A Beginners Guide To Japanese Candlestick Charting

By Kent Kofoed, Gecko Software, Inc.

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History of Candlestick Charts:

Candlestick charts, which are believed to be the oldest charting style, date all the way back to the early 1700s and were originally used for the prediction of future rice prices. Munehisa Hommaa, a rice merchant from Japan, is considered to be the "father of the candlestick charts" because he is said to be the inventor of candlestick charts. In addition to being the creator of candlestick charts, he also wrote a book on market psychology, which is called The Fountain of Gold: The Three Monkey Record of Money, where he claimed that the psychological aspect of the market is critical to trading success and that traders' emotions have a significant influence on rice prices. He also made the observation that "when all are bearish, there is cause for prices to rise," which is, in essence, a contrarian view that easily can be applied in either direction. Another historical, and rather interesting, piece of information about the history behind candlestick charting is that the various candlestick patterns were originally given names, by Japanese traders, such as "counter attack lines" and "advancing three soldiers," which was, in large part, due to the overwhelming influence that the military had during that era.

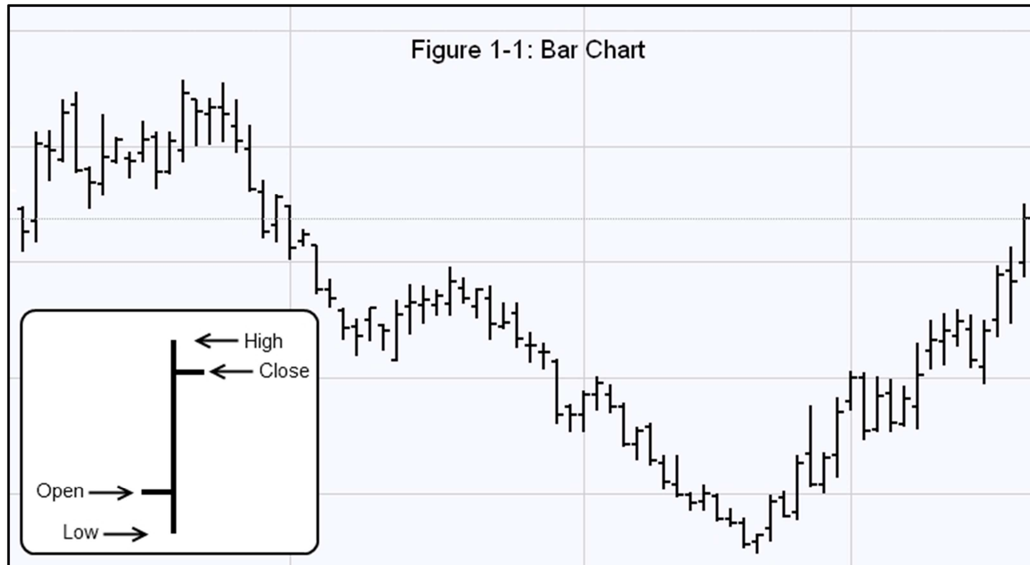
Technical Analysis Overview:

Technical Analysis is the process of analyzing historical market data (with the primary focus typically being on price and volume data) in order to "forecast" the future price of an asset, and, candlestick charting, is simply one of the many tools that are used in technical analysis, by technical analyst's. Technical analysis relies on multiple assumptions, with one of the main assumptions of technical analysis being that market prices are "fundamentally" efficient. This means that whenever new fundamental information reaches the market, prices will immediately adjust in order to reflect that information in the market price; however, technical analysis also recognizes that the current "mood" of the market can have an impact on market prices. For example, traders can become overwhelmed by the many emotions that are inherent in trading (or any other risky activity) and end up making investment decisions that would have, in a majority of circumstances, typically been deemed irrational. Greed, for example, is viewed as one of the main reasons why so many traders tend to pile into the market right before a top while fear, on the other hand, is another common emotion that causes many traders to act irrationally and stampede out of the market, right before it reaches a bottom. If ignored, both of these emotions can quickly bankrupt traders, of any skill level, so it is extremely important to learn how to effectively manage these emotions. The current "mood" of the market can, and will, distort prices in the short-term (mostly due to fear, greed or one of the myriad of other emotions that impact trading decisions); however, prices have a tendency to adjust back to the equilibrium market price, in the long-term, by converging with the underlying fundamentals of the market. In order to be successful, traders need to be able to ignore the many emotions that are the cause of illogical behavior, and learn how to identify when the overall market is acting irrationally in order to take advantage of the market when prices are temporarily out-of-sync with reality. Technical analysis helps traders put emotions aside by giving traders the ability to focus solely on what is currently happening in the market (or what will likely happen in the near future) and ignore the significant amount of market "noise" that is so prevalent in the market.

Bar Chart Overview:

One of the first technical analysis tools that traders who are new to technical analysis will likely study, will be the various charting styles that are used in technical analysis. These charting styles include line charts, bar charts and candlestick charts (as well as a few other less frequently used charting styles), and are used to visually illustrate the price action of the asset being analyzed.

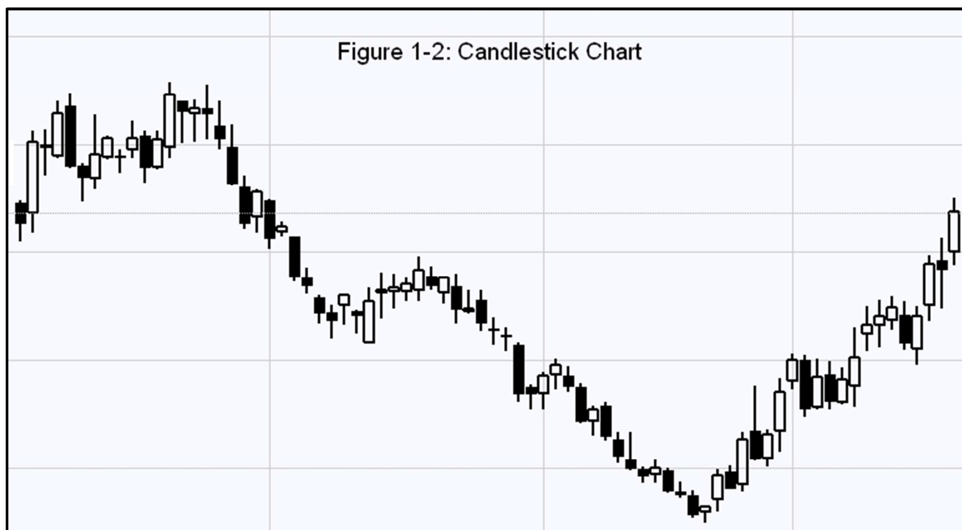
Bar charts are made up of multiple vertical bars and each individual bar is used to represent the price action (i.e., open, close, high, low) that occurred during each individual period (i.e., minute, hour, day, week, etc.). The top of the vertical bar represents the high of the period and, inversely, the bottom of the vertical bar represents the low of the period, and the left and right dashes represent the opening and closing prices of the period, respectively, that was reached during the period. See Figure 1-1: Bar Chart, below, for an example of the typical bar chart.

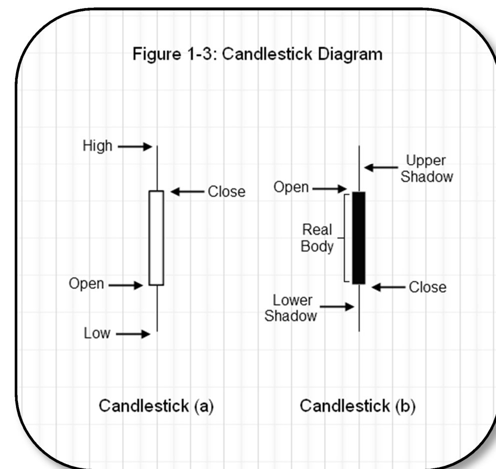


Bar Charts vs. Candlestick Charts:

Bar charts and candlestick charts are, essentially, made up of the exact same component (both provide the exact same information), and the main difference between the two is mostly due to how the various components are presented. As shown above, the components of the bar chart represent the opening price (left dash), the closing price (right dash), the low price (bar bottom) and the high price (bar top), of a specific time period, and each of these bar chart components are components of the candlestick chart as well; however, on the candlestick chart, the space that is in-between the opening and closing price bars (the left- and right-side dashes) is filled-in. This filled-in area of the candlestick is called the "real body," and whenever the opening price of the period is lower than the closing price of the period (the price action of the period is bullish) the candlestick will be a "light" candlestick. Inversely, whenever the opening price of the period is higher than the closing price of the period (the price action for the period is bearish) the candlestick will be a "dark" candlestick. Lastly, the area of the candlestick that extends from the bottom of the real body to the low price of the period is called the "lower" shadow and the area of the candlestick that extends from the top of the real body to the high price of the period is called the "upper" shadow.

Many traders believe that the opening and closing prices of each period are the most relevant prices, which is mostly due to the belief that these prices provide the most information, and the visual emphasis that the candlestick chart has on these prices is a very important feature of the candlestick chart. See Figure 1-2: Candlestick Chart and Figure 1-3: Candlestick Diagram, below, for an example of a typical candlestick chart and a diagram of the components that make up an individual candlestick, respectively.





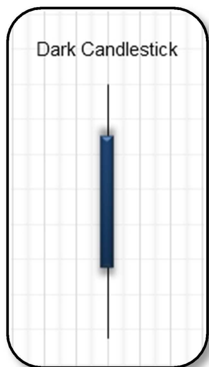
Candlestick Terms:

It is important to emphasize that the candlesticks covered in this section are considered candlestick "terms" and not candlestick "patterns." Candlestick "terms" are simply the different types of candlesticks that you will come across when using candlestick charts. Candlestick "patterns," on the other hand, are made up of a series of candlesticks (i.e., candlestick "terms"), and these patterns will be covered in the next section. Additionally, sometimes the terminology of the various candlestick components can vary, depending on which book you are reading or website you are using, but the underlying concepts will typically be the same. The main terminology issue to watch out for is that the upper/lower "shadow" will sometimes be called the upper/lower "wick" and that the light (dark) real body will sometimes be called the empty (filled-in) real body.

Candlestick Terms

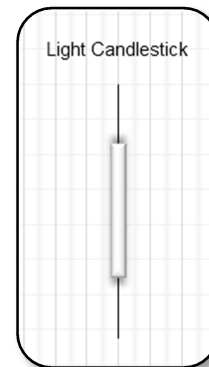
Dark Candlestick-

The Dark candlestick occurs when the closing price of the period is lower than the opening price of the period. The color of this candlestick is typically black, blue or red. This candlestick, as mentioned previously, is sometimes referred to as a "filled-in" candlestick.



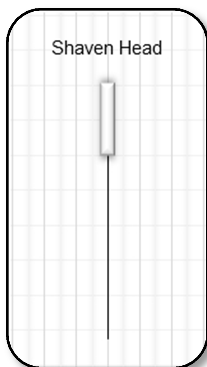
Light Candlestick-

A Light candlestick occurs when the closing price of the period is higher than the opening price of the period. The color candlestick will, typically, be either white or green. This candlestick, as mentioned previously, is sometimes referred to as an "empty" candlestick.



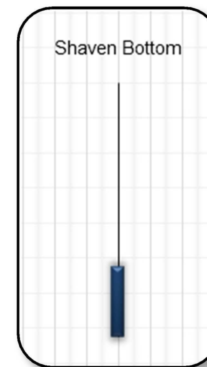
Shaven Head-

The Shaven head candlestick is made up of a lower shadow and a real body, but no upper shadow. Additionally, the color of the real body is not of critical importance and will either be light or dark.



Shaven Bottom-

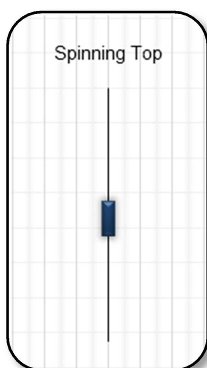
A Shaven Bottom candlestick is made up of an upper shadow and a real body, but no lower shadow. Additionally, similar to the "Shaven Head" candlestick, the color of the real body is not of critical importance and will either be light or dark.



Candlestick Terms (continued)

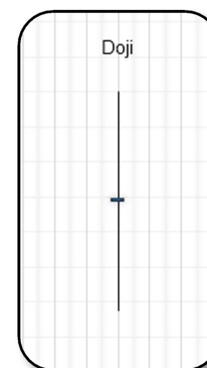
Spinning Top-

The Spinning Top candlestick has a small real body, which appears in the middle of the upper and lower real bodies. The color of the real body is not of critical importance, and will either be light or dark. Additionally, this candlestick is believed to represent equilibrium between the bulls and the bears; however, this equilibrium is only valid when it occurs in choppy markets that are in a sideways trending range.



Doji-

The Doji candlestick has little-to-no real body (i.e., the opening price is the same as the closing price) and the length of the shadows will vary. Additionally, as a quick side note, the Doji candlestick shown is considered to b a "long-legged" Doji because it has long upper and lower shadows. The typical Doji, however, will have shorter shadows and can simply be referred to as a "Doji."

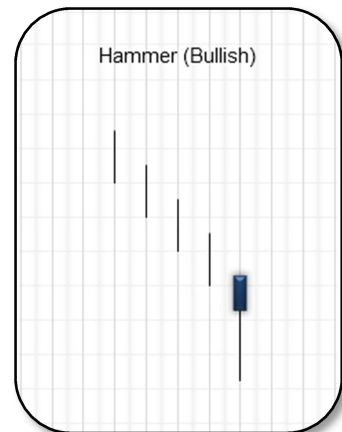


Reversal Patterns:

As mentioned previously, some of the candlestick terminology can vary so it is important to emphasize the difference between two important terms. Candlestick "patterns," which are shown below, are different than candlestick "formations." Candlestick "patterns" typically consist of 2-3 candlesticks while candlestick "formations" have a much greater number of candlesticks. Examples of typical candlestick "formations" include the head and shoulders formation, the inverse saucer formation (also known as the rounded top formation), and the double-bottom formation.

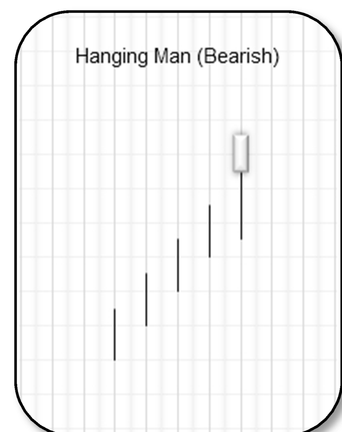
Many of the traders who use bar charts will look, in their charts, for both formations (i.e., double tops, double bottoms, head-and-shoulders, etc.) and patterns, where both can signal a reversal of the current trend, and this type of analysis is done with candlestick charts as well. Reversal "patterns," just like reversal "formations," need to be analyzed in conjunction with the price action that occurred prior to the actual reversal pattern, in order to be effective. Additionally, depending on where the pattern occurs in the current trend (as well as what direction the current trend is in), the price action of identical candlesticks can signal differing reversals, so it is important to know the difference between the many patterns that each individual candlestick can make (or combination of candlesticks), in order to avoid making any incorrect inferences about the expected direction of the potential reversal pattern in question. Lastly, in order to more fully understand why the various patterns represent what they are supposed to represent, it helps to think about the various candlestick patterns in relation to the price action that makes up the individual candlestick(s) in the pattern.

Hammer



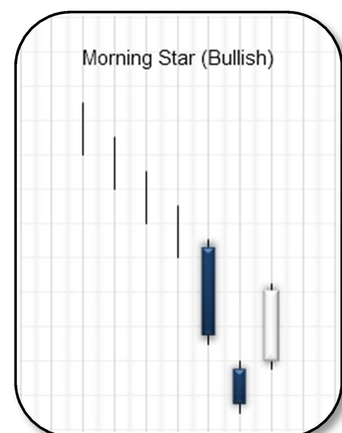
The Bullish Hammer candlestick pattern is a bullish reversal pattern that occurs when the current trend is in a downtrend, and it is made up of a single candlestick that has a small real body and a long lower shadow (which needs to be, at a minimum, two times the size of the small real body). Additionally, there should be little-to-no upper shadow and the color of the real body is not of critical importance. The best way to look at this pattern is to view it from the perspective that the bulls took control from the bears, by reversing the price action mid-period when they "hammered" out the bottom of the current trend, and were able to close the period with strength (i.e., the closing price of the period rebounded significantly off of the lows of the period).

Hanging Man



The Bearish Hanging Man candlestick pattern is a bearish reversal pattern that occurs when the current trend is in a downtrend, and it is made up of a single candlestick that has a small real body and a long lower shadow (which needs to be, at a minimum, two times the size of the small real body). The candlestick in this pattern is exactly the same as the candlestick in the Bullish Hammer pattern (i.e., there should be little-to-no upper shadow and the color of the real body is not critical of critical importance), except that this pattern is a bearish pattern that occurs in an uptrend (instead of a bullish pattern that appears in a downtrend). The best way to look at this pattern is to view it from the perspective that the bears were able to increase selling pressure, by pushing the intra-period price significantly lower even though the trend was in an uptrend, which indicates that the bulls might be losing control (i.e., there will likely be a reversal of the current trend or, at the very least, a new level of resistance will likely be formed).

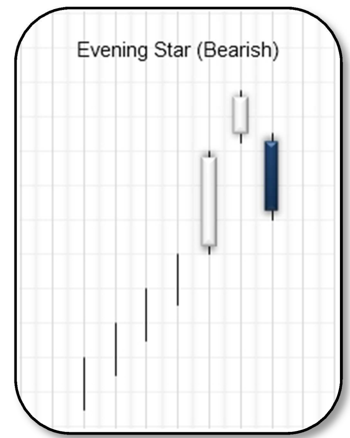
Morning Star



The Morning Star candlestick pattern is a bullish reversal pattern that occurs when the current trend is in a downtrend and is made up of three individual candlesticks. The first period candlestick has a real body that is both long and dark. The second period candlestick has a short real body that gaps down (the color of the second period real body is not of critical importance). The third period candlestick has a real body that is both strong and light. A good way to view this pattern is from the perspective that the bears had control of the trend during the first period (i.e., the trend was in a downtrend and the bears were able to close the period with strength to the downside), but their strength started to weaken during the second period (i.e., the trading range of the second period is relatively tight when compared to the trading range of the first period) and the bulls were able to take complete control during the third period (i.e., both the open and the close were with strength to the upside).

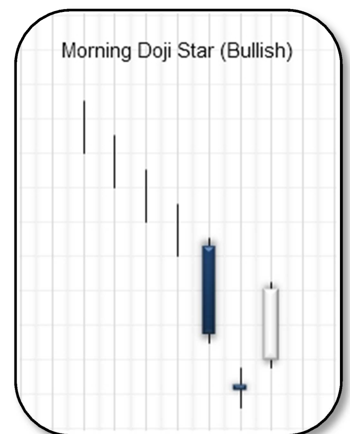
Evening Star

The Evening Star candlestick pattern is a bearish reversal pattern that occurs when the current trend is in an uptrend and is made up of three individual candlesticks. The first period candlestick has a real body that is both long and light. The second period candlestick is a short real body that gaps up (the color of the second period real body is not of critical importance). The third period candlestick has a real body that is both strong and dark. A good way to view this pattern is from the perspective that the bulls had control of the trend during the first period (i.e., the trend was in an uptrend and the bulls were able to close the period with strength to the upside), but their strength started to weaken during the second period (i.e., the trading range of the second period was relatively tight when compared to the trading range of the first period) and the bears were able to take complete control during the third period (i.e., both the open and the close were with strength to the downside).



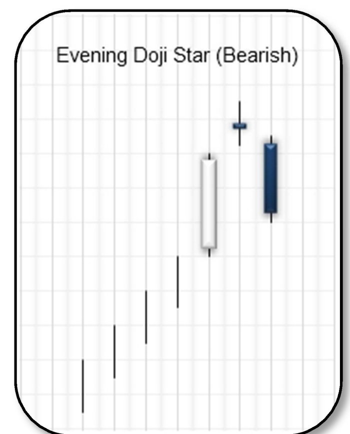
Morning Doji Star

The Morning Doji Star candlestick pattern occurs when the current trend is in a downtrend. The difference between the Morning Star pattern (which was covered previously) and the Morning Doji Star pattern is that the candlestick with the small real body, from the second period of the Morning Star pattern, is replaced with a “Doji Star” candlestick (which is what changes the pattern to the Morning Doji Star pattern). This pattern can be viewed in the same manner as the Morning Star except that the appearance of the Doji Star during the second period is relatively more meaningful due the view that the Doji is a much more distinct signal of a trend reversal, when compared to a candlestick with a small real body.



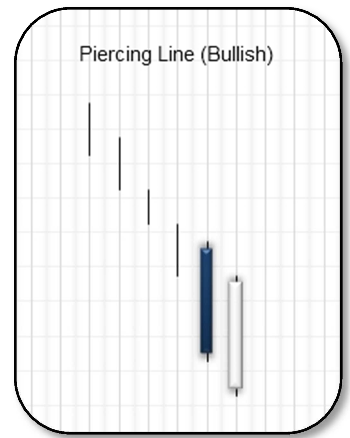
Evening Doji Star

The Evening Doji Star candlestick pattern occurs when the current trend is in an uptrend. The difference between the Evening Star pattern (which was covered previously) and the Evening Doji Star pattern is that the candlestick with the small real body, from the second period of the Evening Star pattern, is replaced with a “Doji Star” candlestick (which is what changes the pattern to the Evening Doji Star pattern). This pattern can be viewed in the same manner as the Evening Star pattern except that the appearance of the Doji Star during the second period is relatively more meaningful due the view that the Doji is a much more distinct signal of a trend reversal, when compared to a candlestick with a small real body.



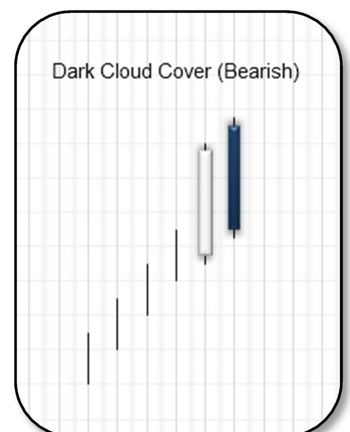
Piercing Line

The Piercing Line candlestick pattern occurs when the current trend is in a downtrend. The first period has a real body that is both long and dark, while the second period has a body that is both long and light. Additionally, the opening price of the second period candlestick is below the closing price of the first period candlestick, but the second period needs to close with strength to the upside (i.e., the closing price is above the midpoint of the real body from the first period). The closing price of the second period, however, does not close above the opening price of the first period. A good way to view this pattern is from the perspective that the bears had control of the trend during the first period (i.e., the trend was in a downtrend and the bears were able to close the period with strength to the downside), but their strength weakened during the second period and the bulls were able to gain control (i.e., the closing price was above the midpoint of the real body from the first period).



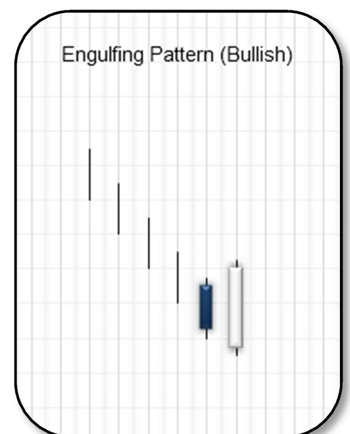
Dark Cloud Cover

The Dark Cloud Cover candlestick pattern occurs when the current trend is in an uptrend. The first period has a real body that is both long and light, while the second period has a body that is both long and dark. Additionally, the opening price of the second period candlestick is above the closing price of the first period candlestick, but the second period needs to close with strength to the upside (i.e., the closing price is below the midpoint of the real body from the first period). The closing price of the second period, however, does not close below the opening price of the first period. A good way to view this pattern is from the perspective that the bulls had control of the trend during the first period (i.e., the trend was in a uptrend and the bulls were able to close the period with strength to the upside), but their strength weakened during the second period and the bears were able to gain control (i.e., the closing price was below the midpoint of the real body from the first period).



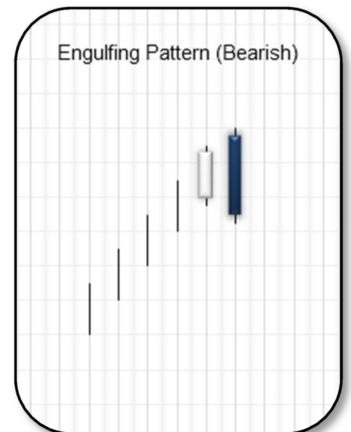
Engulfing Pattern (Bullish)

The Bullish Engulfing Pattern is a bullish reversal pattern that occurs when the current trend is in a downtrend. The first period candlestick has a real body that is small and dark, while the second period has a light real body that completely engulfs the real body from the previous period. A good way to view this pattern is from the perspective that the bears were in control of the trend, but the control began to subside during the first period (i.e., the real body closed to the downside but the strength was only minimal, as evidenced by the small range) and the bulls were able to take complete control during the second period (i.e., the second period real body completely engulfed the first period real body and was able to close the period with strength to the upside).



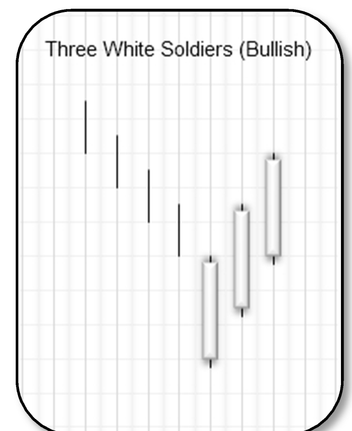
Engulfing Pattern (Bearish)

The Bearish Engulfing Pattern is a bearish reversal pattern that occurs when the current trend is in an uptrend. The first period candlestick has a real body that is small and light, while the second period has a dark real body that completely engulfs the real body from the previous period. A good way to view this pattern is from the perspective that the bulls were in control of the trend, but the control began to subside during the first period (i.e., the real body closed to the upside but the strength was only minimal, as evidenced by the small range) and the bears were able to take complete control during the second period (i.e., the second period real body completely engulfed the first period real body and was able to close the period with strength to the downside).



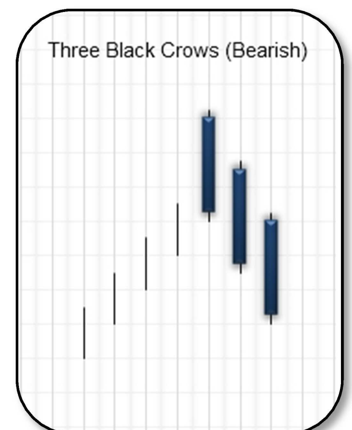
Three White Soldiers

The Three White Soldiers candlestick pattern is a bullish reversal pattern that is made up of three candlesticks and occurs when the current trend is in a downtrend. The candlesticks in this pattern are three consecutive long light candlesticks where each period closes at a new high, opens on the subsequent period within the body of the previous period, and closes that period at (or near) the highs of each period. A good way to view this pattern is from the perspective that the bulls have reversed the direction of the trend by completely controlling the price action of each period (i.e., in each period the bears try to push the price lower, but the bulls are able to maintain control and close the period with strength to the upside), and doing so with significant moves during each of the periods.

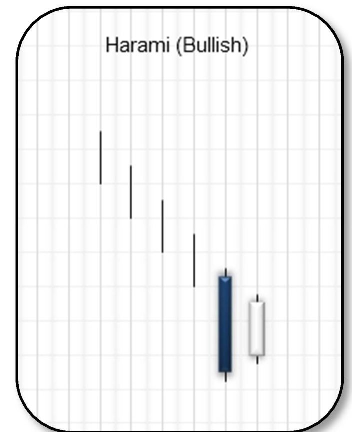


Three Black Crows

The Three Black Crows candlestick pattern is a bearish reversal pattern that is made up of three candlesticks and occurs when the current trend is in an uptrend. The candlesticks in this pattern are three consecutive long dark candlesticks where each period closes at a new low, opens on the subsequent period within the body of the previous period, and closes at (or near) the lows of the period. A good way to view this pattern is from the perspective that the bears have reversed the direction of the trend by completely controlling the price action of each period (i.e., in each period the bulls try to push the price higher, but the bears are able to maintain control and close the period with strength to the downside), and doing so with significant moves during each of the periods.



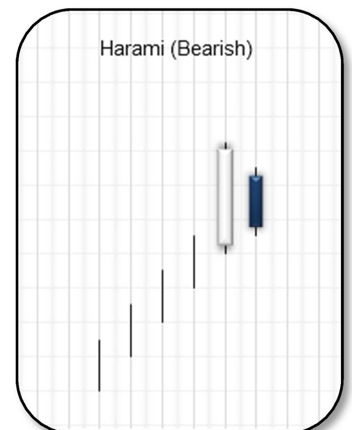
Harami (Bullish)



The Bullish Harami candlestick pattern is a bullish reversal pattern that is made up of two candlesticks and occurs when the current trend is in a downtrend. The first candlestick of this pattern is a large dark candlestick, which is followed by a light candlestick (during the second period) that is completely engulfed by the real body of the previous period (i.e., the first period). Additionally, it is not a requirement for the upper and lower shadows of the second candlestick to be contained within the real body of the first period, but the pattern is more significant if they do. A good way to view this pattern is from the perspective that the bears are in control of the trend all the way through the first period (as evidenced by the long dark candlestick), until the bulls take over during the second period by pushing the opening price higher and closing out the period to the upside.

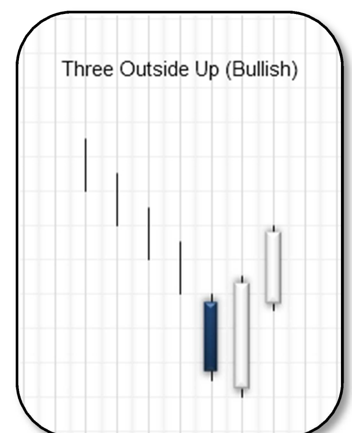
Quick Note: "Harami" is an old Japanese word for "pregnant," with the long light candlestick being the "mother" and the small candlestick being the "baby."

Harami (Bearish)



The Bearish Harami candlestick pattern is a bearish reversal pattern that is made up of two candlesticks and occurs when the current trend is in an uptrend. The first candlestick of this pattern is a large light candlestick, which is followed by a dark candlestick (during the second period) that is completely engulfed by the real body of the previous period (i.e., the first period). Additionally, it is not a requirement for the upper and lower shadows of the second candlestick to be contained within the real body of the first period, but the pattern is more significant if they do. A good way to view this pattern is from the perspective that the bulls are in control of the trend all the way through the first period (as evidenced by the long light candlestick), until the bears take over during the second period by pushing the opening price lower and closing out the period to the downside.

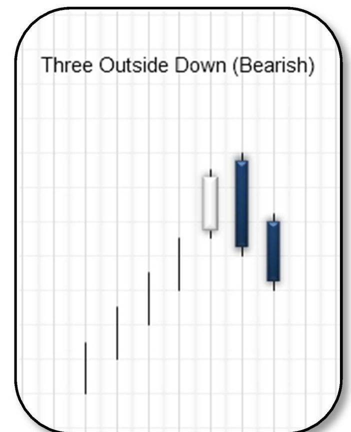
Three Outside Up



The Three Outside Up candlestick pattern is a bullish reversal pattern that occurs when the current trend is in a downtrend. The first two periods of this pattern creates a Bullish Engulfing Pattern (the second period candlestick is a light candlestick that fully engulfs the dark candlestick from the first period) that is followed by a light candlestick, on the third period, which closes above the close of the previous period (i.e., the second period). Additionally, the Bearish Engulfing Pattern that is formed by the candlesticks from the first and second periods is considered to be the reversal pattern, while the candlestick from the third period is believed to be a confirmation of this pattern. A good way to view this pattern is from the perspective that the bears were able to close strong during the first period (i.e., it closed near the lows of the period) and the second period started off to the downside as well (i.e., it opened lower than the previous periods close). However, during the second period, the bulls took over and were able to completely erase the gains of the previous period, and, during the third period, the bulls were able to finish the pattern with strength by pushing the closing price higher than the closing price of the second period. This

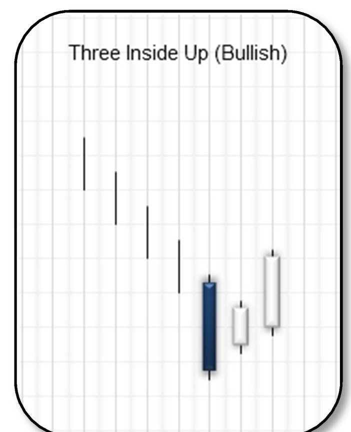
pattern is the same as the Confirmed Bullish Engulfing Pattern.

Three Outside Down



The Three Outside Down candlestick pattern is a bearish reversal pattern that occurs when the current trend is in an uptrend. The first two periods of this pattern creates a Bearish Engulfing Pattern (the second period candlestick is a dark candlestick that fully engulfs the light candlestick from the first period) that is followed by a dark candlestick, on the third period, which closes below the close of the previous period (i.e., the second period). Additionally, the Bearish Engulfing Pattern that is formed by the candlesticks from the first and second periods is considered to be the reversal pattern, while the candlestick from the third period is believed to be a confirmation of this pattern. A good way to view this pattern is from the perspective that the bears were able to close strong during the first period (i.e., it closed near the highs of the period) and the second period started off strong as well (i.e., it opened higher than the previous periods close). However, during the second period, the bears took over and were able to completely erase the gains of the previous period, and, during the third period, the bulls were able to push the opening price higher than the close of the previous period, but the bears were able to maintain their control and close the period below the close of the previous period. This pattern is the same as the Confirmed Bearish Engulfing Pattern.

Three Inside Up

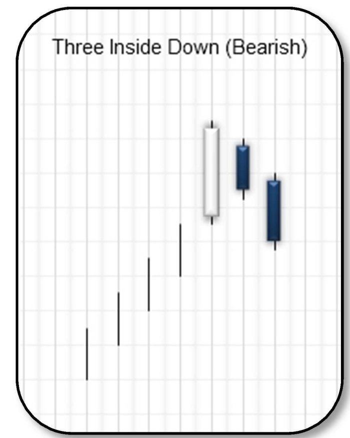


The Three Inside Up candlestick pattern is a bullish reversal pattern that occurs when the current trend is in a downtrend. The first two periods of this pattern creates a Bullish Harami Pattern (the first period candlestick is a dark candlestick that fully engulfs the light candlestick from the second day) that is followed by a light candlestick, on the third period, which closes above the close of the previous period (i.e., the second period). Additionally, the Bullish Harami Pattern, which is formed by the candlesticks from the first and second periods, is considered to be the reversal pattern, while the candlestick from the third period is believed to be a confirmation of this pattern. A good way to view this pattern is from the perspective that the bears were able to close with strength, to the downside, during the first period (i.e., it closed near the lows of the period), but both the second and third periods were strong, with both the opening and closing prices of both periods being to the upside (as well as both of the closing prices being near the highs of both days). This pattern is the same as the Confirmed Bullish Harami Pattern.

Three Inside Down

The Bearish Three Inside Down candlestick pattern is a bearish reversal pattern that occurs when the current trend is in an uptrend. The first two periods of this pattern creates a Bearish Harami Pattern (the first period candlestick is a light candlestick that fully engulfs the dark candlestick from the second day) that is followed by a dark candlestick, on the third period, which closes below the close of the previous period (i.e., the second period). Additionally, the Bearish Harami Pattern, which is formed by the candlesticks from the first and second periods, is considered to be the reversal pattern, while the candlestick from the third period is believed to be a confirmation of this pattern. A good way to view this pattern is from the perspective that the bulls were able to close with

strength during the first period (i.e., it closed near the highs of the period), but both the second and third periods were weak, with both the opening and closing prices of both periods being to the downside (as well as both of the closing prices being near the lows of both days). This pattern is the same as the Confirmed Bearish Harami Pattern.



Summary of Candlestick Charting Guide:

This Japanese candlestick guide was designed to provide a brief overview of the use of candlestick charts from a historical perspective, as well as in relation to other chart styles, and a more detailed overview of candlestick terminology, as well as some of the more widely-used candlestick patterns. This guide, however, is definitely not a complete candlestick charting guide and does not cover the various topics of candlestick charting in entirety. Additionally, much of the information provided in this guide is similar to the information that is provided in *Japanese Candlestick Charting Techniques: A Contemporary Guide to the Ancient Investment Techniques of the Far East*, by Steve Nison, and it is recommended that traders, in order to more fully understand the many various concepts that underlie Japanese candlestick charting, consult either this book or one of the many other books on Japanese candlestick charting techniques, in order to gain a more comprehensive understanding of this type of charting style. Lastly, it is important to remember that candlestick patterns, just like any other trading tool, are more effective when implemented properly and used in combination with other complementary analytical tools. For example, even though a reversal pattern appears, there is no guarantee that a complete reversal will actually occur. Many times there will be a reversal of the trend (as expected); however, other times the reversal pattern will only be a partial trend reversal that is followed by a sideways market, or simply a “false signal” where the trend continues in its original direction. It is imperative that traders factor in all of the relevant information (i.e., the current market trend, seasonality aspects of the underlying asset, other technical analysis indicators, etc.) prior to making any trading decisions.

Kent Kofoed, Author

Kent Kofoed is a technical analysis specialist, as well as an individual trader, who has a Bachelor’s degree in Business Administration from Utah State University and a Masters of Security Analysis and Portfolio Management degree from Creighton University, where he graduated at the top of his class and is a member of the Beta Gamma Sigma honor society. Additionally, Kent is a level II candidate in the CFA program, a graduate student in the MSPA (Masters of Science in Predictive Analytics) program at Northwestern University, and a contributing writer for PitNews Magazine.