

# Investment Insights, Pattern Recognition, & Market Outlook

## NCKU Alumni Financial Night

Daniel H. Chen, PhD, PE, CFP (in Progress)

[www.cheninvest.com](http://www.cheninvest.com)

[dh\\_chen\\_us@yahoo.com](mailto:dh_chen_us@yahoo.com)

September 8, 2007

# Outline

- Investment Tiers
- Stocks, Bonds, Mutual Funds, and Exchange-Traded Funds
- Asset Allocation: Portfolio Models
- Fundamental Analysis
- Technical Analysis : Market Cycle, Pattern Recognition, and Trading Techniques
- Market Outlook for 2007-2008

# Investment Tiers: Not All Are Created Equal

- **Employer-Matched**
  - Roth 401(k), Tax-Free Growth
  - 401(k), 403(b), Tax-Sheltered
- **Tax-Free Growth**
  - Roth IRA
- **Tax-Sheltered**
  - Traditional IRA
  - SEP IRA
- **Tax-Advantaged**
  - Educational Accounts (529 Plan)
  - UTMA (Minors)
- **After-Tax ETF, Mutual Fund, Stock (Dividend & Long-term Capital Gain)**
- **Tax-Exempt Municipal Bond**
- **Tax-Sheltered Annuity, Variable Life Insurance**

## Asset Types

- Stocks
- Bonds
- Commodities
- Real Estate
- Collectibles

## Investment Products

- Individual Security
- Exchanged-Traded Fund
- Mutual Fund
- Hedge Fund
- Annuity & Life Insurance

## No-load mutual funds

- **No-load** mutual funds do not charge sales fees.
- Stay away from mutual funds that have "Class A", "Class B" or "Class C" in their title.
- Get a no-load fund with a **lower expense ratio**
  - **Index Funds**

- **Class 'I' shares** are designed for institutional investors. Class I shares carry no front-end sales charge or back-end contingent deferred sales charge (CDSC), have a lower annual management fee but with a higher minimum investment amount.

# How to Exchange Mutual Funds?

- **How to avoid violating the excessive trading policy (round trip) or penalty (e.g., 3-month holding period)?**
- **Buy several funds in the same category**
  - S&P 500 Index, domestic Equity & Income, Blue-Chip Growth etc.
- **Exchange only one fund from one category to another at a time**
  - Exchange S&P 500 Index for International Index; then Equity Income for Diversified International; etc.
- **Exchange only when a significant market movement warrants**
  - In 1<sup>st</sup> Q, exchange S&P for energy & natural resources sector funds
  - In the 3<sup>rd</sup> Q, exchange Asia /Latin Am. funds for financial sector funds
- **Monitor your exchange history**

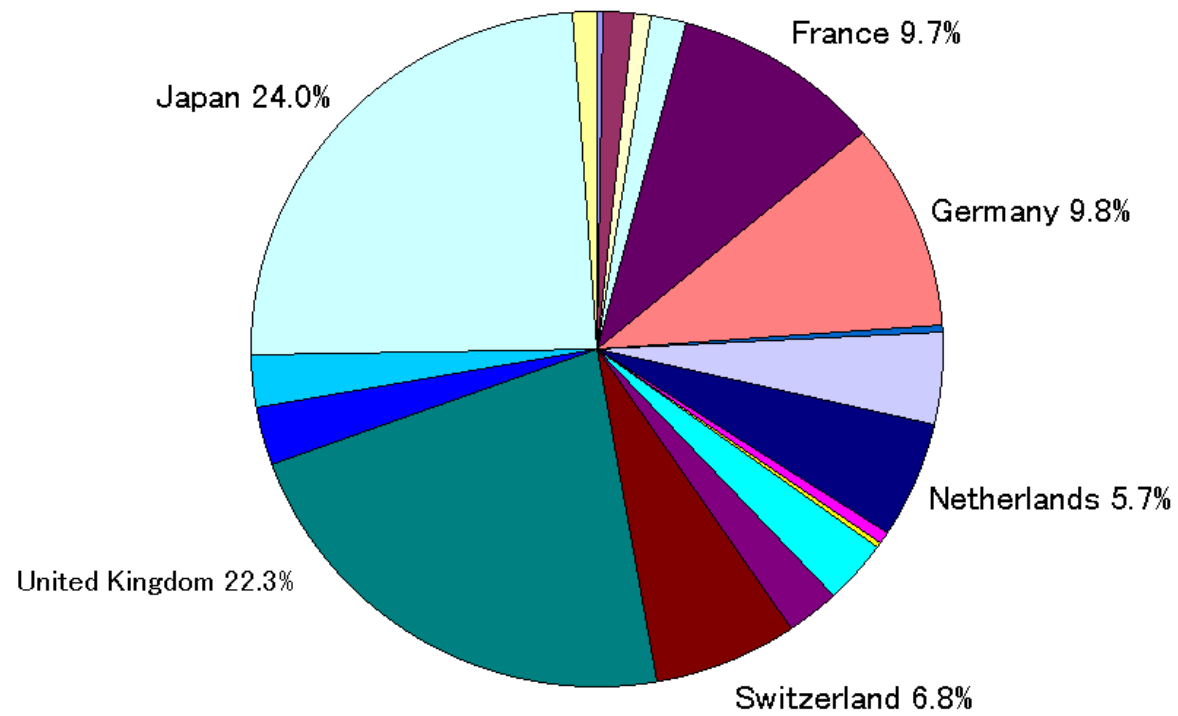
## Exchange-Traded-Funds (ETFs)—A 21<sup>st</sup> Century Product

- They are **less volatile (instant Diversification)** and behave just like mutual funds.
- They are essentially **unmanaged index funds** and sport a **low management fee** compared to mutual funds—Investors like it.
- ETFs are more **tax-efficient** (You can target a time to sell for long-term Capital Gain)
- ETF's are free to be traded on the market at any time just like a stock— **No Penalty**; Traders like it.
- Exchange-Traded-Funds (**ETF's**) typically are indexed to a particular **style, sector, or country**
- Common ETF's include
  - S&P 500 index (**SPY** and IVV), Nasdaq 100 index (QQQQ)
  - S&P Financial Index (XLF), MSCI EAFE (EFA), Emerging Mkt (EEM), FTSE/Xinhua China 25 Index (FXI).**
  - LEH Bond Index (**AGG**)
  - GSCI Commodity (**GSG**)

<http://www.ishares.com/>

# MSCI:EAFE Index

As at 30 June 1999



# Investment is about Risk Control

- **Equity Risk**-- Market Volatility, Recession, Bankruptcy,...
- **Bond Risk**-- Interest Risk (Interest ↑, Income ↑, Principal ↓),  
Credit Risk (High Yield → Bankruptcy ?)
- **Real Estate Risk**—Illiquidity
- **Cash (e.g., Pension) Risk**—Inflation

## Portfolio Theory: Diversification

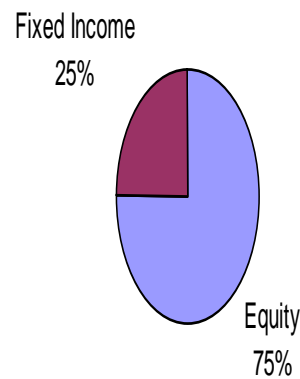
- **Asset Diversification**
  - Use ETFs & Mutual Funds as the core
  - Over-Weight favorable Sectors/Regions/Asset classes
- **Time Diversification** or Dollar-Cost-Averaging
  - when investing or withdrawing large sums of money, do so gradually over time rather than all at once.

# Asset Allocation: Portfolio Models

- **Age Model:  $120-60=60\%$  Equity; 40% Bond (for a 60 yrs-old Alumni)**
- **5 Yr Safety Stock Plan: 75% Equity; 25% Bond in Retirement**
- **Economic Cycle Model for 2007-08:**
  - **Equity ~ Chances of Expansion (66%)**
  - **Bond ~ Chances of Contraction (34%)**
- **Interest Rate Cycle Model:**
  - **Equity 100% during rate increase (2004-2007; Bonds lose principal)**
  - **Bond 100% during rate decrease (2001-2003; Bonds gain)**

## 5-Year Safety Plan for Retirement

No Bear Mkt lasted more than 5 yrs  
in the past 80 yrs



**Asset Allocation in Retirement:**  
**5 Yr Safety Stock Plan**  
Preserve Principal  
**Protect against Inflation**

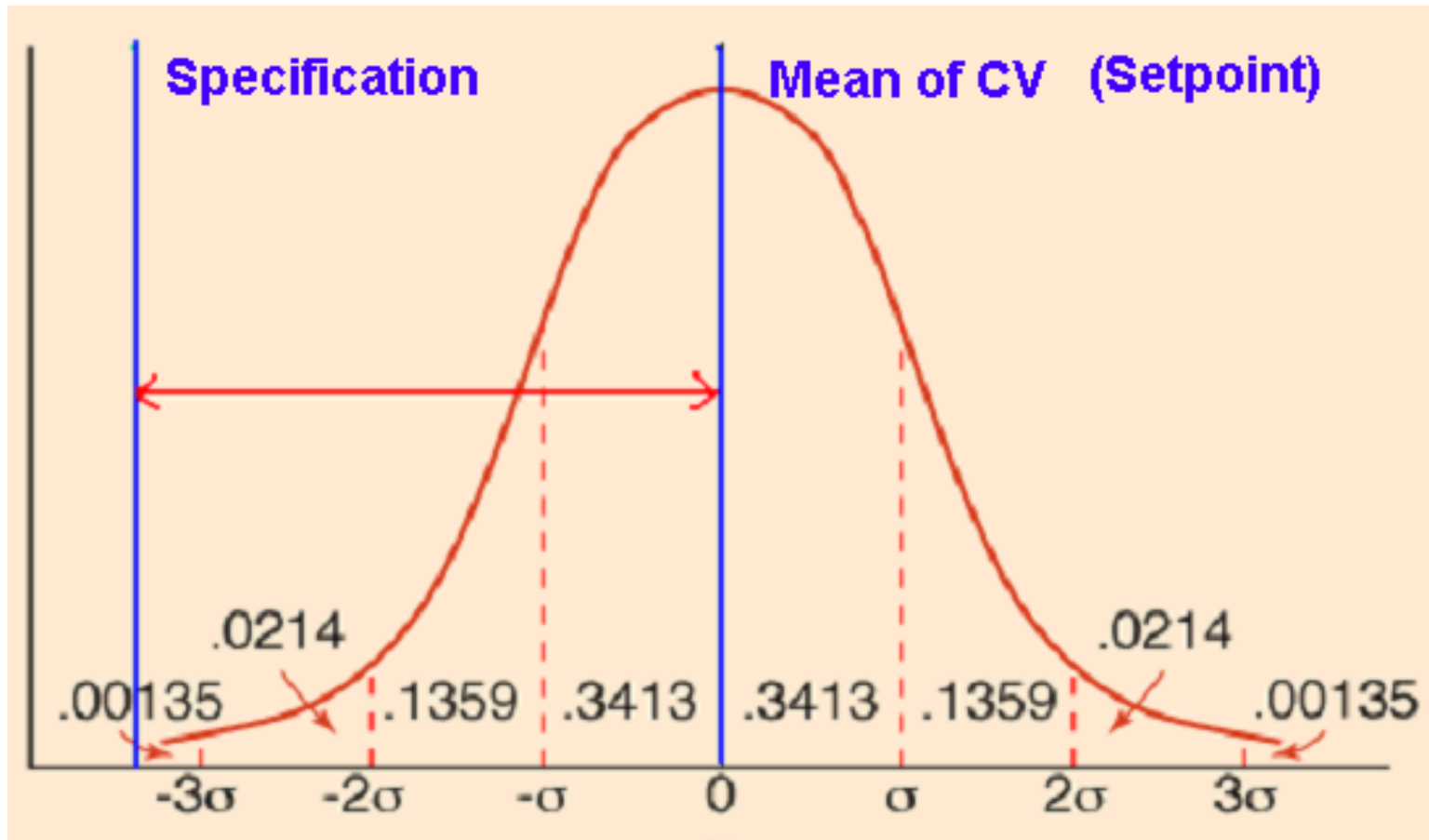
Source: Financial Planning for Retirement Needs, American College, 2006

**A robust portfolio can win whether the markets go up or down**

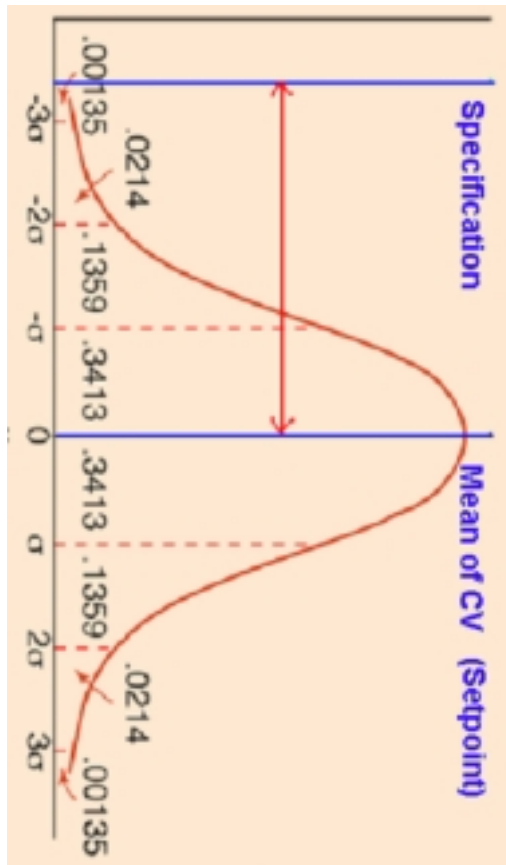
# Fundamental vs. Technical Analysis

- **Fundamentals**
  - P/E, P/CF, P/B, P/S, Dividend Yield, Earning Growth, Sale Growth, Cash Flow Growth
  - **Credit Rating ([www.moodys.com](http://www.moodys.com)), Published Fair Value ([www.morningstar.com](http://www.morningstar.com)), Insider Transactions ([finance.yahoo.com](http://finance.yahoo.com))**
  - **Economic Cycle, Interest rate cycle, Industry cycle, Company cycle**
- **Technical**
  - **Overbought, Oversold, Moving Average, Trend Line, Cycle Bottom, Cycle Top, Momentum, Market Force, etc.**

# Normal Distribution: The Bell-Shaped Curve



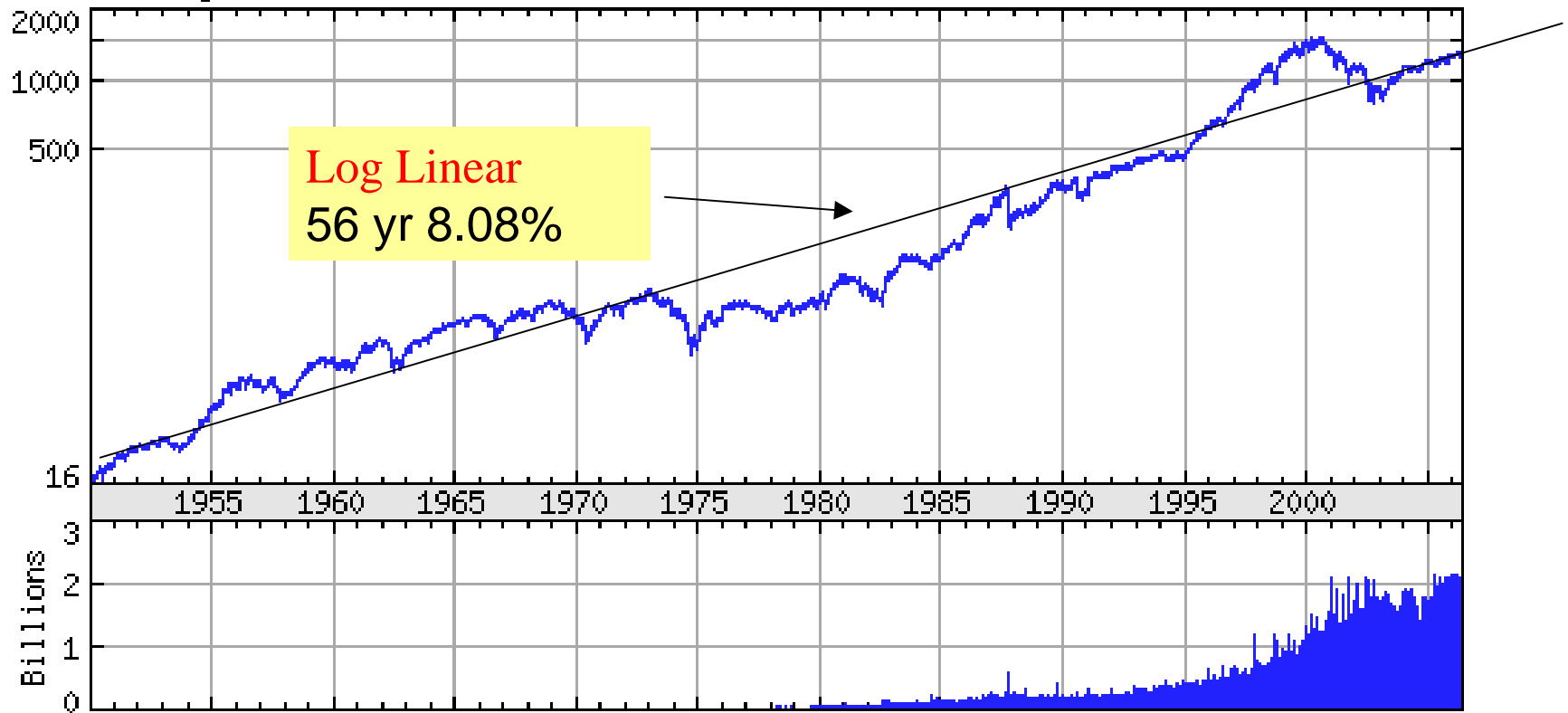
# Reversion to the mean



- Reversion to the mean
  - What goes down, eventually comes back up.
  - Exception: Bankruptcy
- If a stock has already taken a lot of beating, then it could be a good buy (**Oversold**).
  - Be aware of the momentum of a falling stock.

# Market Cycles & Long-Term Trend

S&P 500 INDEX (STANDARD & POOR)  
as of 19-May-2006



Copyright 2006 Yahoo! Inc.

<http://finance.yahoo.com/>

# Market Cycles

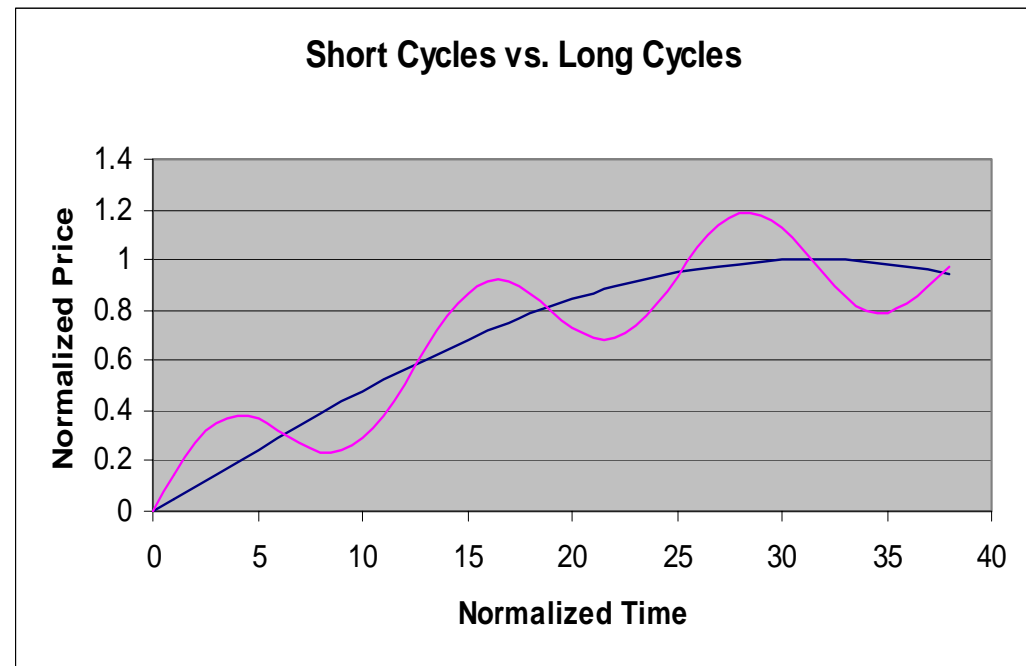
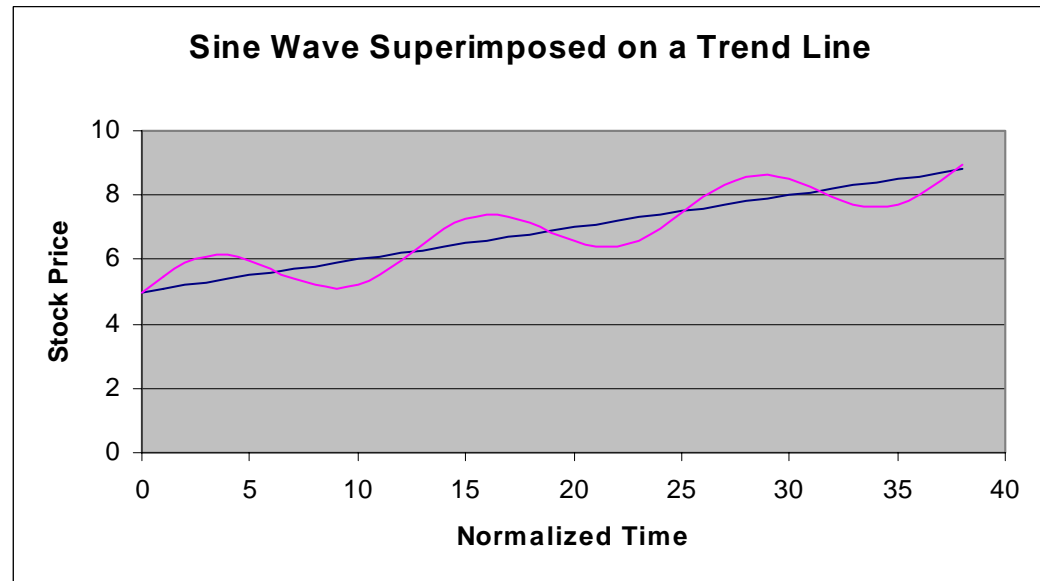
## Long-term cycles

- Economic Cycle
- Industry Cycle
- Company Cycle
- Style Cycle

## Short-term cycles

- Overbought/Oversold Cycle
- **Seasonal Cycle**

09/08/07

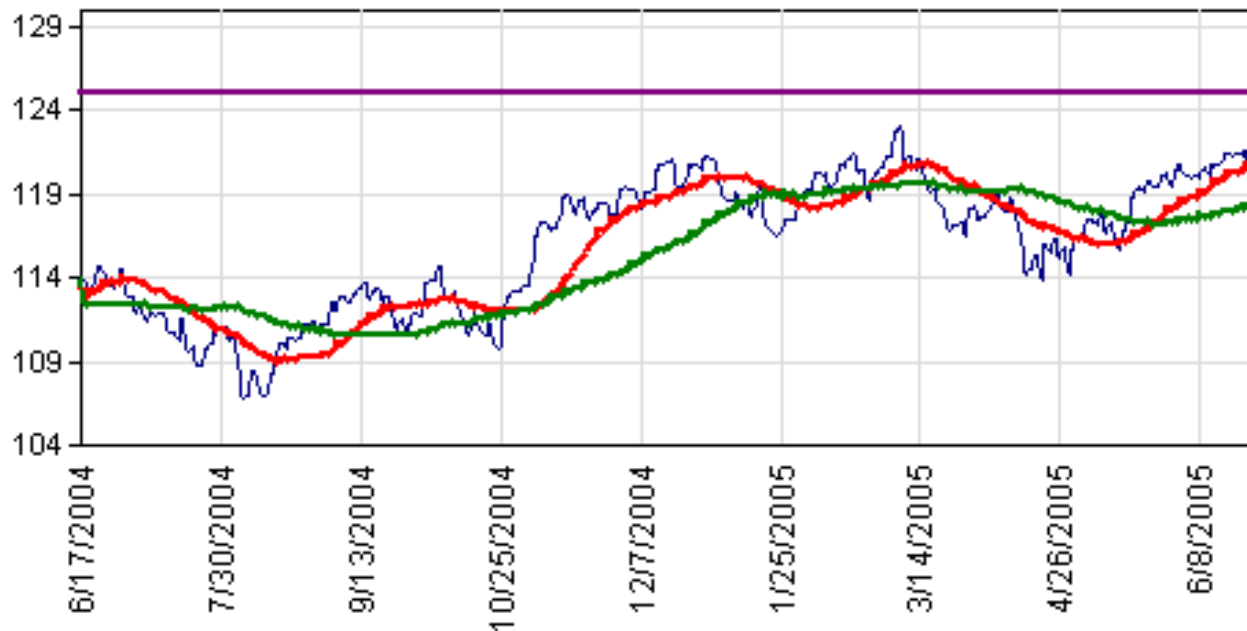


# Simple Moving Average (MA)

- Simple moving averages (MA) filter is a **low-pass filter**.
- A 50-day MA is the average of the stock prices of the past 50 trading days.

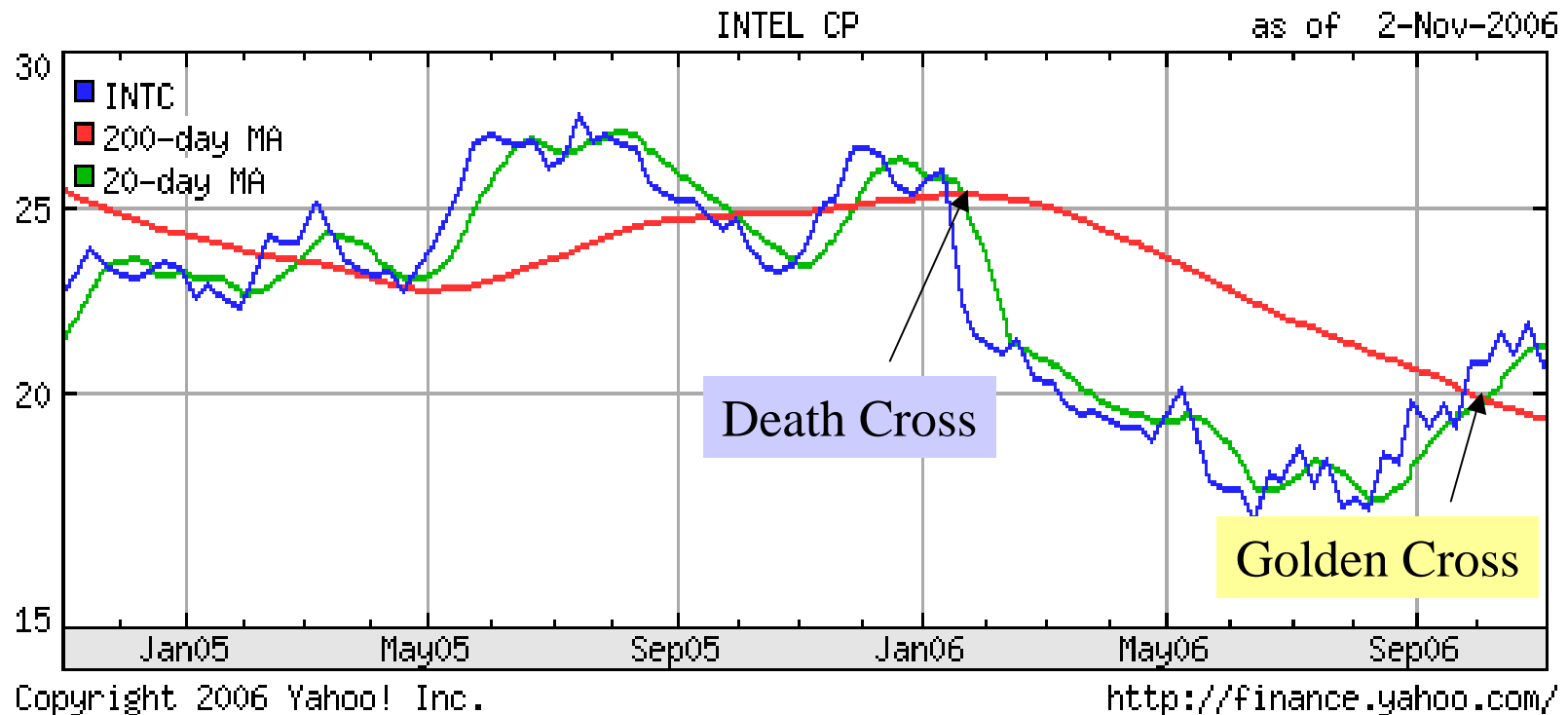
–  $MA_t = \Sigma y_t / 50$

[finance.yahoo.com](http://finance.yahoo.com)



**Red line is the 50 DMA; Green Line is the 200 DMA**

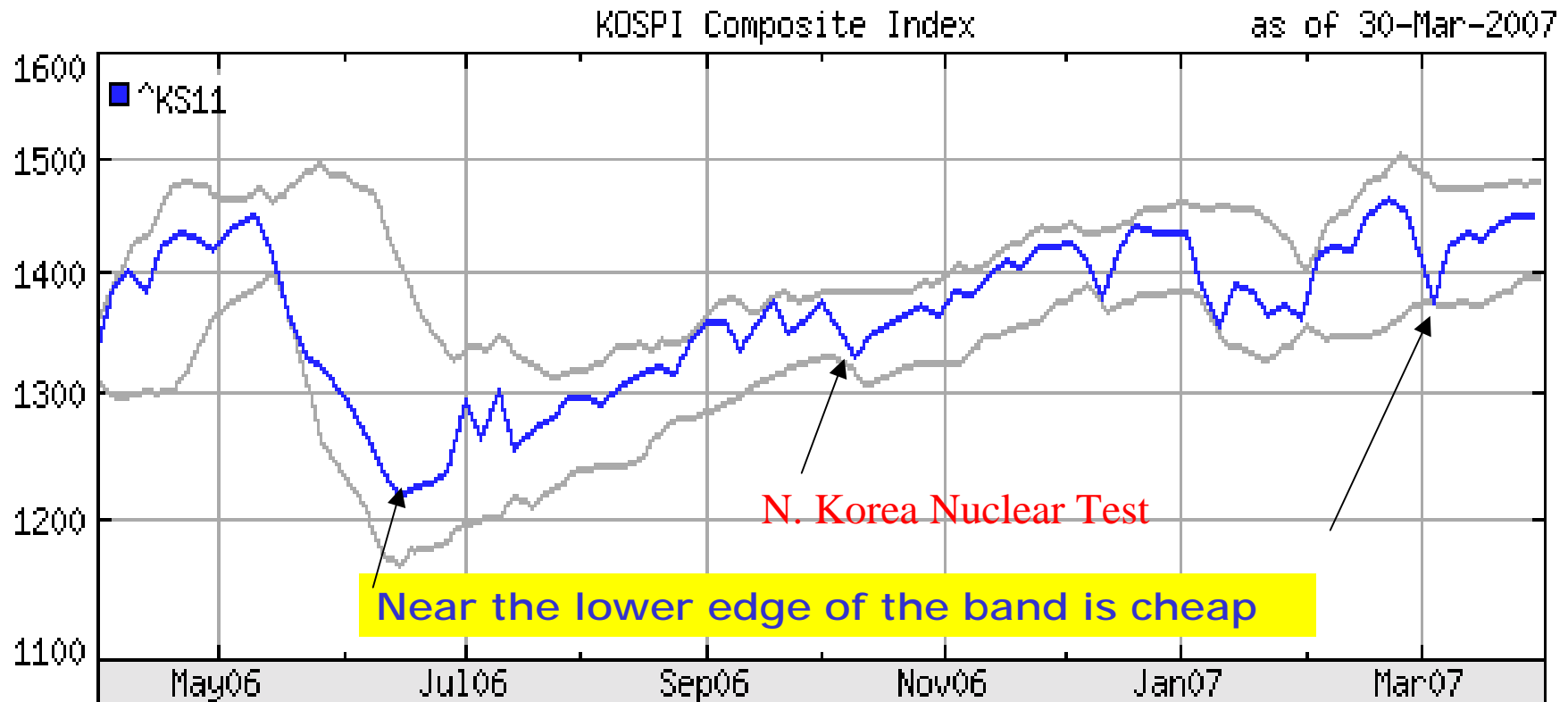
Golden Cross: A crossover involving a security's short-term moving average (such as 20-day moving average) breaking above its long-term moving average (such as 200-day moving average) or resistance level.



Death Cross: A crossover resulting from a security's short-term moving average breaking below its long-term moving average or support level.

# Bollinger Bands: KOSPI Composite Index

## Yahoo Finance/Technical Analysis/Bollinger Bands



Copyright 2007 Yahoo! Inc.

<http://finance.yahoo.com/>

Middle Bollinger Band = 20-period simple moving average (Not Shown)

Upper Bollinger Band = Middle Bollinger Band + 2 \* 20-period standard deviation

Lower Bollinger Band = Middle Bollinger Band - 2 \* 20-period standard deviation

# Trading Technique: When to Buy

Market Psychology:  
The School of Fish Theory

- Buy at the second bottom
  - The 2<sup>nd</sup> bottom confirms the first
  - An indication that a bottom plateau has formed & the stock is ready to break out



FRONTLINE LTD  
as of 18-Aug-2006



# Trading Techniques: Limit Buy & Limit Sell

- **Limit Buy Order**

- Alternative to a Market Buy
- **Bid** for a price lower than the Market
- **Buy at the limit price or better**
- Bid a price that is a **previous low (support level)**
- Good until Cancel (or 3 mo.)

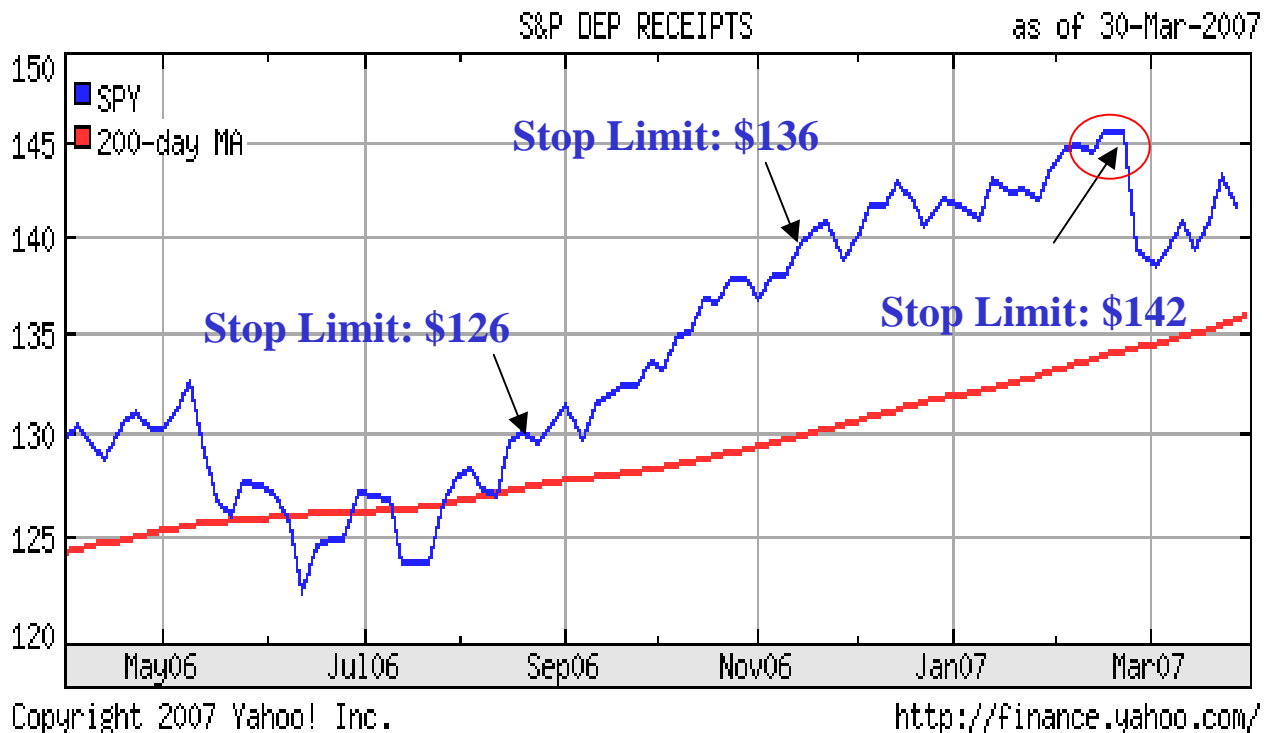
Use **dealer's bid price, today's low, previous low, or 52-wk low** for a limit buy price

Instead of manually monitoring the market, let computers execute the automatic trade for you,

- **Limit Sell Order**

- Alternative to Market Sell
- **Sell at the limit price or better**
- Ask for a price higher than the Market or
- Ask a price that is a **previous high (resistance level)**
- Good until Cancel (or 3 mo.)

# Conditional Orders: Trailing Stop-Limit Sell



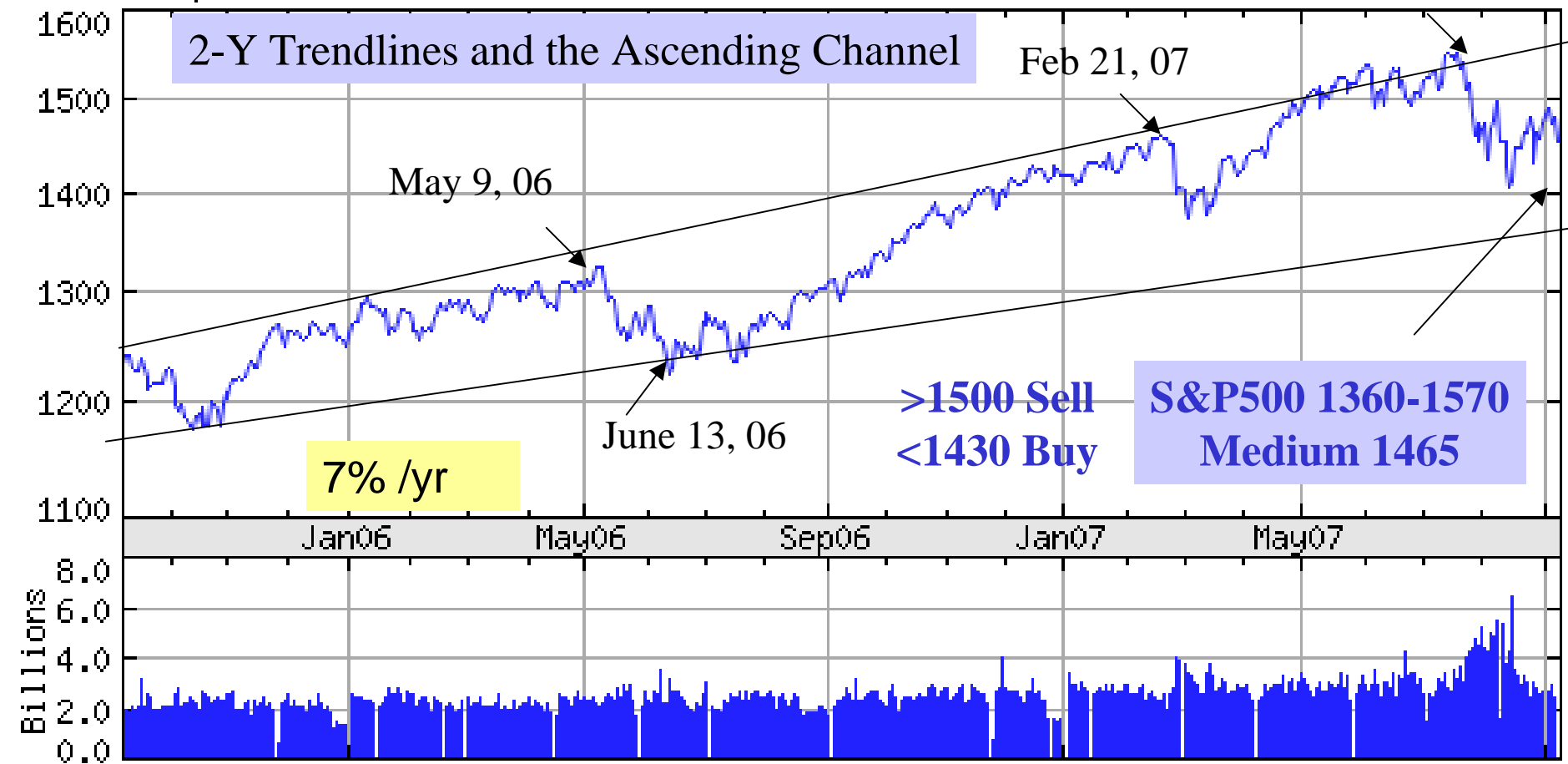
- **How to lock-in profits without selling prematurely?**
  - **Set a stop-limit sell at e.g. 3- 5% below the Mkt price**
  - **Ride with the upward momentum but not be interfered by daily fluctuations**
  - **Protect your gain when the market drops**
  - **The sell becomes a limit sell when the stop price is reached**

**Stop limit sell is an insurance you must have to protect gains**

# Market Outlook: Trendlines & Ascending Channel (S&P 500 Index)

S&P 500 INDEX (STANDARD & POOR)  
as of 7-Sep-2007

July 17, 07



Copyright 2007 Yahoo! Inc.

<http://finance.yahoo.com/>

# Fidelity Emerging Market Fund (FEMKX)

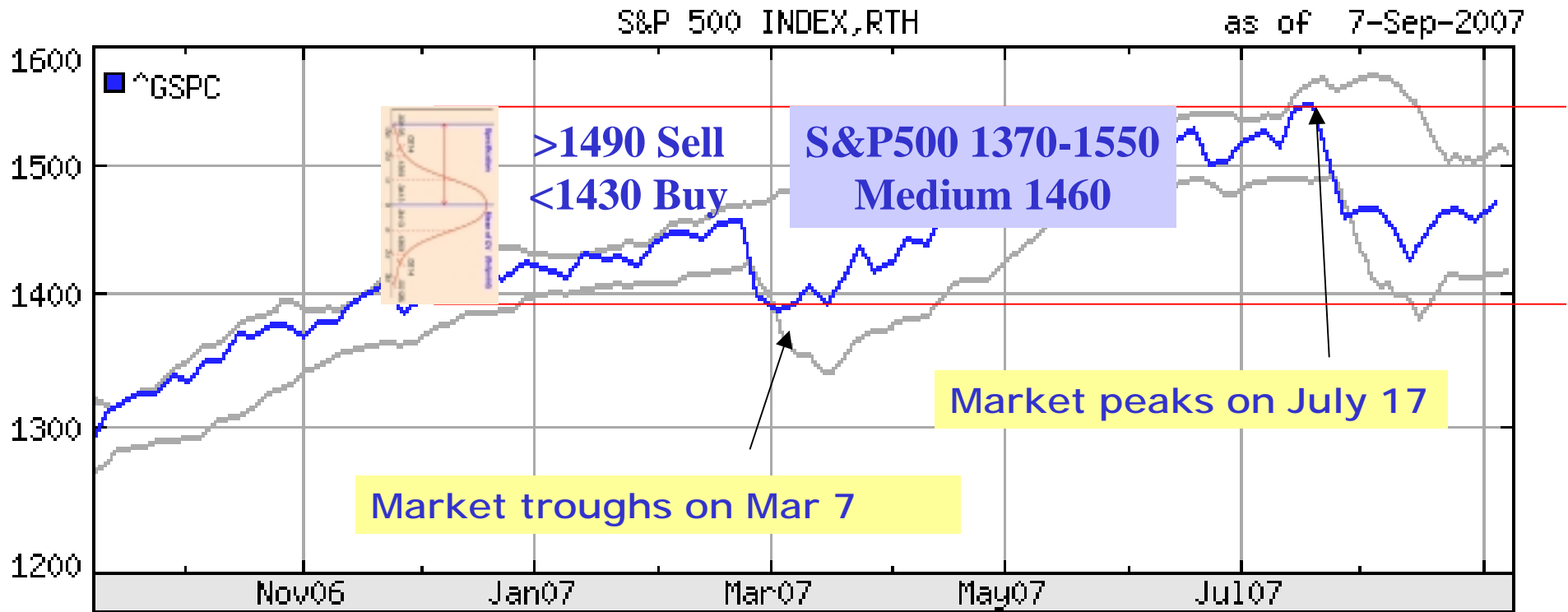
FIDELITY EMERGING MARKETS FUND  
as of 31-Aug-2007



Copyright 2007 Yahoo! Inc.

<http://finance.yahoo.com/>

# Market Outlook: S&P 500 Index



Copyright 2007 Yahoo! Inc.

<http://finance.yahoo.com/>

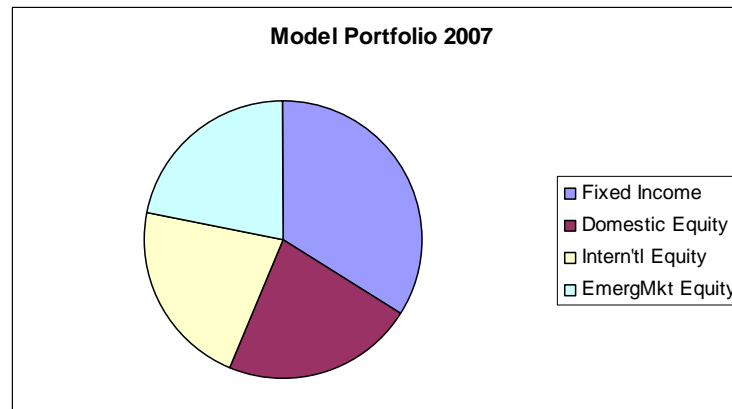
Middle Bollinger Band = 20-period simple moving average (20 DMA)

Upper Bollinger Band = Middle Bollinger Band + 2 \* 20-period standard deviation

Lower Bollinger Band = Middle Bollinger Band - 2 \* 20-period standard deviation

# Market Outlook 2007-08

Disclaimer



S&P Earning growth rate ~ 4% compared to >10% for the past 14Q

- **Domestic stocks (22%) & Developed International (MSCI EAFE) stocks (22%)**
  - **Financial** (~9% growth, XLF, IXG)
  - **Construction & Housing** (ITB)
  - **Natural Resources sector** ( XLE, IXC, only at Dips)
- **Emerging Markets, e.g., Asia ex. Japan funds ; 22% of Portfolio (FXI, EEM, EWY)**

# Market Outlook 2007-08

- **Bond will stabilize (34% of Portfolio; ~ 1/3 chances of Recession).**

Disclaimer

- **Bond Picks**

- Multi-sector bond funds (FidStrInc FSICX, PrSpctInc RPSIX)
- US bond Index fund (FidUSBindx FBIDX)
- Mortgage-backed funds (FidGmna FGMNX)
- Emerging Market Bond Funds (FidNMkt FNMIX, PrEmMkt PREMIX)
- Money Market funds

- **Recession in 2007-08?**

**Subprime Mortgage Fallout (Mkt Volatility & Tightening Credit)**

**Greenspan: 1/3 chances of a recession in 07**

**Anticipated Interest Rate Cuts**

**Mkt should come back in 4<sup>th</sup> Q 07 & 1<sup>st</sup> Q 08.**

**For 2007 & 08, the S&P rise could be in the mid-high single digits (A little better than Bonds?).**



*Be a Millionaire*