**NOTAS MICROESTRUCTURA Y SISTEMAS DE TRADING**

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# Clase 1: Introduction to Markets

## Market Process

* Investor who wishes to trade immediately does so by placing a market order to trade at the best available price
* Bid and ask prices are established by suppliers of immediacy
* Depending on the market design, suppliers of immediacy may be professional dealers that quote bid and ask prices or investors

## Types of markets

* For information: supply and demand info
* Securities: Determination of prices
* Transaction services: costs and bid ask spreads

## Elements

* Investors: individual and institutional
* Brokers: upstairs and downstairs brokers
* Market facility

# Clase 2: Market Makers & Effective Spread

## Market maker

* Liquidity providers that quote prices to buy or sell an asset, while also serving as a dealer, reducing transaction costs and facilitating trades
* They hold large amounts of stocks and are willing to buy/sell at the quoted Price, this way they provide liquidity for the retail investors
* They get profit from spreads because that facilitate trades with a bid/ask quote

## Types of traders

* Informed traders: They know what the Price should be or have information that others don´t through research (not insider information)
* Liquidity traders: Investors or long-term traders that don’t mind paying spreads to buy stocks, EFs or 401k cashouts
* Noisy traders: They think they have something special, but they don’t

## Market Maker Profits

|  |  |
| --- | --- |
| Traders | Profit |
| Informed | - |
| Liquidity | + |
| Noisy | + |

## Publicly Available Information

* Reports (earnings calls, inflation rates, bonds, etc.)
* News articles
* Journals

## Ordenes de activos

* Ordenes de mercado: inmediato, lo que esté disponible
* Ordenes limitadas: tú decides el precio al que quieres comprarlo
* El market maker da volúmenes

## Effective Spread

* The field of market microstructure deals with the costs of providing transaction services and with the impact of such costs on the short run behavior of securities prices
* Costs are reflected in the bid-ask spread (and related measures) and commissions

## Spread

* The spread can be measured as the difference between bid and ask
* If we define the spread as:

## Effective spread

* Richard Roll proposes a simple way to measure the effective bid-ask spread by just using historical data
* Main assumptions:
  + The asset is traded in an informationally efficient market
  + The probability of distribution of observer price changes is stationary (at least for short intervals of, say, two months)

# Clase 4: Github

## Traders

* Informed (-) – precio de compra abajo del precio real (integrales)
* Noisy (+)
* Liquidity (+) – mayor probabilidad con mayor spread = mayor utilidad