{return on reinvestment (ROR)}$$

- For STAR this gives: $15\% = (1 - 0.2)\text{ROR}$
- Therefore ROR = $(15\%/0.8) = 18.75\%$

$$K_e = D_1/P_0 + g$$
$$= 1/125 + 15\%$$
$$= 0.8\% + 15\%$$
$$= 15.8\%$$

The STAR 100% Retention Scenario

$$g = \text{retention ratio} \times \text{return on reinvestment}$$

If no dividends are paid, the retention ratio is 100%

$$g = 100\% \times \text{ROR}$$
$$= 100\% \times 18.75\%$$
$$= 18.75\%$$

Therefore, using Gordon's dividend growth model:

$$K_e = 0 + 18.75\%$$
$$= 18.75\%$$

- This represents an increase in expected return by shareholders, which was 15.8%.
  - This would only be logical if they were to perceive an increased risk due to this change in financial strategy
  - Otherwise, the **share price should increase** to reduce the return to the normal level of expected returns
  - With a 100% retention ratio this cannot be reflected in this simplified formula

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The Logic of a High Retention Ratio and High Payout

High Retention Ratio

- **In theory shareholders are indifferent between dividends and capital growth**, **however** a **high retention rate** is **only logical for a growth-orientated company**

- Hence it could be argued that an increase in the retention rate should **indicate higher future growth** expectations and the greater volatility associated with higher growth may **increase** the **risk perception** of investors

High Dividend Payout

- If a company is to **pay out all** of its **current profits as dividends**, this means that **no future growth** should be **expected**

- Therefore all the return to share-holders comes through dividend yield, and dividends are likely to stay at their current level
    - This potentially places the company in a steady state position

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Example: 100% Dividend Pay-Out in Growth Company

- If all current profits are paid out as dividends, the future growth expectation must be zero

$$g = \text{retention ratio} \times \text{return on reinvestment}$$
$$= (1 - \text{payout ratio}) \times \text{return on reinvestment (ROR)}$$
$$= (1 - 1) \times \text{ROR}$$
$$= 0$$

- For STAR plc the max sustainable dividend payment is 5.0p (i.e. the current eps)
- If the share price stays at 125 p, the shareholder's return is reduced to:

$$K_e = 5/125 + 0 = 4\%$$

But: Shareholders previously wanted a return of 15.8%

- The company can **now** be regarded as having moved to a **steady state** position (100% payout policy) and investors should now expect a the steady-state 10% CoE / return

- This can only be **achieved by a reduction in share price**, thus:

$$10\% = 5 \, p/P_1 + 0$$

- Therefore,

$$P_1 = 5/0.1 = 50 \, p \text{ (a reduction of 75 p, or 60\%)}$$

- … where P1 is the share price after announcing the change in dividend policy

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Example: A Declining Business

- Dear Old Geriatrics Inc has a share price of 100p
- The company is expected to pay a dividend of 9p per share out of eps of 12p
- Shareholders only expect annual growth of 2%

$$K_e = D_1/P_0 + g$$
$$= 9\,p/100\,p + 2\%$$
$$= 11\%$$

- But

$$g = \text{retention ratio} \times \text{return on reinvestment (ROR)}$$
$$2\% = 0.25 \times ROR$$

- … or

$$\text{return on reinvestment} = 2\%/0.25 = 8\%$$

Switch to a 100% Payout Ratio

- If all current profits are paid out, g = 0 under Gordon's model; thus, if the share price is unchanged:

$$K_e = D_1/P_0 + 0$$
$$= 12\,p/100\,p + 0$$
$$= 12\%$$

- However, shareholders only required 11% rate of return when 25% of profits were being reinvested
  - If their risk perception has been reduced due to the higher payout ratio, the required rate of return should also reduce rather than increase
- If expected return stays the same …

$$P_1 = D_1/K_e = 12/0.11 = 109\,p$$

- … where P1 is the share price after announcing the change in dividend policy

Example: A Declining Business (cont´d)

Increasing the Retention Rate of a Declining Business

- The expected return on reinvestment is assumed to be maintained at 8%
- If the retention ratio is increased to 50%, the expected dividend payment reduces to 6p
- We assume that shareholders' required return remains at 11%

$$K_e = D_1/P_1 + \text{growth}$$
$$= D_1/P_1 + (\text{retention ratio} \times \text{return on reinvestment})$$

i.e.

$$11\% = 6/P_1 + (0.5 \times 8\%)$$
$$= 6/P_1 + 4\%$$

$$\longrightarrow \qquad P_1 = 6/7\%$$
$$= 85.7p$$

- P1 is the share price after the announcement of the change in dividend policy
- This represents a decline in the share price of about 14% due to retaining profits in a declining business

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Project Finance: The Mature Start-Up

- Project finance is – for example - used for **infrastructure projects** such as roads or bridges
  - **Technically, these are start-up projects**, in that an asset and stream of income are being created which did not exist before
  - Therefore, if the life cycle model were being followed blindly, one should expect equity financing

- Generically the key characteristics of project finance make debt finance appropriate: There is an element of **risk** during the **construction phase**, but **then** the risk diminishes and a **utility-type return** should be available

- Operators who understand this have increased their returns from these projects by **charging the government a high rate for finance**, reflecting the initial riskiness of the project, **but then refinancing** it **themselves** with **much cheaper** debt **once the asset is up and running**

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Project Finance: A Different Type of Start-Up

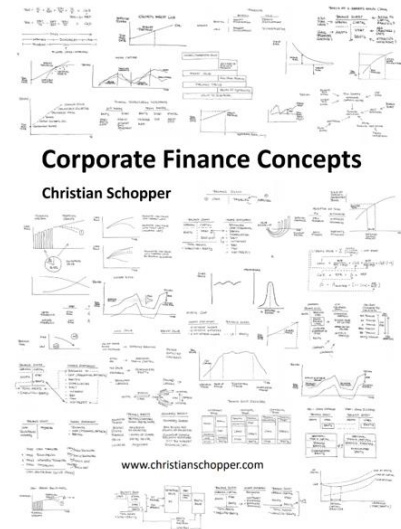|	Start-up	Project finance
Business risk	Very high, as the product, market and management team are all unknowns.	High during the construction stage, but low afterwards. Construction risk is generally laid-off to the builders of the asset.
Cash flows	Negative in the launch stage, and continue to be negative in the growth stage due to working capital and capital expenditure.	Negative in the construction phase, but positive thereafter.
Future operations	Uncertain, as the market trajectory is not known.	A reasonable level of predictability.

Summary

- As companies approach maturity the level of business risk reduces and so it is appropriate to take on more fi nancial risk: debt should increase. Also, with fewer growth opportunities, the dividend payout should also increase

- Investors ' return in this stage comes more from dividends and less from expected capital growth

- The nature of project finance means that start-up infrastructure projects are often, correctly, fi nanced as mature businesses once the initial construction phase is complete

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