

Technical Analysis

Topics to be Discussed

Dow Theory
Barron's Confidence Index
Breadth of the Market
Odd-Lot Index
Charting

Dow Theory

Oldest of the technical theories

Created by Charles H. Dow

- ☛ "There is no way of telling when the top of an advance or the bottom of a decline has been reached until some time after such top or bottom has been made."
 - Major (Primary) uptrend (bull market)
 - Major (Primary) downtrend (bear market)
 - Secondary upward or downward trends
- ☛ Change in direction should be confirmed in some way

Barron's Confidence Index

Based on belief that differential between the returns on quality bonds and bonds of lesser quality will forecast future price movements

- ☛ Calculation

$$\frac{\text{Yield on High Grade}}{\text{Yield on Lesser Grade}}$$

- ☛ Theory
 - during periods of high confidence, investors invest more in lower quality bonds for the added yield
 - increased demand will decrease yield

Breadth of the Market

The more stocks participating in market trend, the greater the indication that decision makers agree on future market prospects

New Highs/Lows for Jan 8, 2007

The following is a matrix of stocks that have made a new high or low price today sub-categorized by exchange, volume and price.

	Over-all	NYSE	AMEX	Nasdaq	OTCBB	Vol > 100K	Vol < 100K	Price > \$10	Price < \$10
20-Day Highs	661	245	71	260	85	357	304	391	270
20-Day Lows	1393	648	160	506	79	852	541	1099	294
65-Day Highs	351	149	35	121	46	211	140	225	126
65-Day Lows	328	114	20	164	30	209	119	223	105
100-Day Highs	321	144	31	112	34	197	124	213	108
100-Day Lows	175	51	14	89	21	106	69	105	70
52-Week Highs	236	110	24	76	26	146	90	162	74
52-Week Lows	80	15	9	42	14	42	38	33	47

NOTE: Over the Counter Bulletin Board (OTCBB) is a regulated electronic trading service offered by the National Association of Securities Dealers (NASD) that shows real-time quotes, last-sale prices and volume information for over-the-counter (OTC) equity securities. Companies listed on this exchange are required to file current financial statements with the SEC or a banking or insurance regulator. There are no listing requirements, such as those found on the Nasdaq and New York Stock Exchange, for a company to start trading on the OTCBB. It is important to note that companies listed on the OTCBB are not a part of the Nasdaq Exchange. The truth is, OTCBB stocks are not especially large or stable and are considered very risky. As a result, very few OTCBB stocks are successful in making the jump from this market to the Nasdaq or any other major exchange because they are unable to meet the listing requirements. Furthermore, because OTCBB stocks tend to trade infrequently, the bid-ask spread is larger.

Source: www2.barchart.com/newhilo.asp

Breadth of the Market (continued)

Trading January 8, 2007

Index	Volume	Last	Change
NYSE Composite	2,754,798k	9,041.12	↑ 16.08 (0.18%)
NASDAQ Composite	1,941,013k	2,438.20	↑ 3.95 (0.16%)

Index	Volume	Last	Change
Dow Jones Industr.	437,771k	12,423.49	↑ 25.48 (0.21%)
Dow Jones Transp.	47,722k	4,624.18	↑ 11.83 (0.26%)
Dow Jones Utilities	41,630k	447.10	↓ 0.55 (0.12%)
NASDAQ 100	736,706k	1,787.14	↑ 1.84 (0.10%)
S&P 100	994,999k	659.15	↑ 1.65 (0.25%)
S&P Mid Cap 400	415,780k	801.01	↑ 0.61 (0.08%)
S&P 500	2,352,909k	1,412.84	↑ 3.13 (0.22%)
S&P Small Cap 600	230,656k	394.51	↑ 0.81 (0.21%)
Russell 1000	2,950,230k	767.88	↑ 1.76 (0.23%)
Russell 2000	889,808k	776.99	↑ 1.12 (0.14%)
Russell 3000	3,840,038k	819.02	↑ 1.82 (0.22%)
AMEX Composite	363,199k	2,008.52	↑ 8.92 (0.44%)

Source: www.marketvolume.com/content/products/mktsum/mktsum.asp

Odd-Lot Index

- ☛ Trading on exchanges done only in standard quantities (round lots)
- ☛ Round lot usually 100 shares
 - other quantities are used sometimes
- ☛ Shares less than round lot referred to as odd lots
- ☛ Odd lot trading is considered to reflect investment decisions of small investors
 - analysts consider odd lot investors to be wrong in the market

NYSE Daily Statistics
Odd Lot Activity

Trade date	1/8/2007
Purchases (shares)	17,900,566
Short sales (shares)	4,455,335
Other sales (shares)	14,011,714
Total sales (shares)	18,467,049

Source: <http://www.nysedata.com/nysedata/default.aspx>

Charting

Observation of past performance of various factors to evaluate short-term trends

- ☛ prices
 - highs/lows/closes
 - volume
 - other information



Head and Shoulders Formation

Charting (continued)

In 1996, Shi Zhang wrote a program based on the description of the head-and-shoulders formation. Zhang's program looked for six points on a bearish head and shoulders pattern -- the right shoulder, the right trough, the head, the left trough, the left shoulder and "neckline" crossing. The time between points had to be at least five days and no longer than 180 days. Various distances were used to make sure that no patterns were missed. After running his computer nonstop for 10 hours, Zhang came up with seven patterns, which he then evaluated for profitability 1, 2, 3, 4, 5, 10, 20, 30 and 60 days out. The results appear below:

Number of days after neckline crossing

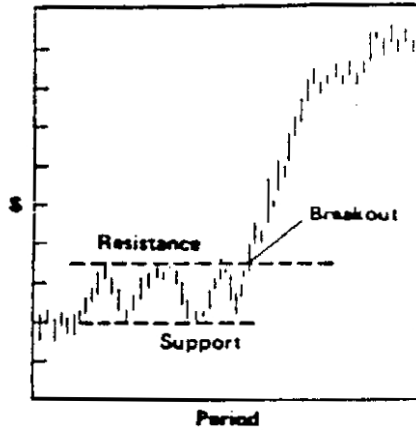
	1	2	3	4	5	10	20	30	60
Average profit/loss	0.3%	1.6%	1.2%	1.1%	1.3%	-0.7%	0.7%	-0.2%	-2.6%
Standard Deviation	0.01	0.03	0.01	0.02	0.02	0.02	0.02	0.04	0.1

We conclude that head-and-shoulders trading does not work either as a signal of a trend change or as a profitable strategy.

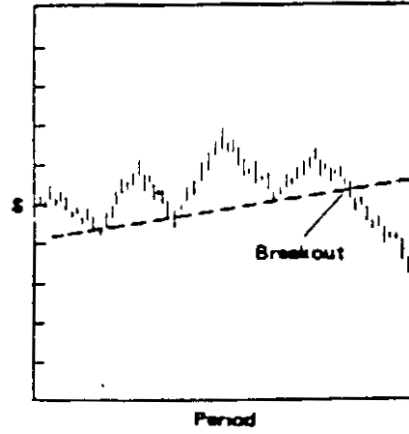
Source: MSN Money with Victor Niederhoffer and Laurel Kenner
<http://moneycentral.msn.com/content/Investing/Powertools/P79688.asp>

Charting (continued)

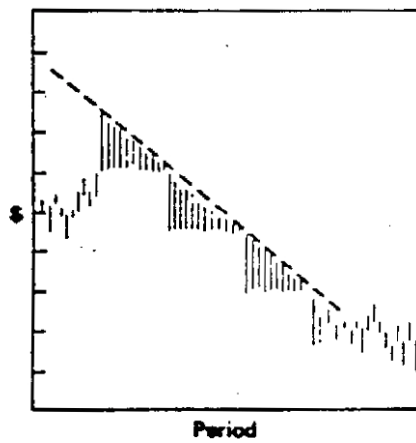
Panel A: Triple Top



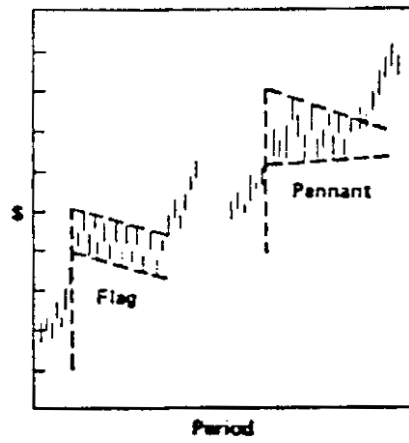
Panel B: Head and Shoulders



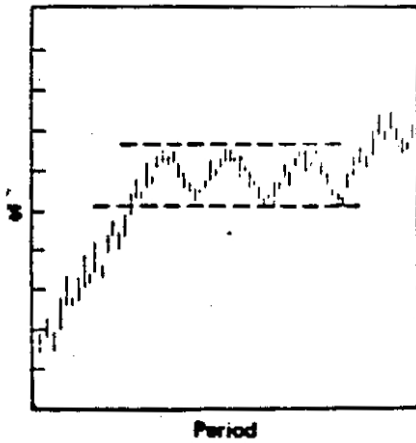
Panel C: Triangles



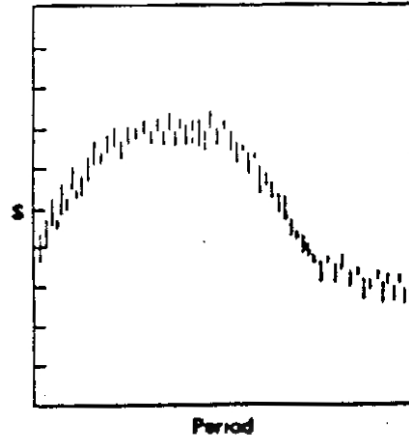
Panel D: Flag and Pennant



Panel E: Consolidation Triangles



Panel F: Inverted Saucer



Some Popular Chart Formations