

## Week 2 – Trading Terminology

### 1. Traders and Players in the Market

- Note that traders should not necessarily be categorised as a single group of people. Rather, there are many different types of traders.
- Traders operate in the trading industry and traders can be described as people who either:
  - 1) Arrange trade for others (**Agency traders**): Agency traders act as agents for other individuals who wish to buy or sell a security. For example, a broker e.g. Commsec. They earn money by commissions (e.g. Commsec, per trade \$19.95)
    - Obligations: they have fiduciary obligations which means that they have to trade for the client on a **best efforts basis**. Best efforts effectively means that if you tell the broker to buy 100 shares of NAB, you want the broker to buy them for the lowest possible price currently available in the market. Similarly if you are selling, the broker has to sell them for the highest possible price
      - However, how do you determine whether the broker has consistently met such obligations? It is very difficult to determine this unless they have committed fraud etc when it becomes obvious
  - 2) Trade on our own account (**propriety traders**)
    - You trade money of your expectations, forecasting ability and skills by trading on your own account. E.g. if working in DB and you are trading for DB – the ‘house account’ is DB. ‘house account’ just means own account.
    - Propriety traders make money by ‘buy low sell high’.
- Thus there are two general types of traders: agency and propriety. In terms of **positions**, we are talking about inventory positions where you can either be **long** or **short**.
- We can also classify traders in a very generic sense as traders on the BUY SIDE and on the SELL SIDE. However, note that they can be on BOTH sides of the target.

#### BUY SIDE

- Traders on the buy-side “demand” or “take away” liquidity
- Traders on the buy-side have a motivation (and/or urgency) to buy or sell a certain quantity of assets within a specific time-frame.
- They tend to be impatient traders

#### SELL SIDE

- Traders on the sell-side “supply” or “provide” liquidity
- Traders on the sell-side offer to buy or sell a certain quantity of assets
- They tend to be “patient” traders

- The two above terms should not be confused with “buy-side” or “sell-side” analysts!

- Buy side traders are generally classified as those individuals who demand liquidity (e.g. you want 100 shares of NAB right now). Here, they may either want to buy or sell but they want to do it immediately. ‘Liquidity’ can be simply defined as the speed with which securities can be converted to cash. Buy side traders are motivated to sell quickly or buy quickly hence referred to as IMPATIENT TRADERS
- **Buy side traders:** can be classified as 5 different types:
  - Investors: can be individual or institutional. Individual or retail investors tend to invest less than \$1m while institutional investors tend to invest more than \$1m. They are motivated to build up their wealth (move it from the present to the future).
  - Borrowers: Moving wealth from the future to the present in the hope that you can repay that debt easily based on future income.
  - Hedgers: Trying to reduce our risk exposure or our business operating risk.
    - Individuals: For instance a person owning an online retail shop might want to hedge currency fluctuations in the market. Hedgers involve derivative securities which are simple risk management tools that allow you to reduce your risk exposure.

- Asset exchangers
  - Gamblers:
- Sell side traders provide liquidity during times of market stress. They often buy or sell a certain quantity of assets and they tend to be patient traders. Can be broken into:
  - **Dealers:**
    - Dealers trade for their own account and they also facilitate customers' orders
    - They have different names because of market convention (e.g. market maker = options market, specialists = equities market) etc. But they do the same thing.
    - Market makers, specialists, floor traders, locals, day traders, scalpers
  - **Brokers (retail):** Retail brokers can be described as either discount or full service. Difference is the amount of services they provide and the commissions they charge.
    - **They can also have** institutional brokers, block brokers (buying a large block of shares in 1 go), futures commission merchant (derivatives)
- NOTE: buy side/sell side analysts is completely different to this.

## 2. Trade facilitators

- Exchange has a physical location
- Traditional stock exchange: ASX. More trades that go through this exchange, has more revenue. IT held a monopoly position and thus the profit margins it had was reasonably high. Then came electronic communications networks – which came into US in 1998 as SEC authorised their use. Chi-X came into Australia and broke up the monopoly in Australia. If you wanted to buy a stock e.g. NAB, you can buy it on either exchange. Thus, there is competition and this has driven down profit margins. Secondly, exchanges itself are now listed. This means they are accountable to the shareholders and since the objective of a listed company is to maximise shareholder value, ASX has to compete a lot more.
  - We also have Alternative Trading Systems which are Dark Pools such as Posit
  - The thing is all these exchanges cater different people.
- ASX: Normal hours between 10am to 4am. It is a transparent market so you can see the demand and supply of each stock.
- Posit is opaque market. It is not transparent and it means you can also trade after 4pm e.g. for a large parcel of shares.
- The idea is that these different exchanges are trying to differentiate themselves so they can attract different types of clientele.
- **Exchange organisations:**
  - 'ICE' (Intercontinental Exchange) → owns 11 exchanges including the NYSE.
  - 'EURONEXT' : owns exchanges in Paris, Lisbon, Brussels and Amsterdam
  - So we have these organisations that run many different exchanges around the world
    - Reason: economies of scale → to make money, you need to become bigger and reduce your overall costs to make a profit. This is because everything is becoming more competitive.
- **Clearing**
  - A clearing agent matches the buyer and seller records and confirm that both traders agree to the same terms. This is a very important function despite being 'back office' function.
- **Settlement Agents**
  - Settlement agents: if you have two parties, A and B – settlement involves party A delivering securities in return for B delivering cash. So if you buy 100 NAB shares, WHEN do you get the shares? And WHEN do you need to deliver the cash to the other party?
    - T+3 is the settlement date.
    - However, settlement is going to change and become T+2 (it is going to begin in the ASX from March 2016). This reduces **risk exposure** of settlement failure.
- **Clearinghouses**
  - Clearinghouses effectively guarantee trade because they effectively act as the buyer for every seller and seller for every buyer. They facilitate the settlement of derivatives securities.

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## Lecture 6: Informed Traders

### Part I: Informed traders

- Informed trading is one of the most important processes by which prices become informative. Here, our motivation to collect information is driven by profit or 'greed' since if we have superior information to the market, we can use that to our advantage and profit accordingly.

### Informed trader

- Informed traders are speculators who acquire and act on information about fundamental values
- Most people have negative thoughts about informed traders because they feel that the profits of informed traders come from the losses to uninformed traders
- However, they actually provide a lot of value to the market as they use publicly available information and reflect that in the price of securities. The information is costly to extract and obtain and while the informed trader may have a temporary profit, the public receives the benefit since information is ultimately incorporated into prices leading to **price efficiency** → improves the capital allocation process in the economy
- Uninformed traders still participate in the market because even though they lose on average, they may participate due to 1) ignorance 2) overconfident as they believe they are smarter than they in fact are but at the end of the day, they participate because of their long term investment goals which makes stock markets difficult to avoid
- **Difference between public and private information**
  - **Public:** information that is widely available and is released to everyone at the same time
  - **Private:** Information is not widely available and only known to 1 or a handful of investors
    - These may arise from the analysis of fundamentals such as cash flow statements etc. and they can also arise from computer analysis → that allows a computer to trade just before everyone else trades.
    - So the question then becomes how fast in information communicated to the public – instantly or is there a delay → if there is a delay, we refer to this as **latency** of the communication process
    - High frequency traders have an advantage over everyone else here as they connect their computers directly to the exchange (using a large fee) and have no latency lag → clear trading advantage. These traders enjoy a brief interval where the public information is actually private
- Why is informed trader interesting/important:
  - 1) You may be an informed trader – you need to be able to determine if you are truly informed
  - 2) To understand risk faced when offering liquidity
  - 3) To see how prices become informative

### Fundamental Values

- When we talk about the fundamental value, we are effectively trying to determine the true or intrinsic value of an asset
- However, changes in fundamental value is completely unpredictable. Fundamental values change when traders receive **unexpected** information about the asset.
- No one agrees on a single fundamental value of an asset because there are disagreements as to the future cash flows and the discount rate – thus results in different present values.
- One way to define fundamental value: The general equilibrium price given by all information, that is, the market value, is equal to the fundamental value of an asset + noise
  - Noise is created by uninformed traders and excessive speculation which results in excessive volatility in the market and takes away the market price of an asset from its fundamental value

- When we get sell side or buy side analyst reports e.g. buy/hold/sell, these recommendations are based on where the market price is relative to the fundamental value. IF the market price is greater than the fundamental value, then it is overvalued and you should sell it.
- When we talk about market efficiency, we believe in the idea of mean reversion → prices will always move towards its true value but the question is how long will it take to move back to its true value → depends on how efficient the market is

- **Informed traders make prices informative:**

<b>N</b>	<b>Number of traders</b>
<b>V</b>	<b>True fundamental value of security</b>
<b>P</b>	<b>Market price of security</b>
$f_i$	<b>Forecast of the <math>i^{\text{th}}</math> trader for an unbiased estimator of V</b>
$e_i$	<b>Error of the <math>i^{\text{th}}</math> trader's forecast [nb. <math>E(e_i) = 0</math>]</b>
$D_i$	<b>Each trader's desired position in the security</b>  $D_i = a(f_i - P)$  <b>f &gt; P: Long position in the security</b> <b>f &lt; P: Short position in the security</b>
<b>a</b>	<b>Constant</b>

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- If  $f > P$ , then it is an undervalued security → long but if  $f < P$ , go short since it is overvalued
- **Some expressions:**

- ①  $f_i = V + e_i$  → the forecasted value is equal to the true fundamental value plus the forecast error

- ②  $P = \frac{1}{N} \sum_{i=1}^N f_i$  → the market price of a security is an average of the individual forecasts.

- ③  $e_M = \frac{1}{N} \sum_{i=1}^N e_i$  → market forecast error → approaches 0 as the number of trader increases. This is what we want to have which means that we would get that prices will be most informative when many informed traders collect information independently from one another:

- ④  $P = V + e_M$

- Market price = fundamental value + market error (which approaches 0)

- **Informed traders make prices informative**

- Liquidity is driven by low transaction costs and we want to have a market that is transparent → so you feel confident in putting you money in
- How can the market detect informed traders: people who want to trade in a hurry/impatient, large volumes and generally when bid-ask spreads tend to widen, we tend to believe that there are more informed traders present

## Styles of trading

- **Information about fundamental value**

- Value traders
  - Basically a fund manager who generally have large pyramid state organisations which means there will be many different hierarchy of management. Thus, before the fund can actually buy and sell a whole arrow of securities, it has to go up and down the management chain. Thus, it is a bit slower. However, the advantage of this is that it minimises the biases of fundamental assumptions as there is a discipline structure that ensures careful review of research and that consistent assumptions have been used

