

Long-term Financing Equity

What is equity capital?

- Ordinary shares
 - Ordinary shares represent the equity share capital of the firm
 - Share in the rising prosperity of a company
 - What ordinary shareholders receive depends on how well the company is managed
 - Owners of the firm
 - The right to exercise control over the company
 - Vote at shareholder meetings
 - A right to receive a share of dividends distributed
 - Each shareholder entitled to a copy of the annual report
 - No agreement between ordinary shareholders and the company that the investor will receive back the original capital invested

Background on Stocks

- **A stock is a certificate representing partial ownership in a corporation**
- **Stock is issued by firms to obtain long-term funds**
- **Owners of stock:**
 - Can benefit from the growth in the value of the firm
 - Are susceptible to large losses
- **Individuals and financial institutions are common purchasers of stock**
- **Private Equity**
- **Public Equity**

Private Equity

- Owners cannot sell their shares to the public
- Common for **new businesses**: large amount of stock needed to go public (\$50m)
- **Venture Capital Funds**
 - Willing to invest for long periods (5-10 years)
 - Venture capital conferences
 - VC investors set requirements on performance and strategy
 - Exit: VC sells its stake back to the firm or to the public if IPO
- **Private Equity Funds**
 - Take over firms and manage them (restructuring).
 - Sell their stake to other firms for much higher price

TERMINOLOGY

- Par aka face
 - de minimis smallest amount shares can be sold for
 - represents original capital
 - may be fully or partially paid
- Share certificate
 - issued by the registrar
 - denotes ownership
 - Declining in favour of book entry

TERMINOLOGY

- Classes
 - Ordinary or Preference (UK)
 - Common or Preferred (US)
- Dividend
 - Owners claim on profits
 - Not always cash
- Finer notes about dividends
 - UK must be paid from operating income
 - US can be paid from retained earnings

CLASSES

- Ordinary (common)
 - Carries voting rights (but may be distorted)
 - Entitled to a dividend
 - High risk (what about reward?)
- Preference (preferred)
 - Debt equity hybrid
 - Carries coupon
 - Can't vote but higher in liquidation
 - Lower risk than common (and reward?)
- Each class is attractive to specific investors
- There may be multiple issues of each class

MARKET CHARACTERISTICS

- Exchange driven
 - US (NYSE, AMEX, NASDAQ)
 - UK (LSE, AIM)
- Some OTC
 - “dark pools of liquidity”
 - Very centralised market
 - Ample derivatives - “complete market”

Historical Differences in Market Organization

- Every stock exchange
 - has unique characteristics and legal organization
- One of three basic types
 - From which all exchanges have evolved
- Private Bourses
- Public Bourses
- Bankers' Bourses

Historical Differences in Market Organization

Private Bourses

- Private Bourses
 - Founded by private individuals and entities
 - for the purposes of securities trading
 - Allowed effective sales & diversification
 - Developed under British influence
 - Generally a mix of self-regulation and government supervision
 - However emphasis is on self-regulation

Historical Differences in Market Organization

Public Bourses

- Public Bourses
 - Developed under Napoleon I
 - the Paris Bourse followed this model until 1990
 - Commissions are fixed by the state
 - Brokers are government appointed
 - and enjoy a monopoly over transactions
 - Found in the French sphere legal influence
 - France, Belgium, Spain, Italy, Greece and some Latin American countries
 - Most have moved towards a private bourse model

Historical Differences in Market Organization

Bankers' Bourses

- Bankers' Bourses
 - Developed under German sphere of influence
 - Germany, Austria, Switzerland and Netherlands
 - Chief function is to provide a convenient place for banks to meet & trade
 - Either private or semi-public organizations
 - Most bankers' bourses moved to a private bourse model in the 1990s
 - allowed foreign financial intermediaries to become brokers

What about the NYSE?

- NYSE is a hybrid market
 - combines traditional floor-trading & electronic auction trading
- Automated platform based on Archipelago system
 - Adopted by other order driven markets
- Electronic system finds best transaction price
 - May be on the NYSE or elsewhere

Developed Markets

- Curious paradox
 - U.S. and British stock market capitalizations are much larger than their respective annual GDP
 - France and Germany have stock market capitalizations that are smaller than their respective annual GDP
- Most European corporations
 - maintain private ownership
 - are undercapitalized compared to Anglo-American
 - rely on bank financing to greater extent
- Most U.S. companies tend to go public
 - raise capital in the marketplace

Developed Markets

- Outside the United States
 - largest markets tend to be Japan, United Kingdom and Euronext
- Changes in total size and geographical breakdown of world market
 - can be attributed to currency movements
- At the end of 2018
 - developed markets total market cap of approximately \$64T
 - Compare to GDP at \$45T

Emerging Markets

- End of 2018
 - emerging markets had total market cap of approximately \$7T
 - But with GDP of about \$34T
- Emerging markets have grown rapidly since 1980s
 - and represented over 13% of the world stock market capitalization at the end of 2006

Liquidity

- Turnover ratio is key
 - transaction volume relative to market capitalization
- Sometimes called “share turnover velocity”
- Illiquidity tends to imply higher transaction costs
- Comparison of national market liquidity
 - based on turnover ratio
 - can lead to different conclusions
 - For different years

MARKET PARTICIPANTS

- Varied needs
 - But looking for higher returns than investing in ...
- Who?
 - Retail
 - Institutional investors
 - Unit trusts / investment trusts
 - pension funds, insurance companies
- Others?
 - Banks
 - Hedge funds

Public Equity

- The **primary market** enables firms to issue new stock
 - Affects firm's ownership's structure (higher number)
 - Affects capital structure
- The **secondary market** creates **liquidity** for investors who invest in stock
- **Common stock**
 - Shareholders **entitled to a number of rights**: vote on key matters e.g. election of board, new issue, corporate charter etc.

Public Equity

Preferred stock

- Shareholders **do not have significant voting rights**
- **A cumulative provision** on most preferred stock prevents dividends from being paid on common stock until all preferred dividends have been paid
- **Often no participation in the profits beyond the stated fixed amount dividend**
- **Advantage to bonds: dividends can be omitted**
- **Disadvantage to bonds: Cost of funding**
Dividends are not tax deductible.

20 minute break

Initial Public Offerings

- An IPO
 - **first-time offering** of shares by a specific firm to the public
 - If additional funds needed there are be other offers
- An IPO
 - May be used to obtain new funding
 - Offer VC firms a way to cash in their investment

Initial Public Offerings

- **Process of going public**

- An **investment banking firm** normally serves as the **lead underwriter for the IPO**
- Developing a **prospectus**
 - The issuing firm develops **and files it with the SEC**
 - **Aka, S-1**
 - Contains **detailed information** about the firm, includes **financial statements** and a discussion of **risks**
 - Once approved by the FA, the prospectus is **sent to institutional investors**
 - Underwriters and managers meet with institutional investors in the form of a **“road show”**

Initial Public Offerings

– Process of going public

– Pricing

- The offer price is determined by the **lead underwriter**
- During the **road show**, the number of shares demanded at various prices is assessed
- Builds up demand curve
- Risk of leaving “**money on the table**”

– Transaction costs

- The issuing firm typically pays **7% of the funds** raised
- Additional costs from **legal and financial advisers**
- **Total cost** may reach **10% of total offering**

- BUT – highly negotiable

- Facebook went public and paid zero

Initial Public Offerings

■ Underwriter efforts to ensure price stability

□ The lead **underwriter's performance** can be measured by the **movement in the IPO shares following the IPO (reputation)**

■ If stocks placed by a securities firm perform poorly, **investors may no longer purchase shares underwritten by that firm**

□ The underwriter may require a **lockup provision**

■ Prevents the original owners from selling shares for a specified period (downward pressure on the price)

■ **When the lockup period expires the share price commonly declines significantly**

Initial Public Offerings

- Timing of IPOs
 - IPOs tend to occur more frequently during **bullish stock markets**:
Prices are typically higher
 - In the 2008 crisis, low EPS, many firms withdrew their IPO plans
- Initial returns of IPOs
 - First-day return **averaged about 20 percent** over the last 30 years
 - In 1998, the mean one-day return for Internet stocks was 84 percent (e.g. Market Watch.com \$17, \$130, \$97.5. One day return= 474%).
Indicates underpricing
- Long-term performance following IPOs
 - IPOs **perform poorly on average over a period of a year or longer**: (Many IPOs are overpriced at the time of issue: Market Watch,com->\$3 in few years)

Initial Public Offerings

Abuses in the IPO Market

- **Spinning**
 - Underwriters give shares of an IPO, especially a popular issue, to major executives in some company unrelated to the company issuing the IPO. These executives return the favour by recommending that their clients do business to the underwriter or broker
- **Laddering**
 - Underwriters require their customers to buy additional shares of the issuer in the aftermarket as a condition for receiving shares at the offer price. Can create upward price momentum
- **Excessive commissions**
 - Brokers charge high commissions when demand is high. Investors are willing to pay hoping they can recover the costs from the returns of the first day

Secondary Stock Offerings

- A secondary stock offering is:
 - A new stock offering by a firm whose stock is already publicly traded
 - Undertaken to raise more equity to expand operations
 - Usually facilitated by a **securities firm**
- **Timing:** when the market price is relatively high and the prospects are favorable. (price initially falls)
- Existing shareholders often have the **preemptive right** to purchase newly-issued stock
 - Will protect their position
 - Prevents *dilution*

Debt and Equity for Investors

- Debt (e.g. bank loans, bonds)
 - Usually the lenders (creditors) to the firm have no official control
 - Usually requires regular cash outlays in the form of interest and the repayment of the capital sum (firm will be obliged to maintain the repayment schedule through good years and bad)
- Disadvantage of ordinary shares for investors
 - Last in the queue to have their claims met
 - Unlike interests from debt investment, dividends are not guaranteed. No repayment of principal from issuers.
 - Although expected returns are higher than debt investment, the real returns are more volatile (riskier investments)

Advantages and Disadvantages of Share Issues (companies)

- Advantages
 - Usually there is no obligation to pay dividends
 - The capital does not have to be repaid
- Disadvantages
 - High cost
 - Direct costs of issue
 - The return required to satisfy shareholders (costs of equity)
 - Loss of control
 - Dividends cannot be used to reduce taxable profit (see below)

Preference Shares

- Preference shares usually offer their owners a fixed rate of dividend each year
- However if the firm has insufficient profits the amount paid would be reduced, sometimes to zero
- The dividend on preference shares is paid before anything is paid out to ordinary shareholders, but after the creditors.
- Preference shares are part of shareholders' funds but are not equity share capital, do not represent “ownership”.
- Common types: cumulative, participating, convertible

Advantages and Disadvantages to the Firm of Preference Share

- Advantages:
 - Dividend ‘optional’;
 - Generally no voting rights, fewer influence over management and no dilution;
 - “fixed” dividend, no access to extraordinary profits
 - Preserve debt capacity, since they are not secured.
- Disadvantages:
 - High cost of capital compared to other debts (loans/bonds)

Tax Deductibility

Preference shares versus bonds

	Company A	Company B
Profits before tax, dividends and interest	200,000	200,000
Interest payable on bonds	80,000	0
Taxable profit	120,000	200,000
Tax payable @ 30% of taxable profit	36,000	60,000
	84,000	140,000
Preference dividend	0	80,000
Available for ordinary shareholders	84,000	60,000

Tax benefit from a debt instrument in this case is:

$$\text{Interest payable} * \text{tax rate} = 80,000 * 30\% = 24,000$$

Stock Exchanges Around the World

Column 1: Total capitalisation of domestic equities, £bn (approx.).

Column 2: Number of domestic firms listed.

Column 3: Number of foreign firms listed.

Argentina	25	101	5	India:				OMX	560	765	26
Australia	550	175	78	Mumbai	409	4796	0	Peru	20	189	32
Austria	92	96	17	NSE India	387	1156	0	Philippines	34	238	2
Bermuda	2	16	38	Indonesia	69	344	0	Poland	75	253	12
Brazil	355	347	3	Iran	18	320	0	Singapore	192	461	247
Canada	850	3790	52	Ireland	82	59	11	Slovenia	8	100	0
Chile	88	244	2	Israel	81	602	4	South Africa			
China:				Italy	513	284	27	(Jo'burg)	356	359	30
Shanghai	458	842	0	Japan:				Sri Lanka	4	237	0
Shenzhen	114	579	0	Osaka	92	466	1	Switzerland	606	256	92
Colombia	29	94	0	Tokyo	2307	2391	25	Taiwan	298	688	5
Cyprus	8	141	0	Korea	417	1689	0	Thailand	70	518	0
Egypt	47	595	0	Luxembourg	40	36	224	Turkey	81	316	0
Euronext	1854	954	256	Malaysia	177	1021	4	UK	1900	2913	343
Germany	819	656	104	Malta	2	14	0	USA:			
Greece	104	288	2	Mauritus	2	62	1	American (Amex)	140	492	100
Hong Kong	837	1165	8	Mexico	175	132	203	NASDAQ	1990	2812	321
Hungary	21	41	1	New Zealand	23	151	31	New York	7200	1829	451
				Norway	140	195	34				

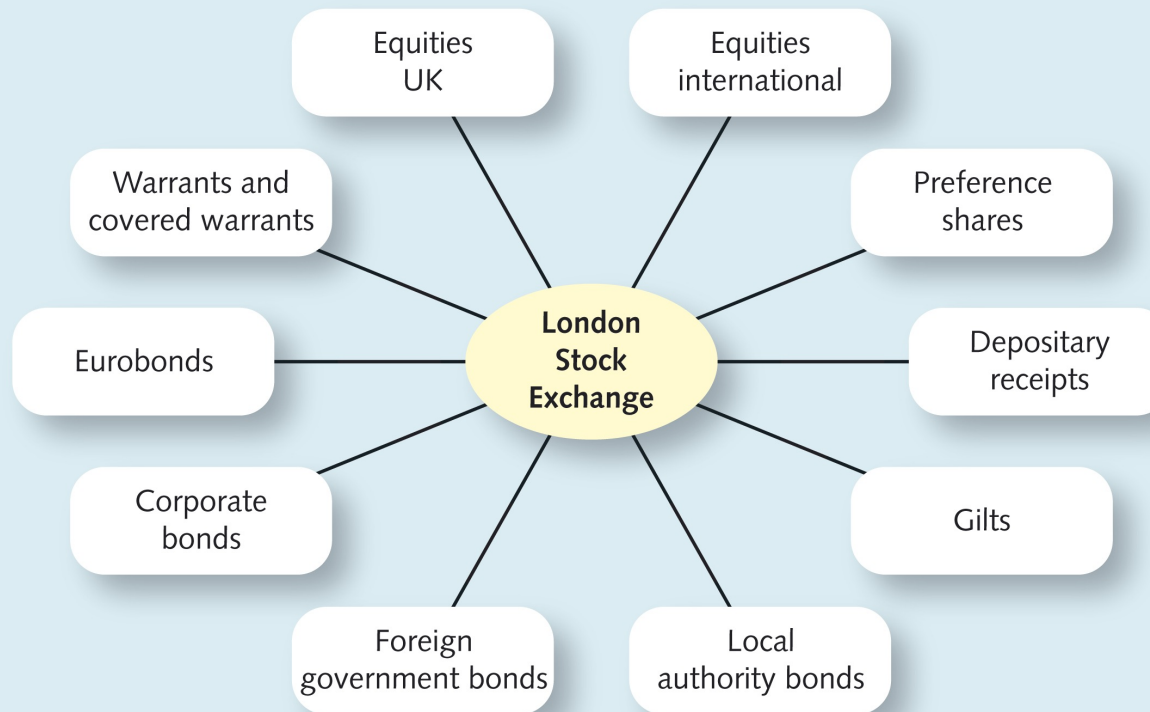
Data include listed and small company markets (e.g. AIM). Global total capitalisation: £25,000 bn.

Note that the statistics were compiled in December 2006. Since then the New York Stock Exchange (NYSE) has merged with the Euronext market (comprising the Paris, Amsterdam, Brussels and Portuguese exchanges).

Sources: World Federation of Exchanges: www.worldexchanges.org.

The London Stock Exchange

Types of financial securities sold on the London Stock Exchange



The Stock Exchange

- Advantages of being listed:
 - Raising finance by coming to market
 - Access to finance via capital markets
 - Shares can be used in acquisitions.
- Disadvantages of being listed:
 - Costs of gaining / maintaining quotation
 - Higher shareholder expectations
 - Increased financial transparency.

Why do companies list their shares on more than one exchange?

- To broaden the shareholder base
- The domestic stock exchange is too small or the firm's growth is otherwise constrained
- To reward employees
- Investors in that particular market may understand the firm better
- To raise awareness of the company
- To understand better the economic, social and industrial changes occurring in major product markets

Raise Equity Capital: New issues

- Placing: large blocks of shares are ‘placed’ with institutional investors
 - cheaper than public offer
 - narrower spread of public ownership.
- Public offer: shares offered to public either at fixed price or by tender
 - more expensive than placing
 - gives wide spread of public ownership
 - used for very large issues.
 - IPO vs seasoned offer
 - with underwriter

Secondary Issue in the UK

- The most common types of secondary issue in the UK are rights issues, open offers and placings.
- Rights issues and open offers are pre-emptive public offers, meaning that existing shareholders are given the right to participate in the offer pro rata to their existing shareholdings. Open offers differ from a rights issue in that there is no option to sell your entitlement in the market;
- In contrast, placings are issues of new shares to selected subscribers only, and existing shareholders are not given the right to participate (although major shareholders may often be included among the placees).

Secondary Issue in the UK

- Reasons for a secondary issue Secondary issues are usually conducted by companies to raise cash for specific or general purposes including:
 - to repay debt;
 - to satisfy capital adequacy requirements, if regulated by the Prudential Regulation Authority or the Financial Conduct Authority;
 - to fund acquisitions;
 - to create working capital;
 - to fund expansion.

20 minute break

Rights Issues

- A rights issue is an invitation to existing shareholders to purchase additional shares in the company
- Pre-emption rights
- Shares are usually offered at a significantly discounted price from the market value

Rights Issues – an example

- Swell plc has 100 million shares in issue.
- Existing shares are quoted at 120p (market price).
- Swell plc wants to raise £25m via right issue.
- Issues 25 million new shares at 100p each (100p is the subscription price).
- This is a 'one-for-four' rights issue
 - for every 4 shares shareholders already own, the company will offer you one new share at the special price (the subscription price).
- Discount on these new shares is 20p or 16.7 per cent
 - The subscription price is 100p (which is 20p lower than the current market price of 120p)
 - The subscription price is at a 16.7 per cent discount to the market price)

Swell plc

- Market Capitalisation is calculated as:

$$\text{Total Market Capitalisation} = \text{Market Price per Share} \times \text{Total \# of Shares Outstanding}$$

- Market Capitalisation before the right issue:

$$\begin{aligned} \text{Swell's Market Cap. (current)} &= 120 \text{ pence per share} \times 100 \text{ million shares} \\ &= 120 \text{ million pounds} \end{aligned}$$

- Market Capitalisation after the right issue?
 - Total # of shares outstanding increases to 125million (100 million existing “old” share plus the 25 million “new” shares.
 - The market price per share after the right issue is not known.

Swell plc: Market Capitalisation

- Theoretical Market Capitalisation after the right issue:
 - In theory, right issue is not value creation.
 - The theoretical market capitalisation for the company after the right issue equals to 145 million pounds (120 million pounds market cap. before right issue plus the 25 million pounds received from the right issue).
- The theoretical ex-right market price per share:

$$\begin{aligned}
 &= \frac{\text{Theoretical Market Capitalisation after right issue}}{\text{Total \# of Shares Outstanding after right issue}} \\
 &= \frac{145 \text{ million pounds}}{125 \text{ million shares}} = 116 \text{ pence per share}
 \end{aligned}$$

Swell plc: TERP

- The theoretical ex-rights market price per share:

Four existing shares at a price of 120p 480p

One new share for cash at 100p 100p

Value of five shares 580p

Value of one share ex-rights $580p/5$ 116p

$$\frac{\text{Total market capitalisation}}{\text{Total shares available}} = \frac{\pounds 145\text{m}}{125\text{m}} = \pounds 1.16$$

Either way you get the same answer!

Sid: Rights attached to shares

- Sid owned 100 shares of Swell plc.
 - worth £120 prior to the rights announcement.
$$= 100 \text{ share} * 120 \text{ pence per share}$$
 - Their value is now £116 after the right issue, as in theory, the market price after right issue will be 116 pence.
$$= 100 \text{ share} * 116 \text{ pence per share}$$
 - Represents a loss of £4 on the existing 100 shares.
- If Sid gives up the right to purchase the 25 new issue, he will make a loss of £4.

Sid: Rights attached to shares

- Swell announce a “one for four” right issue,
- Sid owned 100 shares of Swell plc:
 - Sid can purchase 25 new shares at the price of 100 pence per share.
- Sid can makes a gain of £4 on the 25 new shares:

Cost of rights shares ($25 \times £1$) £25

Ex-rights value ($25 \times £1.16$) £29

Gain £4

- If Sid purchases the 25 new issue, he will break-even.

• **The right issue is not value creation in theory.**

What if a shareholder does not want to take up the rights?

- Sid, is unable to find the necessary £25. He could sell the rights
- Sid would benefit to the extent of 16p per “new” share or a total of £4 for the 25 new shares but the extent of his control over the company has been reduced.

The value of a right on one new share in Swell is:

Theoretical market value of share ex-rights – subscription price = 116p – 100p = 16p

Value of a right on an old share:

Theoretical market value of share ex-rights – subscription price

No. of old shares required to purchase one new share

$$= \frac{116 - 100}{4} = 4p$$

Long-term Financing Equity