Trading Strategies

STG FW Week 7

Agenda

- Market Update
- Open Discussion
- Announcements
- Strategies
- Q&A

Market Update(Last Week)

- S&P 500 5,717 +98.8
- NASDAQ 18,026 +452.8
- DOW Jones 42,014 +510.92
- Crude Oil 71 +1.13
- Gold 2,611 +13.3
- 10-Year Yield 3.73%
- BTC 63,475.2 +1,761.11

Market Update

- **S&P 500**: 5,850, up **+12 points**
- **NASDAQ**: 18,415, up 138 **points**
- **Dow Jones**: 42,374, down **-140 points**
- **Crude Oil**: $70.45, up **+.70**
- **Gold**: $2,747, down **–1.80**
- **Bitcoin (BTC)**: $68,139, down +1,887

- The S&P 500 and Dow Jones Industrial Average saw declines as investors remained cautious about the pace of interest rate cuts, which affected sectors like housing and real estate. The Nasdaq, however, was boosted by a strong performance from Nvidia
- Gold prices continued to hover near record highs, trading around $2,730 an ounce, while crude oil futures rebounded by 1.5%, recovering from last week's sharp decline.

Open Discussion

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

Announcements – Trading Competition

The semester trading competition hosted by the CME Group has begun!

If you haven't joined yet feel free to do so at any point this semester.

This competition will wrap up prior to our final meeting on 12/5, there will be a prize for the winner!

Code: msu-stg-fall24

Technical Analysis

Technical Analysis

- Method of evaluating securities by analyzing statistical trends gathered from trading activity, such as price movement and trading volume. It involves studying historical price charts, identifying patterns and trends, and using various technical indicators to make predictions about future price movements.

- The core premise of technical analysis is that historical price movements tend to repeat themselves, and patterns observed in past price data can help forecast future price direction.

- Technical analysts believe that by understanding

Support and Resistance

- **Support**: A price level at which a stock has historically had difficulty falling below.
  - Level where buying interest typically increases, preventing the stock from declining further.
  - Support levels are often considered potential entry points for investors looking to buy, as they believe that the stock's price is likely to rebound from that level.

- **Resistance**: A price level at which a stock has historically struggled to rise above.
  - It represents a point where selling pressure typically increases, halting the stock's upward momentum.
  - Resistance levels are viewed as potential selling opportunities for investors, as they anticipate that the stock's price may reverse or consolidate near that level.

Upside Breakout - META

Price resistance at $348

3 points of resistance

Sellers have larger limit orders place at $348 relative to active buyers buying at ask at $348

Time & Sales

Price	Qty	Time	Exch
30.15	30	16:31:41	EDGX
30.16	100	16:31:41	NASD
30.15	1	16:31:40	FADF
30.15	40	16:31:32	ARCA
30.15	1	16:31:07	ARCA
30.16	800	16:29:59	FADF
30.15	1	16:29:50	FADF
30.15	5	16:29:25	FADF
30.15	10	16:29:21	ARCA
30.15	75	16:28:40	FADF
30.15	500	16:28:37	FADF
30.15	77	16:28:25	ARCA
30.15	15	16:28:17	ARCA
30.16	18	16:28:05	ARCA
30.15	12	16:28:05	EDGX
30.15	10	16:27:46	FADF
30.15	1	16:27:37	ARCA
30.15	1	16:27:37	FADF
30.15	7	16:27:30	FADF
30.08	1900	16:25:55	FADF

Level 2

Bid

Ask

CHX	27.820	38	ARCA	27.850	12
ARCA	27.820	2	ACB	27.850	12
ACB	27.820	2	NSDQ	27.860	33
NSDQ	27.820	0	NASD	27.860	33
NSDQ	27.810	3	ACB	27.860	10
NASD	27.810	3	NSDQ	27.870	10
ACB	27.800	21	NSDQ	27.880	20
NSDQ	27.800	5	ACB	27.890	20
EDGX	27.800	2	NSDQ	27.890	9
ACB	27.790	4	NSDQ	27.900	15
NSDQ	27.780	35	ACB	27.950	111
ACB	27.770	2	ACB	27.980	5

Montage INET ARCA NYSE IEX

Support level

Support at $386

2 points of support

40k+ limit buy orders at $386 shown on level 2

Understanding Price Action

- Price cannot be overextended for a same direction trade
- Volume and momentum must be present
- News should not impact your trade – Bloomberg economic calendar or FOREX factory
- Shapes DO NOT WORK!

Reading News

- News sources
  - Bloomberg
  - FactSet
  - Forex Factory
  - Market Update

- Type of news
  - Corporate news vs Economic news vs Political news
  - Sector specific or company specific
  - Domestic news or International news
  - Election policies

			Thursday, October 24, 2024	Actual	Forecast	Previous
07:30	USD		Building Permits (Sep)	1.425M	1.428M	1.470M
08:30	USD		Continuing Jobless Claims	1,897K	1,880K	1,869K
08:30	USD		Initial Jobless Claims	227K	243K	242K
09:45	USD		Manufacturing PMI (Oct) P	47.8	47.5	47.3
09:45	USD		S&P Global Composite PMI (Oct) P	54.3		54.0
09:45	USD		Services PMI (Oct) P	55.3	55.0	55.2
10:00	USD		New Home Sales (Sep)	738K	719K	709K
10:00	USD		New Home Sales (MoM) (Sep)	4.1%		-2.3%
13:00	USD		5-Year TIPS Auction	1.670%		2.050%
54 min	USD		Fed's Balance Sheet			7,039B
			Friday, October 25, 2024			
08:30	USD		Core Durable Goods Orders (MoM) (Sep) P		-0.1%	0.5%
08:30	USD		Durable Goods Orders (MoM) (Sep) P		-1.1%	0.0%
10:00	USD		Michigan 1-Year Inflation Expectations (Oct)		2.9%	2.7%
10:00	USD		Michigan 5-Year Inflation Expectations (Oct)		3.0%	3.1%
10:00	USD		Michigan Consumer Expectations (Oct)		72.9	72.9
10:00	USD		Michigan Consumer Sentiment (Oct)		68.9	70.1

Actual, Forecast, Previous

Spreads

Spreads

- An options spread is a strategy involving the simultaneous purchase and sale of options contracts on the same underlying security but with different strike prices, expiration dates, or both.

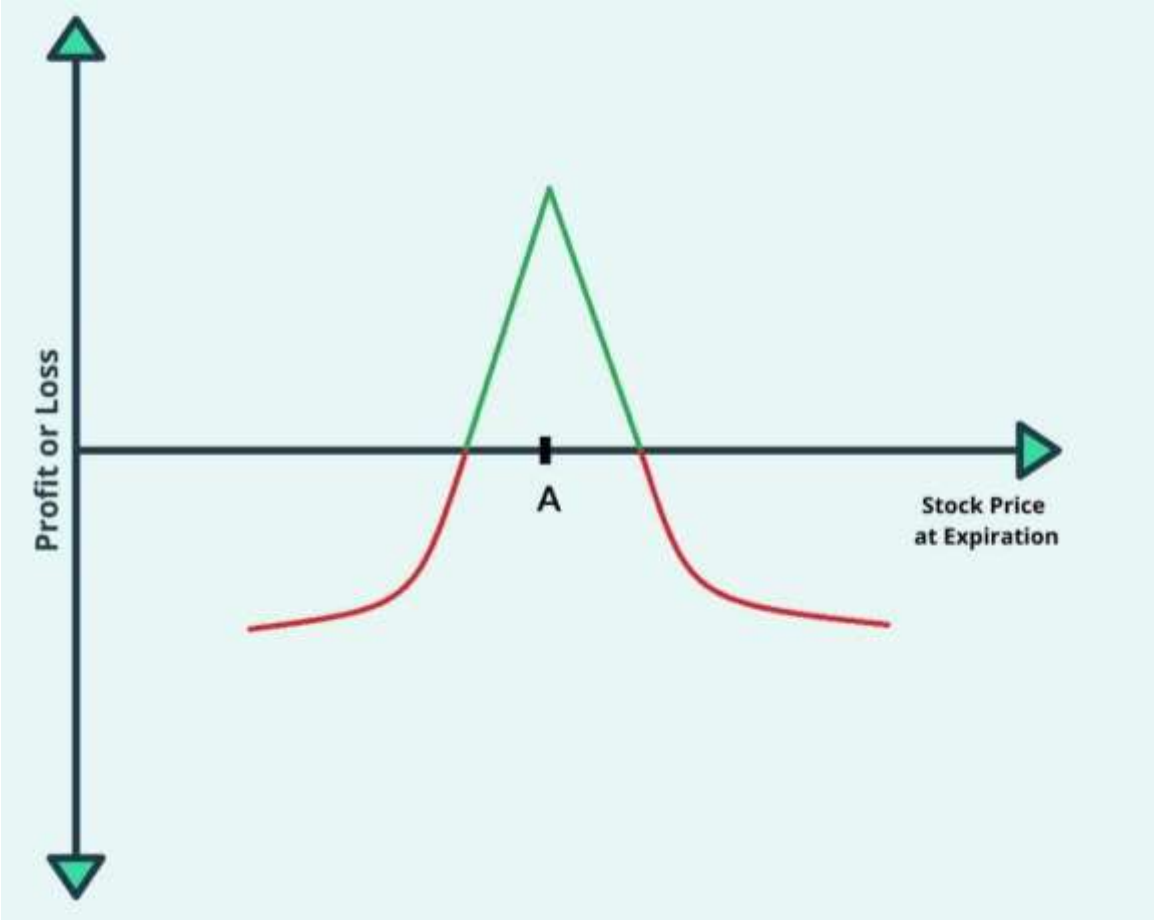
- The purpose of using a spread strategy is typically to hedge risk, generate income, or profit from the expected price movement of the underlying asset.

Vertical Spread

- This involves buying and selling options of the same type (either both calls or both puts) with the same expiration date but different strike prices.
- Examples include bull call spreads and bear put spreads.
- Lowers risk

Horizontal Spread (Calendar Spread)

- In this strategy, options with the same strike prices are bought and sold, but with different expiration dates.
- This can be used to profit from differences in implied volatility between short-term and long-term options.
- Trading sideways/High IV



Diagonal Spread

- Involves combining elements of both vertical and horizontal spreads by using options with different strike prices and expiration dates.
- It's a more complex strategy that can be used for various purposes, such as leveraging time decay or adjusting the risk-reward profile.
- Minimizes effects of time

Butterfly Spread

- This strategy involves three different strike prices, where an investor buys…
  - One option at the lowest strike price
  - Sells two options at a middle strike price
  - Buys one more option at a higher strike price.
- It's named for the shape of its profit and loss graph.
- Used when you expect the price of the underlying asset to remain close to the middle strike

Condor Spread

- Similar to a butterfly spread, but with four different strike prices. It involves…
  - Buying one option at the lowest strike price.
  - Selling two options at a middle strike price with an equal range between each other.
  - Buying one option at the highest strike price.
- Trading sideways
- Used when more uncertain about share price – range between two sold options

Straddle/Strangle

- An investor buys a call option and a put option with the same strike price and expiration date. – Straddle
- An investor buys a OTM call and OTM put with same expiration – Strangle
- Used to profit off an increase in volatility
  - VEGA is commonly used when entering a straddle/strangle trade.

Selling Options

Selling Options

- Selling (writing) options is similar to buying options in the sense that it is an agreement to have the ability to sell or buy an asset at an agreed upon price at an agreed upon time

- However, as the seller you are the one who is providing the buyer with the speculative instrument.

- By selling options you create income in the form of premium (the price of the option contract) therefore profiting a predictable and consistent amount.

Selling Calls

- Covered Call
  - Selling a call with the underlying stock as collateral

- Naked Call
  - Selling a call with no collateral

- To sell a covered call you must first own 100 shares (at least) of a stock. Then locate a date and price on the option chain that you would like to sell your call at, I typically look for 30-45 DTE (Days to Expiration) and a strike price ~10% OTM (Out of the Money).

Selling Calls

- If the stock trades sideways you keep your shares, any capital gains, and the premium from selling the contract.
- If the stock falls you may lose money on your shares, but you keep the premium to hopefully offset this loss.
- If the stock rises beyond your strike price your contract will be exercised, and you will have to sell your shares at the strike price but will profit from the capital gain of 10% as well as the premium.
- This strategy has essentially no risk if you would be holding these shares regardless, but can limit your upside if your shares rapidly increase in value in a short time span. (Sofi)

Selling Puts

- Cash Secured Puts
  - Selling a put while having the necessary cash to exercise the option

- To sell a cash secured put you must first have the required capital for an execution of this contract stashed in your brokerage. Then you have to find a stock you are long term bullish on that you would be comfortable buying at the strike price of the contract you sell.

Selling Puts

- If the stock trades sideways or rises you keep the cash you used as collateral and profit the premium from selling the contract.

- If the stock falls below your strike price your contract will be exercised, and you will have to buy these shares at the strike price and will generally face an unrealized loss.

- This strategy has the potential to leave you with an unrealized loss, but you get to keep the premium from selling the contract to potentially offset a loss, and since you were already bullish on this stock gaining these shares would not be seen as a “bad” thing.

Covered Call Example 1

A trader sells 7, 30DTE Covered Calls on SPY with a strike price of $580 for a premium of $2.00 per share.

If SPY closes at $578 on the expiration date what will the trader's profit be? Will this option be executed?

Total Revenue (Premium) = 7 * ($2.00 * 100) = $1,400

Total Cost = $0

Profit = Revenue – Cost = $1,400

This option will not be executed therefore, the trader…

Keeps all shares involved in the covered call

Covered Call Example 2

A trader sells 7, 30DTE Covered Calls on SPY with a strike price of $580 for a premium of $2.00 per share.

If SPY closes at $581 on the expiration date what will the trader's profit be? Will this option be executed?

Total Revenue (Premium) = 7 * ($2.00 * 100) = $1,400

Total Cost = $0

Profit = Revenue – Cost = $1,400

This option will be executed therefore, the trader…

Missed out on (($581 - $580)*100) * 7 = $700 of **potential gains**

Arbitrage

Arbitrage

The simultaneous buying and selling of securities to take advantage of differing prices for the same asset.

Generally, risk free, with very low return of investment.

If you can buy something and immediately sell if for more, there exists an arbitrage.

FX Arbitrage

If different brokerages in different countries are offering a slightly different conversion rate, an arbitrage opportunity will arise.

FX arbitrage is quant dominated and traded very fast.

If an imbalance that allows instant, risk free profit exists in the market, it won't exist for long.

Traders around the world will see this opportunity and begin buying up all the currency from this bank, leading to much greater demand than supply.

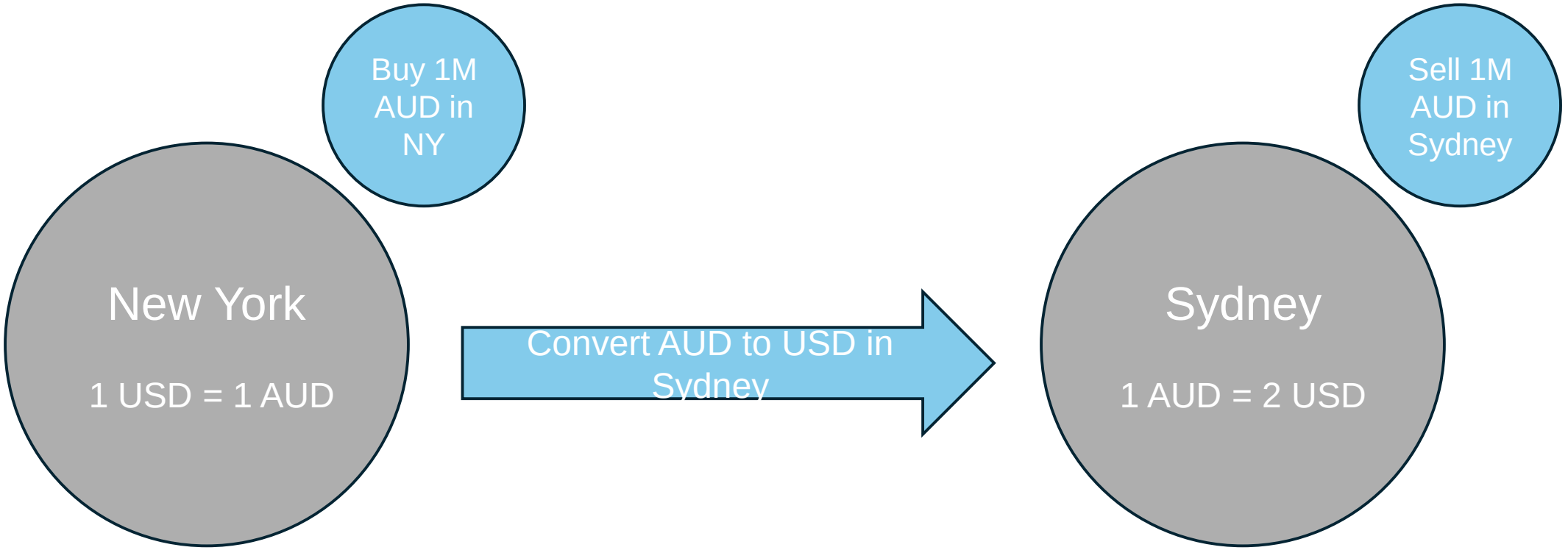
2 Point Arbitrage (Locational)

2-point arbitrage is the simplest case

Anytime two separate banks, institutions, or countries are offering exchange rates that are not perfectly identical, there will be an arbitrage opportunity.

Essentially, Bank1 price ≠ Bank2 price

2 Point Arbitrage (Locational)



1M USD → 1M AUD → 2M USD

2M USD – 1M USD = 1M USD Profit

****Grossly Unrealistic Example****

3 Point Arbitrage (Triangular)

3 currencies involved

If you know 2 rates, the third one is implied, if the offered rate differs from the implied rate, there will be an arbitrage opportunity.

£1 = ¥2 ¥4 = $1 $1 = £? ?=2

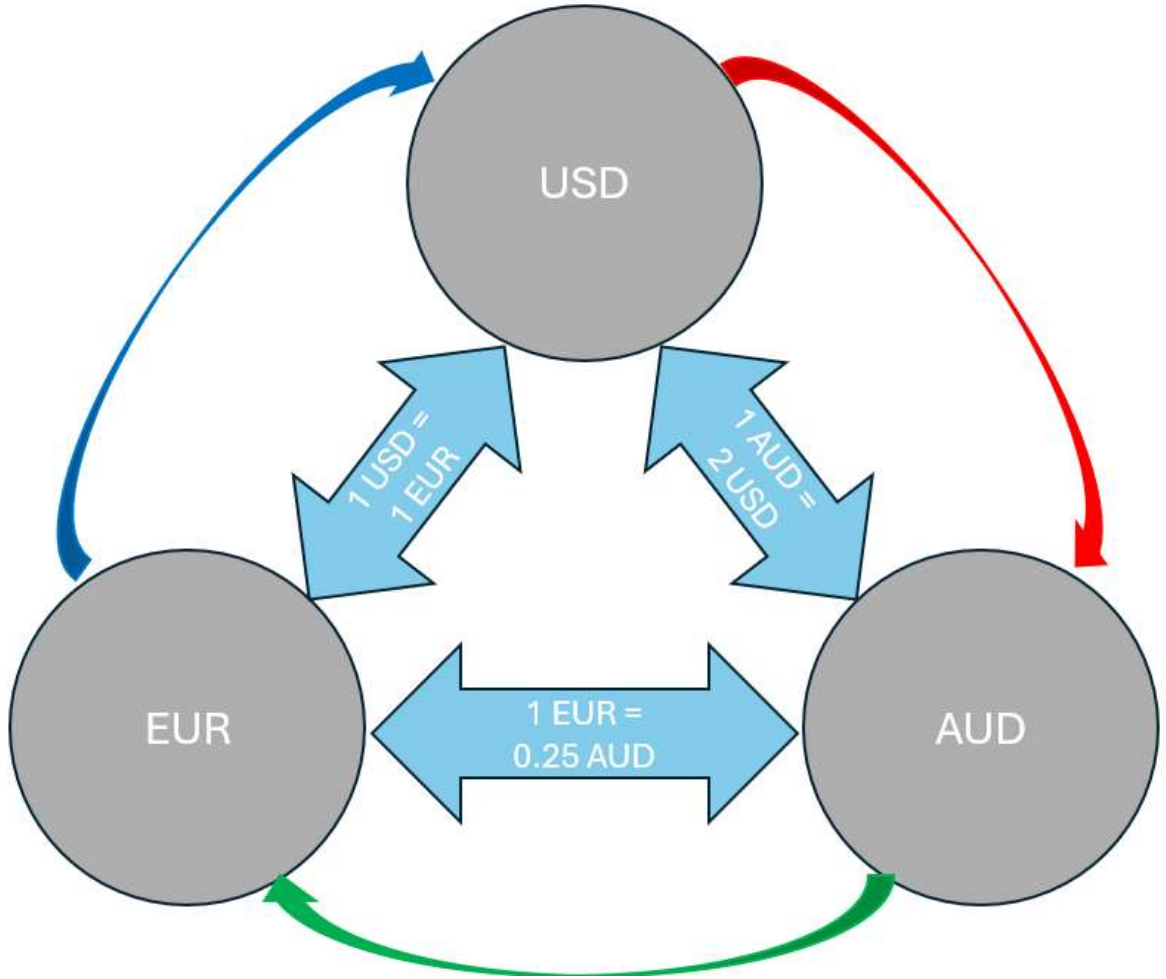
3 Point Arbitrage (Triangular)

- Use **1M USD** to buy 500K AUD
- Use 500K AUD to buy 2M EUR
- Use 2M EUR to buy **2M USD**

Notice you could…

- Use **1M AUD** to buy 4M EUR
- Use 4M EUR to buy 4M USD
- Use 4 M USD to buy **2M AUD**

It does not matter where you start, all outcomes will be 2x profit in this case



****Grossly Unrealistic Example****