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Fin 4775: Technical Analysis
Final Project



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Section 1: Analysis of the S&P 500

Chart 1.1 – 5-Year weekly candle chart with 50 and 200-period moving averages



Chart 1.1 – 5-Year weekly candle chart with 50 and 200-period moving averages.

- Chart's price broke below the 50-day MA level of 413.04 in February. This bearish signal indicated the start of an **intermediate-term downtrend**.
- However, price has recovered to the near 400 levels. The downtrend is still present in the short term, but it could change in next 1-3 months if price continues to climb closer to the 200-MA
- Index price is above the 200-day MA level of 352.45. **Bullish long-term trend remains**.
- Oct 14th crash to 357 failed to break MA(200), strong support for the primary trend.



Chart 1.2: Use a 1-year daily candle chart with 50 and 200-period moving averages with Chaikin money flow



- **Downtrend** during the first 6 months of 2022.
- CMF Level at 0.114, this is a bull signal that indicates the start of **uptrend** since it rose above 0.0
- Institutions are buying this strength. We can observe a **higher high** being formed on the CMF chart
- Current price is only \$0.22 away from the 200-period MA of 402.55. if SPY manages to cross that 200 MA resistance line, then we can use CMF as a confirmation that this intermediate trend reversed into an uptrend.



Chart 2 – 1-year daily bar chart of YELP with all relevant trend lines.

- Yearly **downtrend**. Price decline from a 52-week high of \$39.43 lost 19% of its value in a year
- Downtrend** in the intermediate trend (1-3 months) Price declined from a high of \$38.99
- Strong **support** levels at \$26.28. Tested twice during May-Jul and failed to break.
- Some **resistance** around 39.20, spikes failed to break twice during Sep-Oct
- Prices slowly beginning to recover, with the latest prices closing near their highest point for the day.



Section 3, chart 3.1 – Five-year weekly charts of Yelp, Using log Scale, add all relevant trend lines and discuss on- balance volume.



Negative divergences all over the chart. These align with the negative price movements undergone by the stock during 2018-2020 and the first 6 months of 2022

On balance volume is declining in divergence to the most recent price recovery to \$30.31.

We can use this recent divergence as evidence that the price recovery is a possible dead cat bounce before current short-term downtrend continues.



Chart 3.2: using arithmetic scale, draw all trend lines and discuss volume at price. (20 bars used)

YELP Yelp Inc. NYSE
2-Dec-2022

© StockCharts.com

Open 29.49 High 31.31 Low 29.17 Close 30.23 Volume 3.7M Chg +0.59 (+1.99%) ▲



Biggest **resistance** levels reside at around **35.0**. Smaller resistances at 37.5 and 40

The two **reversals** that occurred between Jul-Nov serve us to both confirm our resistance levels and establish our **support** at **31.91**.

Further evidence found in the intermediate trend reversal between march/April and Jul/Oct that began after crossing our established resistance and support levels



Chart 4– 1-year daily bar chart with 9 and 14 period RSI

- The 9-period RSI currently show a **bullish** oversold condition with a reading of 28.48, However the 14-period RSI currently shows neither an overbought nor an oversold condition
- Recent bearish levels of 80 in late October found in the 9-period RSI align with the declining price action undergone by the stock in the short term.
- Any possible short-term reversal is not sustainable since 14-period RSI levels have returned to normality



Chart 5: 1-Year bar chart of Yelp with 20 and 50-day moving average. Identify buy and sell signals on a 2 MA system

- On a 2 MA system we buy/sell when the faster MA (20) crosses over/below the slower MA (50)
- In this case our buy signals are shown in green circles, sell signals in red.



Chart 6: One-year bar chart of Yelp relative to the S&P 500. Is it leading or lagging?

YELP Yelp Inc. NYSE

23-Nov-2022

© StockCharts.com

Open 29.22 High 29.77 Low 29.15 Close 29.57 Volume 436.0K Chg +0.41 (+1.41%) ▲



SPY started the chart year on Dec 28 at 476.9. price sits at 402.7 as of Nov 23. price has **decreased 15.6%** for the year.

With the same starting point for Yelp the year began at a price of 36.90. As of Nov-23 price has dropped to 29.57, equivalent to **a 19.9% drop.**

Yelp is **lagging** behind the S&P 500 **by 4.3%**



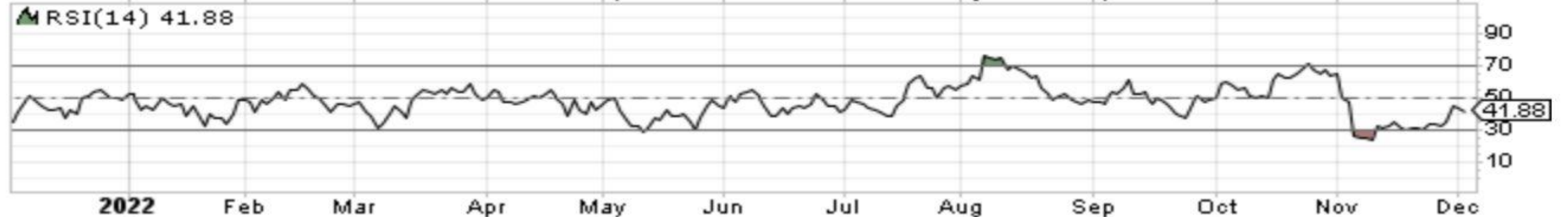
Would I open a long/short position on this stock?

YELP Yelp Inc. NYSE

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2-Dec-2022

Open 30.11 High 30.40 Low 29.90 Close 30.23 Volume 776.7K Chg -0.53 (-1.72%) ▼



I would open either a short position on this stock or implement options strategies that profit when sideways movement occurs. This conclusion is based on 3 key points:

- ❖ Current price of 30.23 is below both moving average levels of 33.57 and 32.67. this signals a continuing downtrend for the short (below MA 50), intermediate and primary trends (below MA 200).
- ❖ Chaikin's Money Flow (CMF) currently resides at a level of -0.160 . this is a bearish signal that indicates weakness for the stock, However CMF levels have increased from the lowest bottom level of -0.310 . while all previous statements regarding the short/long term downtrends remain true, this slightly rising CMF opens the possibility for sideways movement.
- ❖ Finally, we have Relative Strength Index level of 41.88 that is currently declining alongside the total volume traded. We have a total absence of any oversold/overbought conditions in the market. Henceforth, the stock will probably slowly continue its downtrend with some intermittent sideways movement until the conditions for a trend reversal come to exist.