

Student Trading Group Futures & Commodities

March 14, 2024



Agenda

- Market update
- Open Discussion
- Futures
- Commodities
- Q&A
- MW Investing Competition

Market Update

- Sofi sells 750M worth of private note offerings expiring 2029, if exercised will dilute shares ~6%, stock declines ~15%.
- Bitcoin reached a new all-time high (ATH) of \$73,380.
- The Producer Price Index for final demand rose 0.6 percent in February. Prices for final demand goods advanced 1.2 percent, and the index for final demand services moved up 0.3 percent.
- JetBlue Airways Corp(JBLU) and Spirit Airlines (SAVE) are ending \$3.8B merger plan after federal judge blocks deal.
- CPI reported 3.2% (hotter than expected 3.1%)

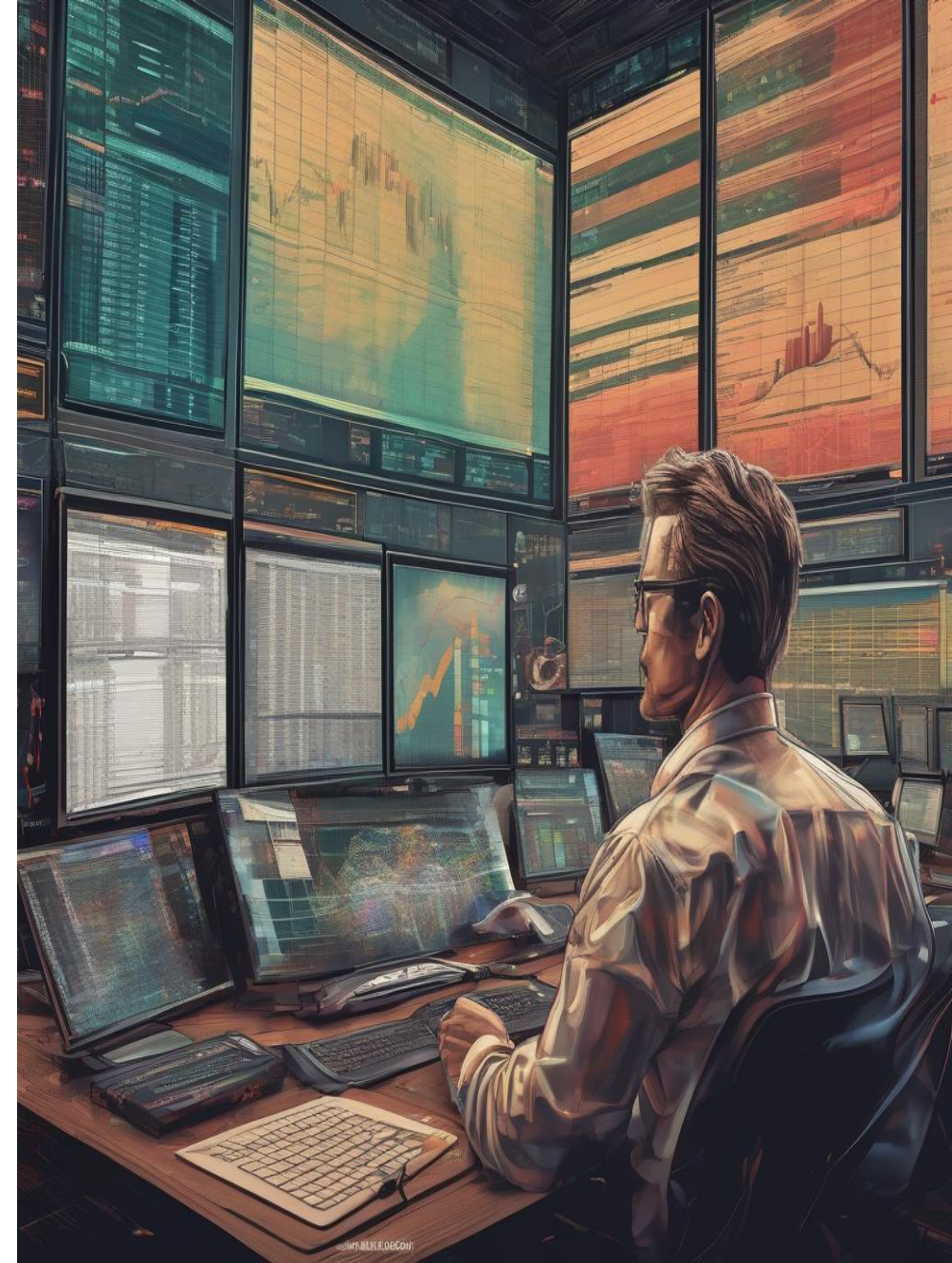
Open Discussion

- Recent Trades?
- News?
- Predictions?
- Economic Data?
- Earnings?
- Etc.

Futures

Financial contracts obligating the buyer to purchase an asset, or the seller to sell an asset at a predetermined future price and date.

Futures contracts are based on various underlying assets, including commodities, financial instruments, and currencies.



Why Futures?

- The most common reason investors use futures is to speculate moves in major stock market indices (S&P 500, Nasdaq, DOW)
- Investors also use futures to leverage their position, much like options.
- Futures can be a powerful tool to hedge against price fluctuations for businesses and producers and consumers of commodities.

Futures Terminology

Tick: The minimum price increment a contract can move. The value of a tick varies by the futures contract.

Tick Size: Minimum increment by which an asset's market price can rise or fall.

Tick Value: Dollar amount associated with each tick

Point: Minimum ticks to produce a 1 unit change on left side of decimal

You need to have money in your account to trade. For example, if you're in a trade and your account goes from \$1000 -> \$0, you will immediately be out of the trade. The brokerage will liquidate your account and you will no longer be in the trade

Classes of Futures Contracts

Commodities /Physical

- Agricultural
 - Grain, Corn, Coffee, Cattle
- Energy
 - Crude Oil, Natural Gas
- Metals
 - Gold, Steel, Copper

Financial

- Currency
 - Exchange rates of different countries currencies
 - EUR/USD, USD/JPY
- Index
 - Value derived from an index
 - S&P 500, DOW, NASDAQ
- Rates
 - Interest bearing securities
 - Bonds, Treasury Bills

Ticker symbols

ES = S&P500 = top 500 companies in the US

NQ = NASDAQ 100 = top 100 companies in the US (by market cap)

GC = Gold

CL = Crude Oil

PL = Platinum

E-mini vs micro – contracts (ES and NQ)

ES

E-Mini: 1 tick represent \$12.50

Micro: 1 tick represents \$1.25

NQ

E-Mini: 1 tick represents \$5.00

Micro: 1 tick represents \$0.50

Both ES & NQ have a Tick Size of 0.25, and Point of 4



5161.75

5161.50

5161.25

5161.00

5160.75

5160.50

5160.25

5160.00

Futures Market – numbers (ES/NQ)

18104.25

18104.00

18103.75

18103.50

18103.25

18103.00

18102.75

18102.50

18102.25

5168.00

5167.75

5167.50

5167.25

5167.00

5166.75

5166.50

5166.25

5166.00

Long Position on NQ with 1
Micro Contract at 18102.25

18104.25

18104.00

18103.75

18103.50

18103.25

18103.00

18102.75

18102.50

18102.25

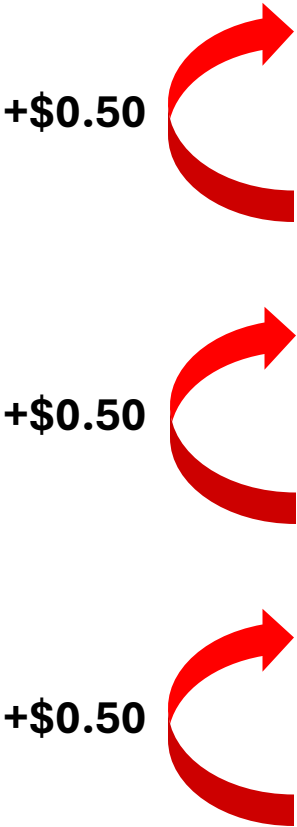
Long Position on ES with 1
E-Mini contract at 5166.50

Long Position on NQ with 1
Micro Contract at 18102.25

5168.00
5167.75
5167.50
5167.25
5167.00
5166.75
5166.50
5166.25
5166.00



Long Position on ES with 1
E-Mini contract at 5166.50



18104.25
18104.00
18103.75
18103.50
18103.25
18103.00
18102.75
18102.50
18102.25

Problem

You enter a long position on NQ with 1 Micro contract.
You enter at 18094.00 and sell at 18095.00

How much did u make?

\$2

1 tick for each micro contract on NQ is \$0.50

The position you entered sold when it went up 4 ticks

$4 \times \$0.50 = \2

4 Ticks

18095.00

18094.75

18094.50

18094.25

18094.00

18093.75

18093.50

18093.25

18093.00

YouTube video example

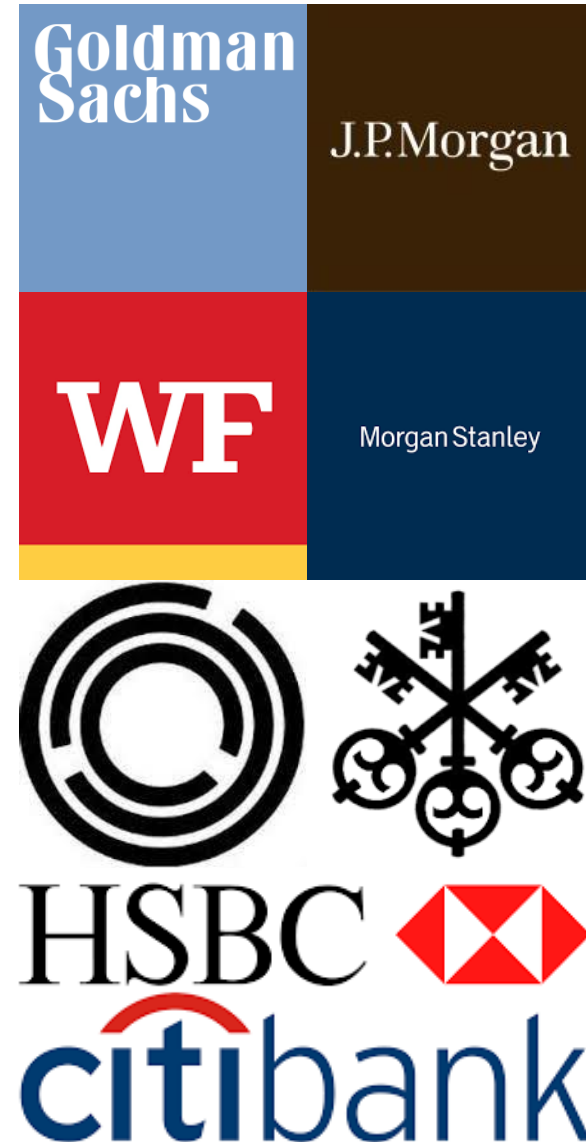
https://www.youtube.com/watch?v=_A2xbPDTBW8

Market Making

Banks and Institutions provide hedge funds, pension funds, insurance companies, etc. with liquidity for large and complex trades.

Utilize math, algorithms, and forecasting to supply markets for clients.

Market Makers take on potential risks of both sides of the trade.



Market Making

Bid – Ask (offer) spread

Volatility -> Liquidity -> Volume -> Large spreads

Cyclical Markets

Structuring Products

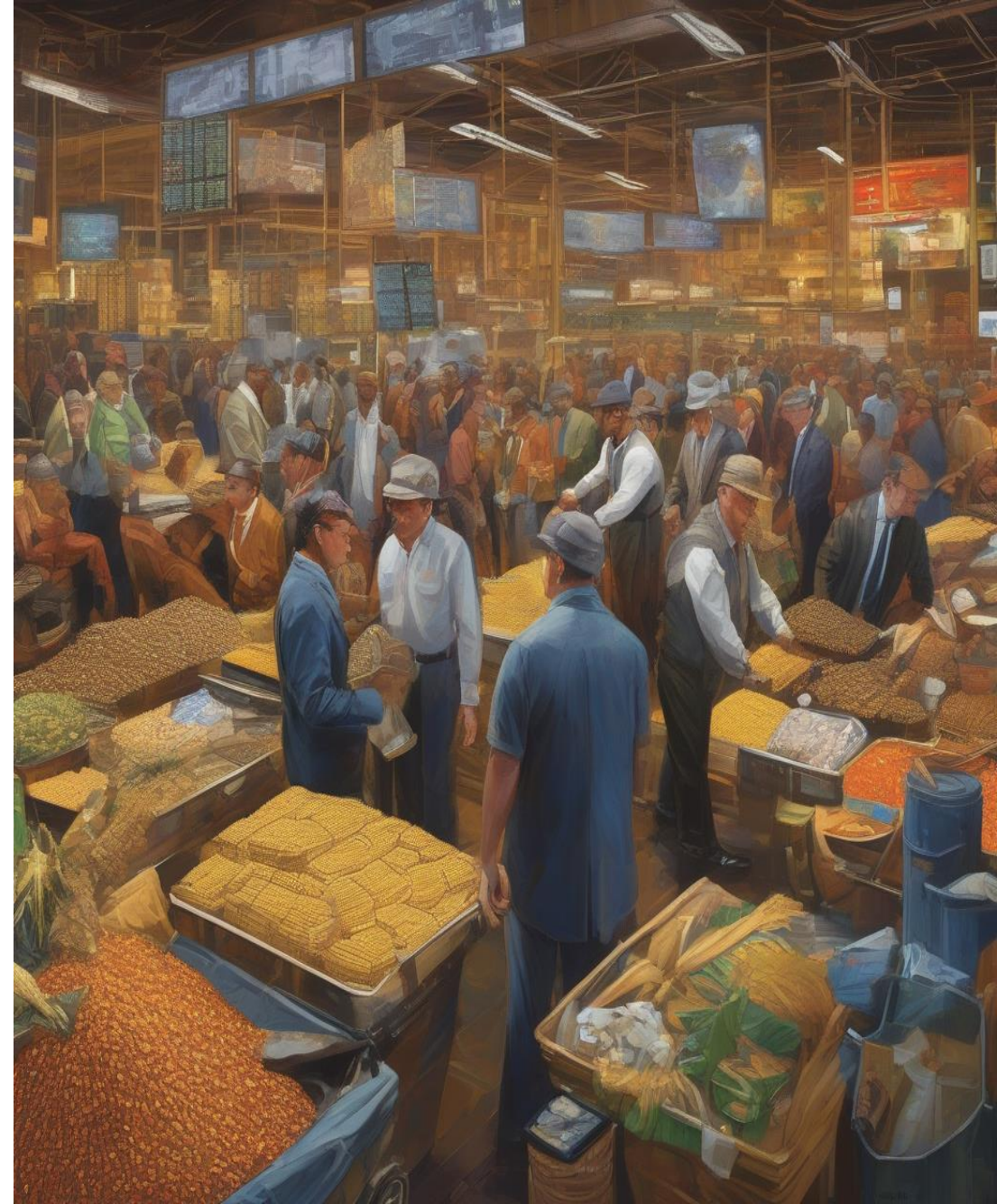


Questions?

Commodities

Buying and selling of raw materials or primary goods such as gold, steel, oil, wheat, coffee, and other agricultural products.

Similar to futures and options, commodities trading involves a predetermined price and date for an action (buying or selling) to occur.



Commodity examples

Oil: 81.26

Gold: 2167.5

Silver: 25.06

Platinum: 927.4

Corn: 433.75

Canola Oil: 623.2

Coffee: 183.85

Ethanol: 1.69



How the Commodities move

Correlation with Economic Conditions

- Demand increases prices

Inflation

- As inflation increases, commodities price tend to increase
- Interest Rates
- As interest rates increase, borrowing costs increase, demand for commodities' decrease

Changes in inputs and outputs

- Events that shift supply, drive price changes

How to trade Commodities

Futures

Options

ETF's

Stocks-Commodity link

Why Commodities?

Producers and consumers can use commodities contracts to lock in a current price for future purchases as well as price hedging.

- A manufacturing company may buy contracts for steel in order to lock in the current market price of steel if they predict the price will rise.
- A company that produces steel may sell contracts in order to secure profits for a not yet fulfilled sale.
- In both of these situations a contract on commodities is being used as a hedge against unexpected future events and prices.

Similarities in Commodities & Equities

Use of quantitative price analysis

Retail Trading/Investing

Hedging

Commodities applied

Hedge funds

Pension funds

Insurance companies

Retirement plans

Wealth management portfolios

Sales & Trading *

Futures/Commodities Problem

An investor buys a futures contract for 1,000 barrels of oil at \$60 per barrel with a delivery date in 3 months. If the price of a barrel of oil is \$70 on the expiration date what would the investors “profit” be.

$$(\$70 - \$60) * 1,000 = \$10,000$$

Futures/Commodities Problem

An investor buys 2 futures contract for 1,000 barrels of oil each at \$75 per barrel with a delivery date in 1 month. If the price of a barrel of oil is \$70 on the expiration date what would the investors “profit” be.

$$(\$70 - \$75) * 2,000 = -\$10,000$$

Supply & Demand Shifts

Any event that changes the supply, demand, efficiency, or cost of inputs will affect the price of related commodities.

Examples include...

- Environmental (weather or disaster events)
- New technology (more efficient production)
- Abundant inputs (new, large Lithium deposit discovered)

Apple Example

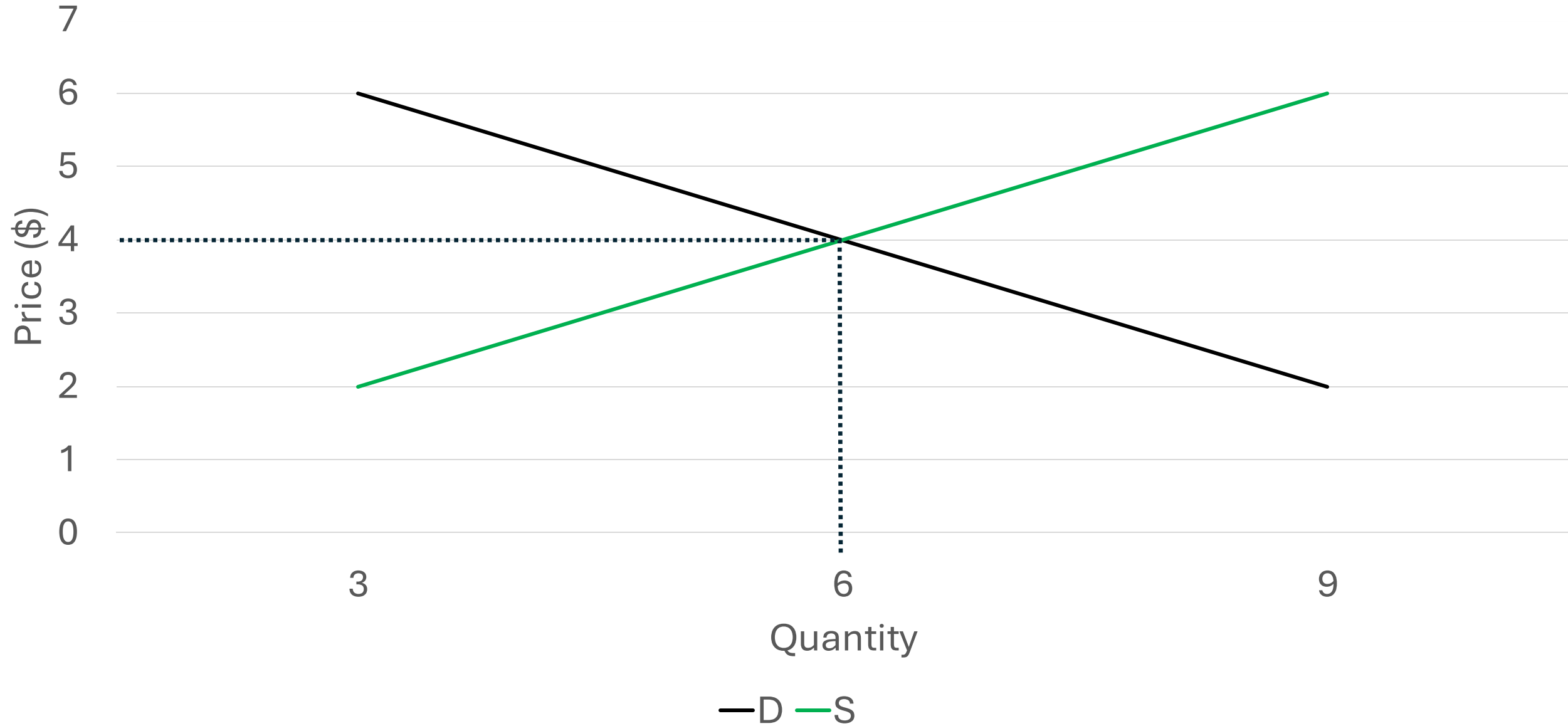
If a late frost hits the United States, certain commodities, such as fruits, will be directly affected.

A late frost will cause a negative supply shock, therefore decreasing the total supply of apples, while the level of demand will remain constant.

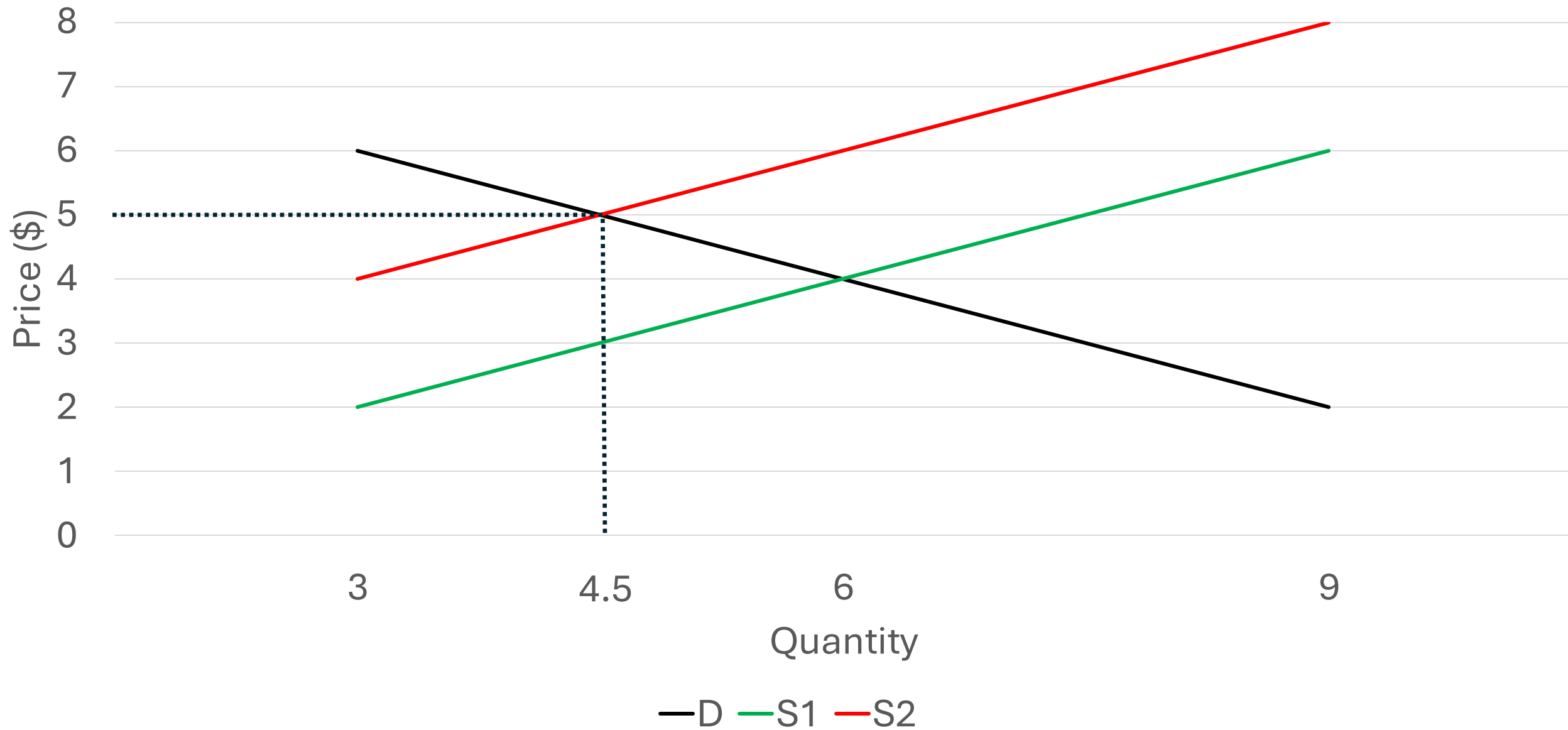
This discrepancy between supply and demand will shift the price of apples up, until a new equilibrium is reached.



Apples

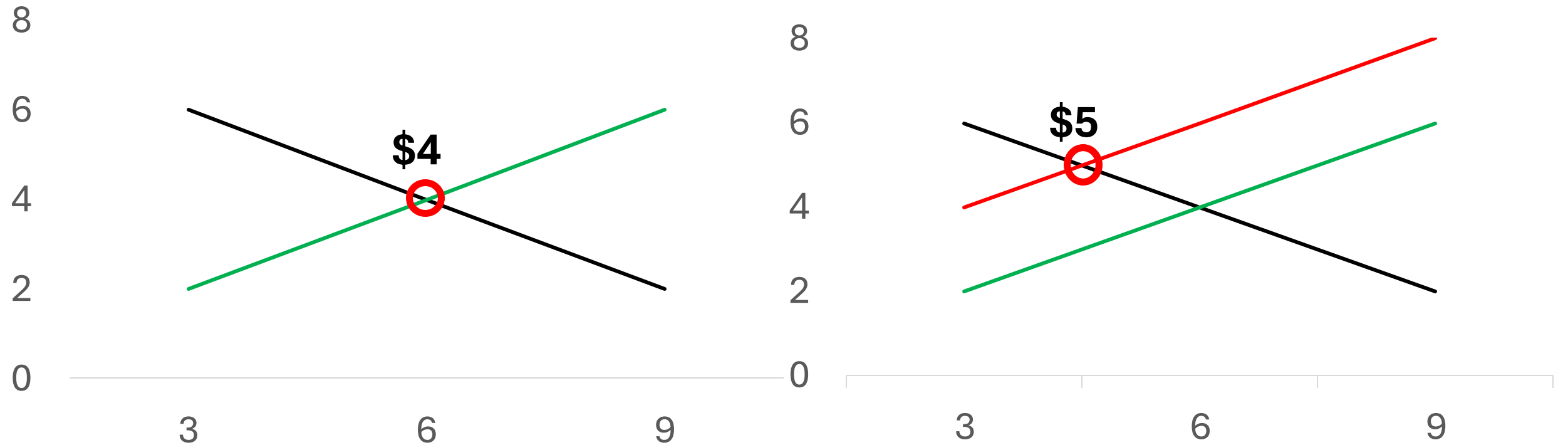


Apples After Frost



Apple Example

In this case the original equilibrium price was \$4, after the supply shock this equilibrium price rose to \$5.

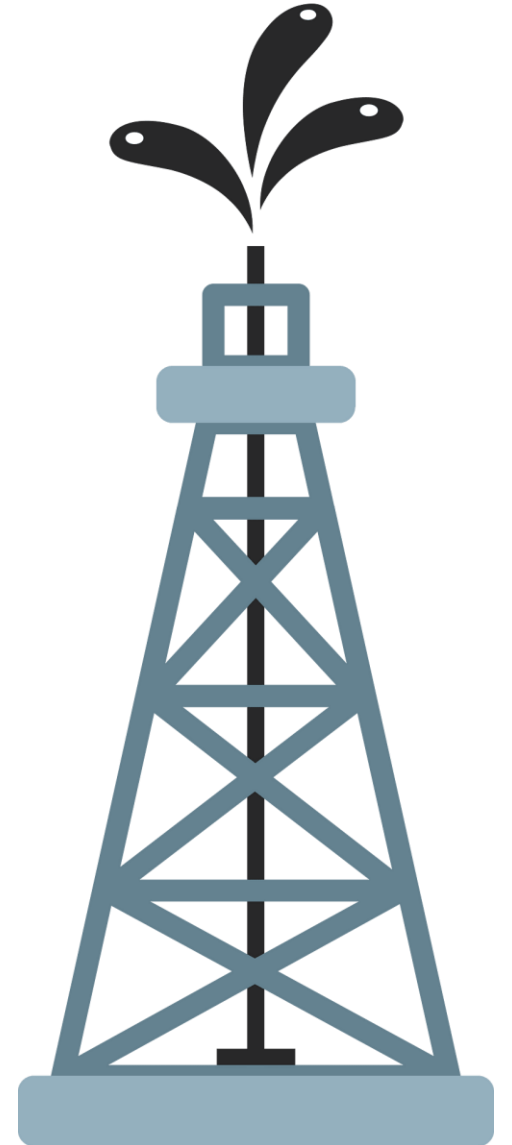


Example

How would this apple example relate and differ from a new, large oil reserve being tapped?

What would happen to oil supply?

How would oil prices react?



Q & A

MSUSTG.ORG

MarketWatch Investing Competition

- <https://www.marketwatch.com/games/msu-stg-ss24>
- ID: MSU STG SS24
- Password: msustg



Discord

