

# Lecture 0 What is Economics

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Macroeconomics 201

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# The Road Ahead...

① What is Economics

② Understanding the Market

# What Is Economics About?

- ▶ A subject about how people make choices to attain their goals, given scarce resources
  - ▶ e.g. study economics midterm or go to party tonight?
- ▶ Why an important subject
  - ▶ basic fact of life: we face trade-offs because we live in a world of scarcity
- ▶ Main references
  - ▶ HO: Hubbard & O'Brien, "*Macroeconomics*", 8th Edition (required)
  - ▶ BJ: Blanchard & Johnson, "*Macroeconomics*", 6th Edition (optional), see my lecture notes

# Three Key Ideas

- ▶ People are rational
  - ▶ use all available information to make best decision possible
- ▶ People respond to economic incentives
  - ▶ e.g. few banks take costly security measures against not so costly robberies
- ▶ Optimal decisions are made at margin
  - ▶ optimality occurs when marginal cost (MC) equals marginal benefit (MB)

# Three Fundamental Questions

- ▶ **What** goods and services to produce
  - ▶ opportunity cost: highest-valued alternative given up
  - ▶ e.g. funding for space exploration or cancer research
- ▶ **How** to produce goods and services
  - ▶ e.g. use more workers or more machines
- ▶ **Who** receive goods and services produced
  - ▶ e.g. people with higher incomes obtain more
  - ▶ changes in tax/welfare policy redistribute income

# Economic Models

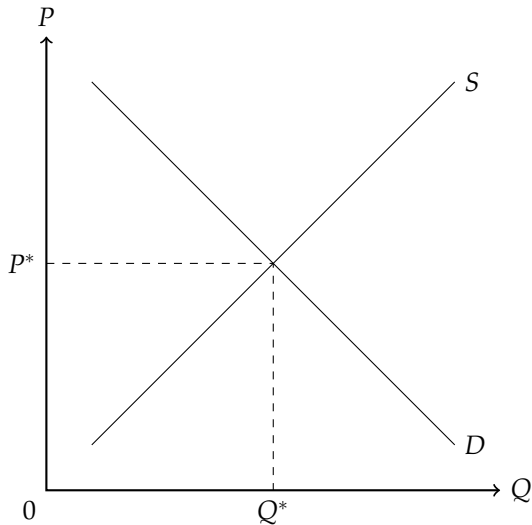
- ▶ What is a model
  - ▶ *probabilistic* characterization for what we observe
  - ▶ help guide our decision-making
- ▶ Steps to build economic models/theories
  - ▶ decide on assumptions/simplifications
  - ▶ formulate testable hypothesis
  - ▶ use data to test hypothesis
  - ▶ revise or retain model
- ▶ Micro models study individual choices; macro models study economy as a whole

# The Road Ahead...

① What is Economics

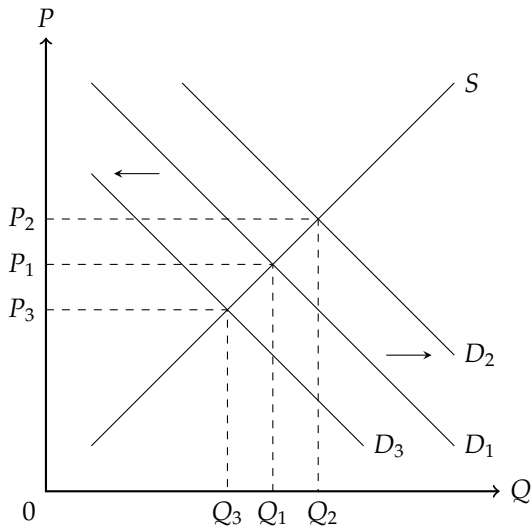
② Understanding the Market

# What Is Market?

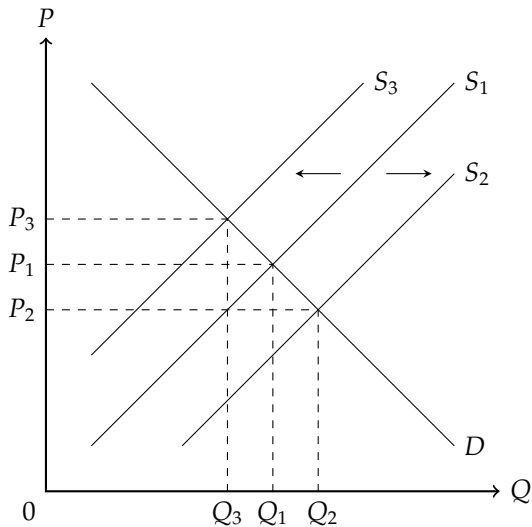




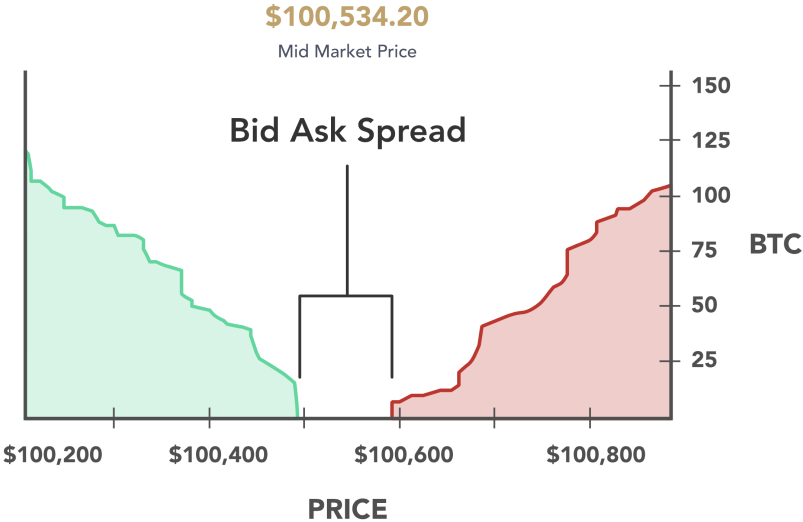
## Shifts in Demand



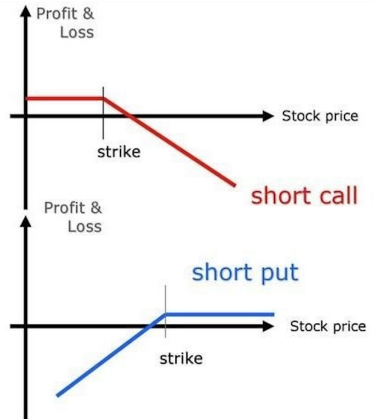
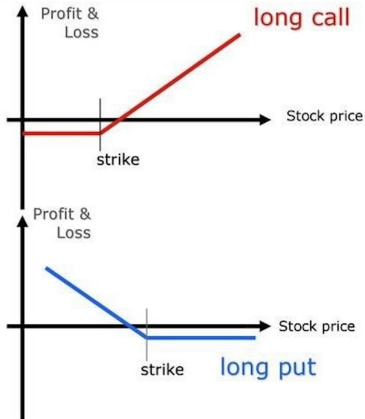
# Shifts in Supply



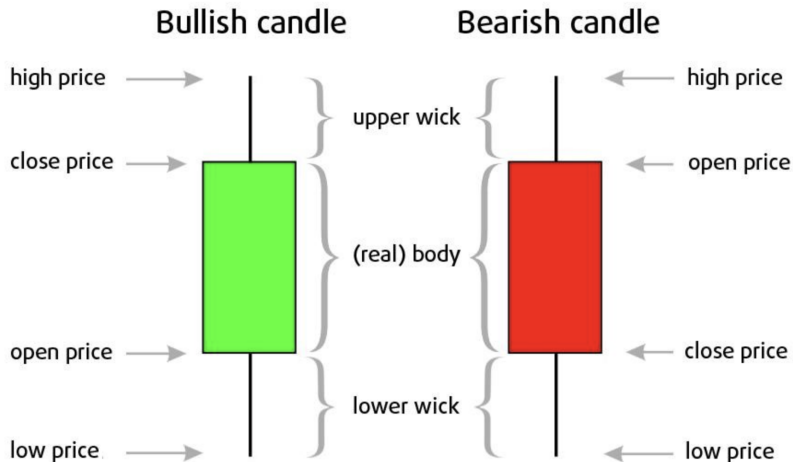
# Bid-Ask Spread



# Options



# Japanese Candlestick



# Candlestick Patterns

## BULLISH CANDLESTICK PATTERNS

### SINGLE CANDLE PATTERNS



### TWO CANDLES PATTERNS



### THREE+ CANDLE PATTERNS



## NEUTRAL BASIC PATTERNS



## BEARISH CANDLESTICK PATTERNS

### SINGLE CANDLE PATTERNS



### TWO CANDLES PATTERNS

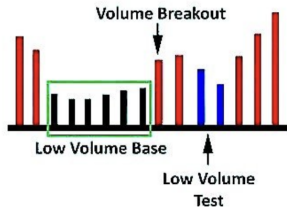
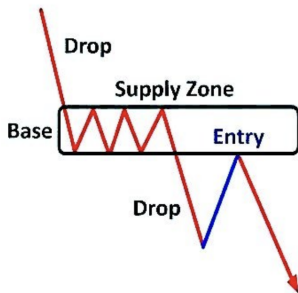


### THREE+ CANDLE PATTERNS

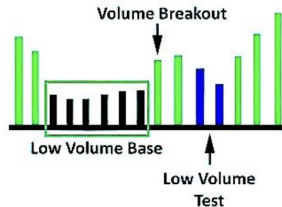
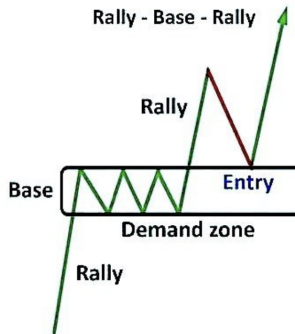


# Supply & Demand Zones

Drop - Base - Drop



Rally - Base - Rally



# /ES Weekly Chart





# UNG Daily Chart



# UNG Hourly Chart



# Useful Tickers

- ▶ Stocks
  - ▶ S&P 500: SPX, /ES, /MES, SPY, UPRO
  - ▶ Nasdaq: NDX, /NQ, /MNQ, QQQ, TQQQ
  - ▶ Dow Jones: DJI, /YM, /MYM, DIA, UDOW
  - ▶ Russell: RUT, /RTY, /M2K, IWM, URTY
- ▶ Bonds: TNX, /TN, /10Y, TLT
- ▶ Commodities: gold (/GC, /MGC, GLD), crude oil (/CL, /MCL, USO)
- ▶ Currencies: forex (/6E, /M6E, /6J, /M6J, /6B, /M6B), crypto (/BTC, /MBT, GBTC)

# Readings & Exercises

- ▶ Readings

- ▶ HO: chapter 1

- ▶ *Japanese Candlestick Charting Techniques*, by Steve Nison

- ▶ *Reminiscences of a Stock Operator*, by Edwin Lefèvre & Roger Lowenstein

- ▶ *Principles for Dealing with the Changing World Order: Why Nations Succeed or Fail*, by Ray Dalio

- ▶ Exercises

- ▶ HO: problem 1.3, 1.4, 3.3