

# BIG BOOK *of* CHART PATTERNS



# Big Book of Chart Patterns

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## Introduction

The origins of chart patterns can be found in the work of Charles Dow in a series of articles published in his editorials for The Wall Street Journal from 1900-1902. His views were later developed into what is now known as "Dow Theory." Dow's observations of price trends and his understanding of trend based on the progression of peaks and troughs form the foundation for modern-day technical analysis.

The observations that Dow made, and the methodologies found in technical analysis are fractal in nature. This means that the techniques used can be applied to any aggregation period whether its intraday, daily, weekly or monthly.

As you study charts and look to identify patterns, you'll want to spend time to identify the successive peaks and troughs or highs and lows. Also, as part of your pattern recognition it is important to be able to identify the previous trend based on the aggregation period being used. The combination of the previous trend and the current highs and lows will form the foundation for proper chart pattern recognition.

This resource is intended to introduce you to 50 different price patterns. With every price pattern there is a setup, a trigger and a projected move. For each pattern, there is a description of whether the pattern is bullish, bearish or non-directional. Whether it's a signal of a continuation of the trend, a reversal of the trend, or is non-directional. Also, there is a description of how volume develops during the formation of the pattern, and how to establish a price projection based on the measuring technique for each pattern.

Statistical references in this book is taken from the Encyclopedia of Chart Patterns by Thomas Bulkowski. His work represents the most comprehensive study of the effectiveness of chart patterns to date.

1.

## Broadening Bottoms



Directional Bias: Bullish

Pattern Type: Reversal

**Pattern Description:** This pattern forms at the tail end of a downtrend. The pattern takes on the appearance of a megaphone as the price forms a series of higher highs and lower lows throughout the formation. The pattern needs at least two highs and lows to be a valid formation.

**Volume Description:** The volume should diminish through the pattern up until the breakout

**Breakout Confirmation:** A close above the upper trend-line on above average volume.

**Measuring Technique:** Measure from the highest high to the lowest low before the breakout, and add that amount to the highest high for the price target.

**Statistical Notes:** Wider megaphones tend to perform better than narrower formations. Formations near 1-year lows tend to perform better.

## 2.

# Broadening Tops



ROBERT HALF INTERNATIONAL, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: This pattern forms at the tail end of an uptrend. The pattern takes on the appearance of a megaphone as the price forms a series of higher highs and lower lows throughout the formation. The pattern needs at least two highs and lows to be a valid formation.

Volume Description: The volume should diminish through the pattern up until the breakout

Breakout Confirmation: A close below the lower trend-line on above average volume.

Measuring Technique: Measure from the highest high to the lowest low before the breakout and subtract that amount from the lowest low for the price target.

Statistical Notes: Wider megaphones tend to perform better than narrower formations. Formations near 1-year highs tend to perform better.

### 3.

## Bump-and-Run Reversal Bottoms



BULLISH



NON-DIRECTIONAL

### BARRICK GOLD CORPORATION



Directional Bias: Bullish

Pattern Type: Non-Directional

**Pattern Description:** This pattern is comprised of three phases and looks similar to a frying pan. There is the lead-in phase, the bump phase and the uphill run. The lead-in phase is the handle of the frying pan before a larger decline. Following the decline, the bump phase forms as the price forms a flat or rounded bottom. The uphill run phase is after the breakout. For this type of formation to be analyzed an arithmetic chart will need to be used.

**Volume Description:** Volume is typically high at the beginning of each phase and decreases throughout each phase.

**Breakout Confirmation:** A close above the upper trend-line drawn across the highs, during the lead-in phase, with above average volume.

**Measuring Technique:** The price target is the highest point of the lead-in phase.

**Statistical Notes:** Wider formations tend to perform better than narrower formations, and a throwback following a breakout tends to hurt performance.

# 4.

## Bump-and-Run Reversal Tops

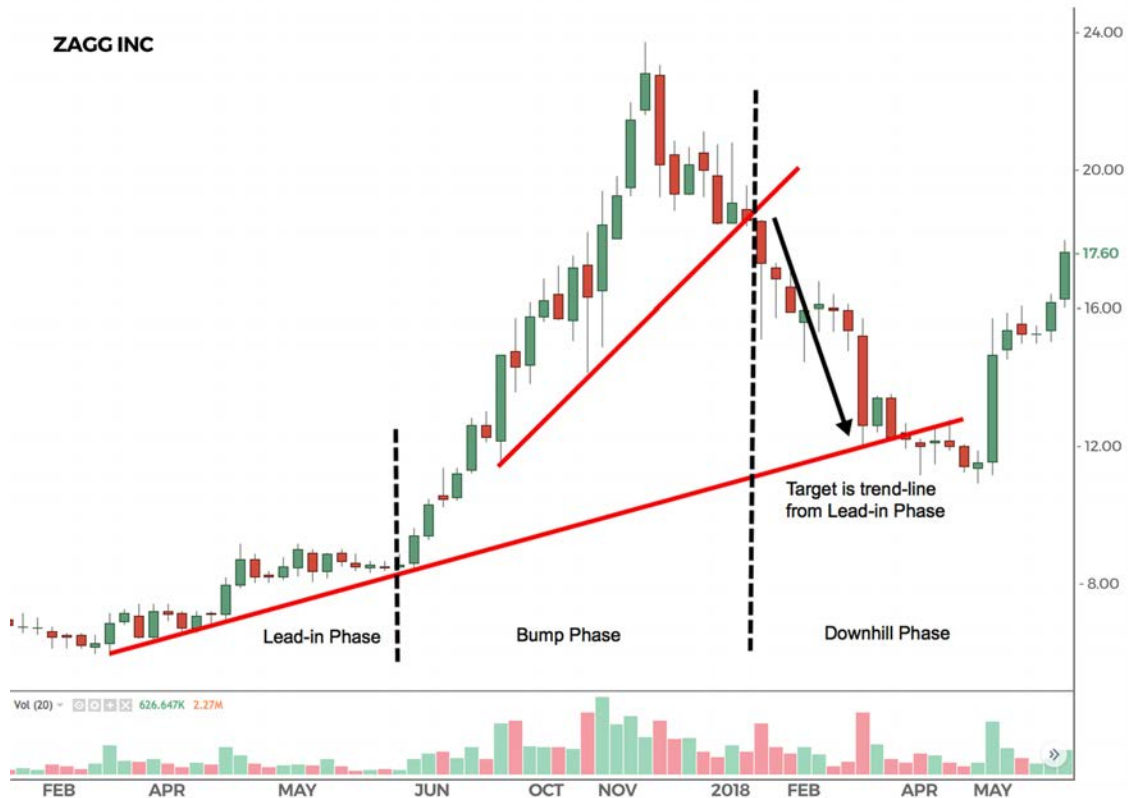


BEARISH



NON-DIRECTIONAL

ZAGG INC



Directional Bias: Bearish

Pattern Type: Non-Directional

**Pattern Description:** This pattern is comprised of three phases and looks similar to a mountain range. There is the lead-in phase, the bump phase and the downhill run. The lead-in phase is like a small range of foothills before the larger mountains. Following an advance, the bump phase forms as the price forms a flat or rounded top. The downhill run phase is after the breakout. For this type of formation to be analyzed an arithmetic chart will need to be used.

**Volume Description:** Volume is typically high at the beginning of each phase and decreases throughout each phase.

**Breakout Confirmation:** A close below the lower trend-line drawn across the lows, during the lead-in phase, with above average volume.

**Measuring Technique:** The price target is the lowest point of the lead-in phase.

**Statistical Notes:** Wider formations tend to perform better than narrower formations, and a pullback following a breakout tends to hurt performance.



# 5.

## Cup and Handle



CISCO SYSTEMS, INC.



Directional Bias: Bullish  
Pattern Type: Continuation

Pattern Description: This pattern occurs within the context of a longer uptrend and is characterized by the price forming a u-shaped cup with a short handle on the right. The duration of the cup should last at least 7 weeks if using a daily chart.

Volume Description: Volume will typically follow the shape of the cup, with high volume as the left lip forms, falling volume as the bottom of the cup forms and rising volume toward the right lip and on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn across the handle with above average volume.

Measuring Technique: The price target is obtained by measuring the right lip to the bottom of the cup and then added to the price level of the right lip.

Statistical Notes: The pattern has a low failure rate but doesn't move as strongly as other patterns. Patterns with shorter handles perform better than longer handles, and deeper cups with the left lip slightly higher than the right lip perform better.

# 6.

## Cup and Handle (Inverted)



Directional Bias: Bearish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within the context of a longer downtrend and is characterized by the price forming an inverted u-shaped cup with a short handle on the right. The duration of the cup should last at least 7 weeks if using a daily chart.

Volume Description: Volume will typically follow the opposite of the shape of the cup, with high volume as the left lip forms, falling volume as the rounded top of the cup forms and rising volume toward the right lip and on the breakout.

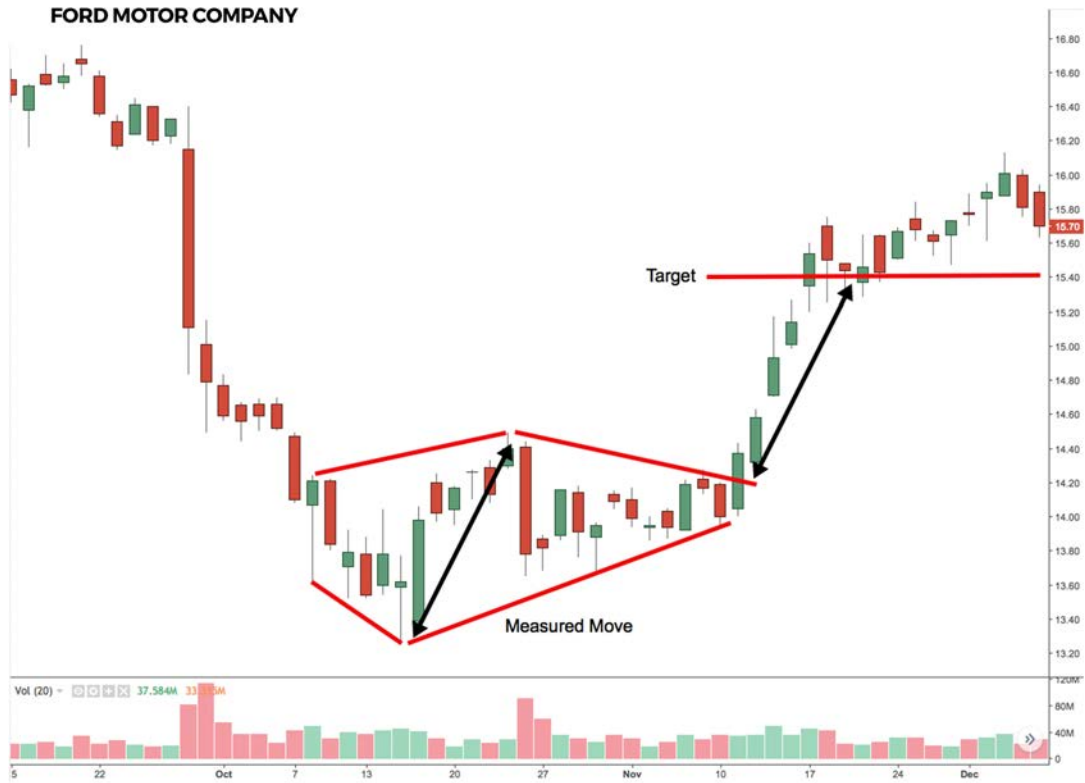
Breakout Confirmation: A close below the lower trend-line drawn across the handle with above average volume.

Measuring Technique: The price target is obtained by measuring the right lip to the top of the cup and then subtracted from the price level of the right lip.

Statistical Notes: The pattern has a low failure rate but doesn't move as strongly as other patterns. Patterns with shorter handles perform better than longer handles, and deeper cups with the left lip slightly lower than the right lip perform better.

# 7.

## Diamond Bottoms ★ ★ ★ ★



Directional Bias: Bullish  
Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer downtrend. Initially the pattern begins a broadening formation with higher highs and lower lows, but then begins to narrow with lower highs and higher lows.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn across the downward-sloping highs with above average volume.

Measuring Technique: Measure the widest point of the diamond's range and add it to the breakout level.

Statistical Notes: Breakouts nears the 1-year low typically outperform, and throwbacks following the breakout generally hurt performance. The pattern has a low failure rate with decent upside potential but tend to fall-back once the target high is reached. Formations with more range between highs and lows perform better than shorter ranges.

# 8.

## Diamond Tops ★ ★ ★ ★



Directional Bias: Bearish  
 Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer uptrend. Initially the pattern begins a broadening formation with higher highs and lower lows, but then begins to narrow with lower highs and higher lows.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn across the upward-sloping highs with above average volume.

Measuring Technique: Measure the widest point of the diamond's range and subtract it from the breakout level.

Statistical Notes: Breakouts near the 1-year high typically outperform, and pullbacks following the breakout generally hurt performance. The pattern has a low failure rate with decent upside potential but tend to fallback once the target high is reached. Formations with more range between highs and lows perform better than shorter ranges.

# 9.

## Double Bottom (Adam & Adam) ★ ★ ★ ★



BULLISH



REVERSAL

ROBERT HALF INTERNATIONAL INC.



Directional Bias: Bullish

Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer downtrend. The pattern forms two equal lows with each low forming a v-shaped bottom with a single day's candle touching the low.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn horizontally across the intervening high between the lows with above average volume.

Measuring Technique: Measure the distance between the high and the two lows and add it to the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left bottom performs better.

# 10.

## Double Bottom (Adam & Eve)



BULLISH



REVERSAL



Directional Bias: Bullish  
 Pattern Type: Reversal

**Pattern Description:** This pattern occurs within the context of a longer downtrend. The pattern forms two equal lows with one low forming a v-shaped bottom with a single day's candle touching the low and the other forming a wider bottom.

**Volume Description:** Volume tends to drift downward during the formation and expand on the breakout.

**Breakout Confirmation:** A close above the upper trend-line drawn horizontally across the intervening high between the lows with above average volume.

**Measuring Technique:** Measure the distance between the high and the two lows, and add it to the breakout level.

**Statistical Notes:** Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left bottom performs better.

# 11.

## Double Bottom (Eve & Eve)



Directional Bias: Bullish  
 Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer downtrend. The pattern forms two equal lows with each low forming a wider, rounded bottom.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn horizontally across the intervening high between the lows with above average volume.

Measuring Technique: Measure the distance between the high and the two lows and add it to the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left bottom performs better.



# 12.

## Double Tops (Adam & Adam)



Directional Bias: Bearish  
 Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer uptrend. The pattern forms two equal highs with each high forming a v-shaped top with a single day's candle touching the high.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn horizontally across the intervening low between the highs with above average volume.

Measuring Technique: Measure the distance between the low and the two highs and subtract it from the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left top performs better.

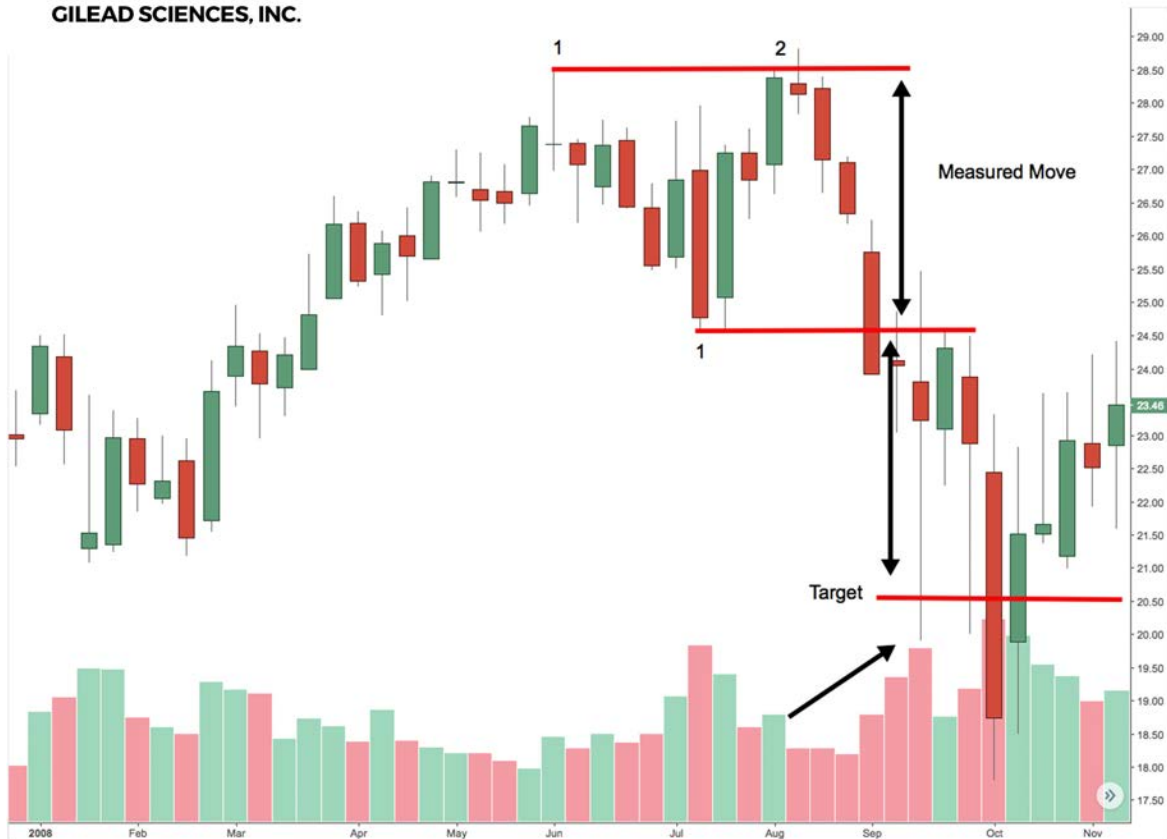


# 13.

## Double Tops (Adam & Eve)



GILEAD SCIENCES, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer uptrend. The pattern forms two equal highs with one high forming a v-shaped top with a single day's candle touching the high and the other forming a wider, more rounded top.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn horizontally across the intervening low between the highs with above average volume.

Measuring Technique: Measure the distance between the low and the two highs, and subtract it from the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left top performs better.

14.

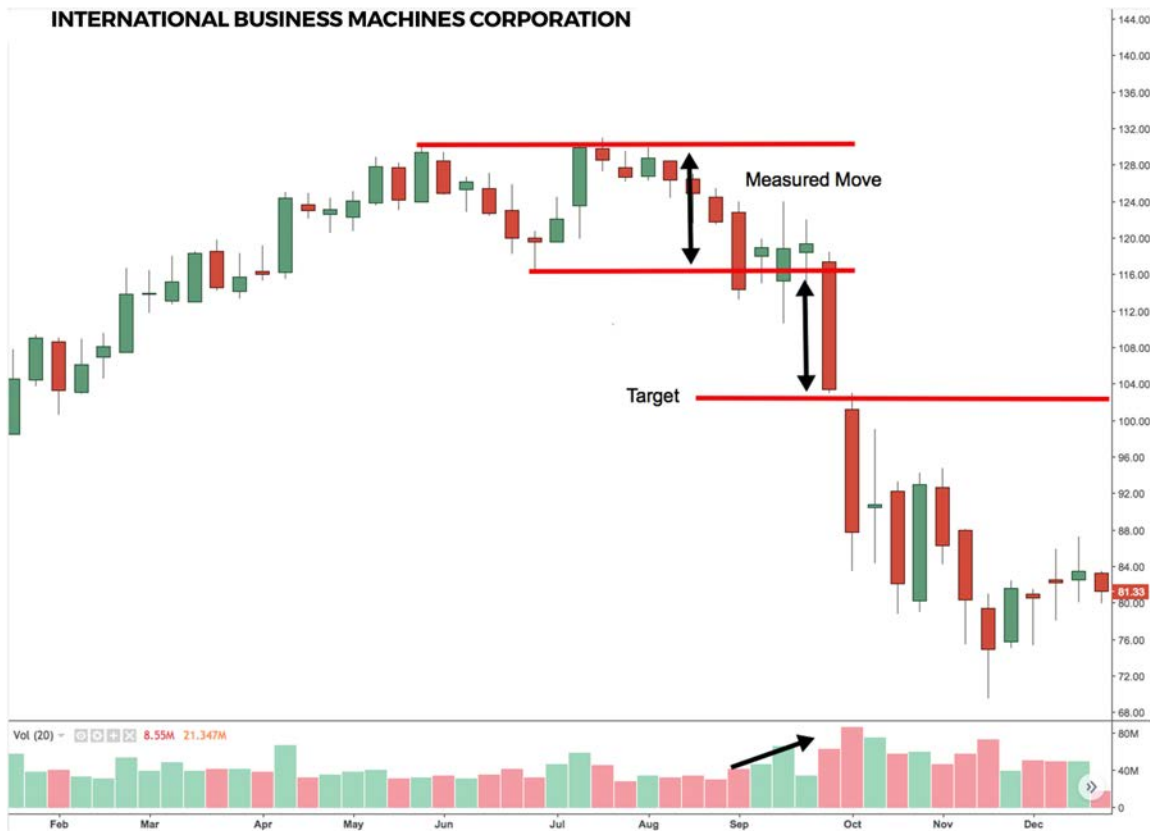
## Double Tops (Eve & Eve)



BEARISH



REVERSAL



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer uptrend. The pattern forms two equal highs with each high forming a wider, more rounded top.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn horizontally across the intervening low between the highs with above average volume.

Measuring Technique: Measure the distance between the low and the two highs, and subtract it from the breakout level.

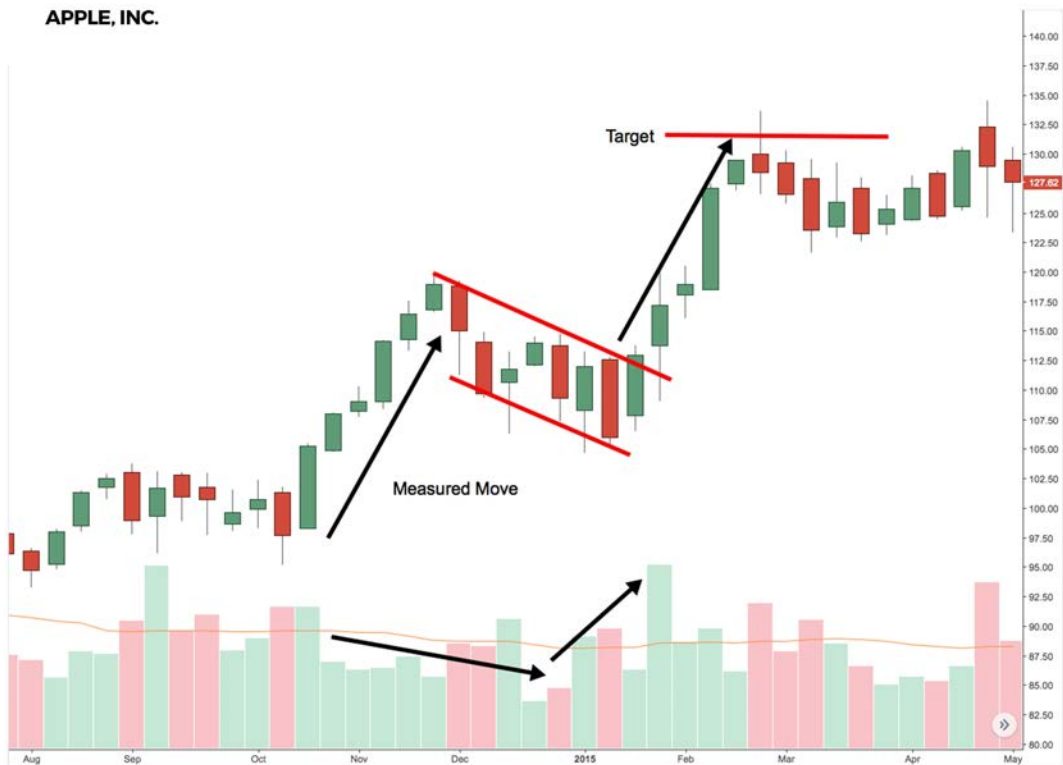
Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left top performs better.

# 15.

## Flags (Bullish) ★ ★ ★ ★



APPLE, INC.



Directional Bias: Bullish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within the context of a longer uptrend and following a steep, quick upward move. Following the move, the pattern then forms a short horizontal or downward sloping channel shaped like a flag. The flag portion of the pattern shouldn't last more than 3-4 weeks if on a daily chart.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn across the highs with above average volume.

Measuring Technique: Measure the length of the previous steep move leading into the flag, and then add that amount to the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Flag formations that breakout in the direction of the prevailing market trend tend to perform better, and flags without gaps tend to perform better.

# 16.

## Flags (Bearish)



BEARISH



CONTINUATION

TWITTER, INC.



Directional Bias: Bearish

Pattern Type: Continuation

Pattern Description: This pattern occurs within the context of a longer downtrend and following a steep, quick downward move. Following the move, the pattern then forms a short horizontal or upward sloping channel shaped like a flag. The flag portion of the pattern shouldn't last more than 3-4 weeks if on a daily chart.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn across the lows with above average volume.

Measuring Technique: Measure the length of the previous steep move leading into the flag, and then subtract that amount from the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Flag formations that breakout in the direction of the prevailing market trend tend to perform better, and flags without gaps tend to perform better. Bull flags typically perform better than bear flags.

# 17.

## Flags (High & Tight)



BULLISH



CONTINUATION

NETFLIX, INC.



Directional Bias: Bullish  
 Pattern Type: Continuation

Pattern Description: This pattern is represented by a narrow consolidation range that may last from several days to several weeks following a doubling in the stock price.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn across the highs with above average volume.

Measuring Technique: Measure the length of the previous trend from low to high leading into the flag, and then add one-half that amount to the breakout level.

Statistical Notes: Formations with less range between highs and lows perform better than wider ranges. Throwbacks hurt performance.

# 18.

## Gaps (Area)



Directional Bias: Non-Directional  
 Pattern Type: Reversal

Pattern Description: Area gaps are common gaps that occur within or just following a consolidation. An area gap is identified by the hook in the price that typically occurs within a week to fill the gap.

Volume Description: Volume tends to be high on the gap day but levels off quickly.

Breakout Confirmation: A close above or below the high or low of the gap day in the opposite direction of the gap.

Measuring Technique: The expectations for movement is the price closing the gap and the price returning to the pre-gap level.

Statistical Notes: Bearish and bullish area gaps typically fill within a week nearly 90% of the time regardless of the prevailing market direction.

# 19.

## Gaps (Breakaway)

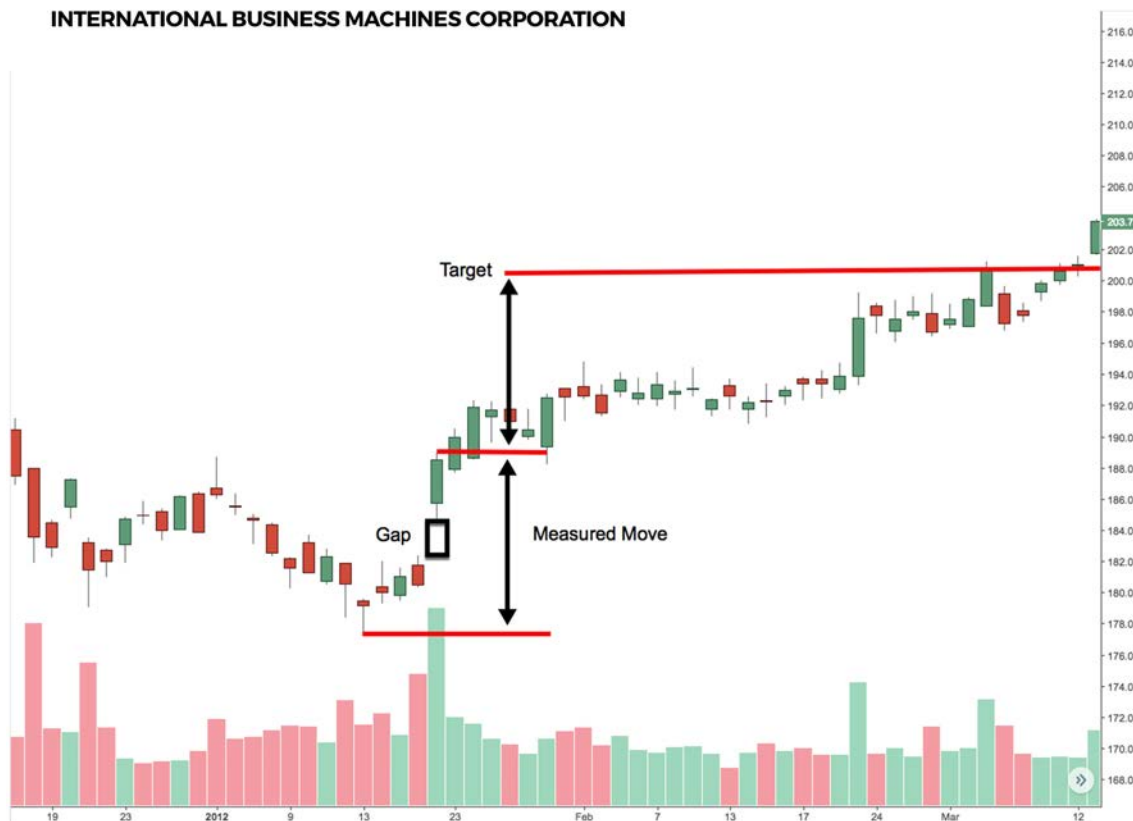


NON-DIRECTIONAL



CONTINUATION

INTERNATIONAL BUSINESS MACHINES CORPORATION



Directional Bias: Non-Directional

Pattern Type: Continuation

Pattern Description: Breakaway gaps can be bullish or bearish and typically occur at the outset of a new trend following a consolidation phase. Following the gap, the price continues to rising to form higher highs and lows.

Volume Description: Volume tends to be significantly higher on the gap day versus the previous day and continues to be elevated for several days.

Breakout Confirmation: A breakout from a consolidation and a continuation in the price movement in the direction of the gap following the gap day.

Measuring Technique: The expectations for movement is based on the price making a move that is two times the size of move to the high gap day.

Statistical Notes: Breakaway gaps tend to not close the gap quickly, often times taking six months or longer. Larger gaps tend to perform better than smaller gaps, and gaps that occur near a 12-month high or low perform better.

# 20.

## Gaps (Continuation)



NETFLIX, INC.



Directional Bias: Non-Directional  
 Pattern Type: Continuation

Pattern Description: Continuation gaps can be either bullish or bearish and typically occur near the middle of the preceding trend. The gap itself is a rather sharp rise in the price. These gaps are less common and will typically remain open following a gap to a new high or low in the direction of the preceding trend

Volume Description: Volume tends to be high on the gap day, but not unusually high.

Breakout Confirmation: A gap in price to a new high or low on higher volume in the middle of a trend. The price subsequently holds the gap level.

Measuring Technique: Since the move occurs in the middle of the trend, the projection would be the prior move to the middle of the gap and then added or subtracted from that middle value.

Statistical Notes: The bearish gap size in bear markets tends to be larger than bullish gaps in bullish markets.



# 21.

## Gaps (Exhaustion)

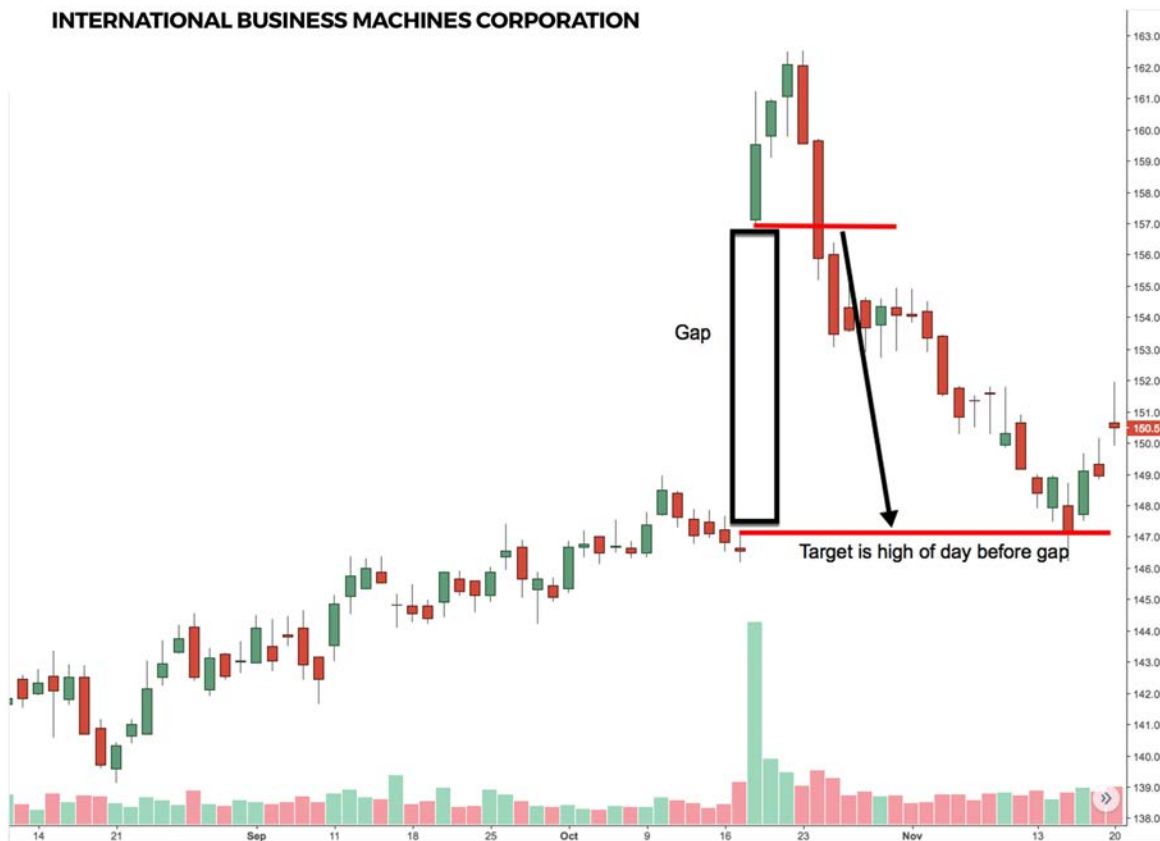


NON-DIRECTIONAL



REVERSAL

### INTERNATIONAL BUSINESS MACHINES CORPORATION



Directional Bias: Non-Directional

Pattern Type: Reversal

Pattern Description: Exhaustion gaps are gaps that occur later in the trend—which tend to be larger in size and pause for a couple days following the gap before forming a new high or low.

Volume Description: Most exhaustion gaps occur on high volume, and represent the last “gap” before the trend ends.

Breakout Confirmation: A large gap on high volume that occurs following a continuation gap near the end of the trend. The price fails to form a new high or low following the gap and then closes below the low of the gap day.

Measuring Technique: The target price is the high or low of the day prior to the gap.

Statistical Notes: Within one week nearly two-thirds of exhaustion gaps close, and within two weeks over 90% of gaps close.

# 22.

## Head & Shoulders (Inverted)



BULLISH



REVERSAL



Directional Bias: Bullish  
 Pattern Type: Reversal

**Pattern Description:** This pattern occurs at the bottom of a downtrend and is identified by three-valley formation with the center valley, or low, forming a lower low than the other two. The neckline is a trend-line that is drawn across the intervening highs and should be horizontal or downward sloping to the breakout area. There should be a degree of symmetry between the formation of the two shoulders and the head.

**Volume Description:** Volume tends to be high leading into the down move of the first shoulder, diminishes as the price rises completing the left shoulder, is balanced during the formation of the head, and expands as the price breaks above the neckline.

**Breakout Confirmation:** A close above the neckline with above average volume.

**Measuring Technique:** Measure the distance between the first high to the low of the head, and then add that amount to the neckline on the breakout.

**Statistical Notes:** Gaps on the breakout day tend to help performance along with tall narrow patterns.

# 23.

## Head & Shoulders (Inverted Complex) ★ ★ ★ ★



BULLISH



REVERSAL

ALASKA AIR GROUP, INC.



Directional Bias: Bullish  
 Pattern Type: Reversal

Pattern Description: This pattern occurs at the bottom of a downtrend and is identified by a multiple shoulders and/or head formation. The neckline is a trend-line that is drawn across the intervening highs and should be horizontal or downward sloping to the breakout area. There should be a degree of symmetry between the formation of the shoulders and head(s).

Volume Description: Volume tends to be higher on the left shoulders during the down-moves, balanced toward the head(s) and expanding on the breakout of the neckline.

Breakout Confirmation: A close above the neckline with above average volume.

Measuring Technique: Measure the distance between the first high to the low of the head, and then add that amount to the neckline on the breakout.

Statistical Notes: Gaps on the breakout day tend to help performance along with down-sloping necklines.

# 24.

## Head & Shoulders (Inverted Continuation)



BULLISH



CONTINUATION

### SOUTHWEST AIRLINES COMPANY



Directional Bias: Bullish

Pattern Type: Continuation

**Pattern Description:** This pattern occurs in the middle of an uptrend and is identified by three-valley formation with the center valley, or low, forming a lower low than the other two. The neckline is a trend-line that is drawn across the intervening highs and should be horizontal or downward sloping to the breakout area. There should be a degree of symmetry between the formation of the two shoulders and the head.

**Volume Description:** Volume tends to be high leading into the down move of the first shoulder, diminishes as the price rises completing the left shoulder, is balanced during the formation of the head, and expands as the price breaks above the neckline.

**Breakout Confirmation:** A close above the neckline with above average volume.

**Measuring Technique:** Measure the distance between the first high to the low of the head, and then add that amount to the neckline on the breakout.

**Statistical Notes:** Gaps on the breakout day tend to help performance along with tall narrow patterns.

# 25.

## Head & Shoulders ★★★★

↓ BEARISH

◀ REVERSAL



Directional Bias: Bearish  
 Pattern Type: Reversal

Pattern Description: This pattern occurs at the bottom of a downtrend and is identified by three-peak formation with the center peak, or high, forming a higher high than the other two. The neckline is a trend-line that is drawn across the intervening lows and should be horizontal or upward sloping to the breakout area. There should be a degree of symmetry between the formation of the two shoulders and the head.

Volume Description: Volume tends to be high leading into the upward move of the first shoulder, diminishes as the price falls completing the left shoulder, is balanced during the formation of the head, and expands as the price breaks below the neckline.

Breakout Confirmation: A close below the neckline with above average volume.

Measuring Technique: Measure the distance between the first low to the high of the head, and then subtract that amount from the neckline on the breakout.

Statistical Notes: Gaps on the breakout day tend to help performance along with tall narrow patterns.

# 26.

## Head & Shoulders (Complex) ★ ★ ★ ★



DIAMOND OFFSHORE DRILLING, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: This pattern occurs at the top of an uptrend and is identified by a multiple shoulders and/or head formation. The neckline is a trend-line that is drawn across the intervening lows and should be horizontal or upward sloping to the breakout area. There should be a degree of symmetry between the formation of the shoulders and head(s).

Volume Description: Volume tends to be higher on the left shoulders during the up-moves, balanced toward the head(s) and expanding on the breakout below the neckline.

Breakout Confirmation: A close below the neckline with above average volume.

Measuring Technique: Measure the distance between the first low to the high of the head, and then subtract that amount from the neckline on the breakout.

Statistical Notes: Gaps on the breakout day tend to help performance along with upward-sloping necklines.

# 27.

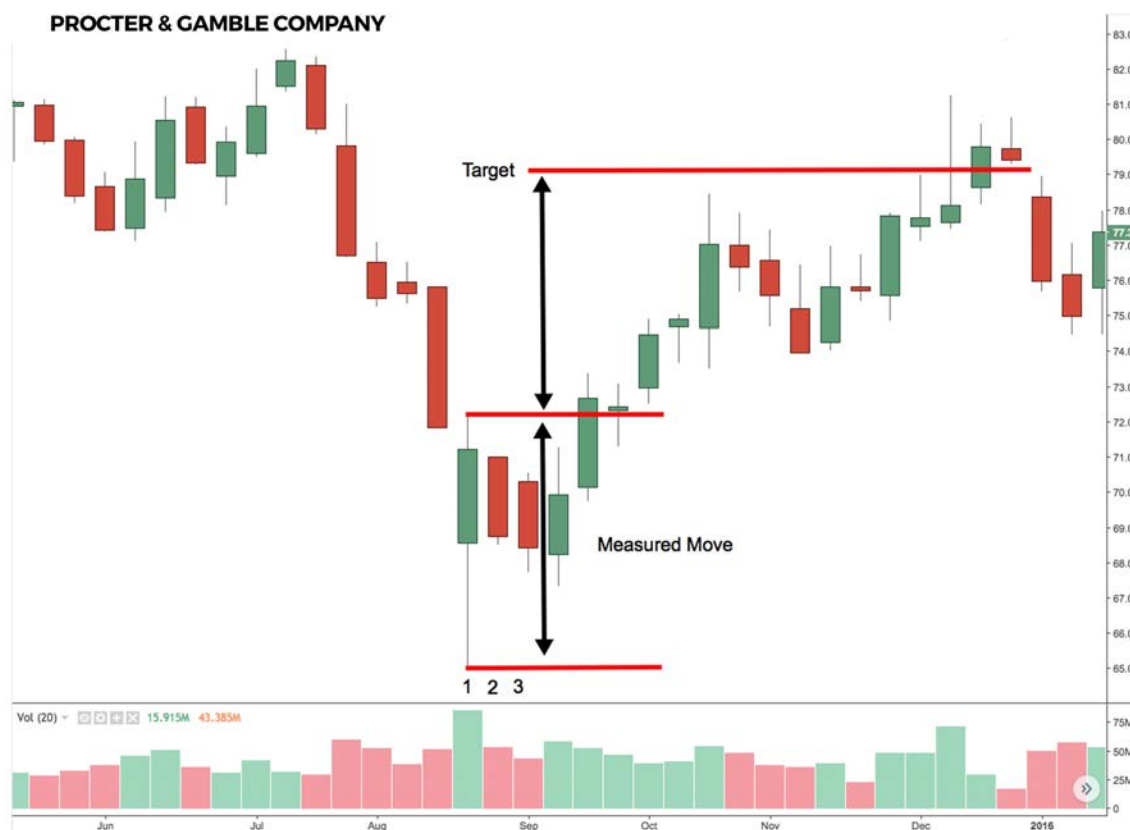
## Horn Bottoms



BULLISH



REVERSAL



Directional Bias: Bullish

Pattern Type: Reversal

Pattern Description: This pattern is formed on a weekly chart with two downward price spikes separated by a week. The center week should form significantly higher low than the other two weeks.

Volume Description: Volume tends to be higher on the first downward spike and lower on the second.

Breakout Confirmation: A close above the highest high within the 3-week range.

Measuring Technique: The price target is set by taking the difference between the highest high and lowest low in the 3-week period, and then adding that amount to the highest high.

Statistical Notes: Horn formations perform best when the right spike range falls within the range of the left spike. Patterns with a wider range between high and low perform best.



# 28.

## Horn Tops

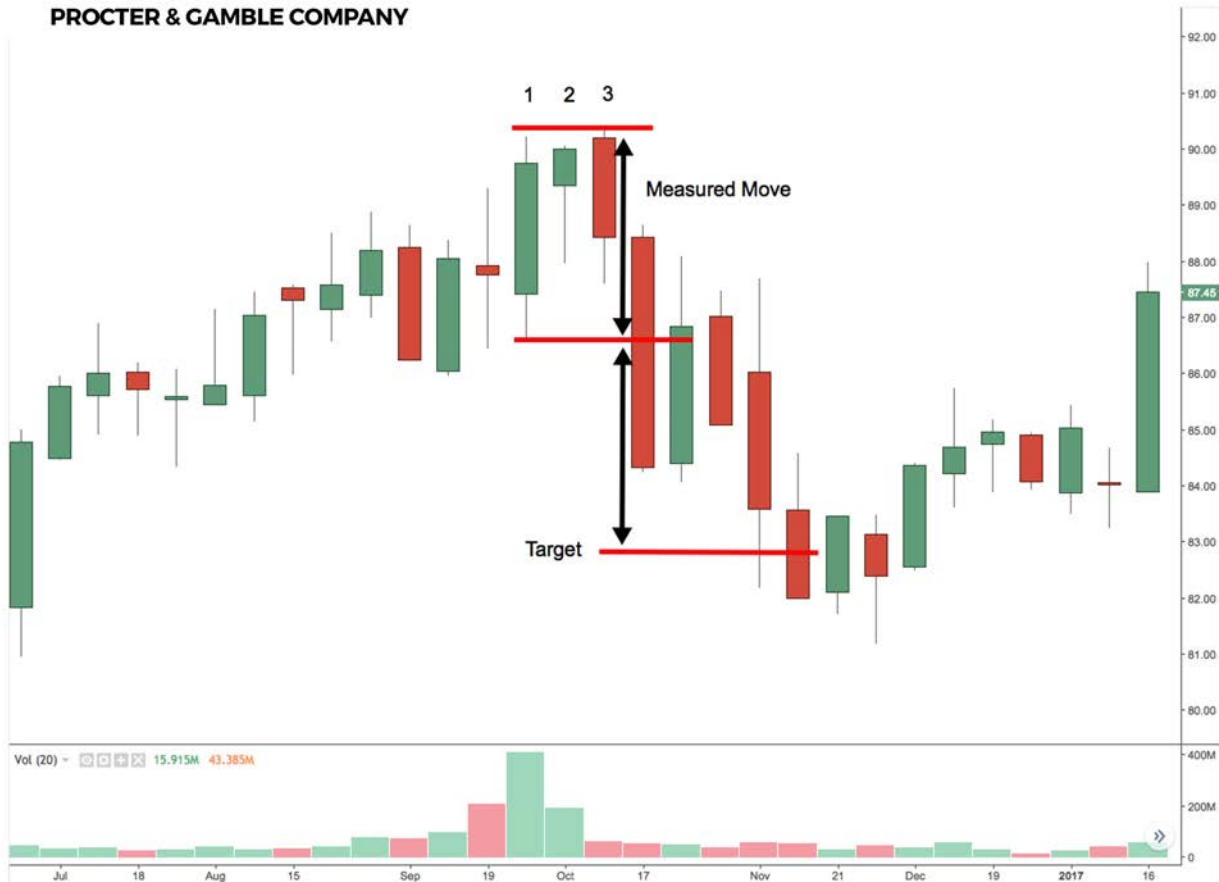


BEARISH



REVERSAL

### PROCTER & GAMBLE COMPANY



Directional Bias: Bearish  
 Pattern Type: Reversal

Pattern Description: This is a rare pattern that is formed on a weekly chart with two upward price spikes separated by a week. The center week should form significantly lower high than the other two weeks.

Volume Description: Volume tends to be higher on the first upward spike and lower on the second.

Breakout Confirmation: A close above the lowest low within the 3-week range.

Measuring Technique: The price target is set by taking the difference between the highest high and lowest low in the 3-week period, and then subtracting that amount from the lowest low.

Statistical Notes: Horn formations perform best when the left spike range falls within the range of the right spike. Patterns with a wider range between high and low perform best.



# 29.

## Island Reversals ★ ★ ★ ★



Directional Bias: Non-Directional  
 Pattern Type: Reversal

Pattern Description: There is a price gap either up or down and then a subsequent gap back to the previous level before the initial gap leaving an island in the price chart. The average length of an island just over a month but can last as little as a single day to over 6 months.

Volume Description: Volume tends to decline after the initial surge on the first gap, and then expands on the second gap.

Breakout Confirmation: A gap to the previous level before the initial gap with above average volume.

Measuring Technique: Take the range between the highest high and low of the island and add or subtract that amount from the highest high or low depending on whether it is a bullish or bearish gap.

Statistical Notes: Pullback and throwbacks hurt performance, and short patterns with a wider range from high to low perform best.

# 30.

## Pennants (Bullish)



BULLISH



CONTINUATION

JOHNSON & JOHNSON



Directional Bias: Bullish

Pattern Type: Continuation

**Pattern Description:** This pattern occurs within the context of a longer uptrend and following a steep, quick upward move. Following the move, the pattern then forms a short triangle formation with converging trend-lines. The pennant portion of the pattern shouldn't last more than 3-4 weeks if on a daily chart.

**Volume Description:** Volume tends to drift downward during the formation and expand on the breakout.

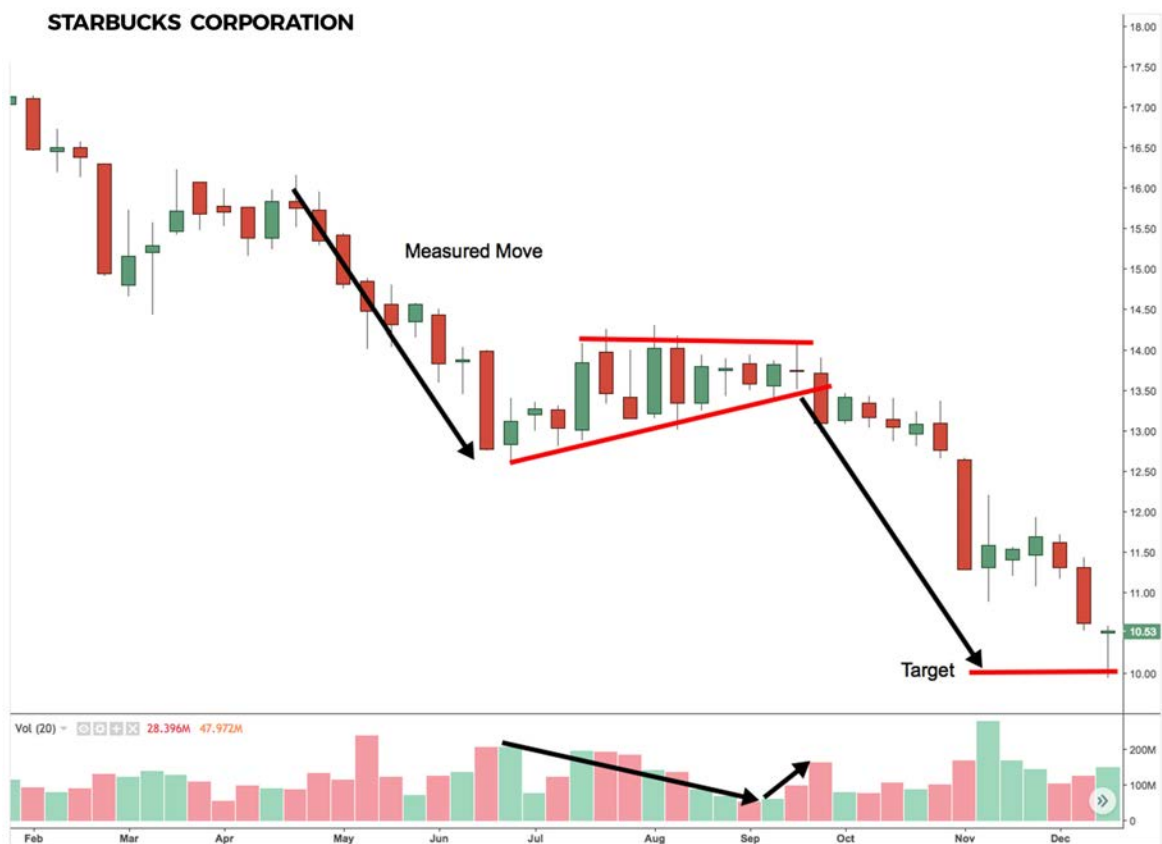
**Breakout Confirmation:** A close above the upper trend-line drawn across the highs with above average volume.

**Measuring Technique:** Measure the length of the previous steep move leading into the pennant, and then add that amount to the breakout level.

**Statistical Notes:** Formations with more range between highs and lows perform better than shorter ranges. Pennant formations that breakout in the direction of the prevailing market trend tend to perform better, and pennants without gaps tend to perform better.

# 31.

## Pennants (Bearish) ★ ★ ★ ★



Directional Bias: Bearish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within the context of a longer downtrend and following a steep, quick downward move. Following the move, the pattern then forms a short triangle formation with converging trend-lines. The flag portion of the pattern shouldn't last more than 3-4 weeks if on a daily chart.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn across the lows with above average volume.

Measuring Technique: Measure the length of the previous steep move leading into the pennant, and then subtract that amount from the breakout level.

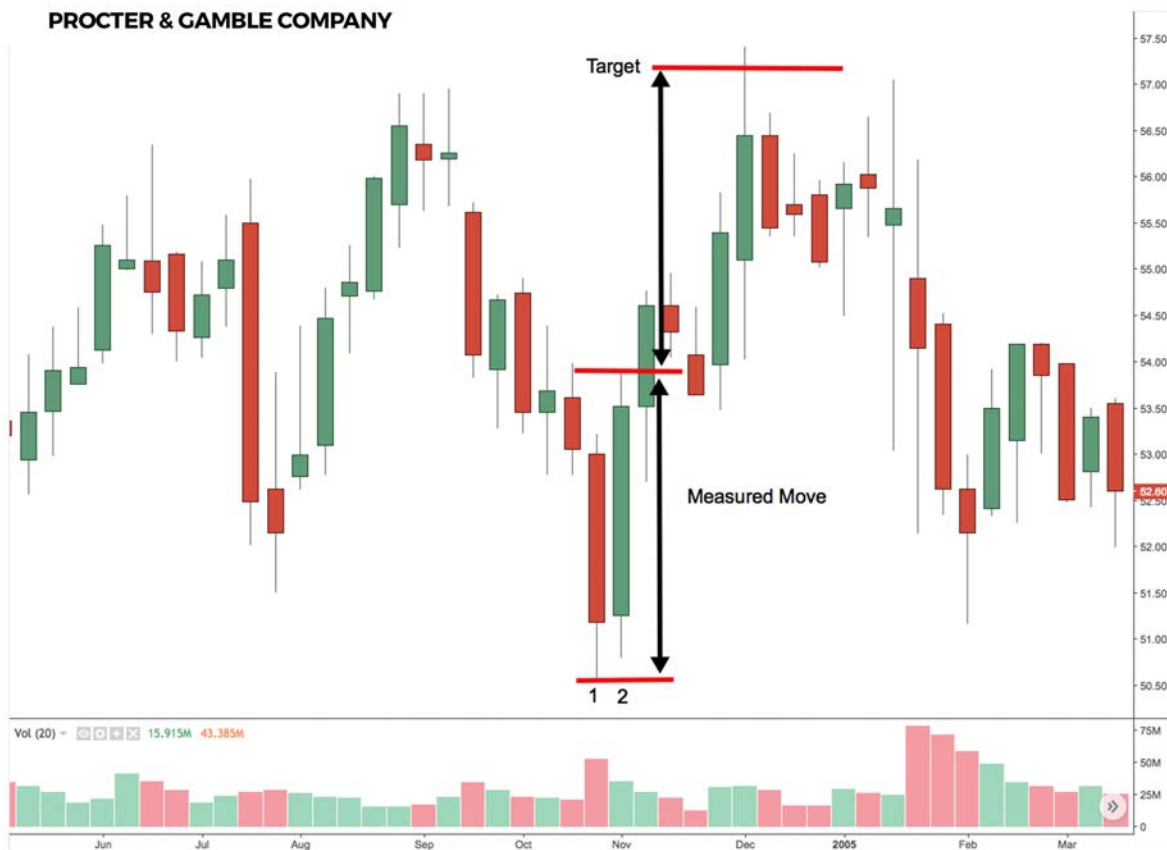
Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Pennant formations that breakout in the direction of the prevailing market trend tend to perform better, and pennants without gaps tend to perform better.

# 32.

## Pipe Bottoms



### PROCTER & GAMBLE COMPANY



Directional Bias: Bullish

Pattern Type: Reversal

Pattern Description: Two consecutive downward intra-week price spikes on a weekly chart.

Volume Description: Volume tends to be higher for the left spike than the right, but both weeks tend to have above average volume.

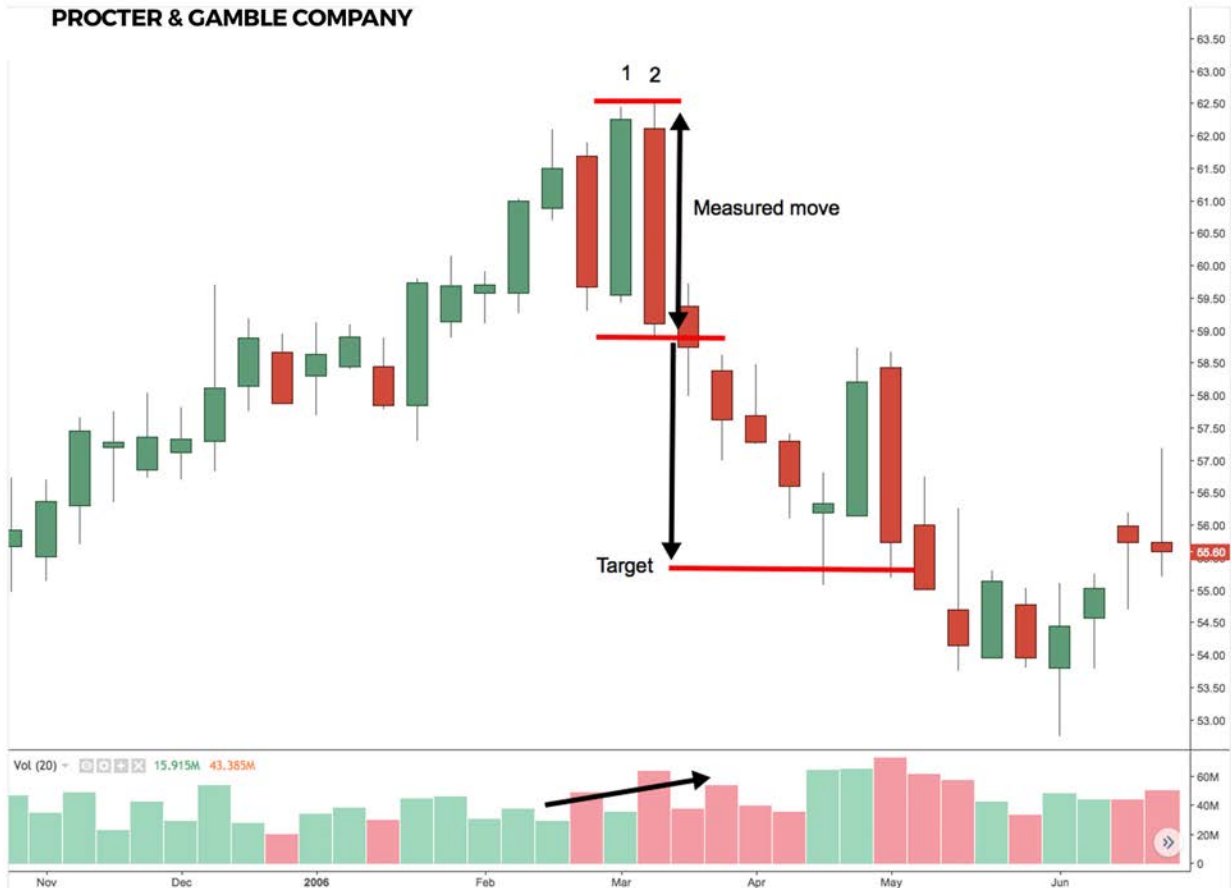
Breakout Confirmation: A close above the highest high of the two weekly spikes with above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the two pipes, and then add it to the highest high.

Statistical Notes: Throwbacks hurt performance, and wider ranges between highs and lows perform better than shorter ranges. A right spike range that falls within the range of the left spike performs best.

# 33.

## Pipe Tops



Directional Bias: Bearish  
 Pattern Type: Reversal

Pattern Description: Two consecutive upward intra-week price spikes on a weekly chart.

Volume Description: Volume tends to be higher for the left spike than the right, but both weeks tend to have above average volume.

Breakout Confirmation: A close below the lowest low of the two weekly spikes with above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the two pipes, and then subtract it from the lowest low.

Statistical Notes: Throwbacks hurt performance, and wider ranges between highs and lows perform better than shorter ranges. A right spike range that falls within the range of the left spike performs best.

## 34.

## Rectangle Bottoms



BULLISH



BEARISH



REVERSAL



CONTINUATION

## ROBERT HALF INTERNATIONAL, INC.



Directional Bias: Bullish or Bearish

Pattern Type: Reversal or Continuation

Pattern Description: A rectangle is a non-directional pattern that can result in either a bullish or bearish breakout. A Rectangle Bottom is defined by the previous downtrend before the formation. The formation is when the price oscillates between two horizontal price levels or channel.

Volume Description: Volume tends to decrease throughout the formation regardless of the direction it breaks out and expands on the breakout.

Breakout Confirmation: A close above or below the channel with above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the channel and then add or subtract that amount from the channel depending on the direction it breaks out.

Statistical Notes: Throwbacks hurt performance, and wider ranges between highs and lows perform better than shorter ranges. Rectangles without a pre-formation rise or fall and which have rising volume trends perform the best.

# 35.

## Rectangle Tops



BULLISH



BEARISH



REVERSAL



CONTINUATION

ROBERT HALF INTERNATIONAL, INC.



Directional Bias: Bullish or Bearish

Pattern Type: Reversal or Continuation

Pattern Description: A rectangle is a non-directional pattern that can result in either a bullish or bearish breakout. A Rectangle Top is defined by the previous uptrend before the formation. The formation is when the price oscillates between two horizontal price levels or channel.

Volume Description: Volume tends to decrease throughout the formation regardless of the direction it breaks out, and expands on the breakout.

Breakout Confirmation: A close above or below the channel with above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the channel and then add or subtract that amount from the channel depending on the direction it breaks out.

Statistical Notes: Throwbacks hurt performance, and wider ranges between highs and lows perform better than shorter ranges. Rectangles with a falling volume trend and high volume on the breakout tend to perform the best.



# 36.

## Rounding Bottoms



BULLISH



CONTINUATION

CLOROX COMPANY



Directional Bias: Bullish

Pattern Type: Continuation

Pattern Description: A Rounding Bottom pattern is a continuation pattern of the prevailing uptrend. The pattern forms a concave or "rounded" bottom to its price.

Volume Description: Volume will tend to mirror the price as it rises and falls with the price then expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close above the lip of the Rounding Bottom on above average volume. This can be difficult at times when there isn't an apparent lip on the left-hand side of the formation.

Measuring Technique: Subtract the height of the highest high and lowest low of the Rounding Bottom and then add that to the breakout level.

Statistical Notes: Throwbacks hurt performance, and patterns with wide ranges between highs and lows or longer forming patterns perform better.



# 37.

## Rounding Tops



Directional Bias: Bearish

Pattern Type: Continuation

Pattern Description: A Rounding Top pattern is a continuation pattern of the prevailing downtrend. The pattern forms a concave or "rounded" top to its price.

Volume Description: Volume will tend to have a u-shaped pattern and expand on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the lip of the Rounding Top on above average volume. This can be difficult at times when there isn't an apparent lip on the left-hand side of the formation.

Measuring Technique: Subtract the height of the highest high and lowest low of the Rounding Top and then subtract that from the breakout level.

Statistical Notes: Throwbacks hurt performance, and patterns with wide ranges between highs and lows or longer forming patterns perform better.

# 38.

## Scallops (Ascending)



NETFLIX, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: A Scallop forms a high, corrects a little before forming a higher high. The pattern looks like the letter "J."

Volume Description: Volume will tend to mirror the price as it rises and falls with the price then expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the rising J formation on above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then subtract that value from the breakout level.

Statistical Notes: Breakouts near a 1-year low perform best along with taller formations with a rising volume trend.

# 39.

## Scallops (Inverted Ascending) ★★★★

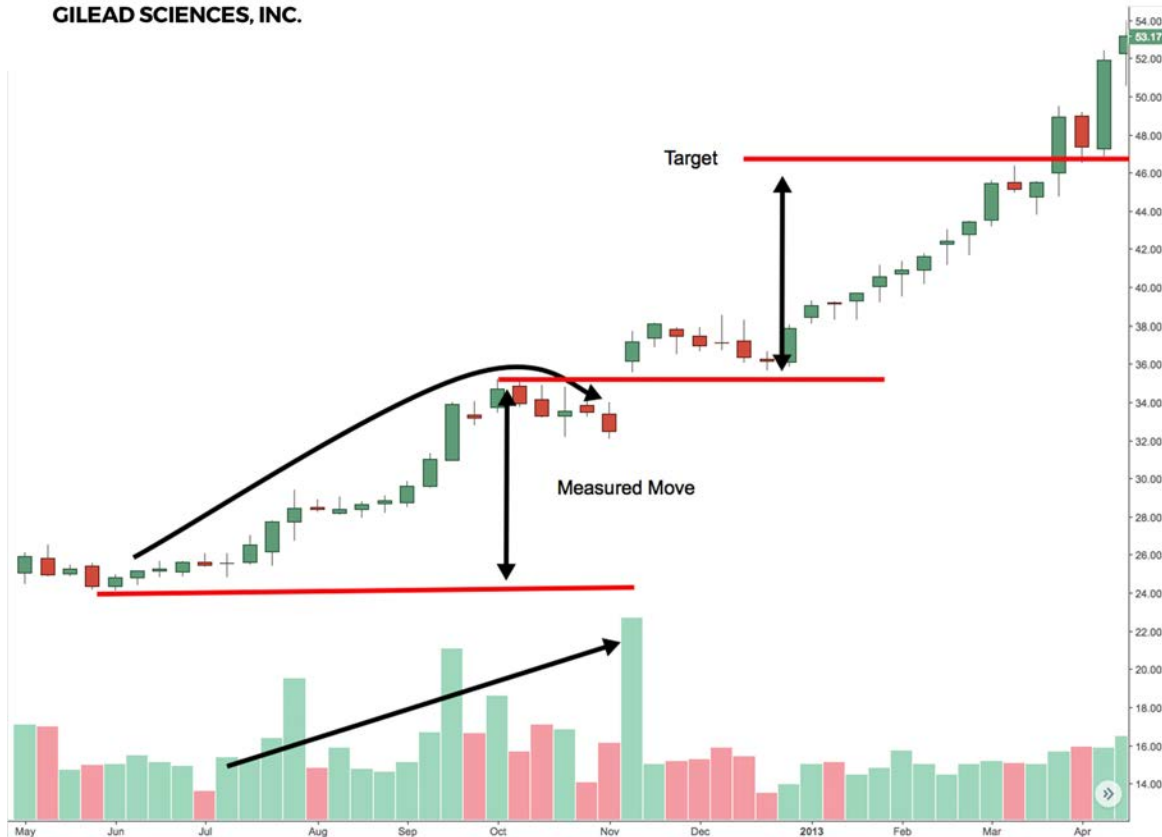


BULLISH



CONTINUATION

GILEAD SCIENCES, INC.



Directional Bias: Bullish  
 Pattern Type: Continuation

Pattern Description: The pattern occurs within an uptrend and looks like a backwards and upside-down J with the price rising to a rounded high and a slight decline.

Volume Description: Volume will tend experience a rising volume trend and expand on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close above the rounded top of the formation on above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then add that value to the breakout level.

Statistical Notes: Breakouts near a 1-year high perform best along with taller formations with a rising volume trend.

# 40.

## Scallops (Descending)



BEARISH



CONTINUATION

TERADYNE, INC.



Directional Bias: Bearish

Pattern Type: Continuation

Pattern Description: A Scallop occurs within a downtrend and is formed as the price falls before forming a rounded bottom and then corrects upward. The pattern looks like a backwards letter "J."

Volume Description: Volume will tend to be dome-shaped and expand on the breakout.

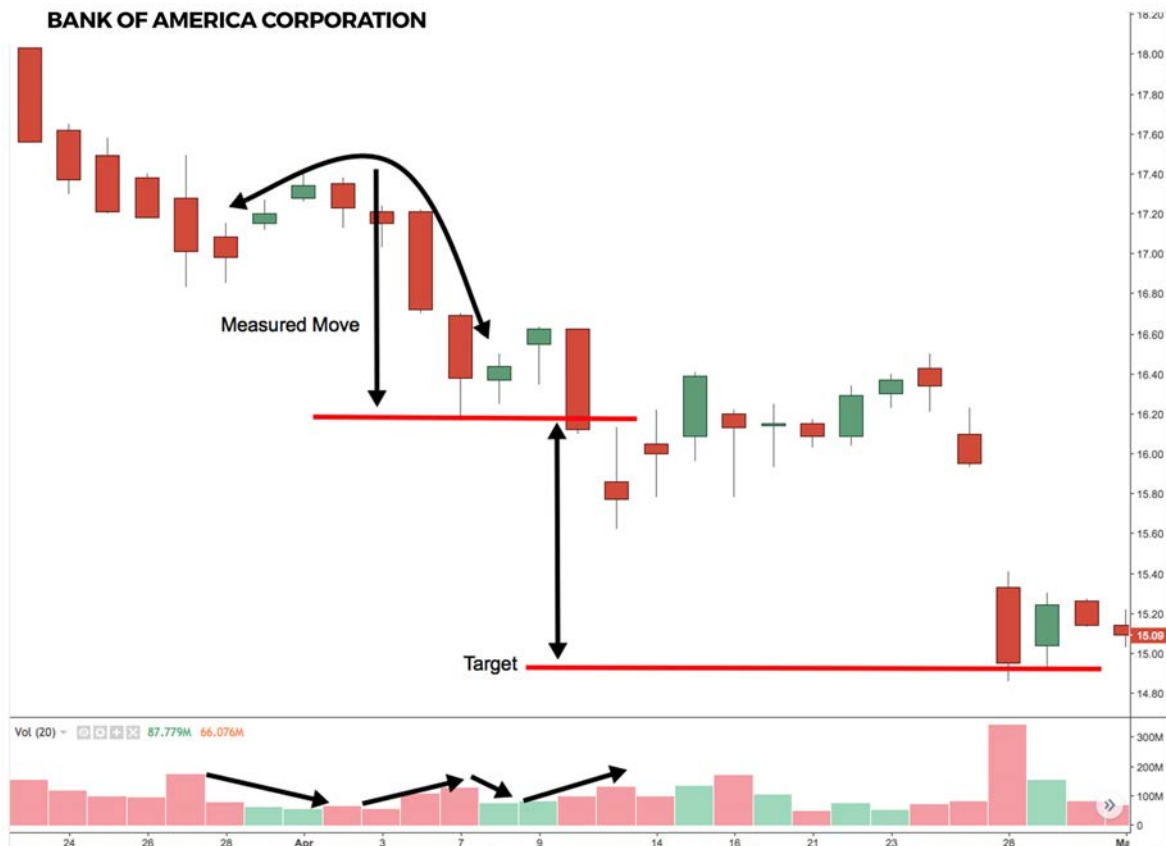
Breakout Confirmation: The confirmation for this pattern is a close below the rising backwards J formation on above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then subtract that value from the breakout level.

Statistical Notes: Breakout day gaps on high volume perform best.

41.

## Scallops (Inverted Descending)



Directional Bias: Bearish  
 Pattern Type: Continuation

Pattern Description: The pattern occurs within a downtrend and looks like an upside-down J with the price rising slightly to a rounded high and a larger decline.

Volume Description: Volume will tend experience a u-shaped volume trend and expand on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the low of the upside-down J on above average volume, following a short bullish bounce in the price.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then subtract that value from the breakout level.

Statistical Notes: Breakouts near a 1-year low perform best along with taller formations with a u-shaped volume trend.

# 42.

## Three Falling Peaks



GILEAD SCIENCES, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: A pattern of three proportionally lower highs that typically occur at the end of an uptrend.

Volume Description: The pattern performs best with a u-shaped volume trend and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the lowest low of the formation on above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then subtract this amount from the breakout level. With this pattern, the measured move isn't achieved with regularity.

Statistical Notes: Short and narrow patterns with u-shaped volume perform best.

# 43.

## Three Rising Valleys



BULLISH



REVERSAL

### BANK OF AMERICA CORPORATOIN



Directional Bias: Bullish  
 Pattern Type: Reversal

Pattern Description: A pattern of three proportionally higher lows that typically occur at the end of a downtrend.

Volume Description: The pattern typically exhibits a dome-shaped volume trend during the formation and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the highest high of the formation on above average volume.

Measuring Technique: Subtract the height of the highest high and lowest low of the pattern and then add this amount to the breakout level. With this pattern, the measured move isn't achieved with regularity.

Statistical Notes: Breakouts near one-year highs perform best. Wide ranges between highs and lows with u-shaped volume do well.



# 44.

## Triangles (Ascending)



Directional Bias: Bullish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within an uptrend and consists of equal highs and rising lows forming a triangle. The pattern should breakout within two-thirds to three-quarters of the way to the apex of the triangle.

Volume Description: The volume declines throughout the triangle formation and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close above the highs on above average volume.

Measuring Technique: Subtract the height of the highs and lowest low of the pattern and then add this amount to the breakout level.

Statistical Notes: Performs better with rising volume on the breakout, with throwbacks hurting performance.

## 45.

## Triangles (Descending)



Directional Bias: Bearish

Pattern Type: Continuation

**Pattern Description:** This pattern occurs within a downtrend and consists of equal lows and falling highs forming a triangle. The pattern should breakout within two-thirds to three-quarters of the way to the apex of the triangle.

**Volume Description:** The volume declines throughout the triangle formation and expands on the breakout.

**Breakout Confirmation:** The confirmation for this pattern is a close below the lows on above average volume.

**Measuring Technique:** Subtract the height of the lows and highest high of the pattern and then subtract this amount from the breakout level.

**Statistical Notes:** Performs better with rising volume on the breakout, with pullbacks hurting performance.

# 46.

## Triangles (Symmetrical) ★ ★ ★ ★

-  BULLISH
-  BEARISH
-  CONTINUATION
-  REVERSAL



Directional Bias: Bullish or Bearish  
 Pattern Type: Continuation or Reversal

Pattern Description: A Symmetrical Triangle is a non-directional pattern that can result in either a bullish or bearish breakout. This pattern consists of lower highs and higher lows forming a triangle. The pattern should breakout within two-thirds to three-quarters of the way to the apex of the triangle.

Volume Description: The volume declines throughout the triangle formation and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close above or below the converging trend-lines on above average volume.

Measuring Technique: Subtract the height of the lowest low and highest high of the pattern and then subtract or add this amount to the breakout level depending on the direction of the breakout.

Statistical Notes: Performs better near one-year highs or lows. Throw-backs and pull-backs hurt performance.

47.

## Triple Bottoms



BULLISH



REVERSAL

FACEBOOK, INC.



Directional Bias: Bullish

Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer downtrend. The pattern forms three equal lows.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close above the upper trend-line drawn horizontally across the intervening highs between the lows with above average volume.

Measuring Technique: Measure the distance between the high and the two lows and add it to the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left bottom performs better.

# 48.

## Triple Tops



BEARISH



REVERSAL

APPLE, INC.



Directional Bias: Bearish

Pattern Type: Reversal

Pattern Description: This pattern occurs within the context of a longer uptrend. The pattern forms three equal highs.

Volume Description: Volume tends to drift downward during the formation and expand on the breakout.

Breakout Confirmation: A close below the lower trend-line drawn horizontally across the intervening lows between the highs with above average volume.

Measuring Technique: Measure the distance between the low and the two highs and subtract it from the breakout level.

Statistical Notes: Formations with more range between highs and lows perform better than shorter ranges. Formations with declining volume with heavy volume on the left top performs better.

# 49.

## Wedges (Falling) ★ ★ ★ ★



**JOHNSON & JOHNSON**



Directional Bias: Bullish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within an uptrend and consists of lower lows and lower highs forming a falling wedge shape. The descending trendlines across the highs and lows should have at least five touches between them. The pattern should breakout within two-thirds to three-quarters of the way to the apex of the wedge.

Volume Description: The volume declines throughout the wedge formation and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close above the upper descending trendline drawn across the highs on above average volume.

Measuring Technique: The projected target price for this pattern is the highest high of the formation.

Statistical Notes: Performs better with rising volume on the breakout, with pullbacks hurting performance. Patterns with wider ranges between the highs and lows perform better.

# 50.

## Wedges (Rising)



DIAMOND OFFSHORE DRILLING, INC.



Directional Bias: Bearish  
 Pattern Type: Continuation

Pattern Description: This pattern occurs within a downtrend and consists of rising highs and lows forming a rising wedge shape. The ascending trendlines across the highs and lows should have at least five touches between them. The pattern should breakout within two-thirds to three-quarters of the way to the apex of the triangle.

Volume Description: The volume declines throughout the wedge formation and expands on the breakout.

Breakout Confirmation: The confirmation for this pattern is a close below the lower ascending trendline drawn across the lows on above average volume.

Measuring Technique: The projected target price for this pattern is the lowest low of the formation.

Statistical Notes: Performs better with rising volume on the breakout, with pullbacks hurting performance. Patterns with wider ranges between the highs and lows perform better.