* **Supply and demand:** the demand curve is the quantity demanded by buyers at different price points; if the price is high less people will want to buy. The supply curve is the quantity produced by Sellers at different price points; if the price is high more people will want to produce it. (It is helpful to think of price on the vertical axis as being the predictor and quantity as being the response… For me anyway). If the true price lies at the intersection between these curves then exactly the right amount of product is being produced; if not Then the excess demand or supply will cause a change in price and amount exchanged.
* Stock example: if investors believe the intrinsic value of a stock is above the traded value (see below) then demand will increase relative to supply (demand curve moves up into the right). Increased demand means that sellers can increase their price; so price moves up and more stock is bought. Conversely, if investors believe the intrinsic value of a stock is below the traded value (overpriced) then demand will decrease (the curve moves down and left). Now there are more sellers relative to buyers and they will need to decrease their price to ensure the full quantity of this stock in the market get solds off, i.e reaching the new equilibrium price.
* The price of a stock is just the last price it was transacted at, decided as an agreement between the buyer and the seller.
* **How the price of a share is determined: intrinsic value and supply and demand!** If you own stocks you own a share of the company. You can think of this as you being a business owner. Business owners are entitled to use their “free cash flow” (basically profits?) to buy themselves shiny things, and the same is true for shareholders. If you can estimate how much free cash flow a company will earn over its lifetime, as well as the proportion of a company that one share represents, you can estimate the amount of money that you expect to get back from owning one share for the lifetime of the company (“future value”). Because all a share really means is your share of the free cash flow. However The actual value or **“intrinsic value”** of a stock is how much you should pay for it based on your assumptions of its future value as well as how much return you want to make (both to be compensated for the risk and because your whole purpose is to make money rather than just get back what you put in). As a simplified example, if a company is going to pay out all of its future value next year and you have calculated this value to be $1000, but you also want a 10% return for this investment, you would estimate intrinsic value at $1000 divided by 10% = $910. **With thousands of buyers and sellers all doing their own intrinsic value calculations the price of the stock is determined by supply and demand.** If the stock is already priced perfectly then there will be no trades. But if there is belief in the market that it is overpriced, demand will go down and sellers will have to drop their price to sell, and vice versa. **You can make money by being ahead of the curve and correctly picking that intrinsic value is higher than everyone else believes, and vice versa. Example: current market value of the stock is $500, so there are lots of sellers willing to sell for $501. But you correctly believe intrinsic value is $910, so you are willing to buy for $909 or less. You will be able to make this trade, your return will be ~200% - because over the lifetime of the company your share gives you $1000, but you only paid $500 for it.**
* Over time the market value of a stock tracks its intrinsic value.
* **Bid ask spread and liquidity:** the bid price is the maximum anyone is willing to buy at present, the ask price is the minimum anyone is willing to sell it. And the spread is the difference. For companies that the market has a a lot of confidence in there will be low spread, people will trade all the time and the bid price and the ask price will be very similar. Stocks in these companies are **liquid** – you can sell them quickly without losing much money.
* However, if bad news hits a company the ask price can suddenly drop and the shares become illiquid - if you need to sell them quickly you will have to lose a lot of money to meet the ask price. Think this is just the same as the supply and demand example where demand drops and the price to sell has to drop accordingly?
* Spread can also be wide (and the shares illiquid) for small companies that just don’t have a lot of activity.

**Types of financial products/funds**

* there are three main categories of financial products: 1 equity (shares), 2 debt (bonds and mortgages), and 3 derivatives.
* **Hedge funds:** historically these were a means to hedge your bets against the market, and were developed by wealthy business owners as a guarantee against both their business (generally tied to the market) and their investments from falling. An example of how you might hedge nowadays: you have shares in Samsung and believe prices are going to skyrocket. But then you short some Apple stocks. So in case the entire market goes down, including Samsung, you still get some profit from Apple. Nowadays they just mean a fund that typically deals with complex financial instruments and tries to beat the market as a whole – although they generally don’t perform any better on average!
* **Hedging:** managing risk by betting in different ways, so if you lose on your main bet you win on a different bet (or lose less). **Futures example:** a farmer is committed to growing wheat for a full season once he has planted it, but if the price of wheat goes down he may make a loss. He can take a futures contract, which is a preagreed price on a preagreed date. So if the price of wheat plummets he still gets some of his profit. Note a **forward contract** is basically the same thing as a future, but whereas a future is a standardised contract a forward is a one-off agreement between two sellers. **Long/short example:** see the Samsung/Apple example above. Although better example from Wikipedia specifically looks at a very volatile industry, so even if you expect Samsung to do very well you want to manage risk against the market as a whole dropping. So short on Apple. Futures contracts could also be used to hedge the price of electricity, which is volatile.
* **Some other electricity examples of how to hedge:**
* “back-to-back hedging”: if you know exactly how much energy your customer is going to pay across the course of the contract, buy that much energy as soon as the customer signs up.
* Tracker hedging: you know energy use is generally highest in winter but you don’t know exactly how much will get used because you don’t have accurate weather forecasts of just how cold the winter will be. So buy half of your predicted energy in summer, another quarter and autumn (based on an updated prediction), and continue doing this forecast-and-buy by continually tracking forecasts. So the closer you get to the time when there is peak demand the more accurately you can buy exactly the right amount.
* **Derivatives:** a financial instrument whose value is calculated from underlying entities (assets, interest rates, indexes et cetera). Can be used for lots of interesting stuff:
* hedging, where the value of the derivative moves in the opposite direction of an asset.
* Options, where the value of a derivative depends on a specific event or condition being met
* gearing, where derivative value increases at a greater rate than an underlying asset. Good for speculation, that is a greater profit when an asset moves in the direction expected.
* Common derivatives include forward contracts, futures, options, swaps, and collateralised debt obligations (CDOs). Can be categorised into “lock” or “option” product; the former locks in prices in the future (futures, forwards, swaps) whereas the latter gives the option to backout of a contract.
* **Bond:** a loan to a company or government. Pays interest, just like any loan, but does not pay dividends like a share because you are not getting equity in the company. Bond owners are creditors rather than owners. This means they get paid first in the event of bankruptcy, so more stable. Especially government bonds
* **securities:** any tradable financial instrument
* **Options:** the option to buy or sell an instrument for a specified price before a specified date.
* **Insurance:** obvious form of hedging; you pay a little bit too decrease your risk massively.
* **Swaps:** where two parties agreed to swap the cash flow coming out of financial products, e.g. the interest payouts from two bonds.
* **Arbitrage**: profiting from a difference in markets. For example, when market price is above the specified futures price, you can cash in your futures and you’ve made a profit... Something like this anyway.