

# CHAPTER 1

## LONG-TERM FINANCE

### 1. Long-term finance

#### Introduction

Most businesses are going to aim to grow over the course of their existence and there are a number of ways to do this. **You can grow organically** by increasing your customer base and sales through marketing and developing new products. **Equally, you can acquire other businesses to quickly expand** the range of things that your business can do. But, **whatever method you choose, your business is going to need money to achieve this growth.**

For instance, let's say you are exclusively a red wine maker and, in order to grow, you decide to start producing white wine too. If you go by the organic growth route, then this new kind of product is going to need research and development and potentially new staff or training of existing staff. This all comes at a price.

So does acquiring another company. You may be a winemaker, but you have to buy all your wine bottles from the glass-blower next door. But, rather than having to buy bottles every week, you decide that you want to just buy the glass-blowing business to save time and money in the long-term. That's going to be expensive and you won't necessarily have the cash available to afford these things right away.

What can you do to raise funds for long-term projects? What can the strapped-for-cash winemaker do to develop her business in the long-term? These are the questions we want to answer in the following chapter on **long-term finance**.

## Sources of finance

We have established that our red wine maker, let's call her Wendy, wants to grow her business, but she lacks the immediate cash to buy the vineyard next door, or to start producing white wine on her own land. Let's take a look at her options for raising money for these projects.

### Capital markets

A capital market, also known as a **stock market**, or **stock exchange**, is a way of **looking at the capital of an entity as a purchasable commodity**. Think of it as a giant supermarket where on the shelves of each aisle are small portions of the capital of any business who wants to sell there. **Each small portion of capital is a share and when you purchase it from the supermarket, you then own a small portion of that business.**

Therefore, one option for Wendy to raise money is to sell small parts of the company to investors. She could sell 1 share for £10, where 1 share equates to 0.0001% of the business. This would mean that 100% of the business would be worth £100,000.

But, if she sells 100% of her business, then she is no longer an owner and so it wouldn't be her business any more! So, if Wendy takes her business to a capital market, then in order to retain control, she will need to maintain at least 51% of the company.

In this case, Wendy could raise £49,000 by selling shares of her business to investors. While she retains control of the business by retaining 51% of the shares, Wendy will now have to consider the needs of other shareholders as part of her duties as a director of the business.

### Roles of capital markets

A capital market **provides a business with the opportunity to raise both debt and equity finance**. Like any kind of market, it is a way for a business to reach a large group of potential investors in order to raise money. This is the **primary function** of capital markets.

However, a capital market has a **secondary function** which is to **provide investors with an opportunity to trade with one another**. Thus, it creates a scenario in which investors can make a lot of money by trading shares in a capital market, essentially

creating a secondary business of their own (the business of buying and selling shares).

From Wendy's perspective, once she's sold her shares, the shareholders can buy and sell those shares to others on the market. If they do, she doesn't receive anything (even if they sell at a higher price than the shares were originally purchased for). There is an advantage to this secondary market for Wendy though, and that's that it gives her investors liquidity, the opportunity to sell their shares if they wish, and that means she is more likely to attract investors.

### Bank borrowings

If Wendy doesn't want to give up ownership of her company, then she can try to raise money by borrowing from the bank. She could either take out a **short-term loan** or a **long-term loan**. The difference here is that **short-term refers to less than 12-months**, whilst **long-term refers to greater than 12-months**. Long-term loans are generally larger loans that are paid back (with interest) over a number of years.

## Terminology

There is a lot of terminology regarding the status of companies, so let's take a moment now to make it clear.

### Public vs. Private

A public company is one which **may sell shares to the public**. They are called public because any member of the public could potentially purchase a share in the company and thus the company is to some extent owned by the public.

A private company, on the other hand, **does not sell their shares to the public**. The company is completely owned by private investors, who were usually, but not necessarily, involved in the founding of the company.

### Limited vs. Unlimited

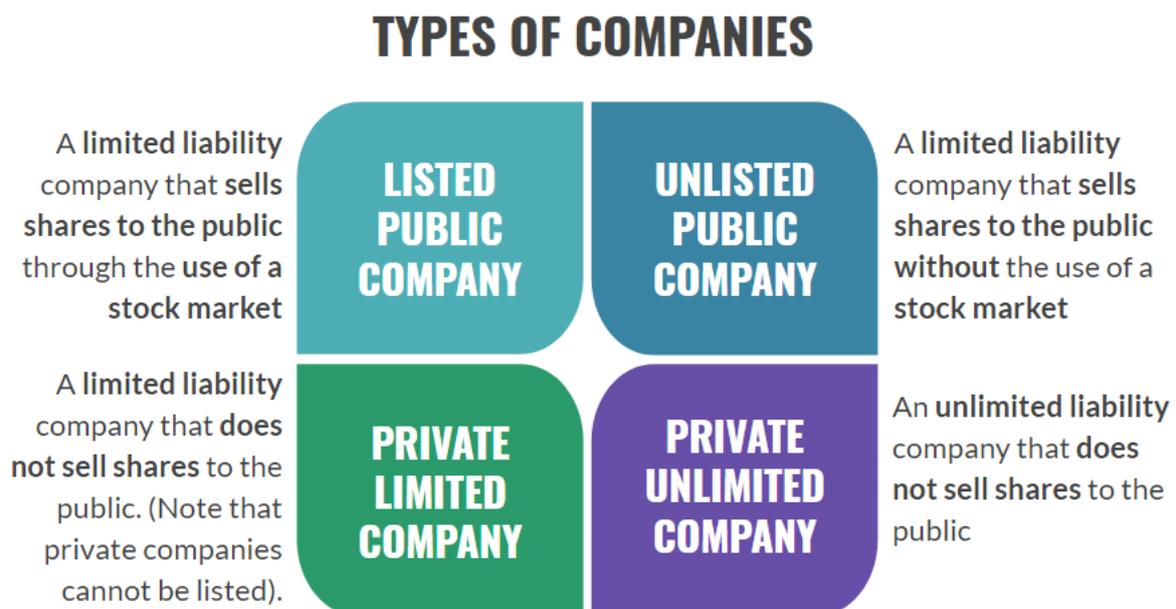
The term 'limited' is an abbreviation of '**limited liability**'. This refers to the fact that **shareholders in a limited company will only risk the loss of their investment in the company**. In other words, if you invest £1,000 in a company and that company accrues huge debts, you will only lose your £1,000 investment and your personal assets will be safe.

**Unlimited, on the other hand, does not provide this safety** and so if you had invested your £1,000 in an unlimited company, you may also have to pay out of your own private funds to repay the debts of the company.

## Listed vs. Unlisted

Listed refers to the fact that a company is listed (also 'quoted', or has been 'floated') **on a stock exchange**. This is an important distinction to 'public', because **a public company can sell shares without being listed on a stock exchange**. In this case, the company is **unlisted**.

Using these definitions, we can have the following combinations:



## 2. Equity finance

### Introduction

An **equity investment refers to the buying and holding of shares on a stock market by individuals or firms**. There are two main ways in which an equity investment will make money for an investor:

- **Dividends** – This is a **distribution of company profits among shareholders**, often in the form of cash payment, or sometimes additional shares.
- **Capital gains** – This is the **increase in value of the share over time**. For instance, if you buy 100 shares at \$1 each and they increase in value to \$1.05, you will have made a capital gain of  $100 \times \$0.05 = \$5$ .

## Ordinary shares (or 'common stock')

Ordinary shares are the **most common type of share**. This is the kind of share most people think of when they talk about owning stock in a company and is essentially your basic, lowest-level share.

Features relevant to ordinary shares are:

### Dividends

**Dividends** are only payable at the discretion of the directors and **are not compulsory**. This means that **the share could only make money for the investor by increasing in value**, but that depends on many other factors. Thus, there is no guarantee that a share will make the investor any money at all and it may in fact cost them money instead if the share price decreases!

### Winding up/liquidation

**Ordinary shares generally have the lowest priority** in recovering their investment in the event of 'winding up' (this essentially means dissolving the company by selling assets and paying off debts, or 'going into liquidation'). This means the ordinary shareholders will be compensated last and potentially face losing their investment if the business has insufficient funds.

### Voting rights

**Ordinary shareholders are the owners of the company** and receive **voting rights**, meaning that they can vote on issues raised at shareholder meetings. This can include electing directors and members of the board.

### Risk

All of this means that **ordinary shares are the most risky** of all types of investment in a company. For this reason, investors require a high return on their investment in the company to cover the risks involved.

## Preference shares (or preferred stock)

A preference share (or preferred stock), is a share that gives the holder a number of beneficial rights over holders of common shares.

### Dividends

When a company declares a dividend, they are **obliged to pay preference shareholders before they pay those who own ordinary shares**. So, in this instance, preference shares are preferable to ordinary shares.

In addition to this, preference shares usually carry a **fixed dividend**. This means that if a company sells preference shares, then they will be obliged to declare and pay dividends to these shareholders at regular intervals (usually annually).

### Winding up

In the event of a winding up or liquidation of the company, **preference shares have a higher priority** than ordinary shares, so an investor is more likely to recover their investment in this case. However, preference shares are subordinate to debt or bonds.

### Voting rights

A preference share usually carries **no voting rights**, so preference shareholders are **unable to vote in shareholder meetings** on important issues regarding the company (such as electing directors).

### Risk

This means that preference shares are generally a **lower risk** than ordinary shares, but will also be at a **higher cost** than ordinary shares. This means **returns are more likely**, but that they **will probably be smaller**.

### Status

Preference shares function in a specific way that make them more like a bond (which is a kind of debt finance). Therefore, preference shares are considered to be a **hybrid instrument**, because they **have elements of both equity and debt**.

## Summary of ordinary and preference shares

	Ordinary shares	Preference shares
<b>Dividends</b>	Not compulsory	Usually carry fixed dividend
<b>Priority (winding-up)</b>	Lowest priority	Higher priority (subordinate to debt)
<b>Voting rights</b>	Yes	No
<b>Risk</b>	High	Lower
<b>Other</b>	Basic/common stock	Convertible, hybrid instrument

## Types of preference share

There are **four kinds** of preference share and they all work in slightly different ways.

### Cumulative preference shares

The name 'cumulative' comes from the fact that **these shares receive a regular dividend** from the issuing company **and these payments must be paid no matter what**.

So, imagine you have cumulative preference shares in a company called Lemon and they pay a fixed dividend every year on their preference shares. In year 1, year 2 and year 3 you receive your dividend as usual. But, in year 4, Lemon declare a dividend, but it isn't paid (sometimes this does happen) and then, the same thing happens in year 5.

Now in year 6, things are back to normal and you receive the fixed dividend for that year. But, because you have cumulative preference shares, the company must pay

you for year 4 and year 5 too and so in year 6 you receive dividends for years 4, 5 and 6.

### CUMULATIVE PREFERENCE SHARES

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					  

Thus, the name comes from the fact that your dividend payment accumulates each year, even if it isn't paid.

### Non-cumulative preference shares

These shares are just like cumulative preference shares, except **the company doesn't have to pay you for previous periods when you didn't receive a dividend.**

So, using the example of Lemon, you would only receive a dividend in years 1, 2, 3 and 6 and nothing for years 4 and 5.

### NON-CUMULATIVE PREFERENCE SHARES

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					

## Participating preference shares

This type of preference share gives the holder the opportunity to **earn extra dividend income based on the company hitting certain targets**. Going back to our example, if you had participating preference shares in Lemon and they declare that a proportion of the profits of the new subsidiary Orange will be paid to participating shareholders in the form of a dividend, then you will receive your usual fixed dividend AND the extra dividend from Orange.

## Convertible preference shares

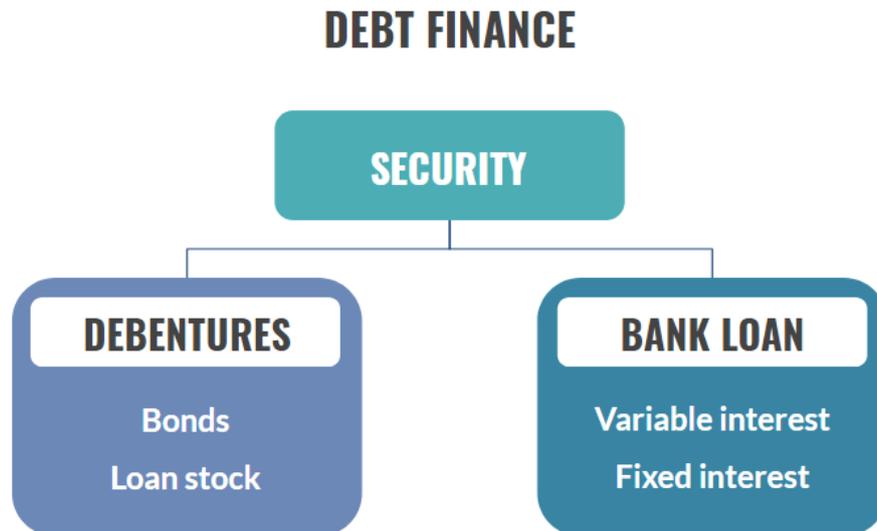
Convertible preference shares are shares that **give the holder the right to convert the preference share to an ordinary share** at a later date. So, if you have convertible preference shares in Lemon and you decide that you'd like to have a vote in the company shareholder meetings, then you may want to exercise your right to convert your share to common stock.

# 3. Debt finance

Debt finance is **a form of long-term external finance whereby an entity borrows funds from investors or lenders to finance its strategy**.

A **debt investment** is a way for a company to raise finance without losing any ownership. Rather than selling portions of their capital, a company is essentially selling a **promise to repay a fixed amount, with interest, at a future date**.

Banks and the bond market play a pivotal role in the raising of debt finance, but we'll get onto this later in this section.



## Security of debt finance

Security is a way for a lender to **protect themselves from losing the money they have loaned**, in the event that the person to whom they lent money cannot repay their debts.

It's like leaving your credit card with the waiting staff at a bar. Rather than paying for all of your drinks each time you order, you can start a 'tab' and add the cost of the drinks to that, paying the cumulative total at the end of the night.

But, from the bar's perspective, they want to make sure you stick around and pay the tab at the end of the night, rather than just running off without paying! And, they want to make sure you actually do have the money to pay, so they will take a credit card – which will guarantee payment – as a **security to ensure that the debt is paid for** at the end of the night.

Of course, businesses can't leave their credit card with a bank – so what can they do?

## Fixed and floating charge

When it comes to securing debt finance for a business, there are two main kinds of security, or 'charge', that can be used.

**A fixed charge secures a debt against a specific asset**, such as land or buildings. This would mean that, in the event that the company defaults on the loan, the lender would gain ownership of the specific assets (land or a building).

This is the **less risky option**, since a **fixed asset is clearly redeemable by the debtor**, regardless of the financial position of the company after defaulting on debts.

**A floating charge secures a debt against 'general' assets**, so there is no specific asset. This would mean that the debtor would gain ownership of the company's general assets until the debt is repaid. This is a **riskier option**, since there is a good chance that the company will have no assets to offer if they have defaulted on a loan and so the lender will not be repaid.

## Debt covenants

One way in which a lender can seek to protect themselves is to **make the loan conditional on certain requirements**. For instance, a lender may agree to lend money to an entity only under the condition that the entity maintains a minimum current ratio (current assets/current liabilities) to make sure they have assets to cover their debts. This condition (or covenant) makes it more likely that the lender will be paid back by the entity. Examples of debt covenants include:

- **Ratio limits** – A lender may request or demand that **certain ratios** (like the current ratio mentioned above) **are at a minimum level**. The current ratio, for example, must be at least equal to 1 to ensure that assets cover liabilities. Ideally, a lender would want a much higher figure than 1 in this case.
- **Dividend restrictions** – This covenant would **limit the amount that the entity can pay out to shareholders in dividends**. The thought here is that more money stays in the company (rather than being distributed among shareholders) which means the lender is more likely to be paid back.
- **Financial reports** – A lender may ask for regular financial reports in addition to the financial statements so that **the position of the company can be regularly monitored**.

## Types of debt finance

Debt finance comes in many different forms, but is mainly obtained from **two main sources; banks and capital markets**.

### Bank finance

**1. Bank loans** - Bank loans provide a **specific amount of funding for a set period of time** at either a **variable interest rate**, (one which changes with the market rates), or **fixed interest rate**, which remains unchanged throughout the loan period.

**Loans can be unsecured, although for larger amounts the bank will most likely want security** (or collateral) on the debt. **Unsecured loans will be more expensive** than secured debt due to the increased risk being taken by the bank.

Banks loans are **simple** and **easy to arrange** and are the **most common type of debt finance**, particularly for small and medium-sized businesses. They can be flexible when it comes to the terms and conditions of lending and **borrowers can also pay off the loan in full at any time with minimal warning**.

The disadvantages of bank loans are that the interest charged is often, although not always, linked to regional interest rates, as loans are generally dependent on the rate banks are charged. **This means that the rates offered may be subject to change**.

**2. Revolving credit facilities (RCFs):** An RCF is a **bank facility which allows a borrower to withdraw funds up to an agreed credit limit**. The amount available to use varies as the funds are borrowed or paid in a similar manner to a credit card. RCFs are **very flexible** debt financing options as they allow an entity to **minimise interest payments by only taking out loans for what they need**. A **bank overdraft** is a type of RCF.

## Capital market finance

1. **Debentures, Bonds, or Loan Stock:** A debenture is a **medium to long-term** debt instrument used by large companies to **borrow money**. The term is used interchangeably with **bond, loan stock** or **note**. A debenture is thus like a loan, evidencing the fact that **the company is liable to pay a specified amount with interest**. **Like a loan, a debenture may also be secured on company assets**.

The debenture is **offered to potential buyers via the bond market**, which is part of the money market where debt can be bought and sold, in a similar way to how company shares are bought and sold. Generally, a company offers a bond at one price, e.g. £100, and repays the investor at a higher price, e.g.£120, some time later. This is the incentive for purchasing bonds.

Debentures are generally **freely transferable** by the debenture holder and **may be traded on an exchange**. Debenture holders have **no rights to vote** in the company's general meetings of shareholders, but they may have separate meetings or votes, e.g. on changes to the rights attached to the debentures.

The interest paid by the company on a debenture is called a **coupon**.

**2. Convertible debentures:** Convertible debentures are debentures which **can be converted into equity shares of the issuing company** after a pre-determined period of time.

"Convertibility" is a feature that companies may add to the bonds they issue to **make them more attractive to buyers**. For example, if you own a convertible bond and you see that the company's share price is growing, you can convert your bond to a share and make a profit on the increasing share price.

As a result of the benefit of being able to convert, convertible bonds typically have **lower interest rates** than non-convertible corporate bonds. This means that **the investor will receive less from the company in interest**, which is better for the company and worse for the investor.

Key terminology relating to debentures or bonds	
Face value	Also known as <b>par or nominal value</b> , which is the <b>price paid for the debt instruments by investors</b> .
Coupon	The <b>interest paid by a company</b> on a debenture or bond.
Redemption date	Also known as the <b>maturity date</b> , the date by which a company will have to <b>repay their investors</b> .

## Yield to maturity

The yield to maturity (YTM) is **one method of calculating the yield or return on a debt instrument**.

### Yield to maturity for a redeemable debt

This method takes into account the **difference between** the debt instrument's **current purchase price** and **redeemable value**, **expressing its return as an annual percentage rate**.

### Example

Let's say we have a bond with a face value of £1,000 and a coupon rate of 10%. The bond is redeemable in 5 years. We are told that the current purchase price of the

bond is £800. As well as earning 10% per year, there is also a gain of £200 over 5 years.

The yield to maturity takes into account both these elements to find an overall interest rate.

To calculate the yield we use the following formula, which you should have seen in previous studies as the **internal rate of return (IRR) formula**:

$$IRR = A + \frac{NPVa}{NPVa - NPVb} \times (B - A)$$

Where A is the first discount rate used to calculate NPVa and B is the second discount rate used to calculate NPVb.

You should have previously studied IRR and discount factors and as such we are going to assume you understand this concept in this explanation. If you do not know it, or remember it, you'll need to review your management accounting studies for this technique.

You should recall that **in IRR calculations we calculate the effective rate of return**. In previous studies this would have been for a particular project so you could decide if the return was good enough to decide whether to proceed. **In this case we're going to work out the effective rate of return on a bond.**

We start by working out the Net Present Value at two different discount rates. The goal is to use two different rates that the effective rate will fall between. In this case, we know that the market value of the bond is £800 and the annual interest is £100. That works out to roughly 12.5%, so we could estimate a range of 12% to 18%.

## Calculating NPV at 12%

Firstly we're receiving £100 for 5 years. In the cumulative discount tables (see the final chapter of these notes) we can look up a cumulative discount factor at 12% for 5 years.

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326

Next we know that £1,000 will be received in 5 years time, so we look up a 12% discount rate for 5 years in the standard discount tables:

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335

Present value = £1,000 x 0.567 = £567

The total present value of holding the bond is: £567 + £360.5 = £927.50

We then take off the purchase price of the bond of £800 to find the NPV.

NPVa = £927.50 - £800 = £127.50

### Calculating NPV at 18%

Then, we'll repeat the process at a discount rate of 18%.

(£100 x 3.127) + (£1,000 x 0.437) = £749.70

NPVb = £749.70 - £800 = -£50.30

### Calculate yield to maturity

Let's put these values into our IRR formula:

$$\text{IRR} = 12 + \frac{127.5}{127.5 - (-50.3)} \times (18 - 12)$$

IRR = 12 + 4.3

**IRR = 16.3%**

This illustrates that the effective yield of the bond until the time of redemption is 16.3%. This is better known as the **yield to maturity**, and takes into account **the difference in face value and market value of the bond while also accounting for the time value of money.**

## YTM for irredeemable debt

The above example shows you how to find the yield to maturity for redeemable debt. It is also possible however to calculate yield to maturity for irredeemable debt, in what is fortunately for us accountants, a much simpler calculation. Don't worry, we will be looking at what redeemable and irredeemable debt is in more detail in chapter three of this study text! However for the moment, you just need to be aware of the two methods for calculating YTM.

So let's re-use the example from above however, in this instance, let's imagine that the bond is irredeemable. To calculate the yield on this bond, we would use the following formula:

$$\left( \frac{\text{Annual interest}}{\text{Current purchase price of debt}} \right) \times 100\%$$

Told you this was the easier of the two YTM calculations! Let's add the numbers from our example to this formula and see what we get:

$$\left( \frac{\text{£100 (£1,000 x 0.1)}}{\text{£800}} \right) \times 100\% = 12.5\%$$

## Bond Markets

The capital or bond markets are the **source of long-term debt finance for stock exchange listed entities**. Just like a stock market, the bond market has a primary and secondary market.

**The primary market enables the raising of debt finance from a large pool of potential investors.** The entity raises the finance by issuing a bond for lenders, or bondholders to invest in. **The secondary market allows the bondholders to buy and sell bonds to others.**

### The bond issuance process and role of key players

The most common process for issuing bonds is through **underwriting**. This involves one or more **securities firms or banks forming a syndicate, the syndicate then buys either a proportion of, or the entire issue of bonds from the issuer, in the event that they do not sell.**

The underwriting syndicate's intention is to then **re-sell them to investors**. Underwriters may place the bonds with specific investors via a 'bond placement' or sell to a wider range of investors via the bond market.

The underwriter **takes the risk** of being unable to sell on the issue to end investors.

**Primary issuance** or primary offering **is simply the process of offering bonds for the first time**. The process is arranged by the book runner, which is just another term for the lead underwriter!

This lead underwriter has direct contact with investors and advise the bond issuer about the timing and price of the bond issue. When bonds are announced to the public, it is the book runner that is listed first among all underwriters participating in the issuance. **Remember that there can be lots of underwriters forming a syndicate during an issuance**, and the book runner is simply the lead underwriter!

The book runner's willingness to underwrite must be discussed prior to any decision on the terms of the bond issue as there may be limited demand for the bonds.

## Listing and trading bonds in the bond market

Issuing bonds physically in the bond market requires:

- **Listing on a recognised exchange** (listed entities will have already done so)
- Filing documentation to allow **admission to trading**
- **The appointment of a market maker:** a dealer in securities or other assets who agrees to buy or sell at specified prices at all times. This ensures that the bonds have quoted buy and sell prices throughout the day to allow them to be bought or sold (traded) by the buyers and sellers.

## 4. Other long term finance

### Sale and leaseback

Just because a company has a **large amount in retained earnings does not mean that they are in a position to fund new projects**. In fact, the level of retained earnings only really reflects the **amount of profit accumulated over the entity's life**. Therefore, it is not the same as cash and so does not represent the availability of

finance for a company. **Older established companies with significant assets can still find themselves short of cash. However, there may be a solution - sale and leaseback.**

Sale and leaseback involves **selling non-current assets, most likely property and equipment and leasing them back over a number of years** (usually 25 or more). The result is that funds are released through the sale of the asset without any loss of its use.

In 2001, UK retailer Marks and Spencer needed funds to grow its weakening business. Its key assets were its stores which were located in prime high street locations throughout the UK. It was able to raise £348m in the sale of 78 of its stores which were immediately leased back to ensure that operations were in no way disrupted.

One **drawback** of this option is that **any potential capital gain on assets is forgone**. So, if the **asset that the company sells increases in value over time, then this added value will be lost by the company**, since they are now only leasing the asset. In fact this has been the case for Marks and Spencer as the UK property market has grown significantly since they sold their stores.

## Warrants

A warrant is **a security that entitles the holder to buy the underlying stock** of the issuing company **at a fixed exercise price**, (buying or selling price), until the expiry date. For instance, a warrant would give you the right to buy 100 shares in company A at €1 at any date up until 201X. This warrant will become profitable as soon as the share price rises above €1.

Warrants may be **attached to bonds or preference shares** to make them more attractive to investors to **encourage uptake** and/or to allow the issuer to **pay lower interest rates or dividends**.

Additionally, **warrants may be detachable and therefore, able to be sold independently of the bond or stock**. Warrants are traded in some financial markets such as Deutsche Börse and Hong Kong.