

# Market Timing: Why and How

Mark Pankin

MDP Associates LLC

Registered Investment Advisor

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

[mark@pankin.com](mailto:mark@pankin.com)

703-524-0937

# Overview

- Why do it?
  - Common nonsense about it
  - What else can you do
  - Real purpose
  - Not for everybody
- Judging timing systems
- Simple timing models

# What is “Market Timing”

- “Classic” timing methods
  - Be invested or in cash
  - Usually 0-4 buy/sells a year
  - May use to decide when to apply other techniques (ex: buy Dow stocks)
- Will consider “mechanical” models
  - Can be tested, evaluated using historical data
  - Chart reading is a valid method, but can’t be tested scientifically

# Common Timing Argument

- Missing the 10 best days ...
- BUT what about about missing the 10 worst days ...
- What about missing both the 10 best and worst days?

It's all a bunch of #!\*&%\$

- Unrealistic: no trader or system will be able to miss just these days
- Makes timing seem like a game rather than an investment technique
- Obscures the primary purpose of market timing

# Some Alternatives to Timing

- **Buy and Hold**
  - Works (in theory)
  - Very hard for most to do in reality
    - can't resist panic selling in a bear market
    - normally buy back in at higher prices if at all due to being scared of stocks
- **Rebalance periodically**
  - Good Approach
  - Requires discipline
  - Hard for some to do

# Simple Rebalance Example

Stocks: Vanguard Index 500 Fund

Bonds: Vanguard Long-Term Corporate Bond Fund

Target Allocation: 65% Stocks, 35% Bonds

Rebalance Quarterly if Stocks are more than 5% over/under

	<u>Returns</u>		<u>Reblance?</u>		Difference	Number Trans.
	Stocks	Bonds	No	Yes		
1993	9.9%	14.5%	11.5%	11.5%	0.0%	0
1994	1.2%	-5.3%	-1.1%	-1.1%	0.0%	0
1995	37.5%	26.4%	33.6%	33.6%	0.0%	0
1996	22.9%	1.2%	15.8%	15.5%	-0.3%	1
1997	33.2%	13.8%	27.7%	26.6%	-1.0%	0
1998	28.6%	9.2%	23.7%	22.3%	-1.4%	1
1999	21.1%	-6.2%	15.0%	11.8%	-3.2%	0
2000	-9.1%	11.8%	-5.3%	-1.8%	3.5%	1
2001	-12.0%	9.6%	-7.4%	-3.9%	3.5%	1
2002	-22.2%	13.2%	-13.1%	-9.9%	3.2%	2
Annualized:	9.3%	8.4%	9.0%	9.6%	0.6%	

# Market Timing: Why Do It

- Better returns: maybe
- Reduced risk: definitely
- Enables sticking to investment plans
- Sticking to your plans is key to achieving investing objectives



# Judging Timing Models

- **Simpler is better**
  - Easier to Understand
  - More likely to continue to work
  - Able to see if no longer valid
- **Must have rational foundation**
- **How much of performance is fit to history, how much “out of sample”?**
- **Rates of return should be compared to an appropriate benchmark**

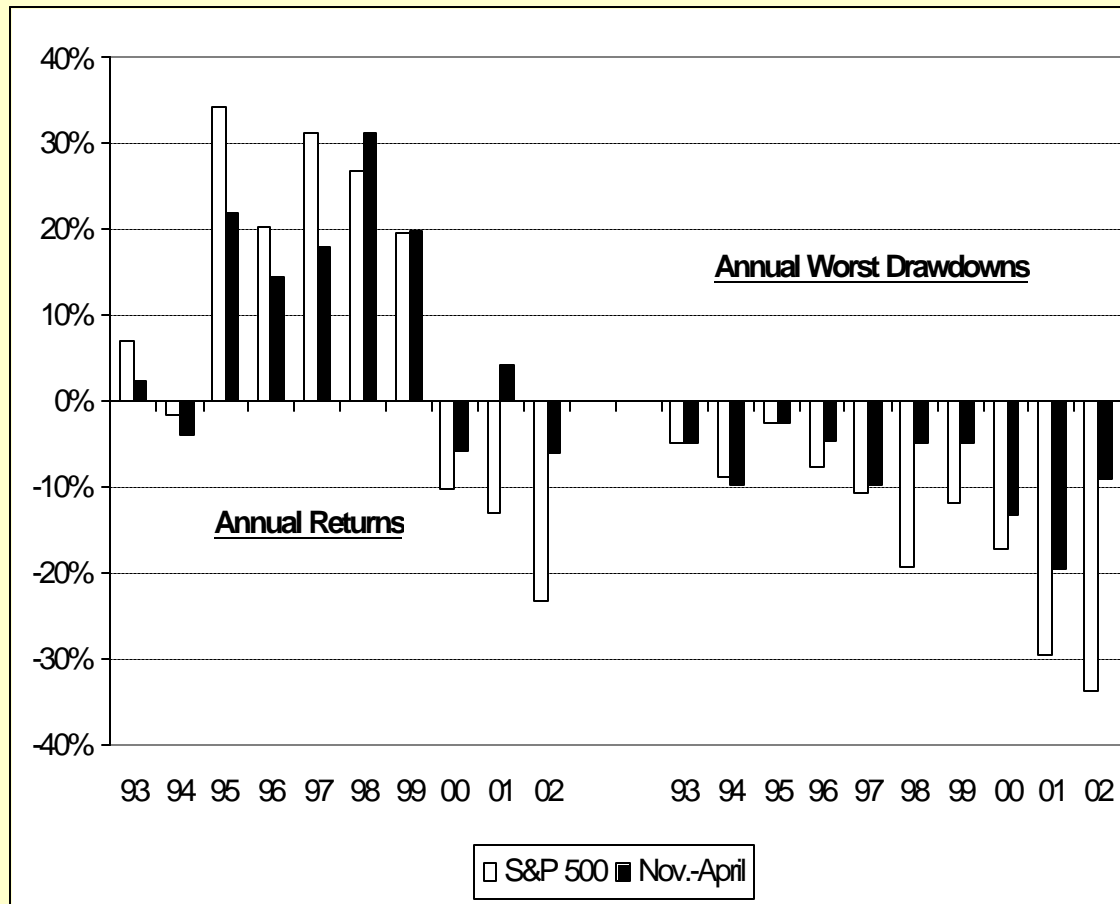
# Judging Models: Risk Measures

- Standard deviation of returns
  - Most commonly seen measure
  - Useful, but has weaknesses
- **Maximum drawdown**
  - Drop from high point to later low
  - Worst case: buy at high, sell at low
  - Excellent, but only part of story
- Others
  - Ulcer Index, Ulcer Performance Index
  - Sharpe Ratio
  - Return/Drawdown

# November - April Timing Model

- Be in market for those months
  - Buy at end of October
  - Sell at end of April
  - Model has been around over 10 years
  - Not timing in the usual sense
- In graphs that follow
  - S&P returns do not include dividends
  - T-Bill rates for model returns when out of market

# S&P 500, November - April Model



	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	8.9%
95-99:	26.2%	20.9%
00-02:	-15.7%	-2.7%

	S&P	Timing
<u>Maximum Drawdown</u>		
Amount:	-49.1%	-29.4%
Date:	10/9/02	12/6/74

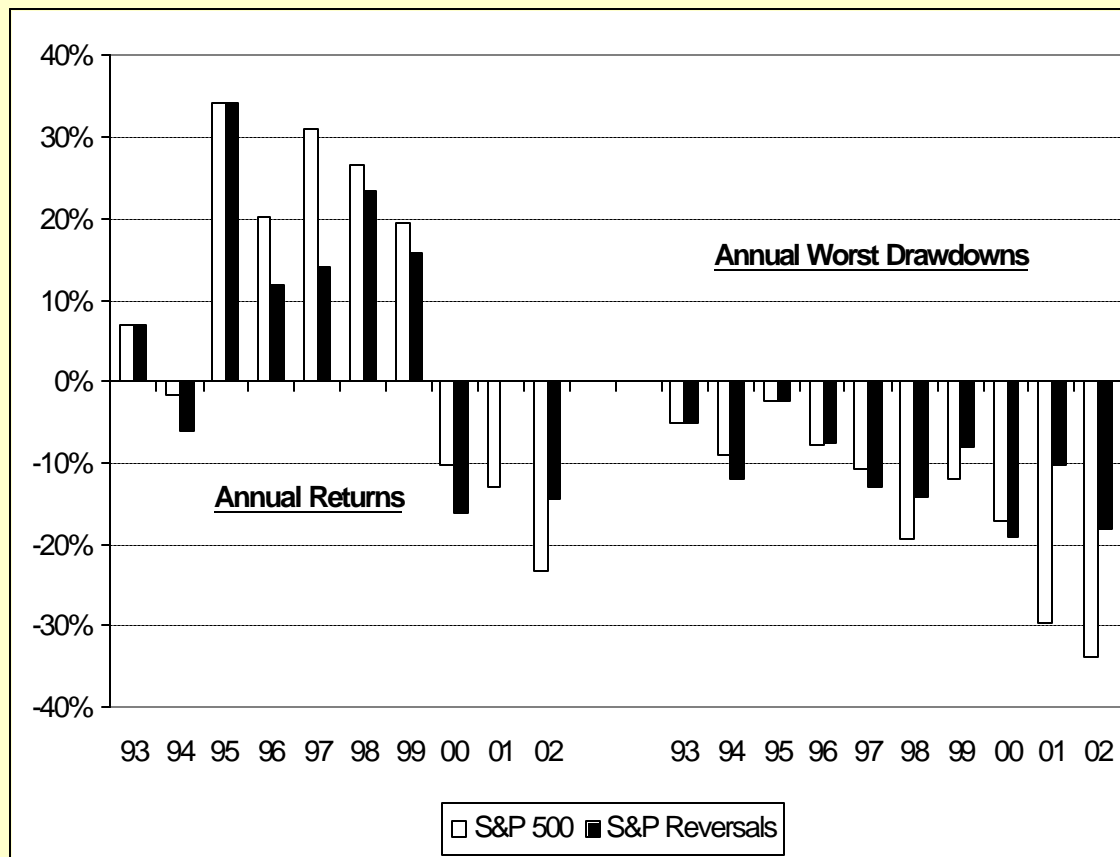
Trades/Year: 1

	S&P	Timing
<u>Percent time in market</u>	100%	50%

# S&P Reversals Timing Model

- Buy if S&P 500 moves up 8.4% from a recent low
- Sell if it drops 7.2% from recent high
- Model due to Ned Davis Research
- Real-time (no changes in parameters) since October 1991

# S&P 500, S&P Reversals Model



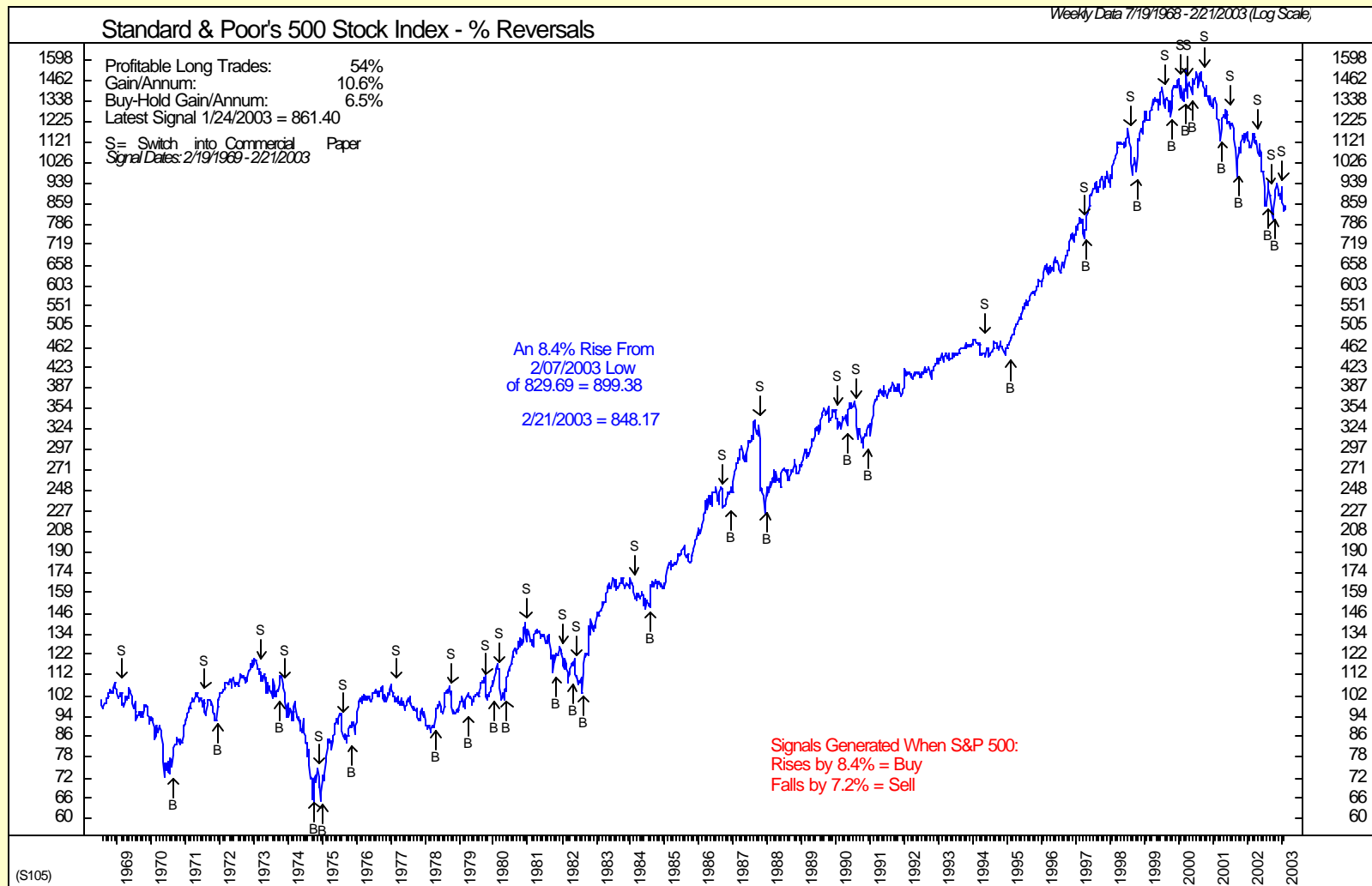
	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	5.8%
95-99:	26.2%	19.6%
00-02:	-15.7%	-10.4%

	S&P	Timing
<u>Maximum Drawdown</u>		
Amount:	-49.1%	-29.7%
Date:	10/9/02	10/16/02

Trades/Year: 1.5

	S&P	Timing
<u>Percent time in market</u>		
	100%	73%

# S&P 500, S&P Reversals Model

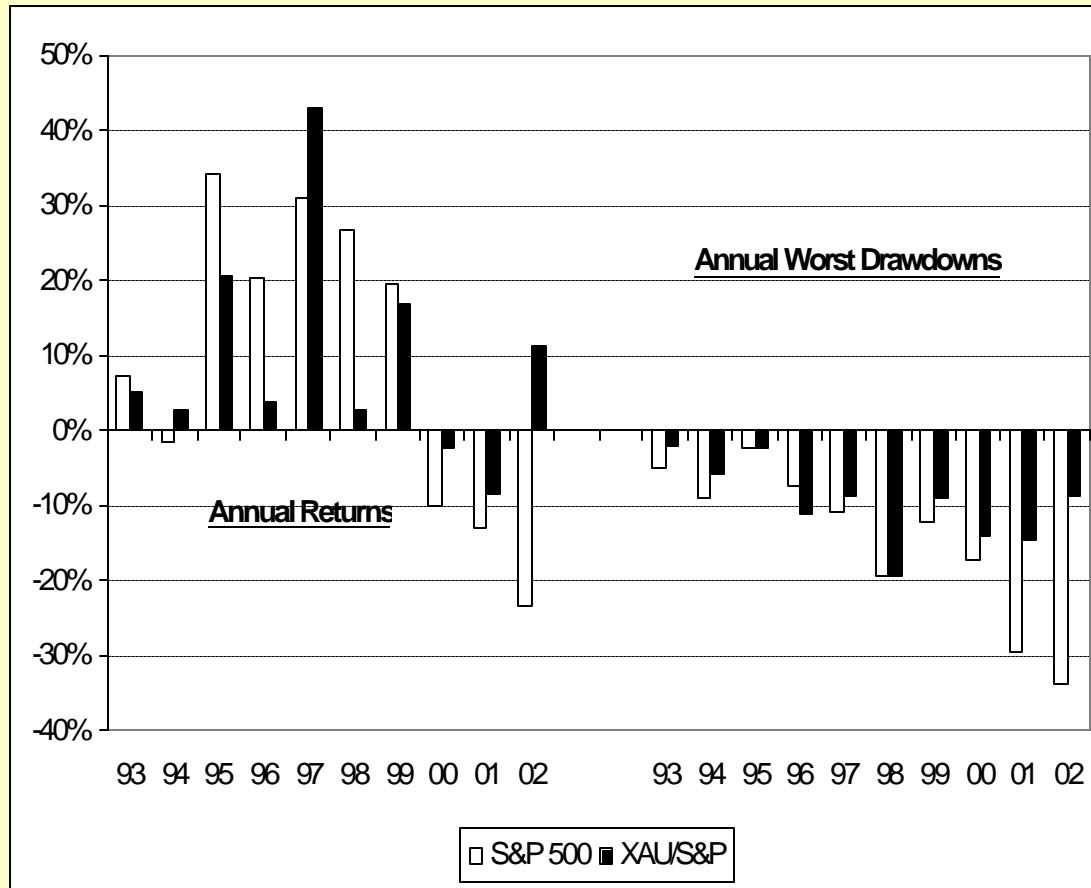


# XAU/S&P Timing Model

- XAU = Gold & Silver Index
- Calculations:
  - Daily ratio XAU/S&P
  - 50 day moving average of ratio
- Signals based ratio vs. 50-day MA:
  - Buy if ratio moves above MA and stays there the next day
  - Sell if it moves below MA for >1 day
- *Futures* magazine (1/03) based on data through 11/02; no out-of-sample



# S&P 500, XAU/S&P Model



	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	8.7%
95-99:	26.2%	16.5%
00-02:	-15.7%	-0.2%

	S&P	Timing
<u>Maximum Drawdown</u>		
Amount:	-49.1%	-25.7%
Date:	10/9/02	8/5/02

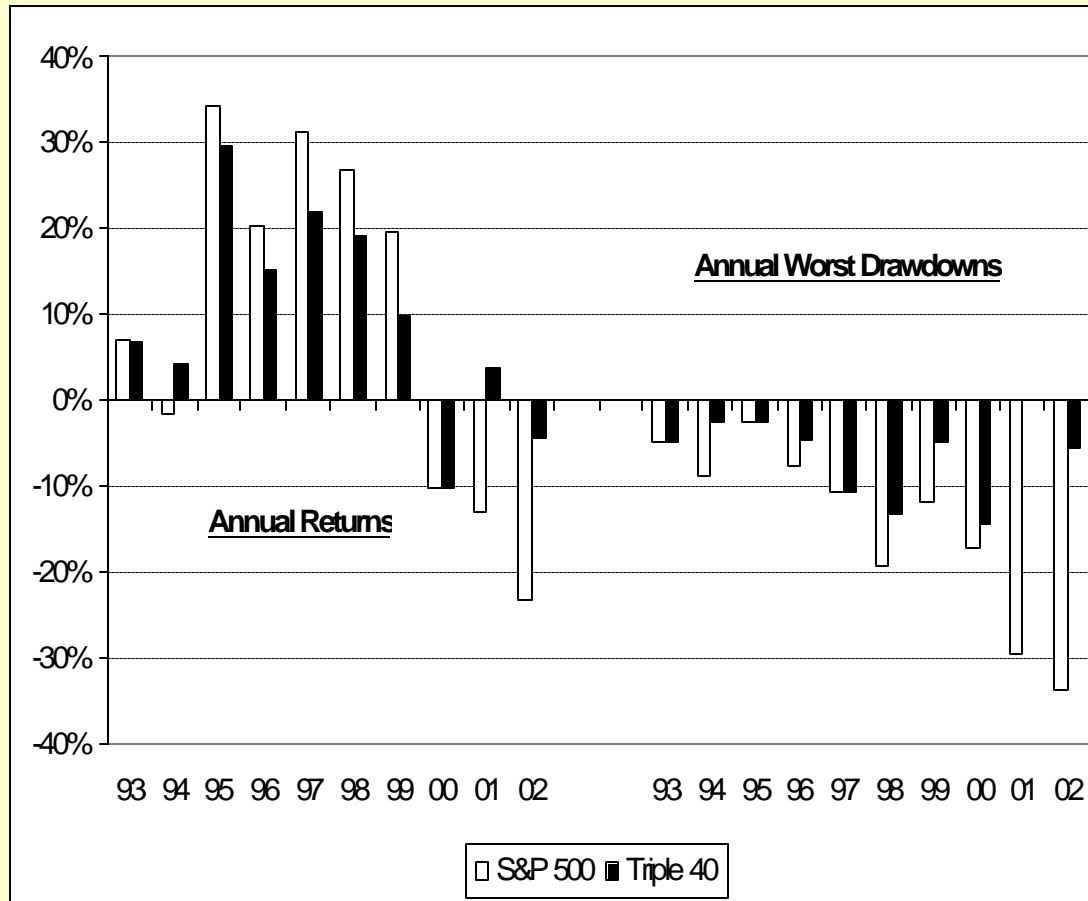
Trades/Year: 5.75

	S&P	Timing
<u>Percent time in market</u>	100%	58%

# Triple 40 Timing Model

- Weekly (Friday data) calculations:
  - 40 week moving average of S&P 500
  - 40 week MA of 90-day T-Bill rate
  - 40 week MA of 10-year T-Bond rate
- Model signals (comparisons to MAs):
  - Buy if S&P is above its MA and at least one T-rate is below its MA
  - Sell if S&P is below its MA or both T-rates are above their MAs
- Due to Mark Boucher; don't know data period used to develop it

# S&P 500, Triple 40 Model



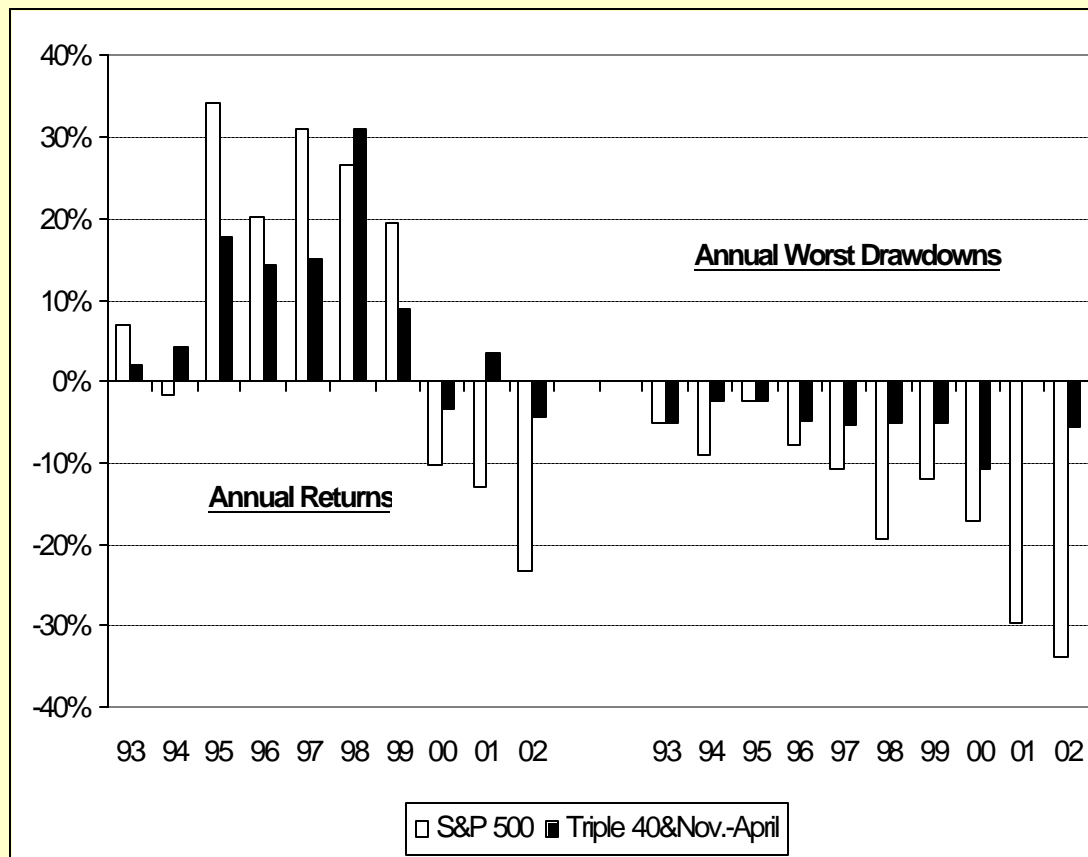
	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	8.9%
95-99:	26.2%	18.9%
00-02:	-15.7%	-3.9%

	S&P	Timing
<u>Maximum Drawdown</u>		
Amount:	-49.1%	-14.5%
Date:	10/9/02	4/5/02

Trades/Year: 2.05

<u>Percent time in market</u>	S&P	Timing
	100%	51%

# S&P 500, Triple 40 & Nov.-April



	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	8.4%
95-99:	26.2%	17.2%
00-02:	-15.7%	-1.5%

## Maximum Drawdown

Amount:	-49.1%	-10.7%
Date:	10/9/02	4/24/00

Trades/Year: 1.65

## Percent time in market

	100%	27%
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# “Lazy” Way to Time Market

- John Hussman (free) web site
  - [www.hussman.net](http://www.hussman.net)
  - Click on Research & Insight
  - Select Weekly Market Comment
  - Also articles about his methods
- Hussman Strategic Growth Fund
  - May hedge using timing methods
  - Started in 2000, no long-term record
  - 2001: +14.7%, 2002: +14.0%
  - Have some in personal accounts
  - No affiliation with Hussman or fund

# Current Status of Timing Models

- S&P Reversals: Sell (1/24/03)
- XAU/S&P: Buy (2/24/03)
- Triple 40: Sell (4/5/02)
- Hussman: Unfavorable valuation and trend uniformity--his most negative status (since last summer, was only partially hedged for a few weeks then)

# Final Thoughts

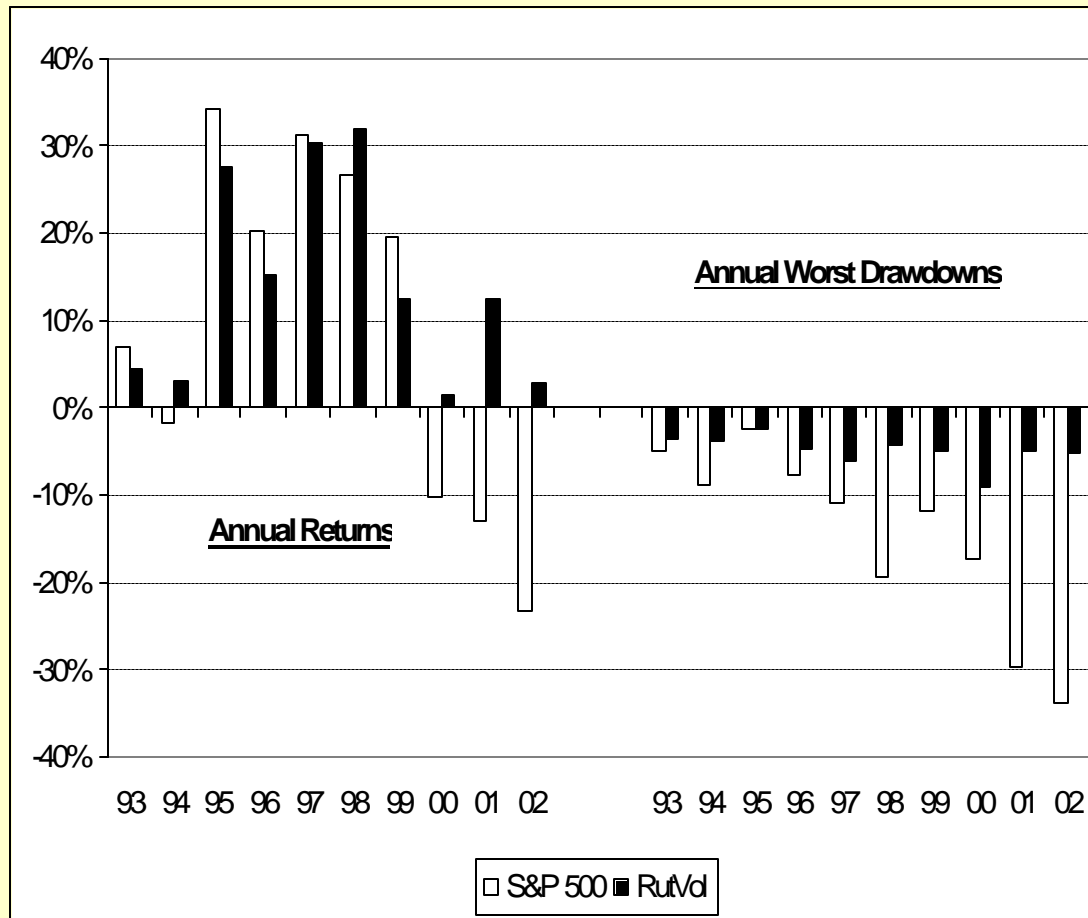
- Do I use any of these models?
  - No, the one I currently like is too complex to present here
  - 93-02: +13.6%, 00-02: +5.5%
  - Maximum DD: -10.9% (in 1992)
  - But only 2 years out-of-sample
  - Currently: Sell (12/11/02)
- Many good sources for ideas
  - *Formula Research* (800-720-1080)
  - Interest groups (some on web)
  - e-mail me (mark@pankin.com)

# Mark Pankin

- RIA since October 1994
- Managed account expertise/services
  - Market timing
  - Dow Jones Industrial stocks
  - Sector fund trading (Fidelity, Rydex)
  - Portfolio design, rebalancing
- Much more at [www.pankin.com](http://www.pankin.com)
  - Click on Investments, then Managed Accounts, follow links
  - Info about Mark and his interests



# S&P 500, RutVol Model



	S&P	Timing
<u>Returns</u>		
93-02:	7.3%	13.6%
95-99:	26.2%	23.2%
00-02:	-15.7%	5.5%

## Maximum Drawdown

Amount:	-49.1%	-10.9%
Date:	10/9/02	10/9/92

Trades/Year: 3.25

## Percent time in market

100% 58%