

# 5<sup>th</sup> session

13th March 2014

# Technical Analysis



Neely, C., Weller, P. 2011, Technical analysis in the Foreign Exchange Market, *Federal Reserve Bank of St Louis* WP 2011-001B

- In foreign exchange markets, it is basically used in intradaily transactions.
- Surveys of dealers – almost all use to some extent.

*“The trend is your friend.”*

- Fundamental Analysis (examination **of the product**) vs Technical Analysis (observation of behaviours)
- Trends – changing attitudes of investors
- Trends - predictability

- It is based on the assumption that the market is inefficient and so it is possible to forecast the behaviour of the foreign exchange rate: the past is used to forecast the future.  
Extrapolation.

*“History repeats itself.”*

- Identification of patterns.

- Signals to sell or to buy based on trends or on more complex rules.
- Extrapolative methods. Charting, mechanical rules.
  - Charting (very subjective)
    - Peaks and Throughs; Trendline
  - Mechanical rules
    - Filter rules: produce a buy (sell) signal whenever the exchange rate rises (falls) by more than a given percentage from its most recent low (high).
    - Moving averages
    - Other, more complex mathematical functions.

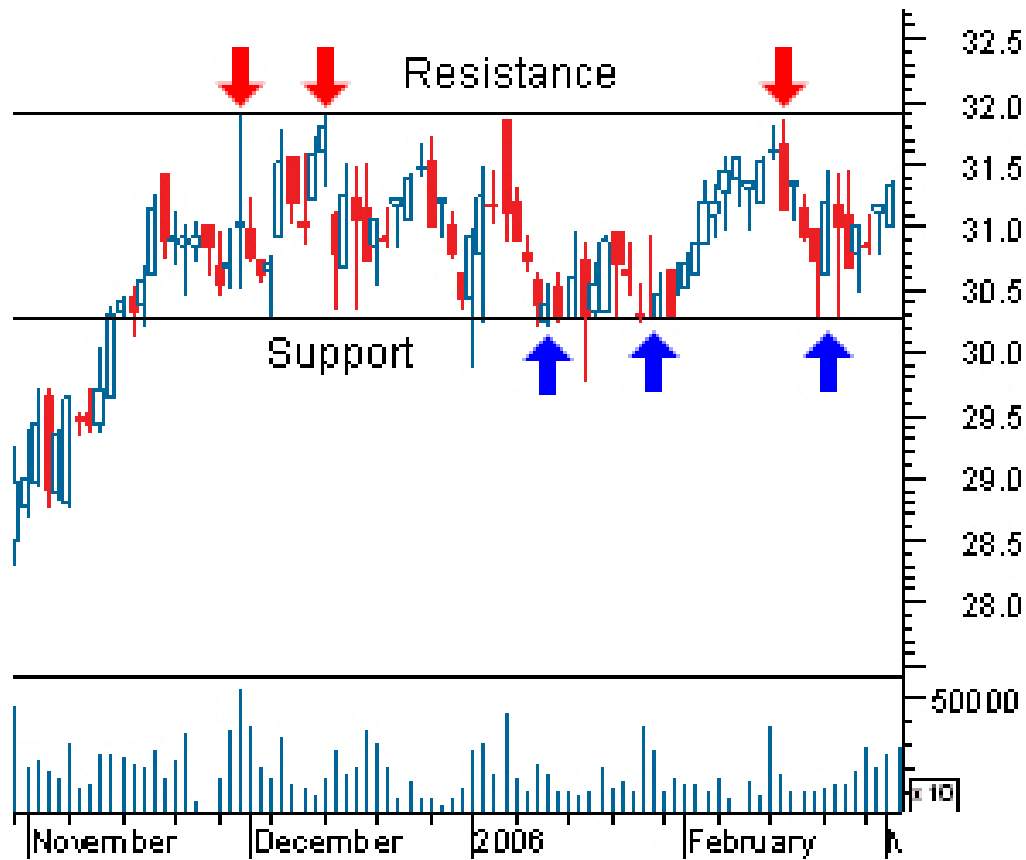


Chart by MetaStock

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- It is considered that the price seldom passes the resistance level or comes under the support level.
- Inversion, once the levels are broken.

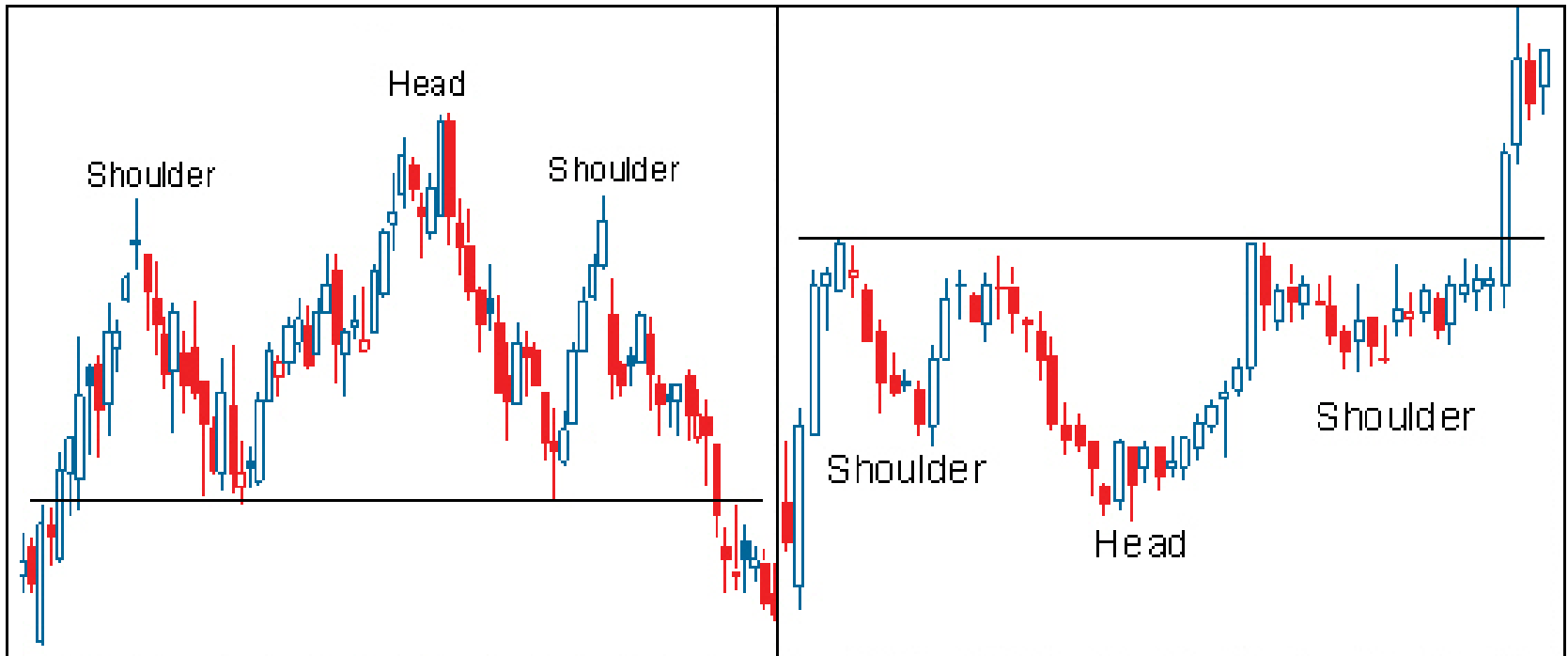


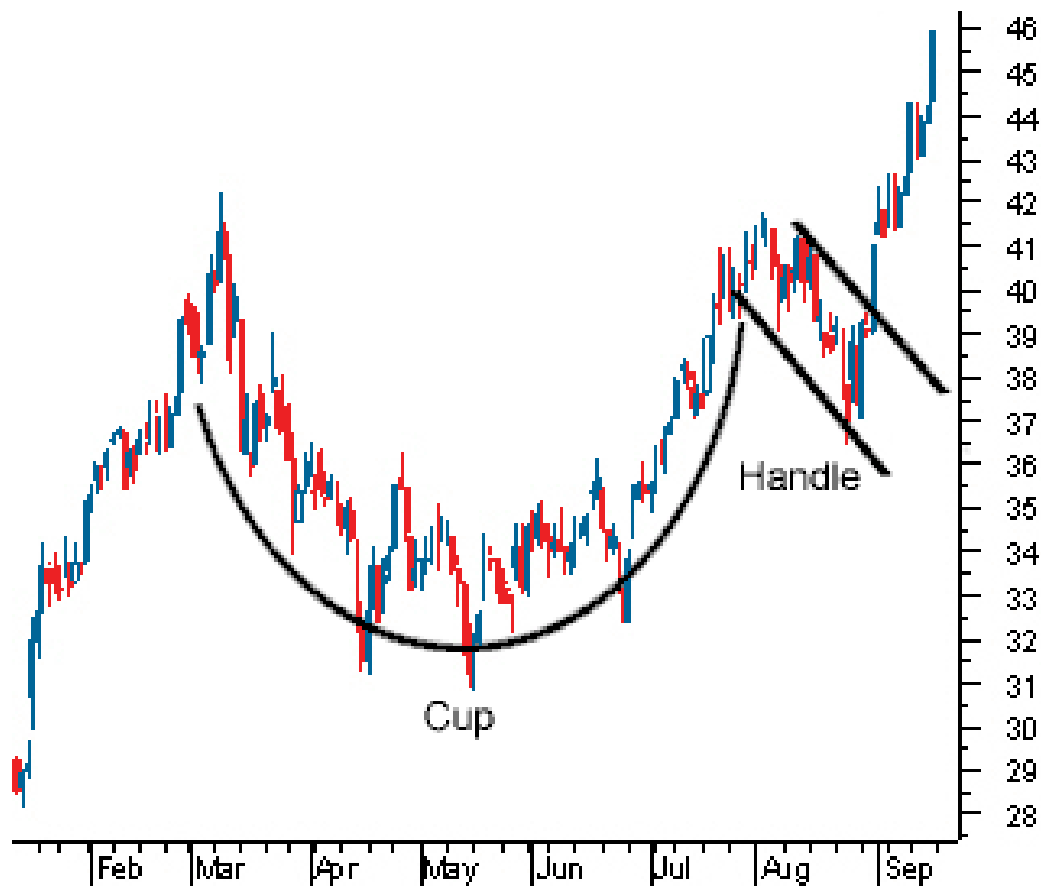
Chart by MetaStock

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- To identify a trend inversion .

# Triple top – trend reversal





Source: Chart by MetaStock

- **Continuation pattern**, when crossing the resistance level of the handle. The cup must always precede the handle.



Notice how the short-term average crossing above the long-term average signals the beginning of an uptrend.

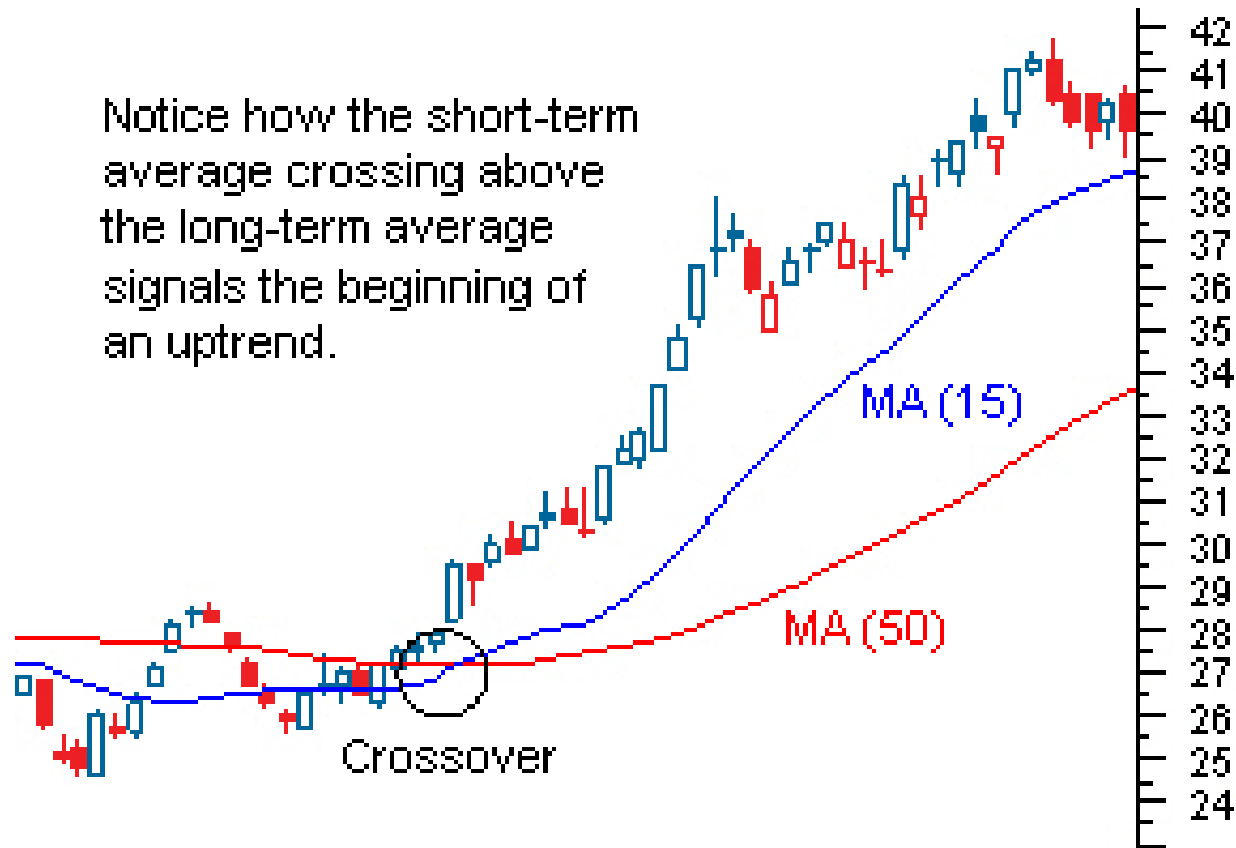


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**Bollinger band:** considers the volatility in the determination of the resistance and support levels . The bands are 2 standard deviations above and below the Moving Average (of approx. 20 days).

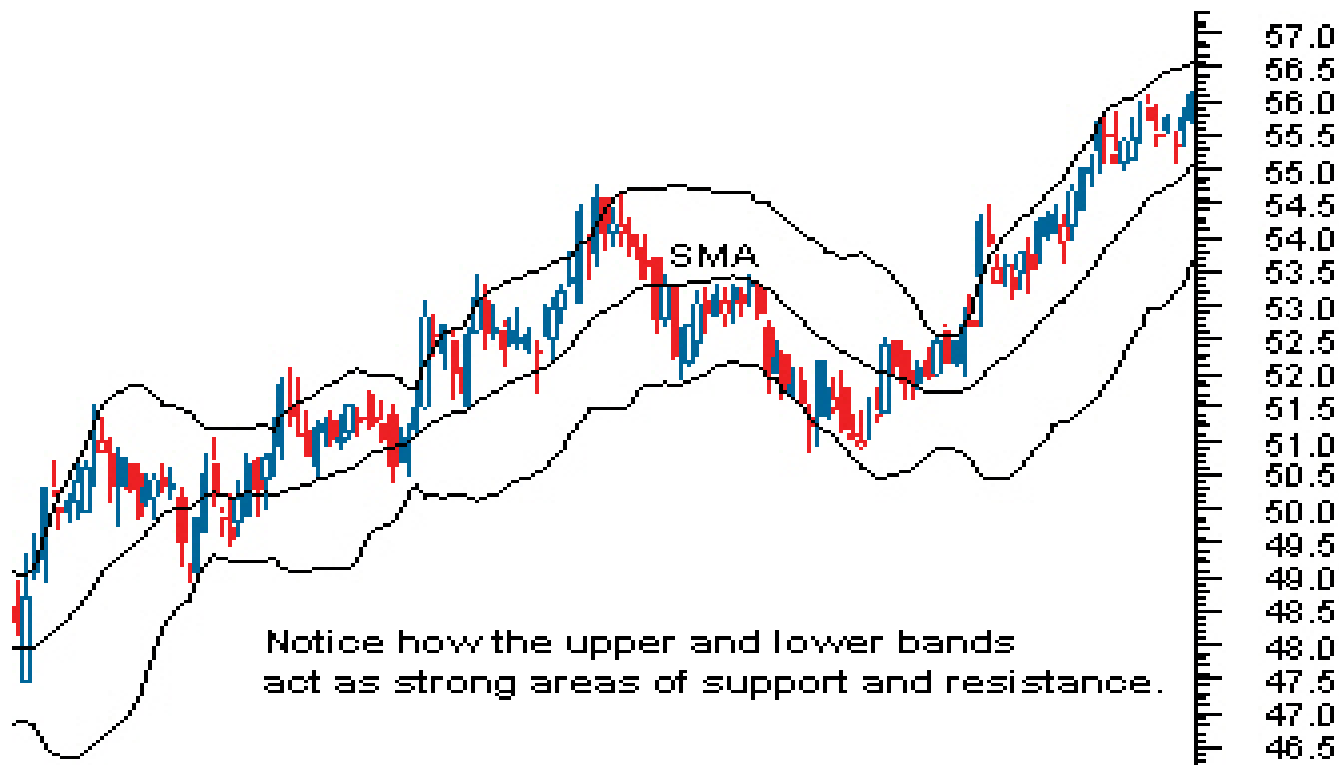


Chart by MetaStock

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$$\text{momentum} = \text{close}_{\text{today}} - \text{close}_{N \text{ days ago}}$$

Gives an idea of the intensity of the trend.

Another measure that gives the idea of the intensity of the trend is VOLUME.

technical analysis video

<http://rapidforex.com/technical-analysis/forex-trading-chart-exercise/>

# Efficient Markets and Technical Analysis

- Technical Analysts believe they can **beat the market**.
- **Efficient Markets Hypothesis:** Prices reflect all relevant information. They are the market's best guess of the fundamental value.
  - Only news causes prices to move. Markets adjust very rapidly.
  - Trends occur by chance. They cannot be exploited to make money.

- Evaluation of technical trading strategies
  - Mixed results
  - Difficulties:
    - Results may show profitable trading rules on certain datasets, not on others. Negative results ignored but positive results published.
    - Apparently successful trading strategies may indicate that risk is not measured properly, and not necessarily inefficiency

- The Technical Analysis and **the Psychology of Investors**
  - ❖ **Patterns exist because of the predictability** (not necessarily the rationality) **of investors**
  - ❖ **TA may be popular because of:**
    - Representativeness

Not considering other determinants of the probability of an event, a period of partial observation is representative of the global image.
    - Communal Reinforcement

Believing what many people say. Doing what many people do.
    - Selective Thinking

Believing more in positive events than in negative events, ignoring negative evidence.

      - Confirmation bias is a subcategory – People look for evidence that confirms one's previous beliefs. .

- Might create some departures from perfect efficiency that permit trading rules to have value. But that does not explain the time variation in the returns (profitable simple rules from mid-70's 1990, not so much after that).

# EXCHANGE RATE



*Pugel, chap.20, 23, 25*

## REGIMES

### International Monetary System

- 1870-1913: Gold Standard working well
- 1914-45: Collapse of the Gold Standard
- 1946-70s: Bretton Woods (dollar standard)
- 1970s-present: end of Bretton Woods
- Current exchange rate arrangements  
<http://www.imf.org/external/pubs/ft/ar/2012/eng/pdf/a2.pdf>