Chap. 19 Technical Analysis

- Basic Philosophy: Trends
- Dow Theory,
- Support and Resistance
- Moving Averages
- Dumb Money, Smart Money
- Dec. 1, 2003                         William Pugh

Technical Analysis

- Technical Analysis uses *market data* (mostly charts). Often called *chartists*
- Also uses “smart” and “dumb” money indicators,
- Uses *sentiment indicators*. Number of Bulls vs. Bears.
- *My definition of pure technical analysis: You know everything about the stock, but nothing about the company it represents.*
- *Many, many tools: I will only discuss some of the ones I use.*
Basic Philosophy: Trends

- Technical Analysts believe stock prices move slowly from an old equilibrium price to a new equilibrium price.
- Market psychology is a major factor
- (1) Investors move gradually from optimism to pessimism, and the reverse.
- (2) Major market tops occur at times of extreme optimism. Major market bottoms occur at times of extreme pessimism.

Dow Theory

- Technical analysis is not new.
- Charles Dow created the DJIA and the Transport Averages (Railroads back then). The averages were used to give the analyst a quick summery of the direction of the “market”
- Up trend Bull Market, Down trend Bear market.
- If both Industrials and Rails moved in the same direction, they confirmed one another and gave a strong bull or bear signal. Industrials: making the goods, Transports: moving the goods.
Dow Theory

• If *one* of the averages begins to change directions, this alerts the analyst to the *possibility* that the overall market is about to change.

• Many practitioners of this theory but also *many different interpretations*. The text describes the Primary-secondary-etc. wave patterns approach. (also Elliot Wave Theory)

• Charles Dow also founded the Dow-Jones news empire.

Support and Resistance

• Support: a price floor - a level where new demand *helps* support prices. “*Remorseful sellers*” buy back previously sold stock.

• Resistance: a price ceiling - a level where new supply helps hold down prices. “Remorseful buyers”.

• Strength of a support level depends on how much trading was done at those levels before. So volume is a factor. Note: *these levels often only hold for a while*.

• Most useful (in my view) for individual stocks, less so for indexes.

• *Breakout*: moving above all resistance levels.
Support and Resistance: WalMart

Moving Averages

• Moving Average: An average of a previous number of days closing prices. Used to determine changes in trend.
• 200-day MA is popular for evaluating long-term trends.
• 50- and 30-days are used for short-term swings.
• If a stock price or index moves below its MA, then the trend is bearish. Movement above a MA constitutes a buy signal.
Moving Averages: 200-Day MA and the S&P500

Moving Averages work very well during a long market move up or down. If the market is just ‘noisy’, the technical analyst will lose money in unprofitable trades.

Moving Averages work better with smooth data.

This smooth data could be indexes like the S&P500 or the NASDAQ, or a mutual fund.

One can also smooth the price data itself – substituting a moving average for the price data and apply the 200-day MA as in the previous
Moving Averages: WMT

Moving Averages: QQQ, Combining 200-Day and 50-Day MAs
Smart Money

- **Short sales**: a mixed bag. On one hand short sellers usually need to eventually buy back the shares. This **covering** could push the price up.
- Ex: **Restoration Hardware**: From Yahoo
  - Average Volume (3 month): 316,045 shares/day
  - Float: 21.10 Million shares
  - %Short (as of 10-Nov-03): 2.18 M
  - Short Ratio (as of 10-Nov-03): 7.065 days
  - Short % of Float (10-Nov-03): 10.31% a little high
  - **On the other hand, high shorting indicates that more sophisticated investors dislike the stock.**

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**Dumb Money (Contrary Indicators)**

- **Dumb Money (contrary indicators)**
- Odd-lot short sales (I never use this). Odd-lots are less than 100 share trades. Small investors.
- **Put-to-Call ratios**: **Options buyers may be the new ‘odd-lotters’**. High put buying means pessimism by the gambling crowd. (Buy!). High call buying means the little guy is bullish. (Sell!)
- **Number Bull vs. Bears** – a good sentiment indicator. Measure whether the average Joe investor is too bullish (Sell!), or bearish (Buy!).
Volatility Index

• Option Volatility index (VIX) – a favorite.
• The Black-Scholes Option Pricing Formula -- (the B-S formula) uses several variables to estimate the intrinsic value of a call or put option.
• All the formula inputs (exercise price, stock price, time to maturity) are known save one – the risk of the underlying asset. This implied volatility (sigma) is estimated by the B-S user and out comes a theoretical ‘option price’.

Volatility Index

• The VIX goes the other way: it finds the ‘implied sigma’ given the option price.
• Kind of like ‘backing out YTM, given a bond’s current market price.
• A high VIX means people think stocks are really risky. It measures fear and often indicates a market bottom (Oct. 2002). A low VIX means people think stocks are fairly safe. It measures complacency and often indicates a market top. (Sept 2000). See graph next page.
Criticism of Technical Analysis

- Major criticism of technical Analysis: once ‘the cat is out of the bag’, everyone will cash in on it.
- Certainly this was true for the SUE, (that Value Line relied on). The pattern of a slow reaction to an earnings surprise has ‘destructed’.
- The above is an example of a ‘self-destructing pattern’. We often see ‘tricks’ that work for a while or ‘market gurus’ who do well for a while, until too many people start following their advice.