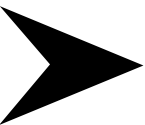


Technical Analysis

- Technical analysis – technical trading rules based on past price movements
- Contrast to EMH
 - past influence has no impact on future performance
- Examination of past market data
 - Prices and the volume of trade
- Which leads to an estimation of future price trends and investment decision
 - Market is its own best predictor

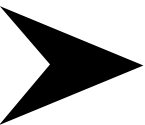
Underlying Assumptions of Technical Analysis

1. The market value of any good or service is determined solely by the interaction of supply and demand
2. Supply and demand are governed by numerous factors, both rational and irrational

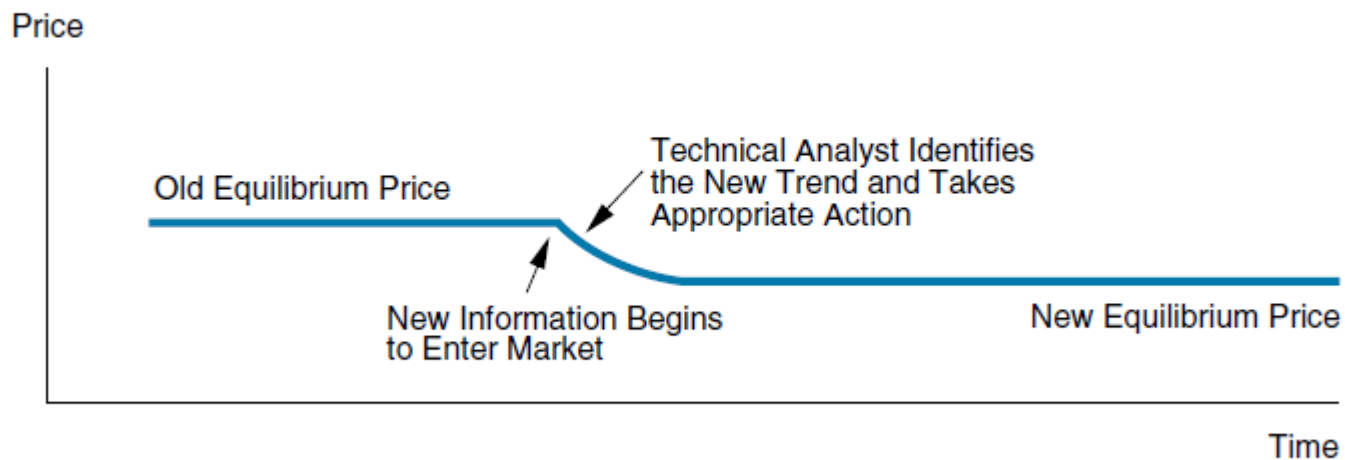


Underlying Assumptions of Technical Analysis

3. Disregarding minor fluctuations, the prices for individual securities and the overall value of the market tend to move in trends, which persist for appreciable lengths of time
4. Prevailing trends change in reaction to shifts in supply and demand relationships and these shifts can be detected in the action of the market

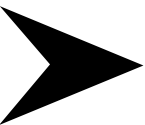


TECHNICAL VIEW OF PRICE ADJUSTMENT TO NEW INFORMATION



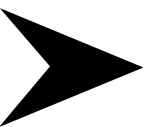
Advantages of Technical Analysis

- Not heavily dependent on financial accounting statements
 - Problems with accounting statements:
 1. Lack information needed by security analysts
 2. GAAP allows firms to select reporting procedures, resulting in difficulty comparing statements from two firms
 3. Non-quantifiable factors do not show up in financial statements



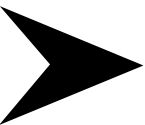
Advantages of Technical Analysis

- Fundamental analyst must process new information and quickly determine a new intrinsic value, but technical analyst merely has to recognize a movement to a new equilibrium
- Technicians trade when a move to a new equilibrium is underway but a fundamental analyst finds undervalued securities that may not adjust their prices as quickly



Challenges to Technical Analysis

- Assumptions of Technical Analysis
 - Empirical tests of Efficient Market Hypothesis (EMH) show that prices do not move in trends
- Technical Trading rules
 - The past may not be repeated
 - Patterns may become self-fulfilling prophecies
 - A successful rule will gain followers and become less successful
 - Rules require a great deal of subjective judgement



- Trends and Correlation
- Uncover trends in market prices
 - Momentum
 - Absolut
 - Upward rising trends
 - Relative
 - One sector over another
 - Dow Theory
 - Grandfather of trend analysis
 - Primary, secondary and tertiary
 - Elliott waves
 - Kondratieff waves
 - Moving averages
 - Breadth

Trends

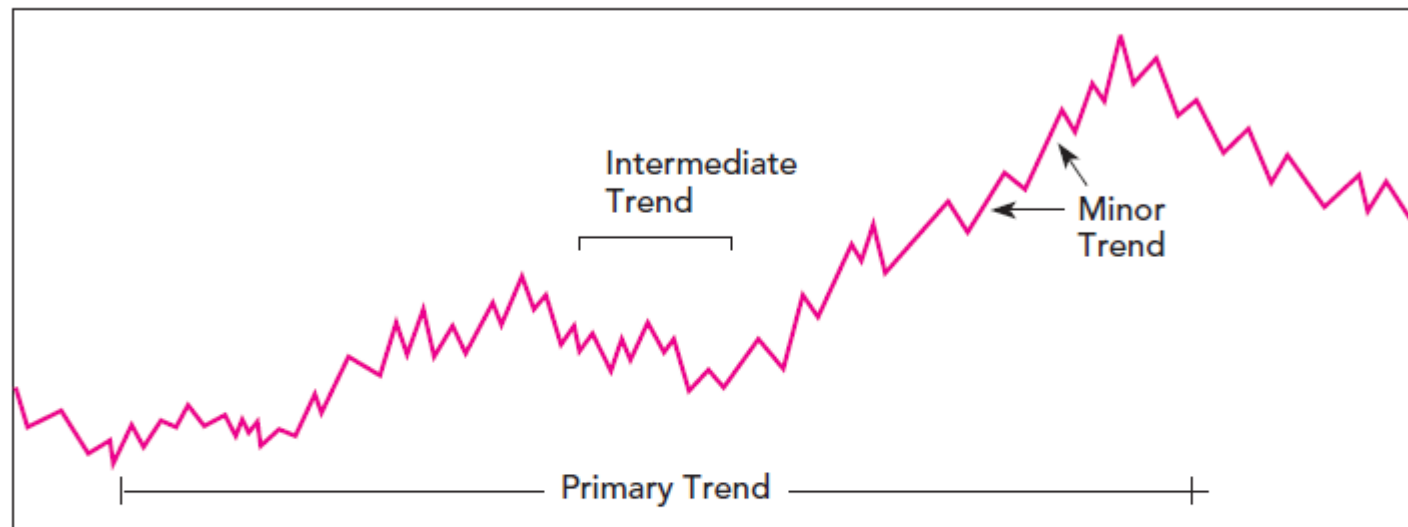


FIGURE 12.3 Dow theory trends

Source: From "Dow Theory" by Melanie Bowman and Thom Hartle, *Technical Analysis of Stocks & Commodities*, Vol. 8, No. 9 (Sept. 1990). Copyright © 1990, Technical Analysis, Inc. Used with permission.

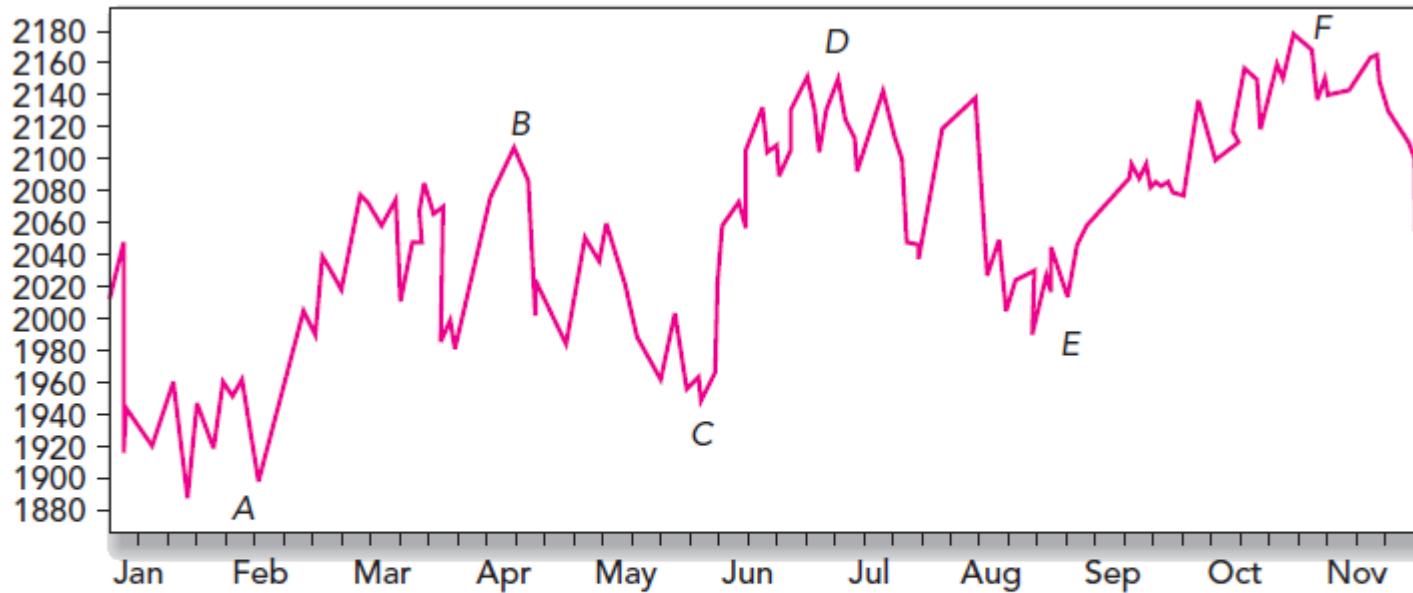


FIGURE 12.4 Dow Jones Industrial Average in 1988

Source: From "Dow Theory" by Melanie Bowman and Thom Hartle, *Technical Analysis of Stocks & Commodities*, Vol. 8, No. 9 (Sept. 1990). Copyright © 1990, Technical Analysis, Inc. Used with permission.

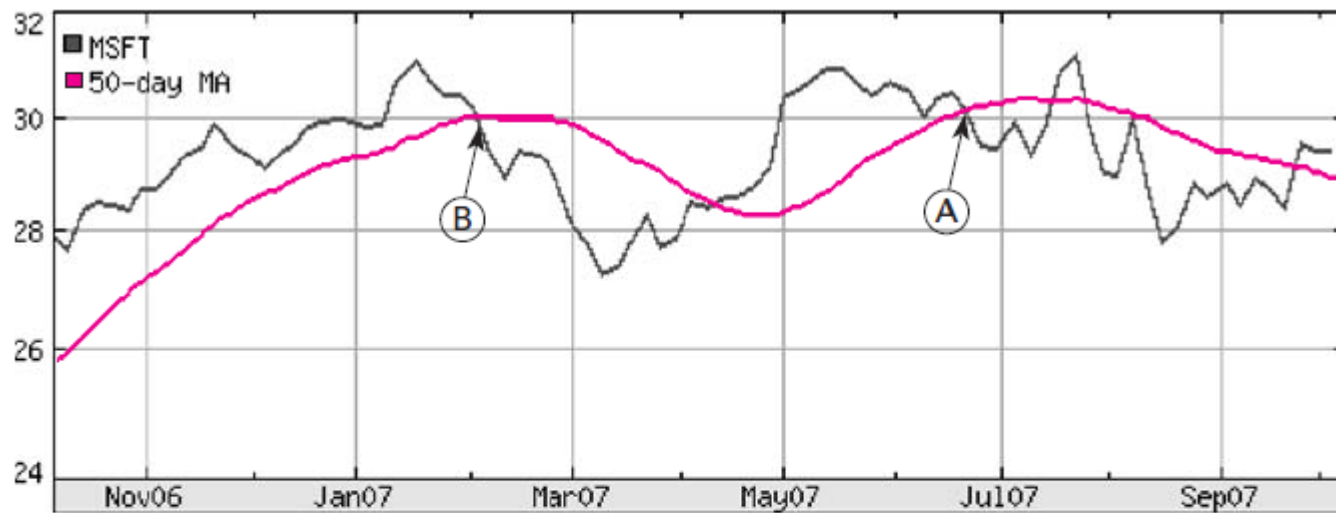


FIGURE 12.5 Moving average for Microsoft

Source: Yahoo! Finance, October 4, 2007 (finance.yahoo.com). Reproduced with permission of Yahoo! Inc. © 2007 by Yahoo! Inc. Yahoo! and the Yahoo! logo are trademarks of Yahoo! Inc.

Week	DJIA	5-Week Moving Average	Week	DJIA	5-Week Moving Average
1	13,290		11	13,590	13,555
2	13,380		12	13,652	13,586
3	13,399		13	13,625	13,598
4	13,379		14	13,657	13,624
5	13,450	13,380	15	13,699	13,645
6	13,513	13,424	16	13,647	13,656
7	13,500	13,448	17	13,610	13,648
8	13,565	13,481	18	13,595	13,642
9	13,524	13,510	19	13,499	13,610
10	13,597	13,540	20	13,466	13,563

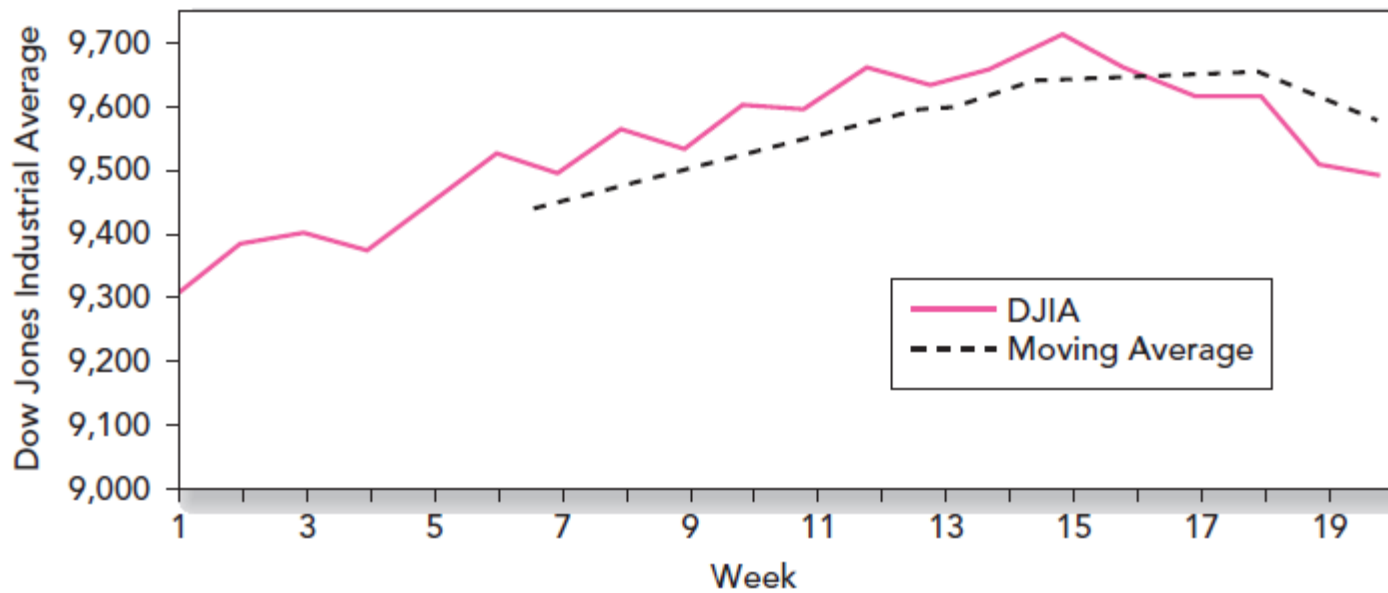


FIGURE 12.6 Moving averages

Trading Diary: Volume, Advancers, Decliners

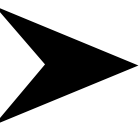
	NYSE	% chg from 65-day avg	Nasdaq	% chg from 65-day avg	AMEX	% chg from 65-day avg
Issues traded	3,412	-0.1	3,086	-1.9	1,254	-1.1
Advances	1,233	-25.2	1,137	-21.5	479	-19.1
Declines	2,068	23.3	1,807	15.0	684	16.5
Unchanged	111	24.1	142	13.3	91	3.1
New highs	85	-18.9	114	47.2	47	9.6
New lows	24	-85.5	35	-68.7	15	-68.8
Adv. volume*	467,560,150	-41.4	685,769,070	-34.6	10,816,500	-41.9
Decl. volume*	766,901,460	-7.6	1,143,477,485	13.4	19,158,379	2.2
Total volume*	1,246,345,660	-24.2	1,857,988,473	-11.1	33,068,379	-15.3
Closing tick	-169	...	-264	...	-64	...
Closing Arms (TRIN)†	0.98	...	1.05	...	1.24	...
Block trades*	p4,457	...	p8,629	...	p421	...

FIGURE 12.7 Market Diary

Source: *The Wall Street Journal*, October 4, 2007. Reprinted by permission of Dow Jones & Company, Inc. via Copyright Clearance Center, Inc. © 2007 Dow Jones & Company, Inc. All Rights Reserved Worldwide.

Technical Trading Rules and Indicators

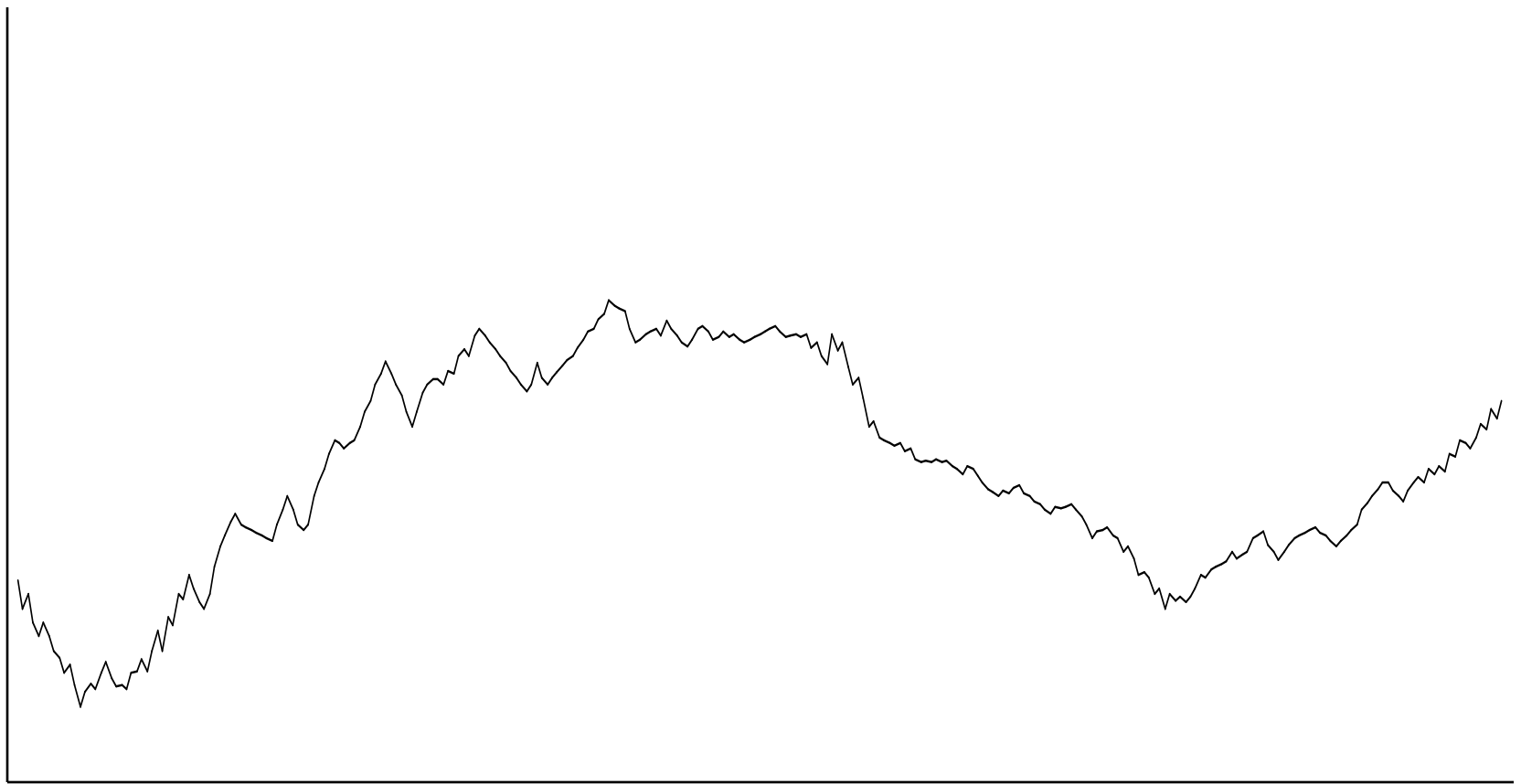
- Stock cycles typically go through a peak and trough
- Analyze the following chart of a typical stock price cycle and we will show a rising trend channel, a flat trend channel, a declining trend channel, and indications of when a technical analyst would want to trade



Typical Stock Market Cycle

Stock
Price

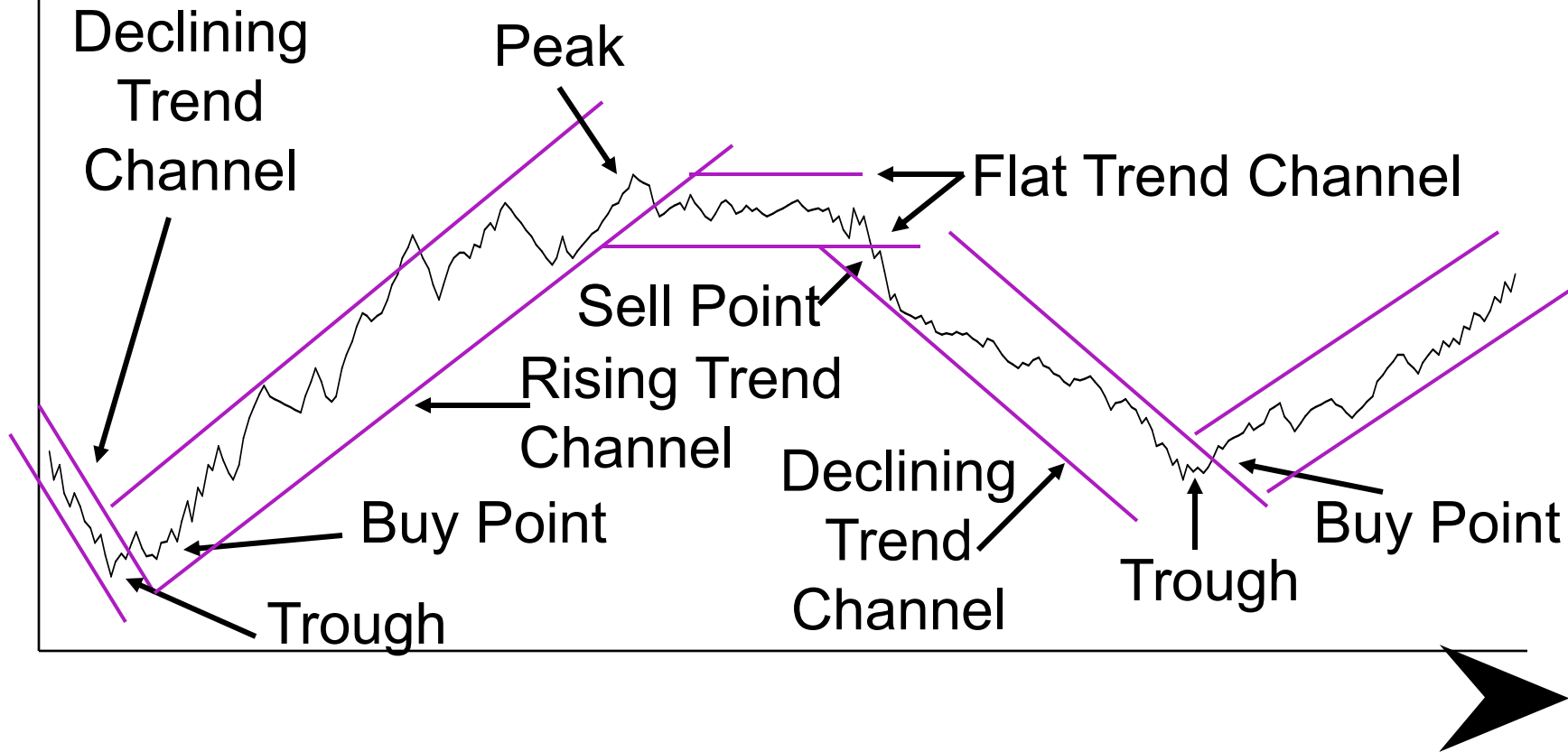
Exhibit 16.2



Typical Stock Market Cycle

Exhibit 16.2

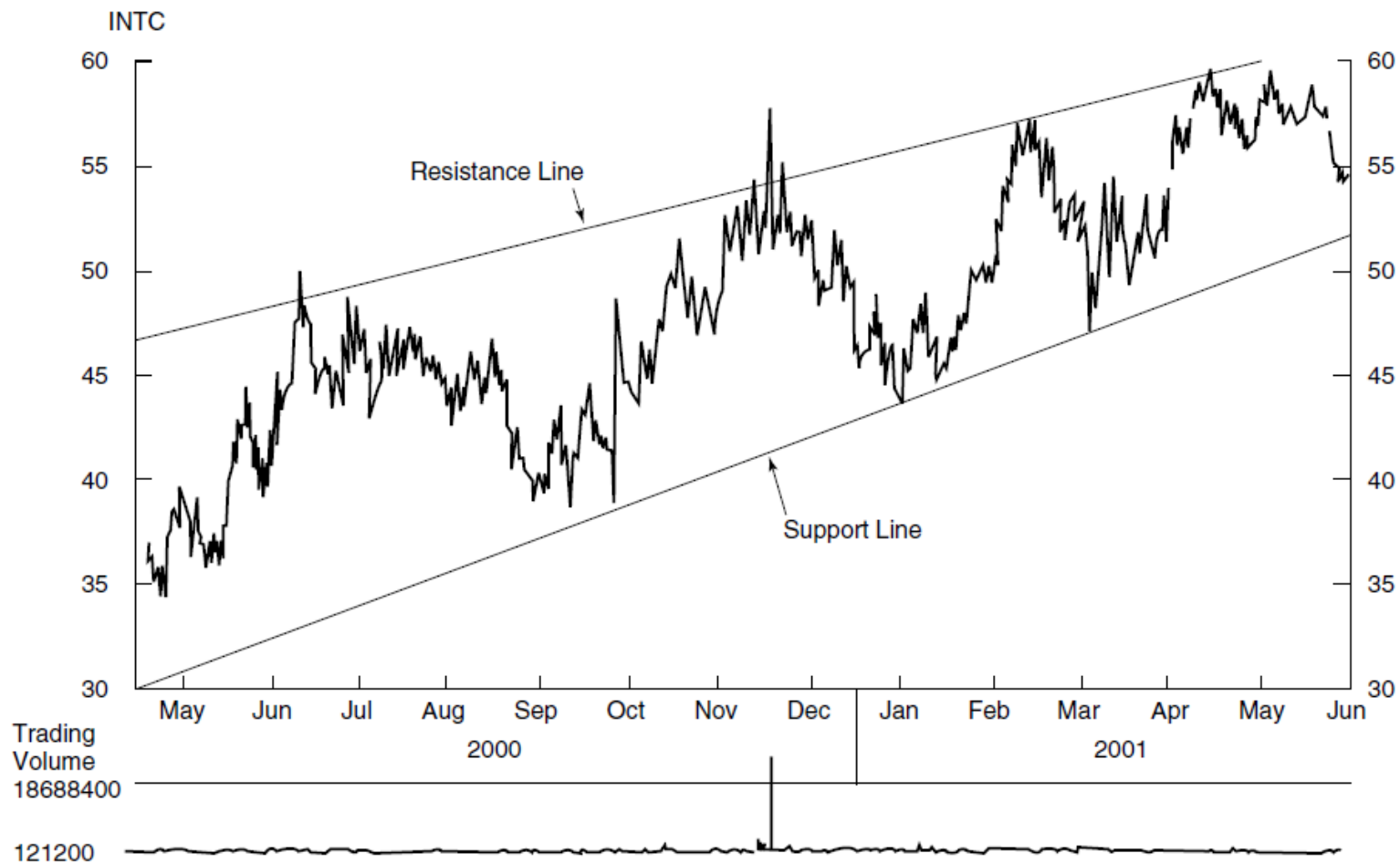
Stock Price



- Support and resistance levels
- Overbought v. oversold

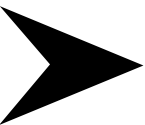
EXHIBIT 16.9

DAILY STOCK PRICES FOR STRYKER CORP. WITH INDICATIONS OF SUPPORT AND RESISTANCE LEVELS



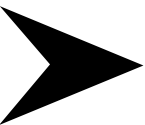
Contrary-Opinion

- Many analysts rely on rules developed from the premise that the majority of investors are wrong as the market approaches peaks and troughs
- Technicians try to determine whether investors are strongly bullish or bearish and then trade in the opposite direction
- These positions have various indicators



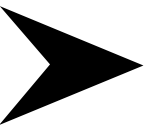
Contrary-Opinion Rules

- Mutual fund cash positions
 - 4 (TA sell, near peak)– 11 %(TA buy, near trough)
- Credit balances in brokerage accounts
 - Purchasing power
- Investment advisory opinions
 - Trend followers
- OTC versus NYSE volume
- Chicago Board Options Exchange (CBOE) put/call ratio
 - 0,4 – 0,6
 - 40:100 - 60:100
- Futures traders bullish on stock index futures
 - 70 % bearish speculators
 - 30 % bullish speculators



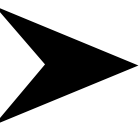
Follow the Smart Money

- Indicators showing behavior of sophisticated investors
- The Barron's Confidence Index
- T-Bill - Eurodollar yield spread
- Debit balances in brokerage accounts (margin debt)



Kinds of charts

- Line chart
- Bar charting
- Candle stick
- Point-and-figure charts
 - Ch. Dow



SAMPLE POINT-AND-FIGURE CHART

