

# A Complete Guide to Moving Average Studies

**John Person**

*Sponsored by Daniels Trading*

**Live Presentation Starts at 3:30 PM Chicago Time**

DISCLAIMER: Futures and options trading are speculative and involve risk of loss. The information in this seminar is taken from sources believed to be reliable. It is intended for information and education only and is not guaranteed by the CBOT as to accuracy, completeness, nor any trading result. It is not intended as investment advice, nor does CBOT endorse or support any product or service represented in the presentation. The views and opinions offered by individuals or their associated firms in interactive seminars are solely those of the authors, and do not necessarily represent the views of the Chicago Board of Trade. The Rules & Regulations of the CBOT remain the authoritative source on all current contract specifications & regulations. "Dow Jones," "The Dow," "Dow Jones Industrial Average," and "DJIA" are service marks of Dow Jones & Company, Inc. and have been licensed for use for certain purposes by the Board of Trade of the City of Chicago (CBOT). The CBOT's futures and futures-options contracts based on the Dow Jones Industrial Average are not sponsored, endorsed, sold, or promoted by Dow Jones, and Dow Jones makes no representation regarding the advisability of trading in such products. Information provided is taken from sources believed to be reliable but is not guaranteed as to its accuracy or completeness. The Rules and Regulations of the Chicago Board of Trade should be consulted as the authoritative source for information, rules, and contract specifications.

# A Complete Guide to Moving Average Studies

Presented By:

John L. Person

Sponsored by:

Daniels Trading



# A Complete Guide to Moving Average Studies

- Copyright @ 1999-2007 by John L Person III, Palm Beach, FL. The opinions presented, are for informational purpose only. By law I must submit this disclaimer: There is no warranty of profits as a result of using these or any methods. Past performance is not indicative of future results. The use of "stop loss" or "stop limit" orders will not necessarily limit your losses to the intended amounts, since market conditions may make it impossible to execute such orders. Any decision to purchase or sell as a result of the opinions expressed in this report will be the full responsibility of the person authorizing such transaction.
- It is unlawful to reproduce, distribute or exhibit this material to anyone other than the individual assigned.
- You cannot reproduce this material without express written consent of the author, John L. Person.

# A Complete Guide to Moving Average Studies

- I will cover the various types of moving averages, and will explain which ones are better for day traders, scalpers or longer term position traders.
- We will go over the logic behind various time settings that are associated with calendar dates and Fibonacci number series.
- We will cover how and when to use various conditional settings beyond the typical close period used exclusively by many traders.
- We will also go over the pros and cons of several popular moving average settings and reveal which parameters work best to improve trading performance.

# Presentation Outline

- What is a moving average.
- How many types of moving averages are there to use.
- How to calculate a moving average.
- Which Inputs to average.
- Time dimensions for moving averages.
- Cross over signals.
- Moving average channels.
- Filters on moving average signals.
- Use of Fibonacci as moving average settings.
- Use of Pivot Points as a moving average system.



# What is a Moving Average

- Simply put Moving Averages are a math calculation that averages out a series of numeric values.
- A moving average series can be calculated for any time series. In finance it is most often applied to stock and derivative prices, percentage returns, yields and trading volumes.

# Moving Averages are Lagging Indicators

- Lagging Indicators help's traders determine that the trend is in tact and confirms the momentum of the market. This is considered a trend following technical approach, thus the term lagging is used. This category includes:
  - Moving Averages
  - MACD

# Types of Moving Averages

- Simple= Popular & easy to calculate

- Weighted =

- Exponential =



# How to Calculate a SMA

1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

13600, 13620, 13615, 13580, 13565, 13600, 13610, 13650, 13660, 13650,

$$\text{Sum} = 136150 \div 10 = 13610$$

# Weighted Moving Average

- A weighted average is any average that has multiplying factors to give different weights to different data points.
- But in technical analysis a weighted moving average (WMA) has the specific meaning of weights which decrease arithmetically.
- Weighted M/A's give a greater weight to more recent price data.
- Complicated and needs aid of a computer.
- In an  $n$ -day WMA the latest day has weight  $n$ , the second latest  $n-1$ , etc, down to zero.

# Exponential Moving Average

- Exponential moving averages (also called exponentially weighted moving averages). applies weighting factors which decrease exponentially.
- EMA's reduce the lag by applying more weight to recent prices relative to older prices.
- The shorter the EMA's period, the more weight that will be applied to the most recent price.
- $EMA = (Price (current) - EMA (previous) ) \times Multiplier + EMA (previous)$

# Moving Average Pros & Cons

## ■ Pros

- Defines average price changes over time and smoothes out trading noise.
- Excellent trend trading tool.
- Used to identify, triggers, entries, support/resistance.
- Can be used in trading systems & back-tested.

## ■ Cons

- M/A's lag behind markets price changes.
- Not effective in choppy markets.
- Not effective in discovering price extensions.
- Can't predict turning points like Fibonacci or Pivot analysis only changes in trends.

# Input Choices to Average.

- **Highs**
- **Lows**
- **Close**
- **Opens**
  
- **Average of range (High-Low)**
- **Average of typical price (HLC/3)**
- **Volume**
- **Volatility measurements (VXN, VIX VXO)**

# Moving Averages Identify Trends

- There are several ways to identify the direction of the trend with moving averages, direction, **location of price to M/A** and the **crossovers points of interest**.
- Simple rule of thumb:

If the moving average is rising, and prices are above the M/A, the trend is considered up.

If the moving average is declining, and prices are below the M/A, the trend is considered down.

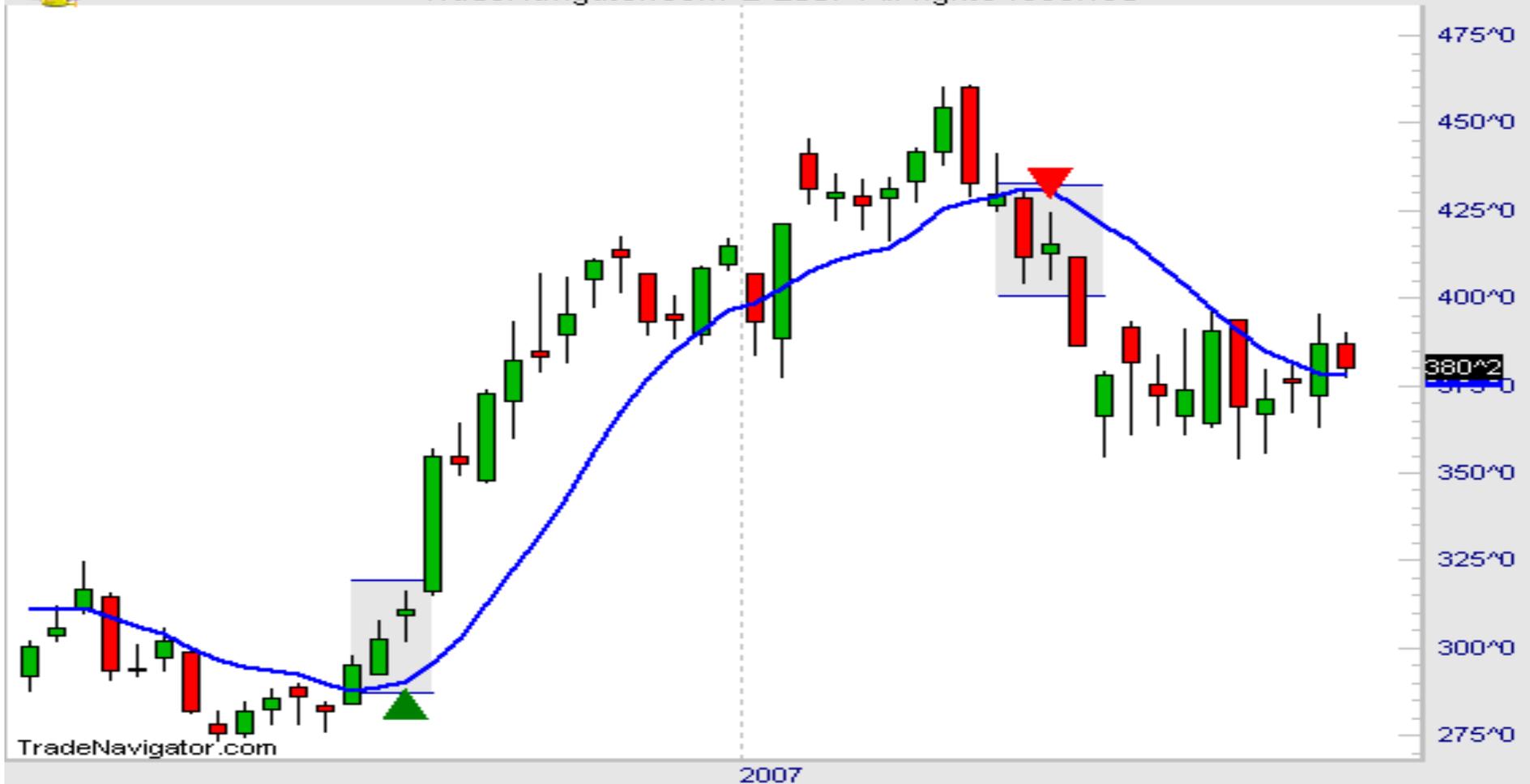
# Trading Filters & Signals

- An additional filter to trigger a signal on a price change would be if the **close** is above or below the moving average.
- Another method is if the **entire range** of the price components (O,H,L,C) are trading above or below the moving average.
- Another filter is if those factors are for **more** than one session.

# Trading Filters & Signals



C-067: Corn CBT (Pit) Cadj Liq (Weekly bars)  
TradeNavigator.com © 2007 All rights reserved

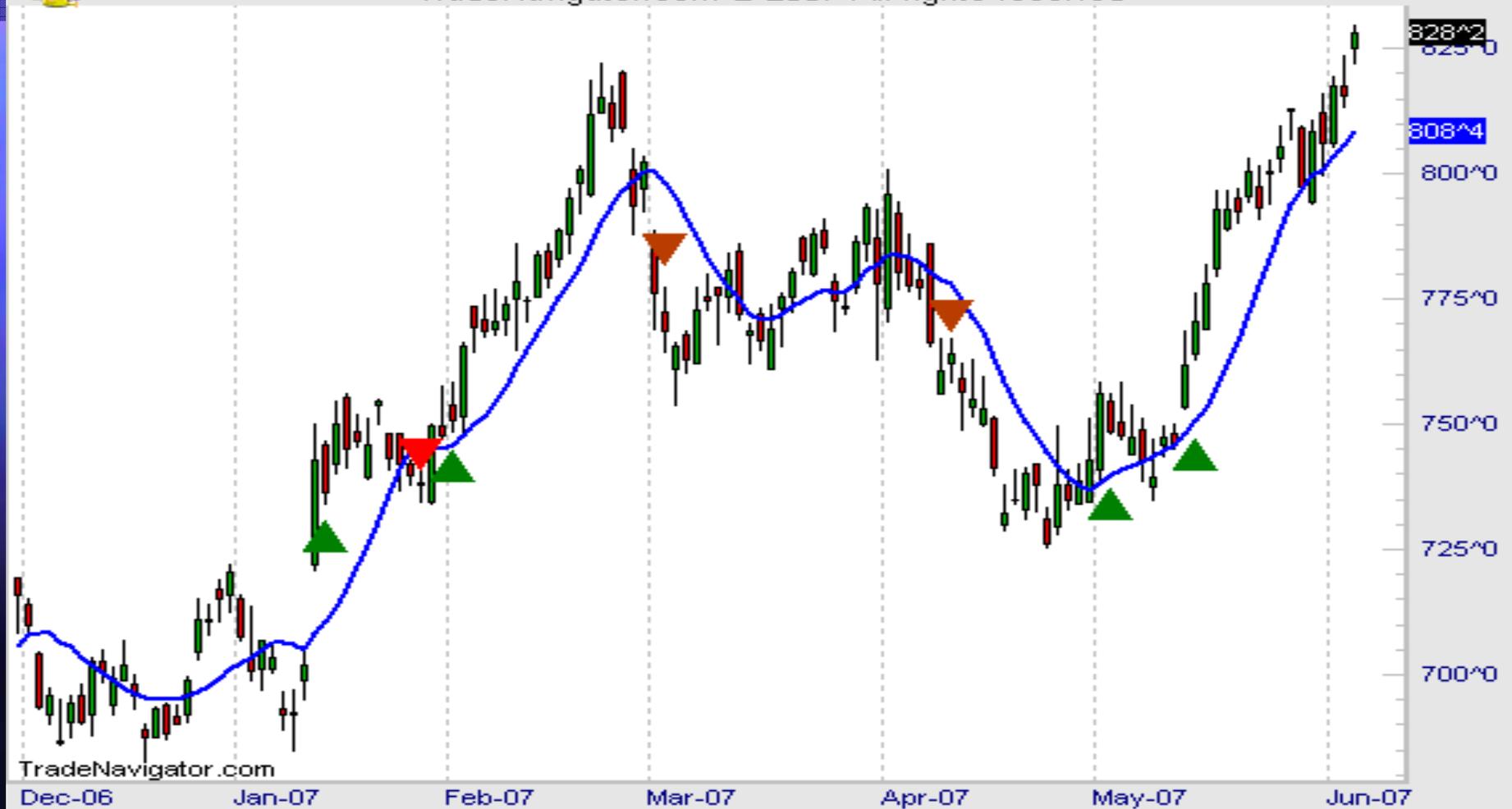


# Trading Filters & Signals



S-200707: Soybeans CBT (Pit) Jul 2007 (Daily bars)

TradeNavigator.com © 2007 All rights reserved

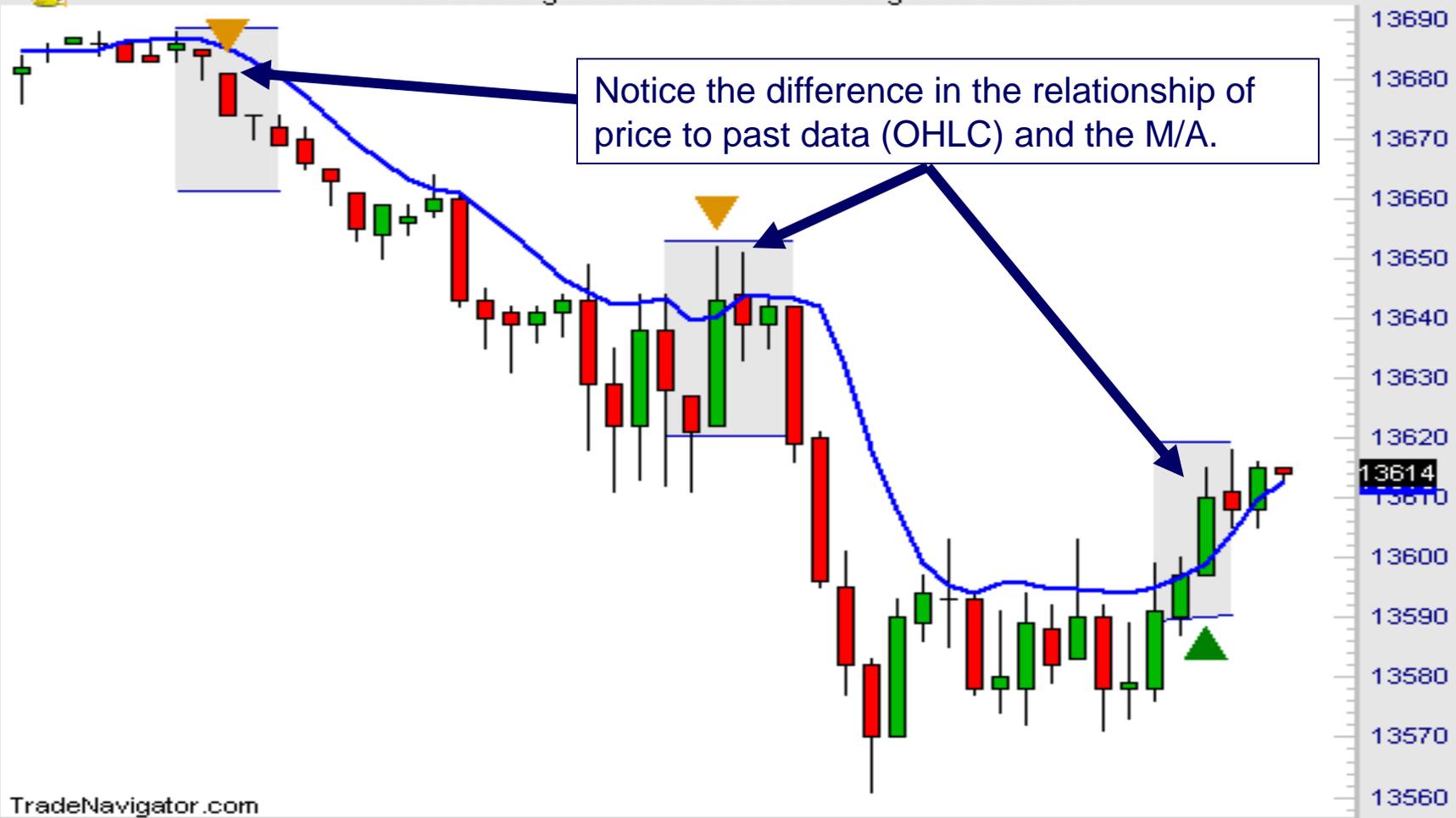


# Trading Filters & Signals



YM-067: Mini-Sized Dow (\$5) CAdj Liq (15 minute bars)

TradeNavigator.com © 2007 All rights reserved



# Trading Filters & Signals

- Trading rules and signals need to be formed and can be programmed by most charting software packages such as Genesis.
- Most traders have a hard time making fast decisions under pressure while examining the price relationship and M/A's.
- Also we need to include trade management techniques to determine entry, risk, add on scale outs or flat out exit levels.

# Time dimensions for moving averages

- Several time considerations include lining the moving average with a specific time frame such as the number 5 which equals a full trading week. A 20 day and 40 day M/A works out to one and two month moving average.
- Day traders can break down the use of multiple time frame analysis such as a 15 minute period and a 5 minute period (which is divisible by 3)

# Multiple Moving Averages

- Helps identify shorter term and longer term trends and changes within those time frames.
- Can be used to identify support and resistance levels to help you increase profits and reduce risks.
- Remember that the closing price causes a crossover: that is when a signal is generated.
- Also helps to identify overbought & oversold conditions referred to as depart from the means and regression to the means.

# Cross-over Signals

- **Dead Cross- bearish or negative cross-over of a shorter term M/A than a longer term M/A.**
- **Golden Cross- Bullish or positive cross-over of a shorter term M/A than a longer term M/A.**

# Angle & Separation



YM-200706: Mini-Sized Dow (\$5) Jun 2007 (15 minute bars)  
TradeNavigator.com © 2007 All rights reserved



When prices accelerate too far too fast from the norm, we often pause, consolidate or regress to the means.

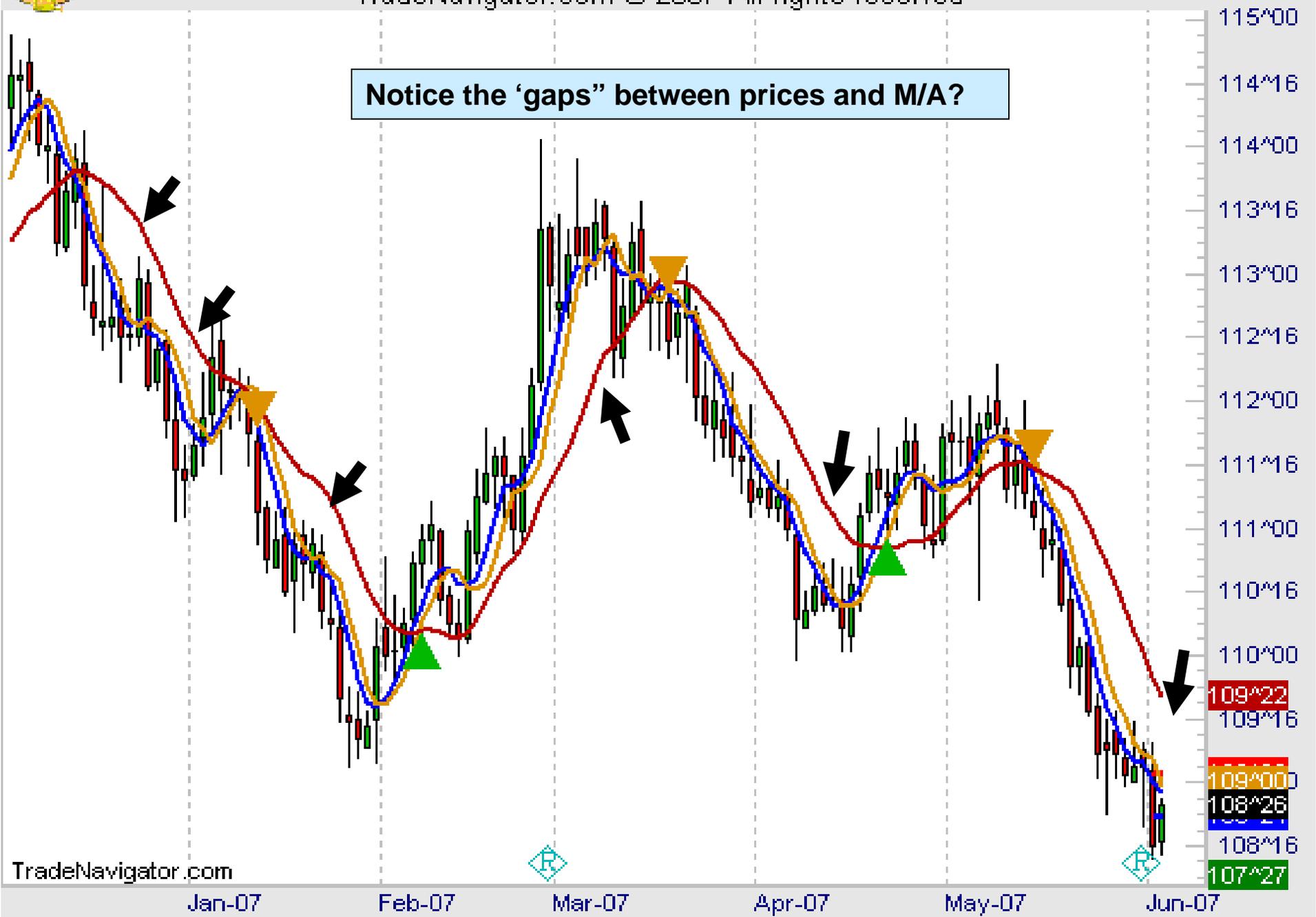
TradeNavigator.com



# ZB-067: T-Bonds 30Yr CBT Elec Cadj Liq (Daily bars)

TradeNavigator.com © 2007 All rights reserved

Notice the 'gaps' between prices and M/A?



# Trading versus Technical Analysis

- Technical studies such as Moving Averages and the aid of filters (confirming indicators) are just a part of helping making a trading decision.
- Trading requires use of risk management, patience or the “waiting game” as I call it.
- Trading also involves additional training on the skills needed to know when to exit or add on to positions.

# Moving Average Channels.

- Moving Averages smooth out price changes, one can use them to average out highs and lows or channels.
- One can use the average of highs and lows to determine the trend channel, such as Keltner Channels, and apply exponential moving average to impress upon the most recent price data.
- Complicated channel bands would be a Bollinger band which requires the calculation of a moving average and a standard deviation of price over a period of time.
- A simple version would be to average the **Highs** and **lows**.
- Watch for prices to trade above prior highs and the average of the highs to confirm a buy signal, and watch for prices to close below the average of prior lows and the lows to confirm a sell signal.



# YM-200706: Mini-Sized Dow (\$5) Jun 2007 (15 minute bars)

TradeNavigator.com © 2007 All rights reserved





**Confirmed sell signal.**

**Confirmed buy signals.**

2 period close below trend confirms breakdown.

# Fibonacci as Moving Average Settings

- Traders tie in time periods with the Fibonacci numbers series.
- 1,1,2,3,5,8,13,21, 34, 55, 89, 144, 233
- Futures traders use shorter time periods, equity traders generally use longer term periods.
- The shorter time periods are more sensitive to price changes.



# YM-200706: Mini-Sized Dow (\$5) Jun 2007 (15 minute bars)

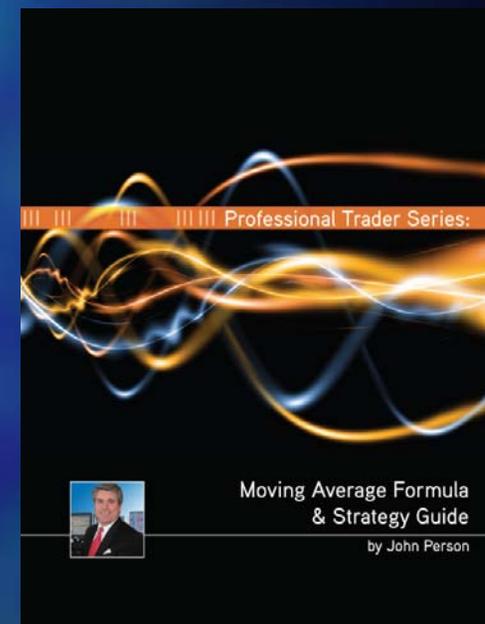
TradeNavigator.com © 2007 All rights reserved



# [www.nationalfutures.com](http://www.nationalfutures.com)

- Sign-up for a FREE strategy guide to Moving Average Formulas.

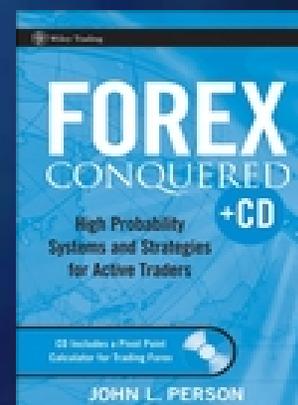
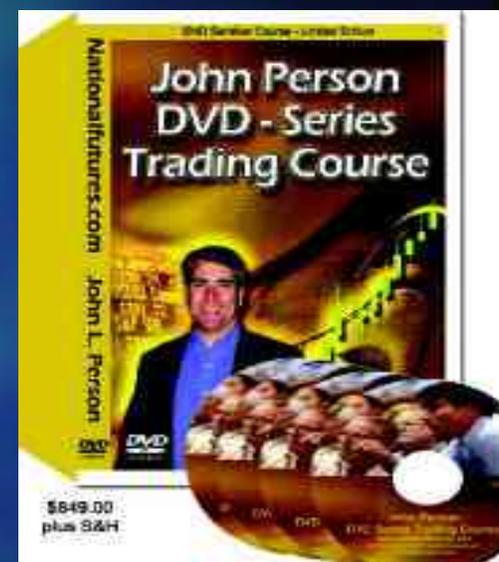
<http://www.danielstrading.com/offers/ma>



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

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

- **BRAND NEW DVD Trading Course** from my three day live trading seminar for **\$850.00**
- **Special offer for CBOT viewers, \$699.00**
- **As an exclusive special, included is a signed copy of my just released Forex Conquered Book.**



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

## Q&A / Contact Information

**John Person**

[www.nationalfutures.com](http://www.nationalfutures.com)  
[JPerson@nationalfutures.com](mailto:JPerson@nationalfutures.com)  
Tel. 561-655-1881



**Daniels Trading**

[www.danielstrading.com](http://www.danielstrading.com)  
[info@danielstrading.com](mailto:info@danielstrading.com)  
Toll Free: (800) 800-3840  
Local: (312) 706-7617



**Chicago Board of Trade**

[www.cbot.com](http://www.cbot.com)  
[wwwcomments@cbot.com](http://wwwcomments@cbot.com)

