



# ADVANCED TECHNICAL SCREENING WITH THE NEW FIDELITY STOCK AND ETF SCREENERs

Peter Ashton  
VP, Retail and Self-Directed Investing

# Disclaimer



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# Agenda

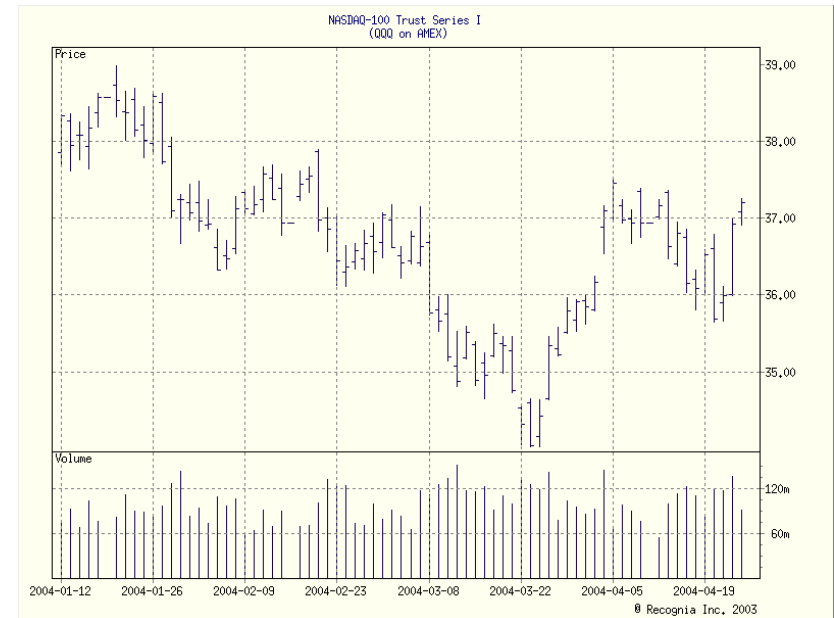


- An Event Driven Approach to Technical Analysis
- Major Classes of Technical Events
  - Short-term Patterns
  - Indicators and Oscillators
  - Classic Chart Patterns
- Using the New Fidelity Stock and ETF Screeners
  - Technical Screening for Stocks
  - Technical Screening for ETFs
  - Using Preset Expert Screens
- Q & A

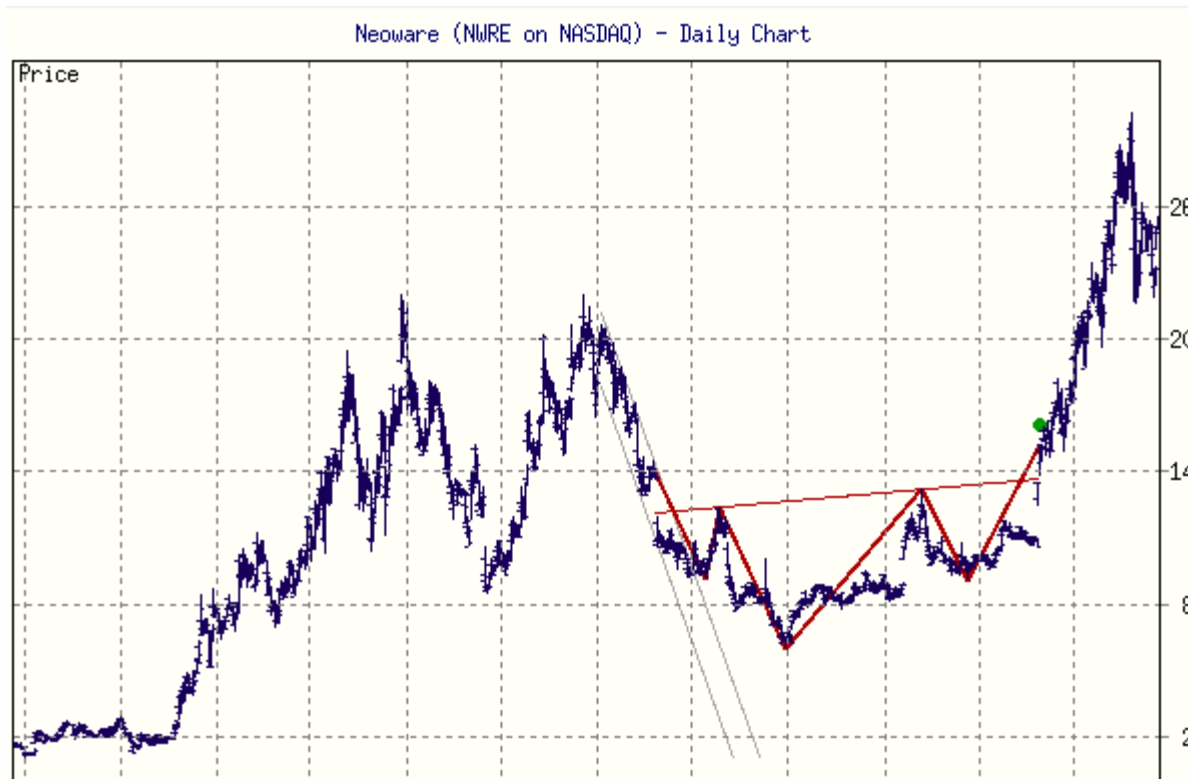
# What is Technical Analysis?



- Looking for patterns and relationships in price and volume history that identify attitudes of buyers and sellers
- Shifts in the balance of supply and demand
- To assist in making investment and trading decisions



# An Example...



**Prices move in trends until ...**

**Something changes to affect supply and demand**



Prices move in trends until ...

Something changes to affect supply and demand

Marked by patterns in price and volume history



# Types of Technical Events

# Technical Event Classes



- **Short-term Patterns**

- Based on the shape and relationship of candlesticks or price bars

- Indicators & Oscillators

- Classic Patterns



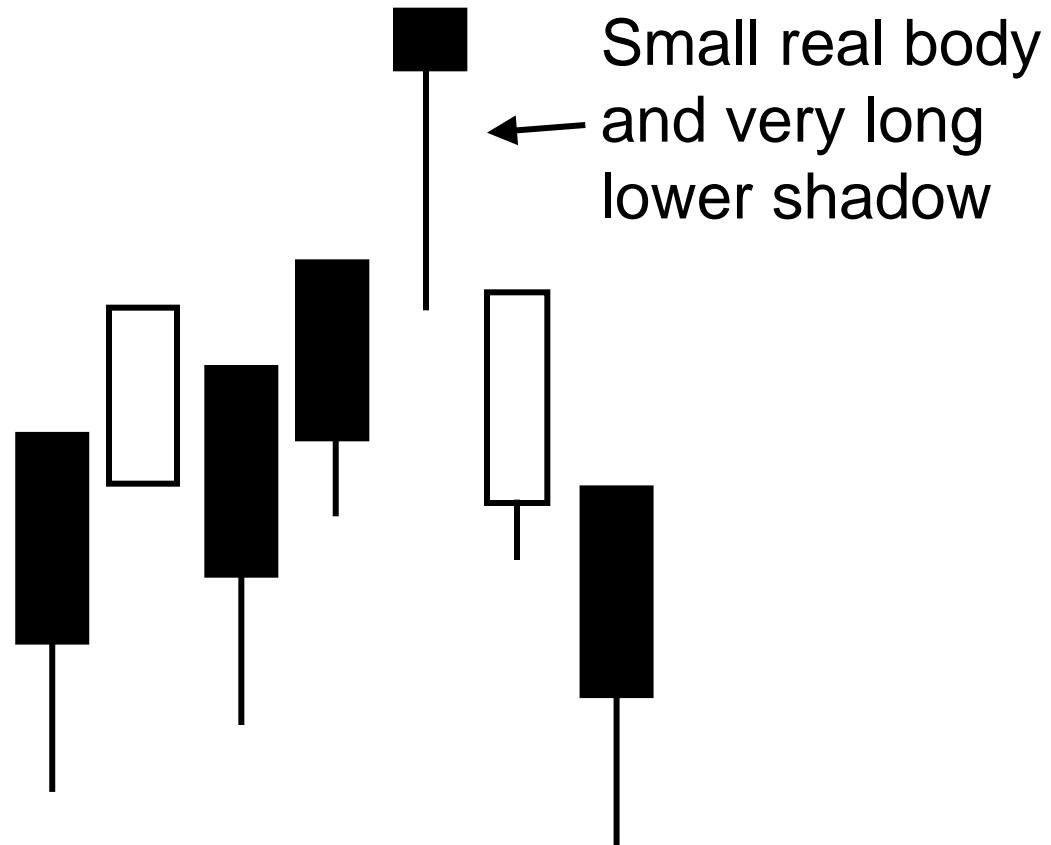




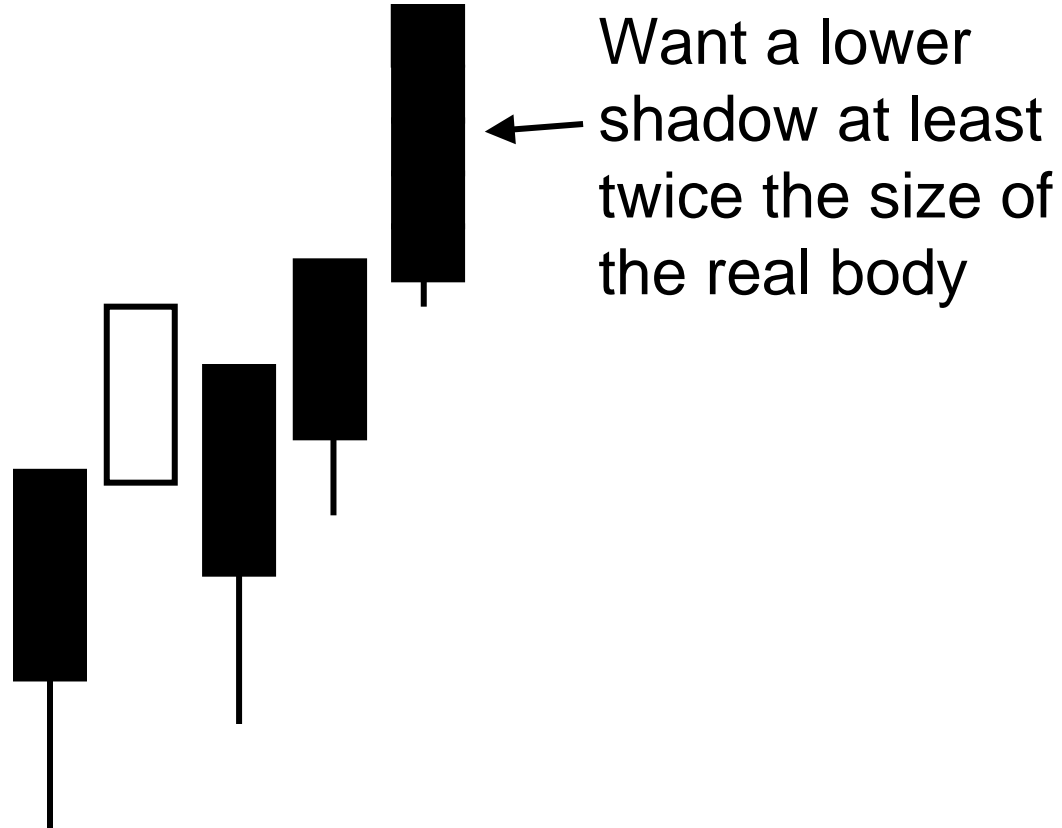


# Hanging Man

A bearish reversal pattern



# Hanging Man



# Hanging Man



Two hanging men; which is the more significant?



A

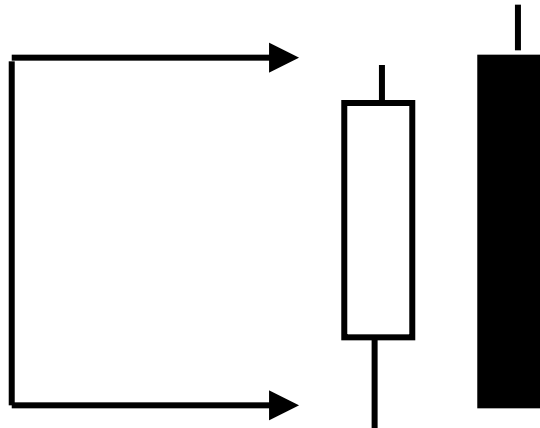


B

# Bearish Engulfing Pattern



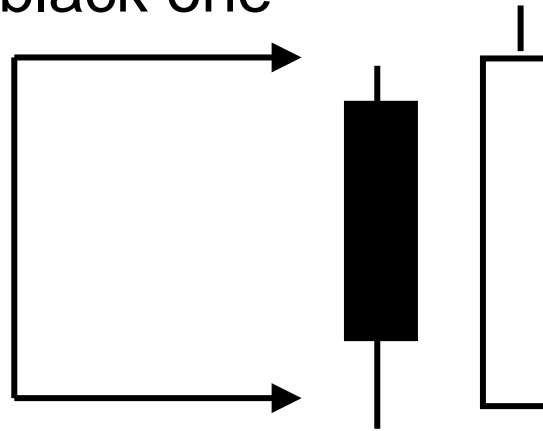
Black  
candle's real  
body  
completely  
"engulfs" the  
white one



# Bullish Engulfing Pattern



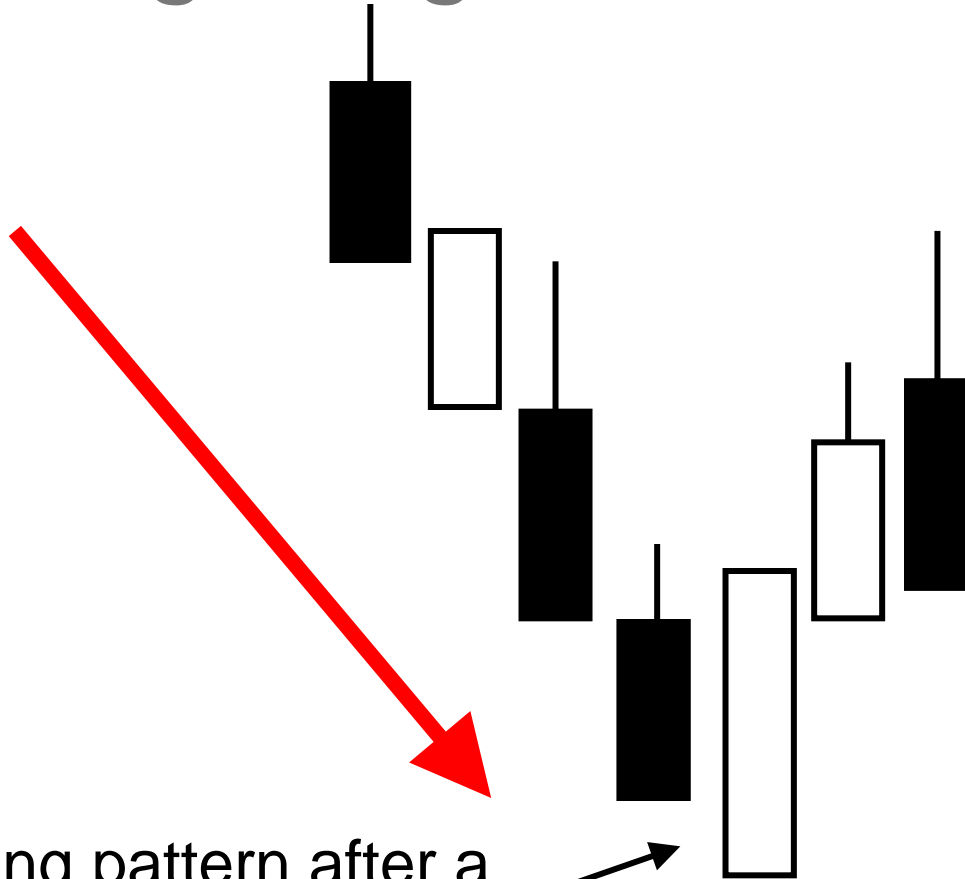
White candle's real  
body completely  
"engulfs" the black one



Bullish Engulfing Pattern

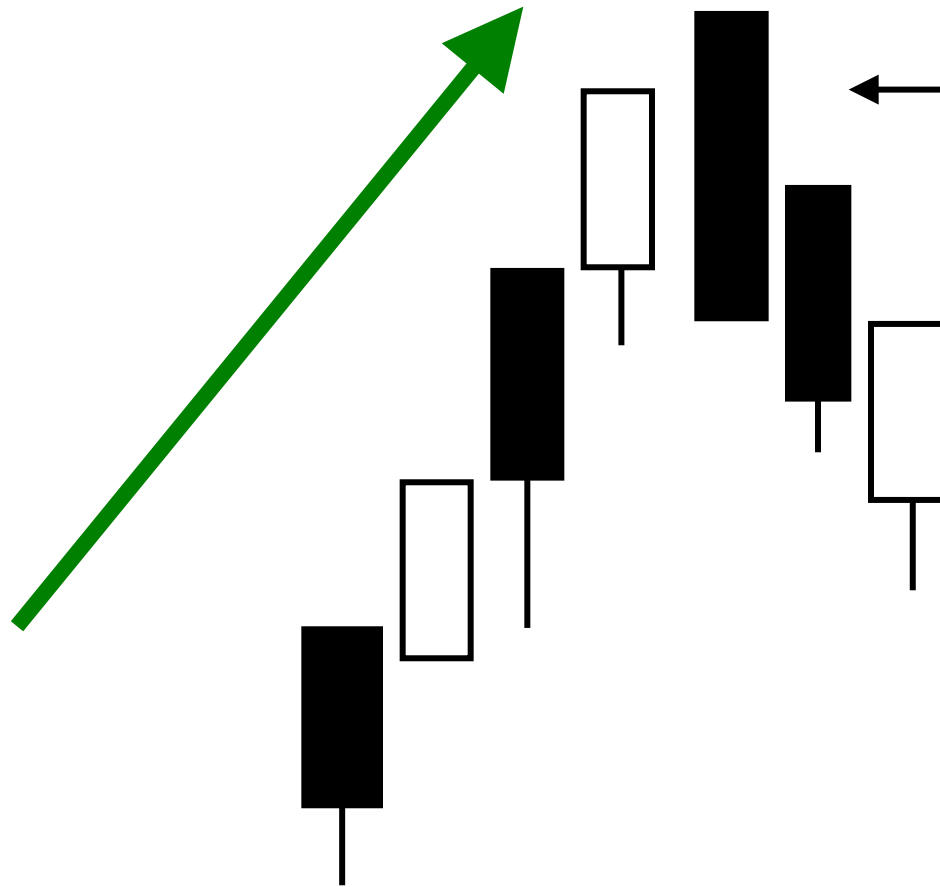


# Bullish Engulfing Pattern



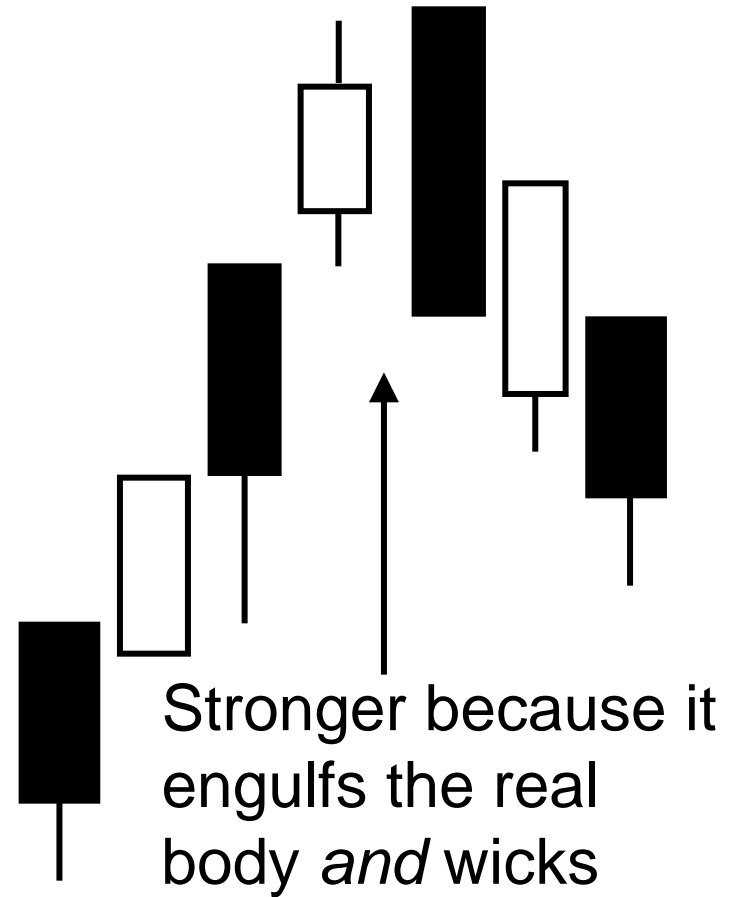
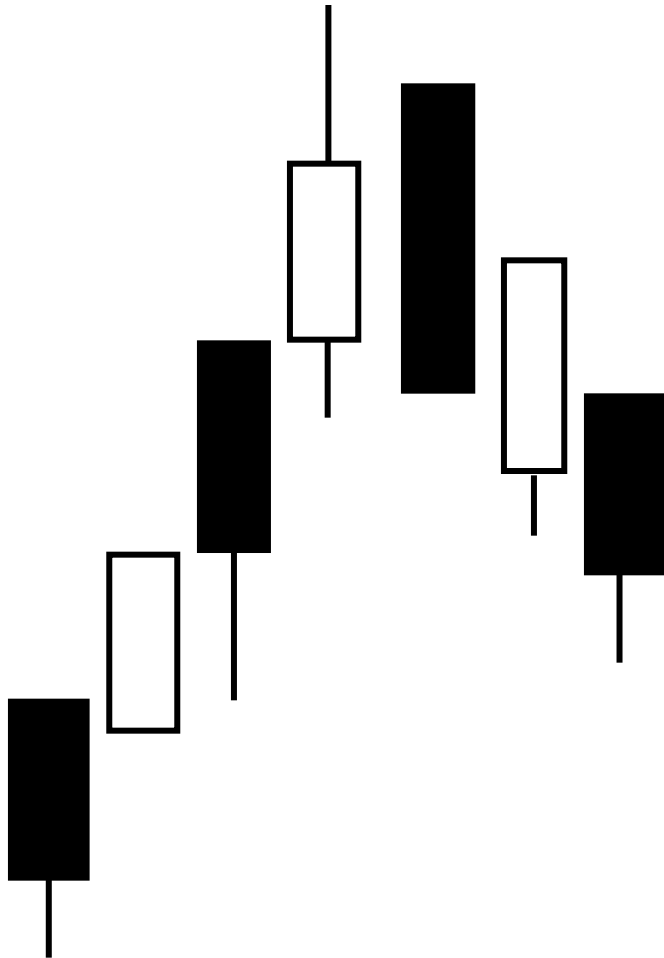
Engulfing pattern after a sharp decline is usually more effective

# Bearish Engulfing Pattern

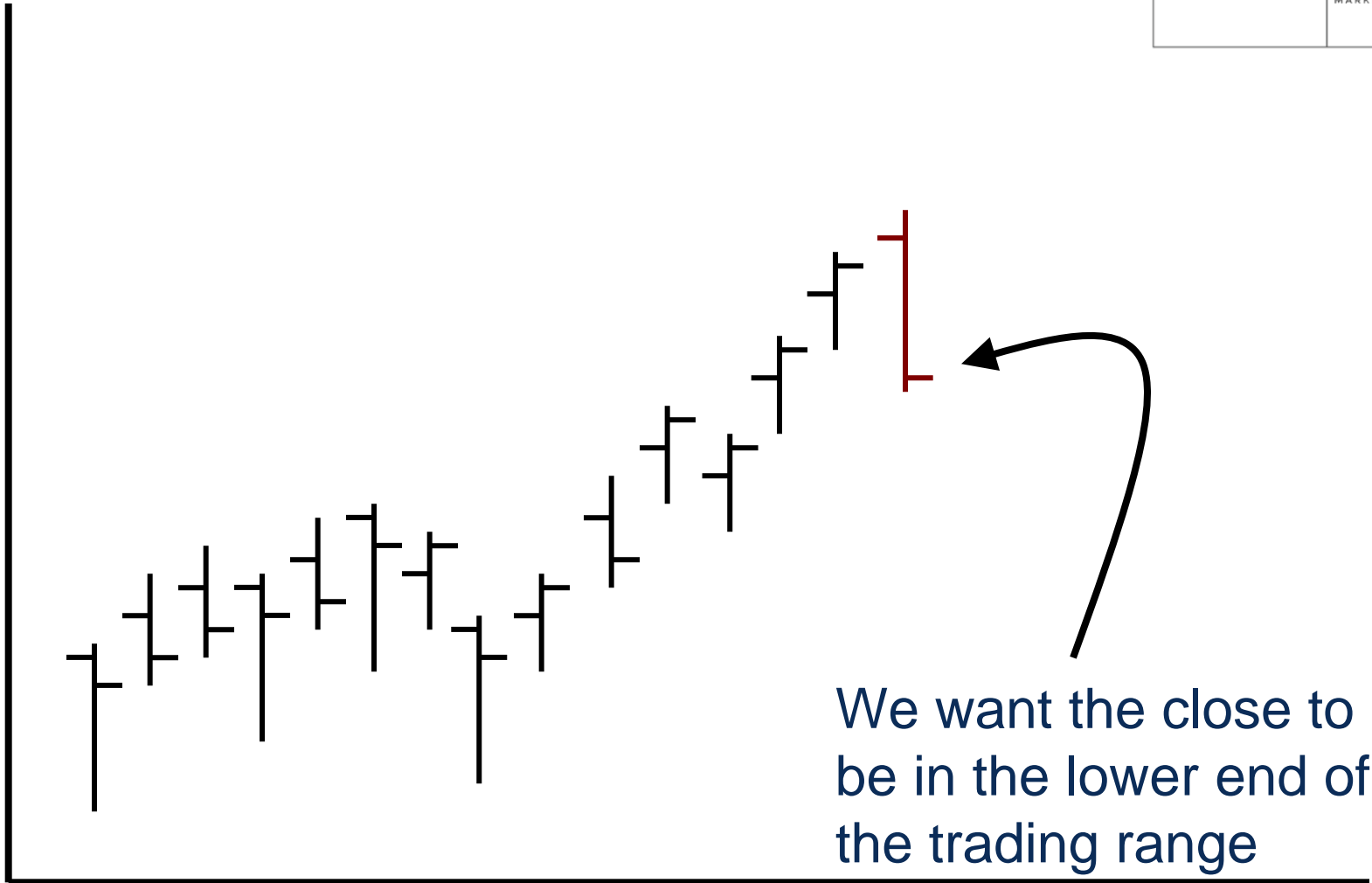


Engulfing pattern after a sharp rally is usually more effective

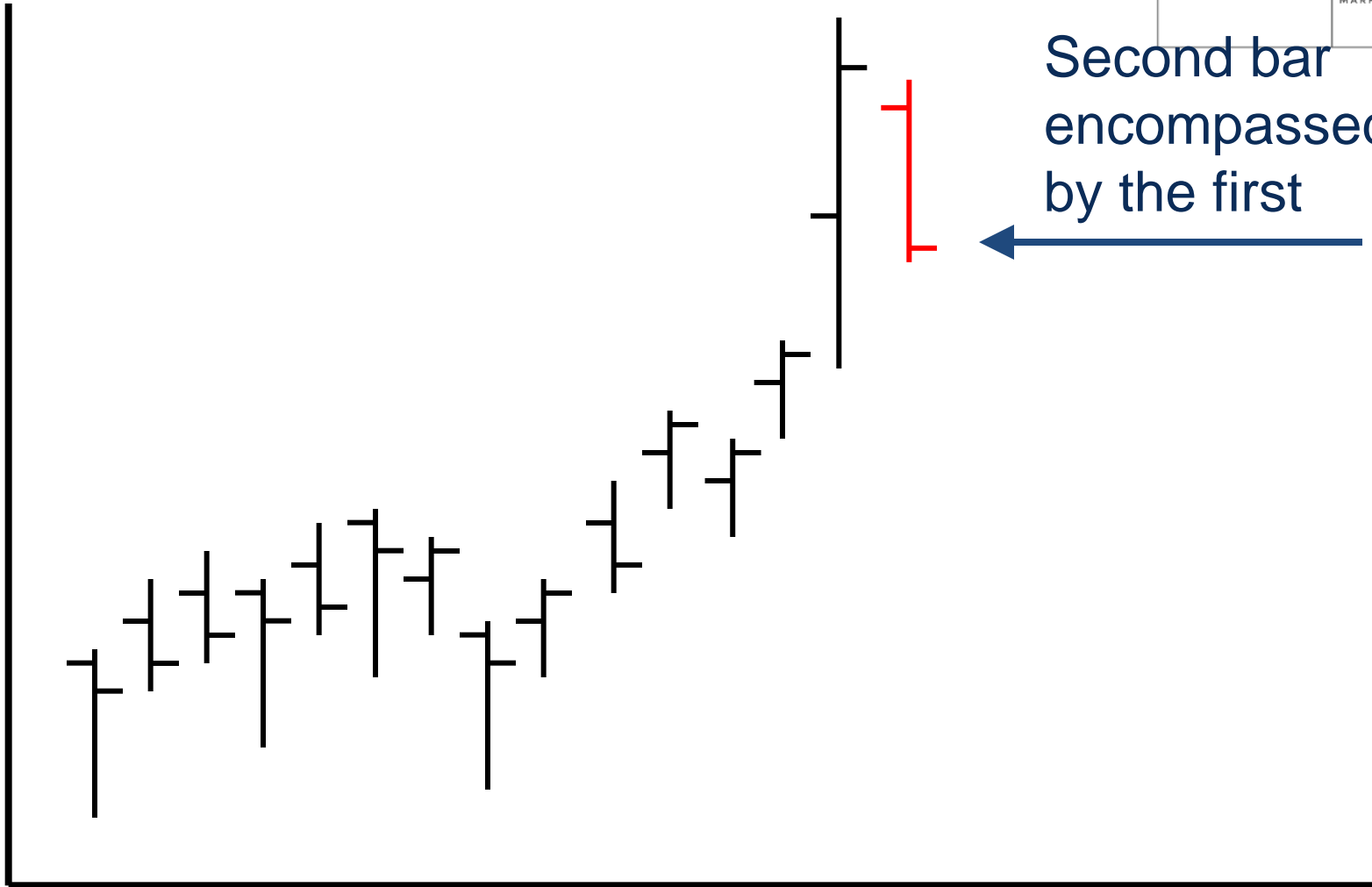
# Engulfing Patterns



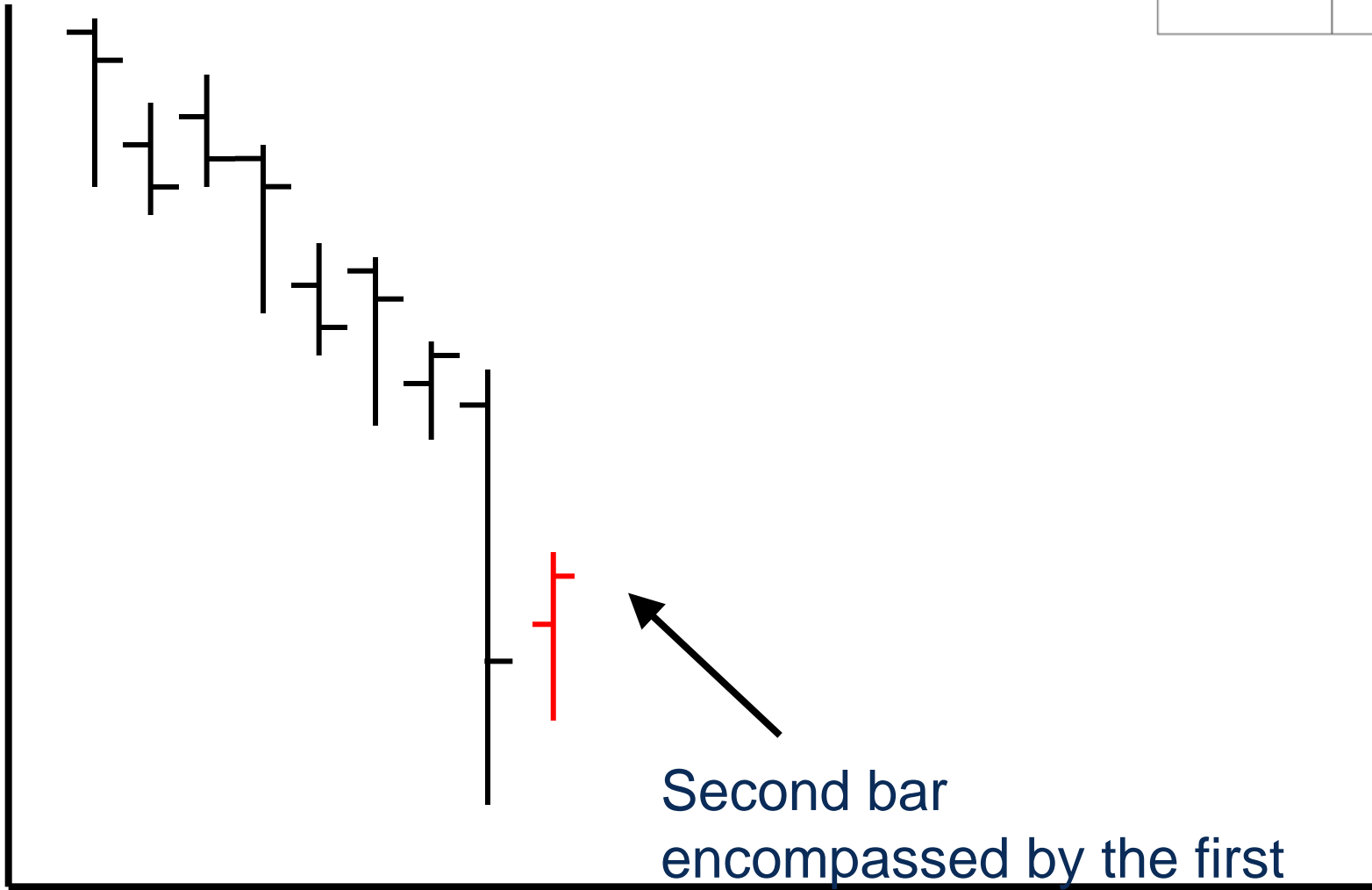
# Outside Bars



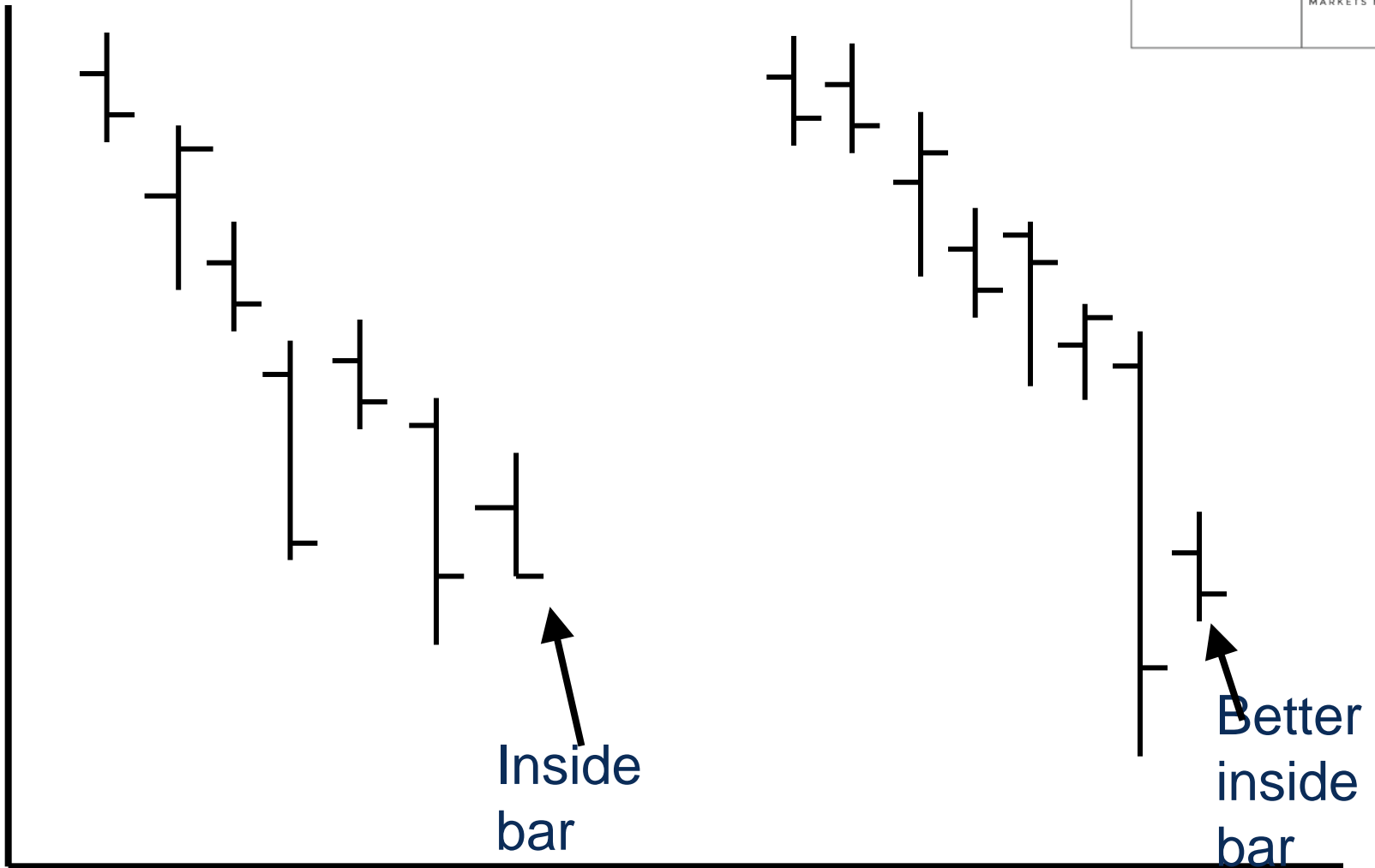
# Inside Bars



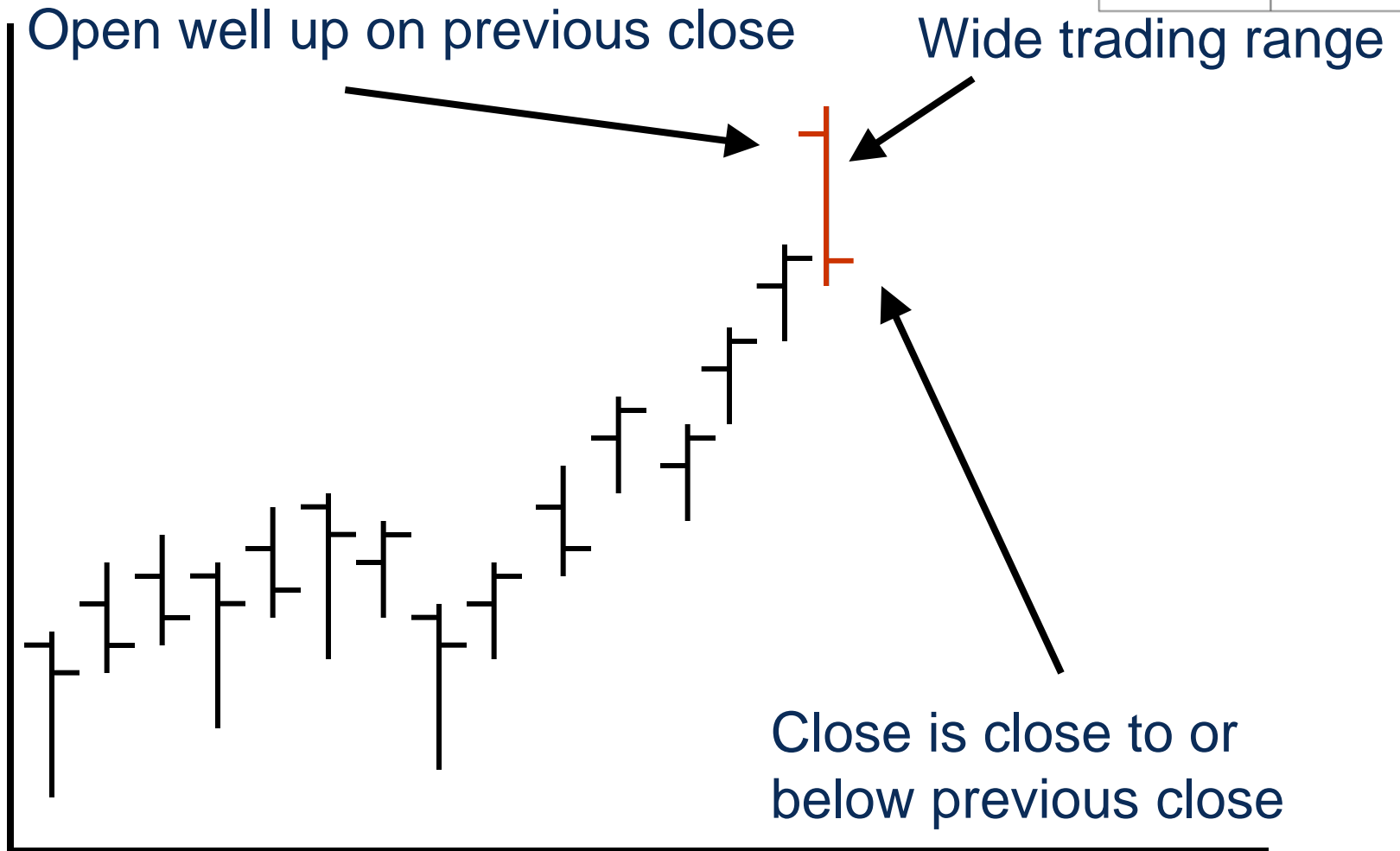
# Inside Bars



# Inside Bars



# Key Reversal Bar





# Technical Event Classes



- Short-term Patterns
  - Based on the shape and relationship of candlesticks or price bars
- **Indicators & Oscillators**
  - Based on moving averages and various mathematical functions
- Classic Patterns
  - Distinct price swings forming shape on chart

# Indicators and Oscillators

- These are numerical calculations that help understand and anticipate price moves
  - Determine if prices are in a trend or whether they are in a trading range
  - Identify extreme points of the price movement
  - Identify points where prices might be expected to reverse

# Various Types



- Trend following
  - Smooths price so trends can be seen as lines
- Momentum
  - Measures the speed or direction of price changes
- Stochastics
  - Measures the position of the close price relative to the recent highs and lows

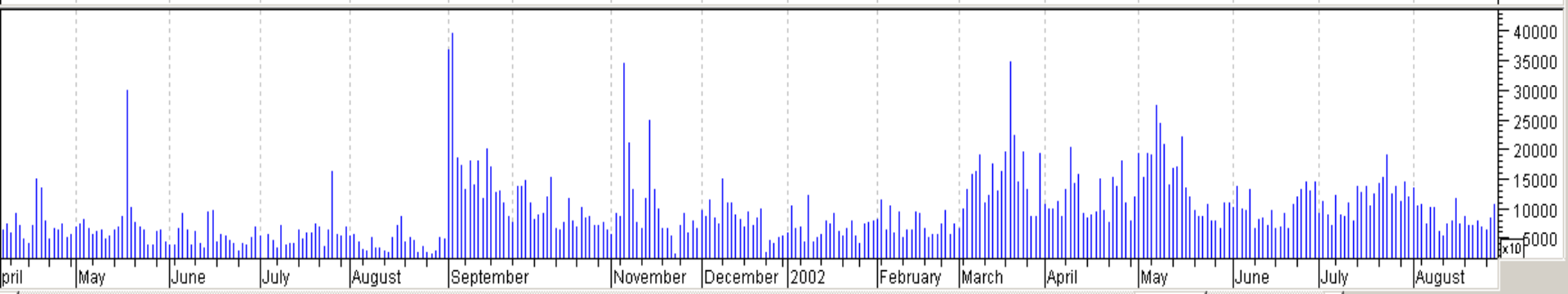
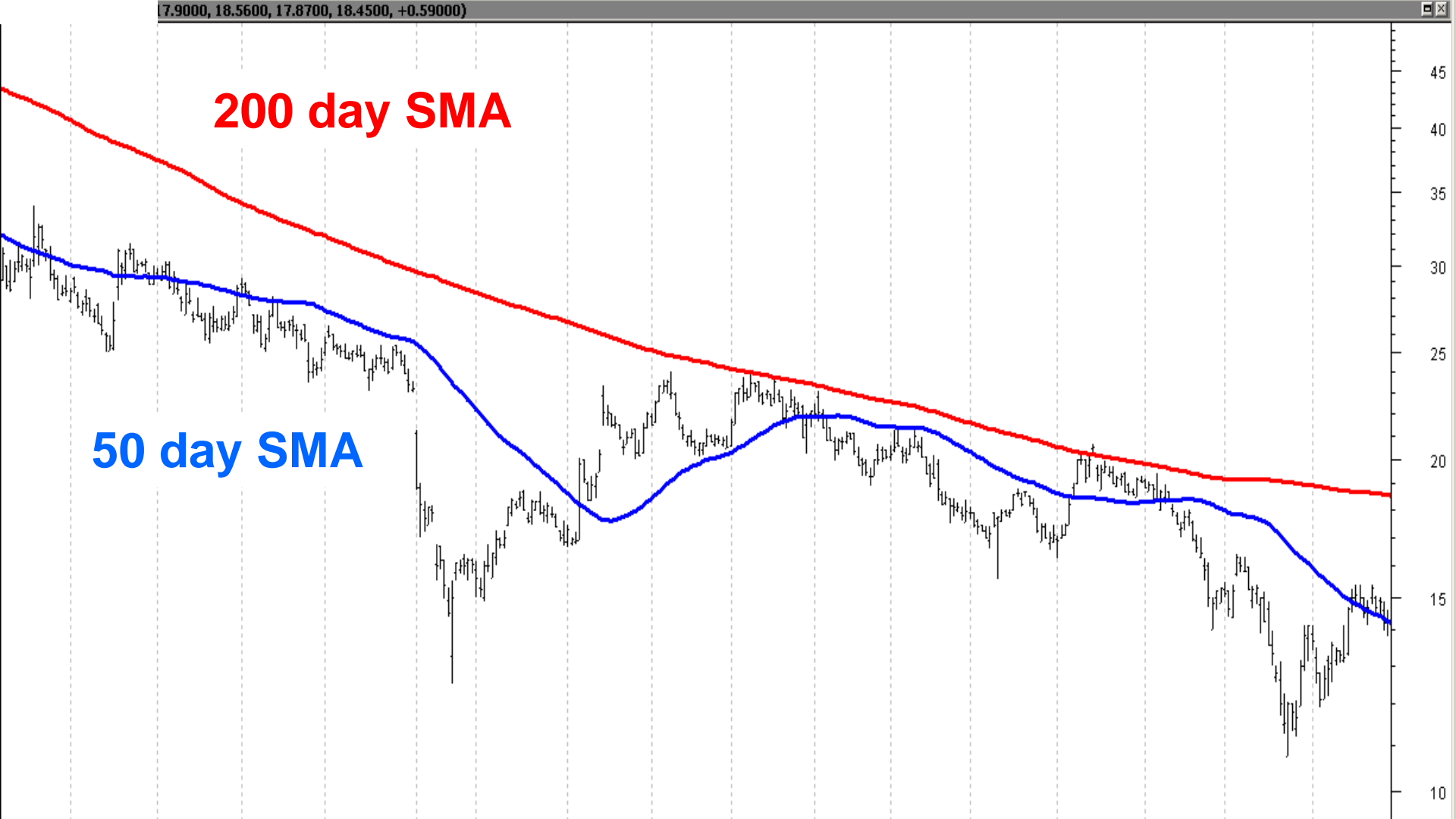
# Moving Averages

- Simple Moving Average is defined to be the average price over last  $N$  days
  - Also Exponential MA, Weighted MA, Adaptive MA, etc.
- Work best in trending markets
- Time frames are relative
  - 200 day moving average used in silver because Kodak used it to monitor inventory levels
  - 4 month moving average used for soybeans because that is the shelf life of margarine

(7.9000, 18.5600, 17.8700, 18.4500, +0.59000)

**200 day SMA**

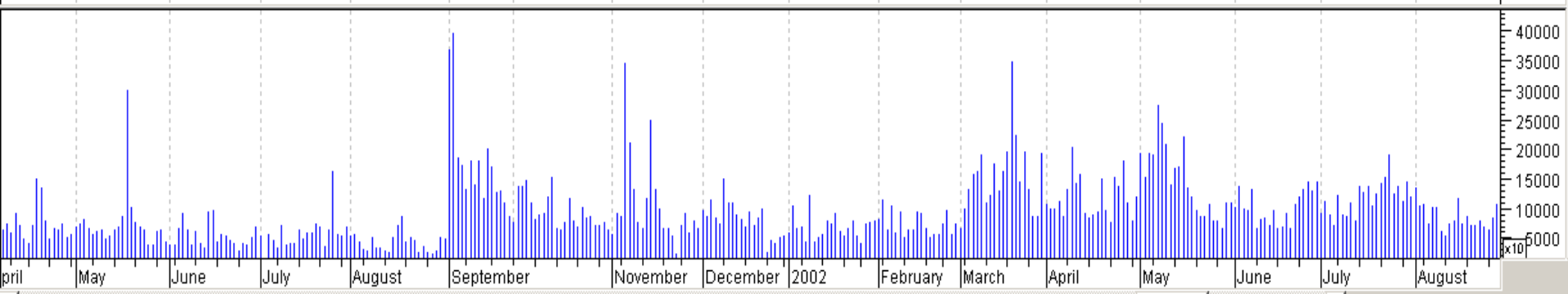
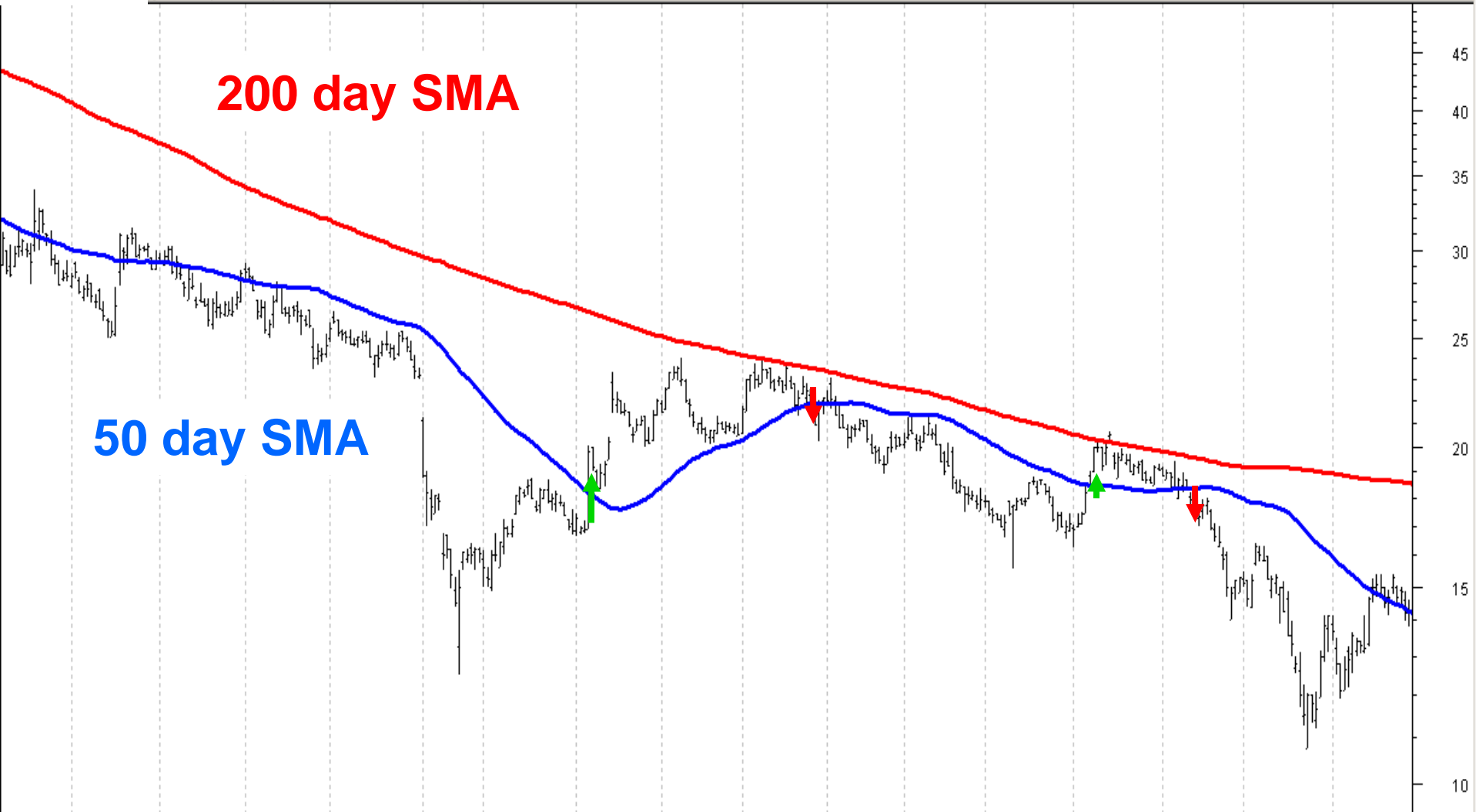
**50 day SMA**



(17.9000, 18.5600, 17.8700, 18.4500, +0.59000)

**200 day SMA**

**50 day SMA**



# Momentum Oscillators



- Measures the rate-of-change of a price relative to a price  $N$ -days ago
- Scale is a numeric range rather than price
  - e.g. 0 to 100, or -1 to +1, etc.
- Includes
  - Rate of Change (ROC) indicator
  - Relative Strength Index (RSI)
- Extremes represent overbought and oversold conditions

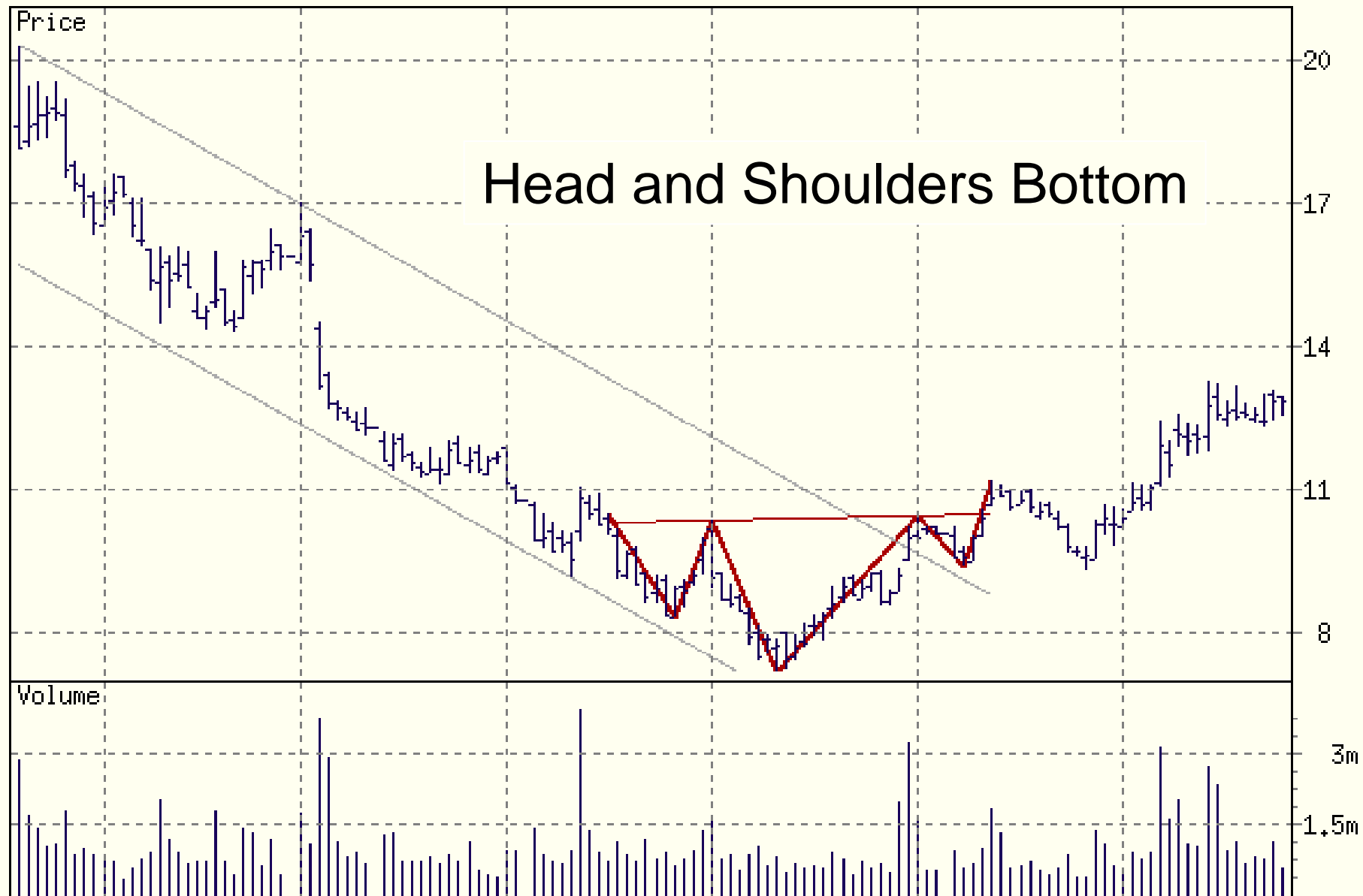


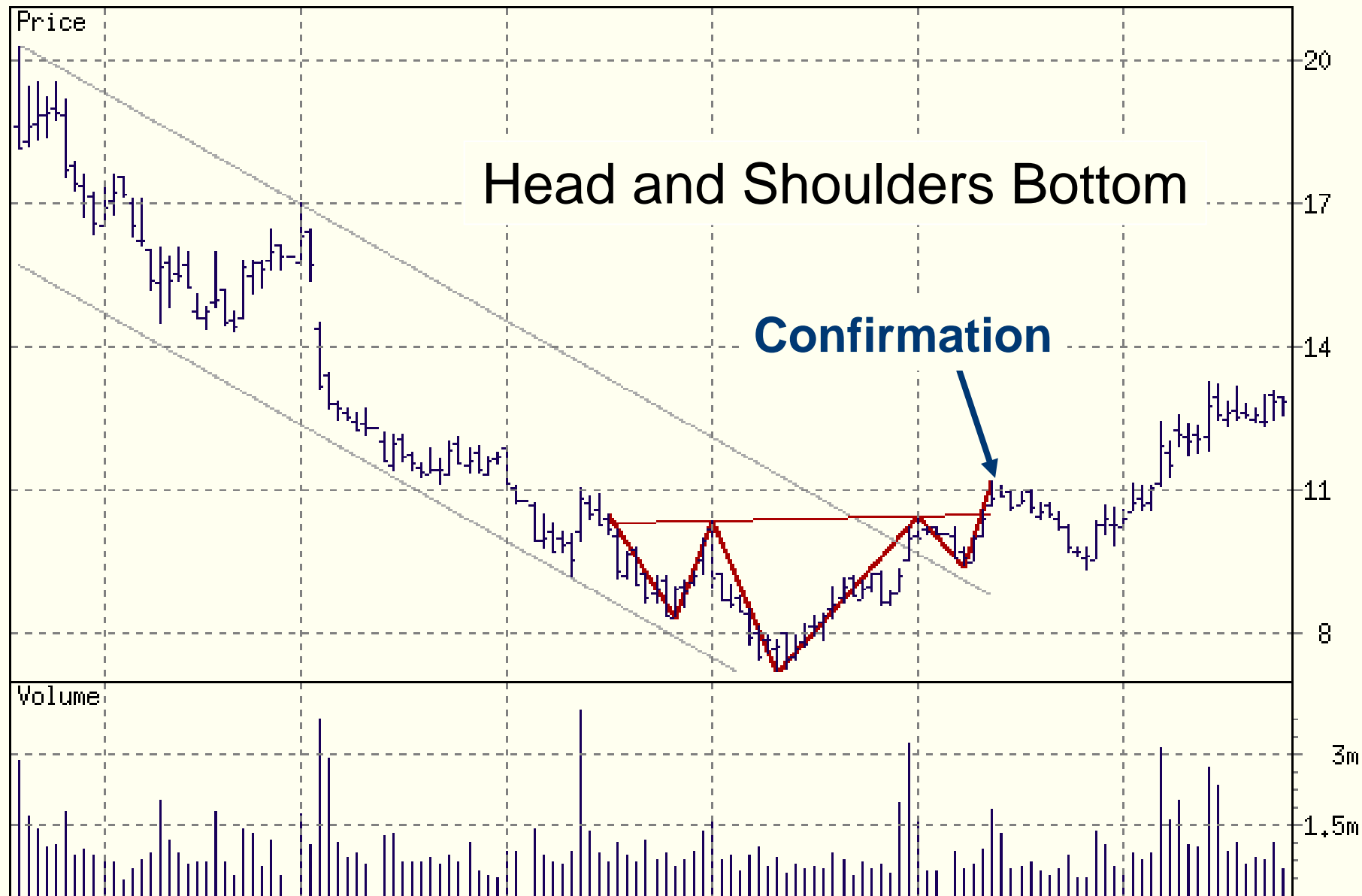


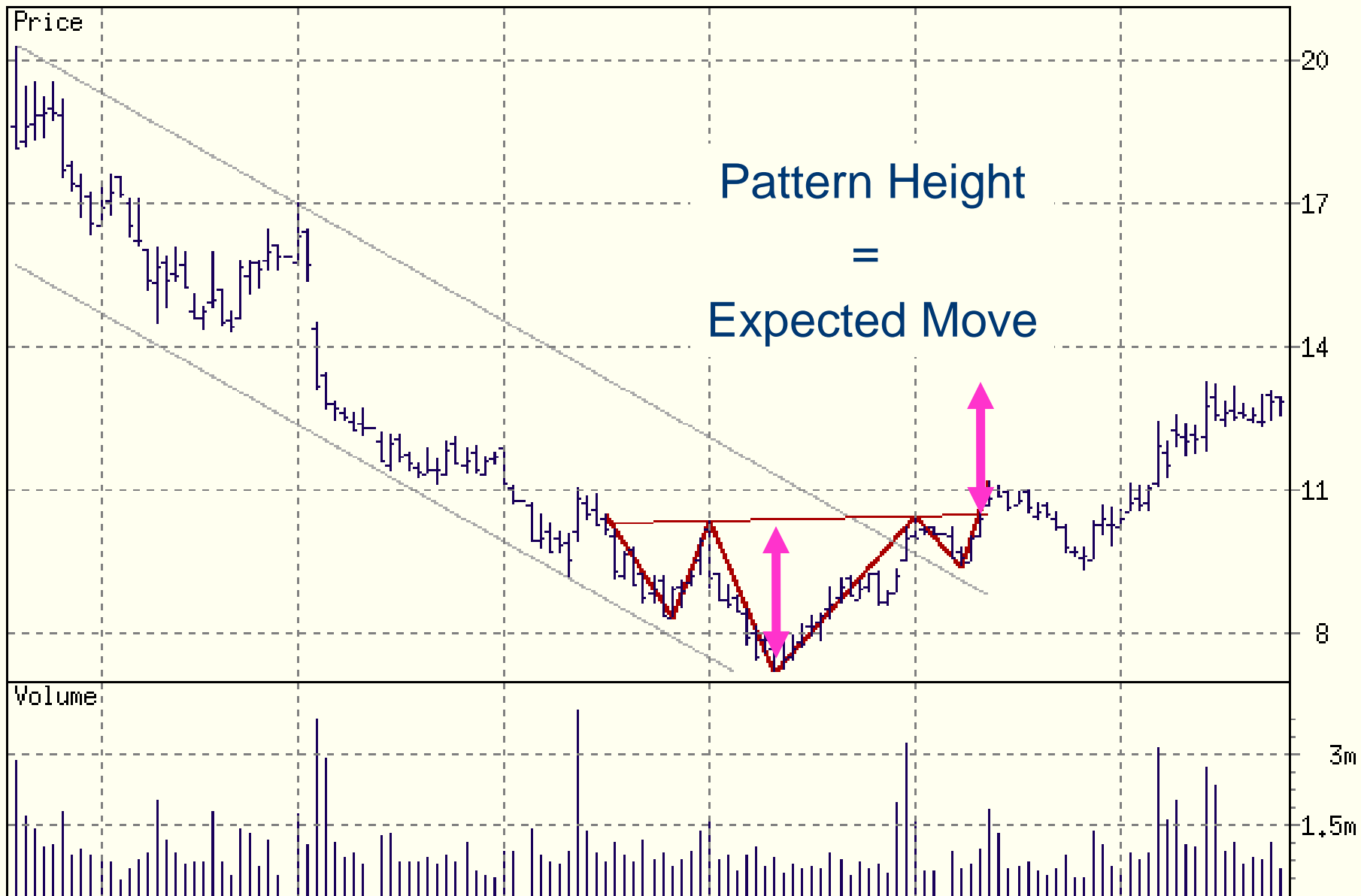
# Technical Event Classes

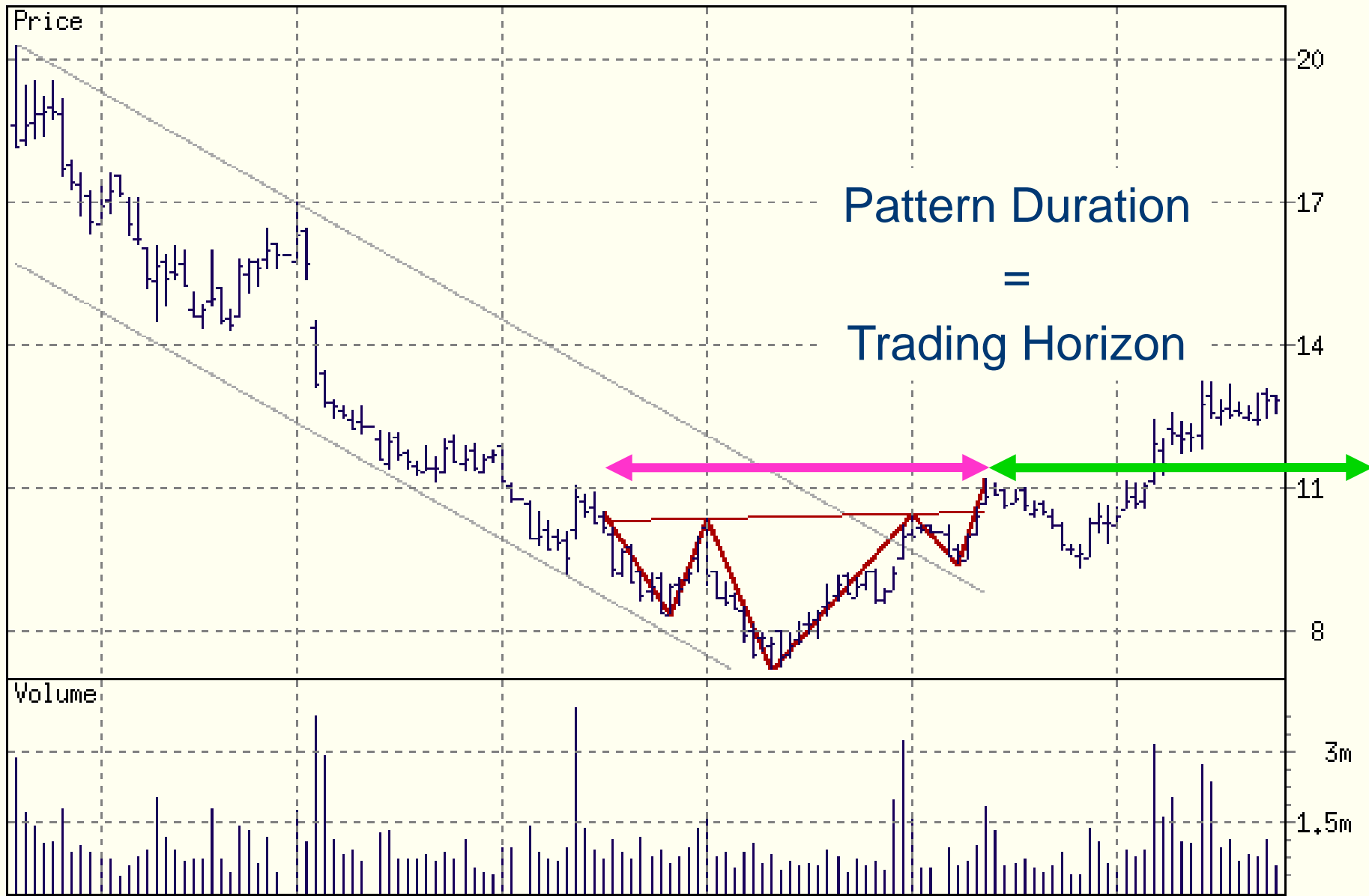


- Short-term Patterns
  - Based on the shape and relationship of candlesticks or price bars
- Indicators & Oscillators
- **Classic Patterns**
  - Distinct price swings forming shape on chart









# Triple Bottoms / Tops



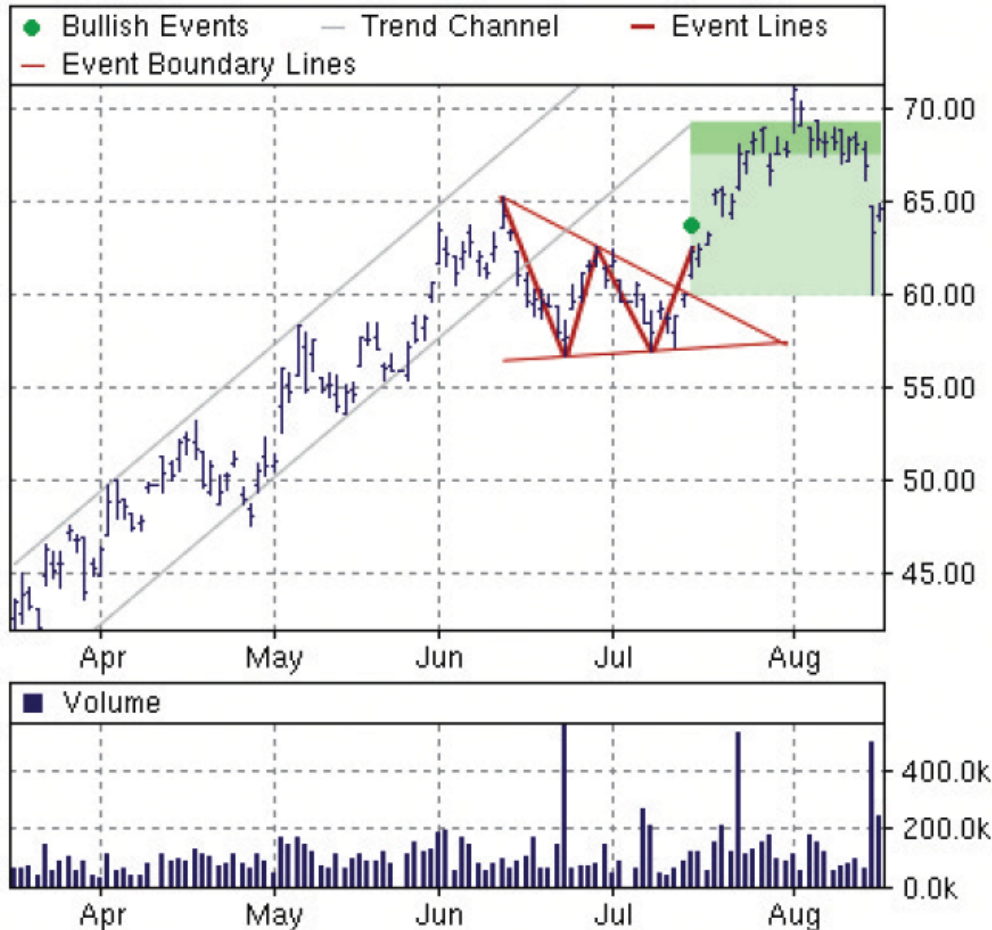
- The Triple Bottom starts with prices moving downward followed by three sharp lows
- Volume decreases with each successive low and finally bursts as the price rises above the highest high confirming a bullish price reversal
- Bearish counterpart is the Triple Top

# Double Bottoms / Tops



- The Double Bottom pattern marks the reversal of a prior downtrend
- The price forms two distinct lows that are roughly the same level
- Price finally breaks upward above the highest high to confirm the bullish signal
- Bearish counterpart is the Double Top

# Triangles



- The bullish triangle is characterized by two converging trendlines as prices reach lower highs and higher lows
- At roughly 2/3 to 3/4 of the distance to the apex, the price breaks upward above the upper trendline with a noticeable increase in volume
- Types of triangles include: top triangles, bottom triangles and bullish/bearish continuation triangles



# Upside / Downside Breakouts



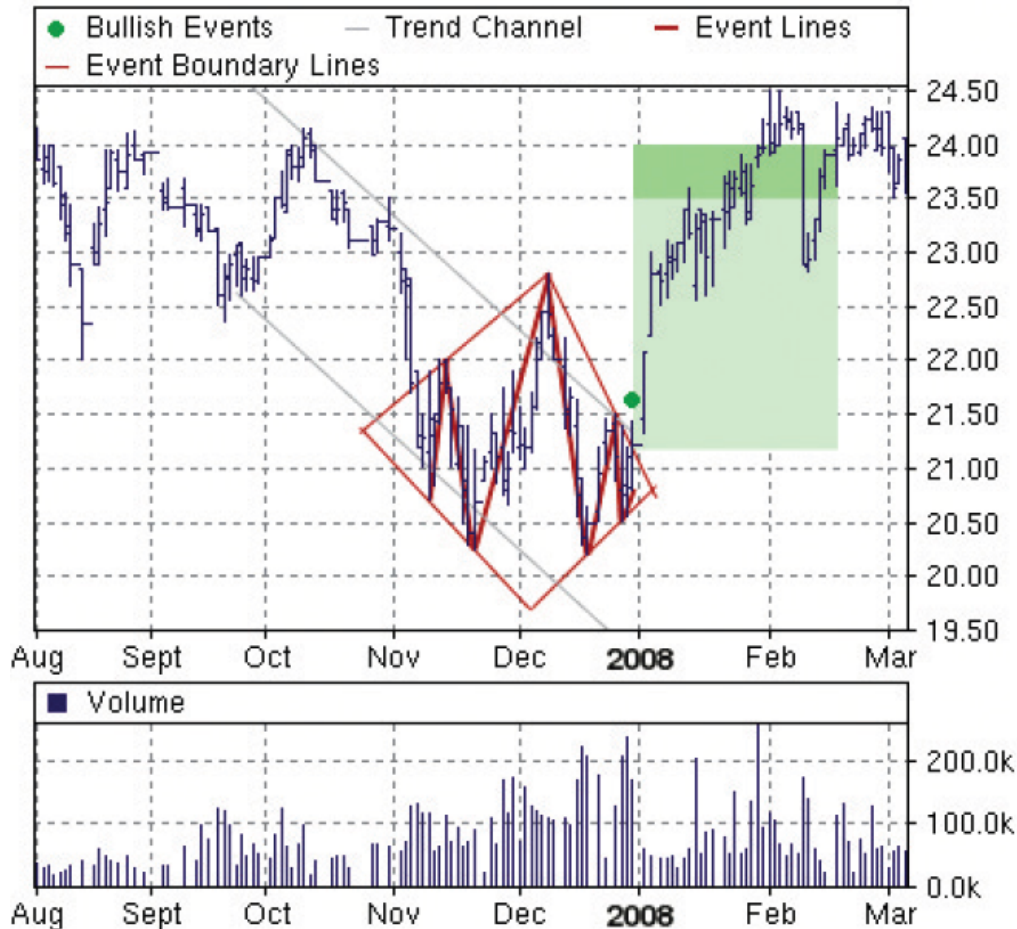
- The Upside Breakout pattern occurs when the price breaks upward through the top of a trading range marked by horizontal trendlines
- This bullish pattern indicates a change in sentiment amongst traders
- Bearish counterpart is the Downside Breakout

# Megaphone Bottom / Top



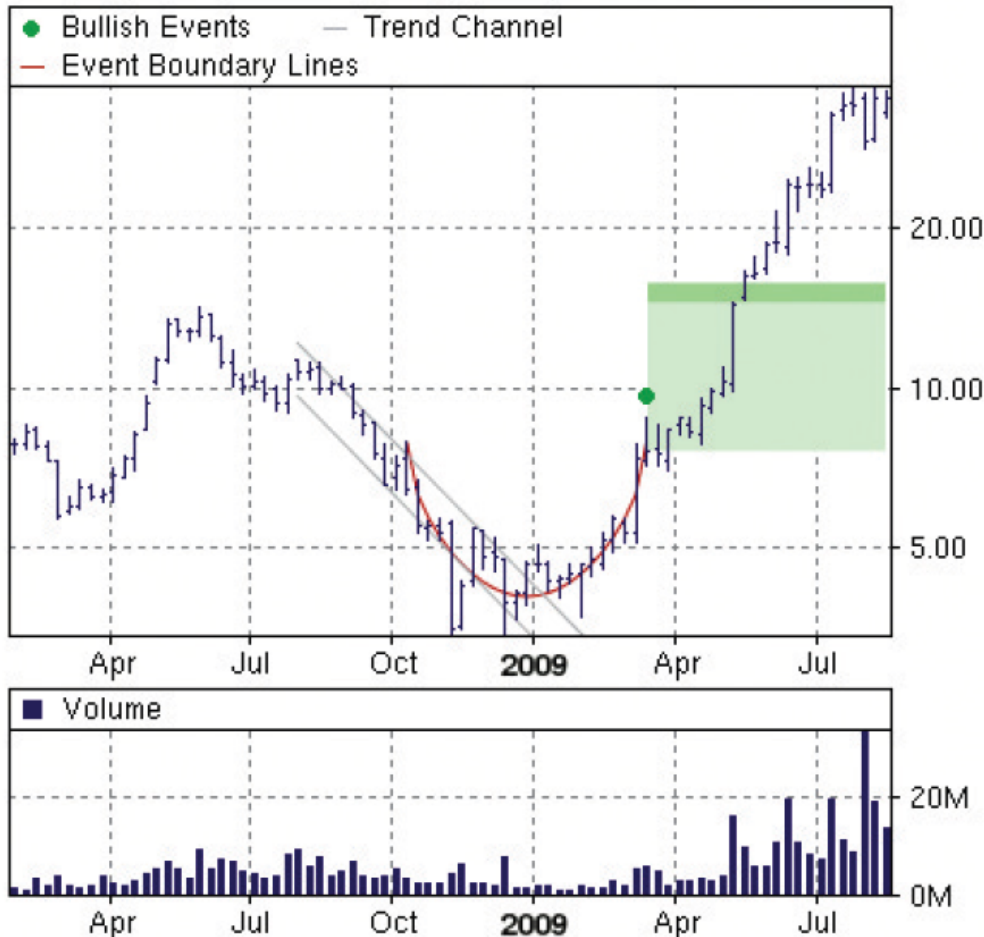
- The rare Megaphone Bottom (a.k.a. Broadening Pattern) is characterized by its successively higher highs and lower lows which form after a downward move
- The bullish pattern is confirmed when the price breaks upward above the highest high and fails to fall below this level again
- The bearish counterpart is the Megaphone Top

# Diamonds



- A bullish Diamond pattern is characterized by prices forming higher high and lower lows in a broadening pattern. The trading range then narrows with lower highs and higher lows forming
- The price breaks upward above the upper trendline signaling the formation of a new trend
- Volume may remain high during the formation of a Diamond pattern
- Types of Diamonds include: Diamond Bottom, Diamond Top, Bullish/Bearish Continuation Diamond

# Rounded Bottoms / Tops



- A Rounded Bottom follows a downtrend forming a gradual bowl-shape reflecting a shift in the balance of supply and demand. Volume tends to mirror the price pattern
- As sentiment turns, the price starts to move upward and volume begins to increase
- The bullish pattern is confirmed when the price crosses above its moving average
- Bearish counterpart is the Rounded Top

# Recognia Technical Events...



## Short-term Patterns

- Gap ups and downs
- Hammers
- Shooting stars
- Bullish engulfing line
- Bearish engulfing lines
- Gravestones
- Hanging man
- Inverted hammers
- Island bottoms
- Island tops
- Shooting stars
- And more...

## Classic Chart Patterns

- Head and shoulders tops and bottoms
- Symmetrical continuation triangles
- Double tops and bottoms
- Ascending continuation triangles
- Descending continuation triangles
- Bottom triangles / wedges
- Top triangles / wedges
- Continuation diamonds
- Continuation wedges
- Diamond tops and bottoms
- Megaphone tops and bottoms
- Triple tops and bottoms
- Upside breakouts
- Downside breakouts
- And more...

## Indicators and Oscillators

- Price Crosses Moving Average
- Double moving average crossovers
- Triple moving average crossovers
- MACD (Moving average convergence divergence)
- Momentum
- Relative strength indicator (RSI)
- Short-term KST
- Intermediate-term KST
- Long-term KST
- And more...



# Using the New Fidelity Screeners



## Stock Screener

[My Screens](#) | [Predefined Screens](#)

**Criteria** [Hide](#)

[Save to My Screens](#) | [Clear All](#)

**Market Capitalization** 406 [×](#)  
\$18.96B and Above

**Dividend Yield** 151 [×](#)  
2.85% and Above

**Beta (1 Year Annualized)** 84 [×](#)  
0.00-1.09

**MATCHES:** 84

ADD CRITERIA:

OR [View All](#)

- [+ Most Popular \(15 Criteria\)](#)  
Represents the most popular criteria used on the Fidelity.com Stock Screener last month.
- [+ Basic Company Facts \(10 Criteria\)](#)
- [+ Dividends \(8 Criteria\)](#)
- [+ Earnings \(7 Criteria\)](#)
- [+ Company Value \(10 Criteria\)](#)
- [+ Company Growth \(16 Criteria\)](#)
- [+ Management & Growth \(31 Criteria\)](#)

**Searcher Results** Showing 1 - 84 of 84 Results  
AS OF 02:46 PM ET 12/07/2016

Search Criteria
Basic Facts
Performance & Volatility
Valuation, Growth & Ownership
Analyst Opinions

Chart  [Go](#) [+ Add My Stocks](#) [Print Results](#) [Download Results](#)

Action	Symbol	Company Name	Security Type	Security Price	Market Capitalization	Dividend Yield	Beta (1 Year Ann)
			Common Stock	\$40.29 +2.38%	\$241.6B	4.98%	0.47
			Common Stock	\$56.84 +1.09%	\$63.0B	3.27%	0.62
			Common Stock	\$52.88 +2.13%	\$21.3B	3.57%	0.99
			Common Stock (REIT)	\$219.69 +2.32%	\$37.2B	3.73%	0.66
			Depository Receipt	\$40.49 -0.42%	\$104.7B	4.09%	0.90
			Common Stock	\$153.89 +1.08%	\$94.2B	2.86%	1.05
			Common Stock (REIT)	\$84.16 +0.86%	\$28.2B	4.55%	0.56
			Depository Receipt	\$16.04 +0.34%	\$32.8B	2.86%	0.88
			Common Stock (REIT)	\$62.32 +0.86%	\$22.6B	3.26%	0.49
			Common Stock	\$33.44 +1.18%	\$30.5B	3.85%	0.23

Create your own screens with the fundamentals and trading criteria you find interesting

# Using the New Fidelity Screeners



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[How to Use the Screener](#) | [Criteria Definitions](#) | [Classic Screener](#)

## Stock Screener

[My Screens](#) | [Predefined Screens](#)

**Criteria** Hide

[Save to My Screens](#) | [Clear All](#)

**Market Capitalization** 406 X  
\$18.95B and Above

**Dividend Yield** 151 X  
2.85% and Above

**Beta (1 Year Annualized)** 84 X  
0.00-1.09

**Classic Pattern Technical Event** X

Definition

**Event Date**  
Any Active

**Bullish Events** 19 out of 2458

**Bearish Events** 37 out of 1909

**MATCHES:** 19

ADD CRITERIA:

Search Criteria... OR [View All](#)

- Most Popular** (15 Criteria)  
Represents the most popular criteria used on the Fidelity.com Stock Screener last month.
- Basic Company Facts** (10 Criteria)
- Dividends** (8 Criteria)
- Earnings** (7 Criteria)
- Company Value** (10 Criteria)
- Company Growth** (18 Criteria)

**Screener Results** Showing 1 - 19 of 19 Results  
AS OF 02:50 PM ET 12/07/2016

Search Criteria Basic Facts | Performance & Volatility | Valuation, Growth & Ownership | Analyst Opinions

Chart   [Add My Stocks](#) [Print Results](#) [Download Results](#)

Action	Symbol	Company Name	Security Type	Security Price	Market Capitalization	Dividend Yield	Beta (1 Year Ann)	Bullish Classic Pattern	Ascend. Cont. Triangle	Bottom Triangle	Cont. Diamond	Cont. Wedge	Diamond Bottom	Double Bottom	Flag	H & S Bottom	Megaphone Bottom	Pennant	Rounded Bottom	Tr
		Common Stock	\$40.27 +2.34%	\$241.6B	4.08%	0.47	3	0	0	0	0	0	0	1	0	0	1	0	0	
		Common Stock	\$56.84 +1.10%	\$63.0B	3.27%	0.82	2	0	0	0	1	0	0	0	0	0	0	0	0	
		Common Stock	\$52.97 +2.31%	\$21.3B	3.57%	0.99	2	0	0	0	0	0	0	0	0	1	0	0	0	
		Common Stock (REIT)	\$219.66 +2.31%	\$37.2B	3.73%	0.66	2	0	0	0	0	0	2	0	0	0	0	0	0	
		Depository Receipt	\$40.48 -0.44%	\$104.7B	4.06%	0.90	2	0	0	0	0	0	1	0	0	0	0	0	0	
		Common Stock	\$153.82 +1.04%	\$94.2B	2.86%	1.05	1	0	0	0	0	0	1	0	0	0	0	0	0	
		Common Stock (REIT)	\$84.15 +0.85%	\$28.2B	4.55%	0.56	1	0	0	0	1	0	0	0	0	0	0	0	0	
		Depository Receipt	\$16.04 +0.38%	\$32.8B	2.86%	0.88	1	0	0	0	1	0	0	0	0	0	0	0	0	
		Common Stock (REIT)	\$62.39 +0.97%	\$22.6B	3.26%	0.49	1	0	0	0	0	0	0	0	0	0	0	0	0	
		Common Stock	\$33.42 +1.12%	\$30.5B	3.85%	0.23	1	0	0	0	0	0	0	1	0	0	0	0	0	
		Common Stock	\$72.15 +0.25%	\$25.2B	2.86%	0.46	1	0	0	0	0	0	0	0	0	0	0	0	0	
		Common Stock	\$119.44 +0.33%	\$99.0B	3.15%	0.58	1	0	0	0	0	0	0	1	0	0	0	0	0	
		Common Stock	\$59.88 -0.70%	\$166.5B	3.12%	0.77	1	0	0	0	1	0	0	0	0	0	0	0	0	
		Common Stock	\$58.78 +0.59%	\$29.5B	3.36%	0.38	1	0	0	0	1	0	0	0	0	0	0	0	0	

Add Technical Events and see the number and type of matching events

Images are for illustrative purposes only

# Also Screen for ETFs using Technical Events



## ETF/ETP\* Screener

**Criteria** Hide

Save to My Screens | Clear All

ETP Type: 1745  
ETFs

Leveraged / Inverse: 1556  
Not Leveraged or Inverse

Equity: Sector Objective: 31 X  
Financials

Performance (Last 4 Wk/13 Wk): 25 X  
0.67% and Above

Candlestick/Multi Bar Technical Event ⊗

Definition 🔗

Event Date: Any Active

+ Bullish Events: 3 out of 421

+ Bearish Events: 15 out of 449

**MATCHES:** 18

ADD CRITERIA:

Search Criteria... OR [View All](#)

- + Basic ETF / ETP Facts (14 Criteria)
- + Objectives (12 Criteria)
- + Trading Characteristics (22 Criteria)
- + Performance (16 Criteria)
- + Volatility (10 Criteria)

**Screener Results** Showing 1 - 18 of 18 Results AS OF 03:07 PM ET 12/07/2016

Search Criteria | [Basic Facts](#) | [Income Characteristics](#) | [Performance & Risk](#) | [Technicals](#) | [Analyst Opinions](#)

Take action on selected... Go + Add My ETFs 🖨 Print Results 📄 Download Results

Action	Symbol	ETP Name	Net Assets	ETP Type	Leveraged / Inverse	Equity: Sector Objective	Perf (Last 4 Wk/13 Wk)	Bullish Candle/Multi-Bar	Bearish Candle/Multi-Bar
			\$236.2M	ETF	1x, Not Leveraged, Not Inverse	Financials	1.94%	0	2
			\$234.2M	ETF	1x, Not Leveraged, Not Inverse	Financials	1.49%	1	0
			\$71.9M	ETF	1x, Not Leveraged, Not Inverse	Financials	1.28%	1	0
			\$1.8B	ETF	1x, Not Leveraged, Not Inverse	Financials	1.19%	0	3
			\$5.6M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.99%	0	1
			\$798.6M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.98%	0	1
			\$326.0M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.97%	0	2
			\$437.6M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.97%	0	1
			\$198.4M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.93%	1	0
			\$32.7M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.91%	0	1
			\$157.8M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.90%	0	1
			\$1.2B	ETF	1x, Not Leveraged, Not Inverse	Financials	0.90%	0	3
			\$22.3M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.90%	0	1
			\$340.2M	ETF	1x, Not Leveraged, Not Inverse	Financials	0.85%	0	1

Images are for illustrative purposes only

The Fidelity ETF Screener is a research tool provided to help self-directed investors evaluate these types of securities. The criteria and inputs entered are at the sole discretion of the user, and all screens or strategies with preselected criteria (including expert ones) are solely for the convenience of the user. Expert Screeners are provided by independent companies not affiliated with Fidelity. Information supplied or obtained from these Screeners is for informational purposes only and should not be considered investment advice or guidance, an offer of or a solicitation of an offer to buy or sell securities, or a recommendation or endorsement by Fidelity of any security or investment strategy. Fidelity does not endorse or adopt any particular investment strategy or approach to screening or evaluating stocks, preferred securities, exchange-traded products, or closed-end funds. Fidelity makes no guarantees that information supplied is accurate, complete, or timely, and does not provide any warranties regarding results obtained from its use. Determine which securities are right for you based on your investment objectives, risk tolerance, financial situation, and other individual factors, and reevaluate them on a periodic basis.



# Leverage Preset Expert Screens

## Stock Screener

**Criteria** < Hide

**No criteria applied**  
Start a new screen by selecting criteria below.

ADD CRITERIA:

OR [View All](#)

- + **Most Popular** (15 Criteria)  
Represents the most popular criteria used on the Fidelity.com Stock Screener last month.
- + **Basic Company Facts** (10 Criteria)
- + **Dividends** (8 Criteria)
- + **Earnings** (7 Criteria)
- + **Company Value** (10 Criteria)
- + **Company Growth** (16 Criteria)
- + **Management & Growth** (31 Criteria)
- + **Performance & Volatility** (19 Criteria)
- + **Trading Characteristics** (12 Criteria)
- + **Technicals** (4 Criteria)
- + **Analyst Opinions** (21 Criteria)

Don't see criteria you're looking for?  
[Switch to the Classic Stock Screener](#)

Start your stock screen by applying filters to the left

OR

Start a predefined screen developed by experts

**MOST POPULAR**

**GROWTH**

**GROWTH/VALUE**

**VALUE**

**TECHNICAL**

**INCOME**

**OTHER**

### About Technical Screens

Independent expert screens that focus on companies that exhibit trend, support and resistance, as well as momentum through the use of chart patterns and technical indicators. Technical Analysis uses historical data in order to attempt to identify future securities price movements. When used in conjunction with other technical analysis techniques or fundamental analysis, it can help you identify possible entry and exit points for trades and may help you achieve your investing goals. [Learn More](#)

Technical

**Bears in the Woods**  
Recognia, Inc.

To identify companies that have extended fundamental price ratios, have experienced a recent bearish short-term technical structure, and have a history of higher than average.. [Learn More](#)

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Technical POPULAR

**Bottom Fishing**  
Recognia, Inc.

Many an investor has contemplated the conundrum of buy low and sell high. In this strategy we focus first on the buy low part of that immortal question and then use some technic.. [Learn More](#)

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Technical

**Bull Ride - Short Term**  
Recognia, Inc.

To pinpoint very short term trading plays based on simple intra-day price and volume anomaly identification - strengthened by a potential short-term technical bullish move initiated by a ... [Learn More](#)

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Technical

**Bullish Chart Patterns**  
Zack's Investment Research, Inc.

To find stocks in bullish price patterns, i.e. chart patterns. Since a stock's chart reflects the collective buying and selling of the participants and since the buying and selling is most likely.. [Learn More](#)

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Technical POPULAR

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