
Silver - Continuous Contract (EOD) CME
R (Weekly) 21.72 (23 May)
Technical Analysis Basics
Lara Iriarte, CMT
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Contents

The Trend Is Your Friend

The flip side of the title to this chapter is "don't trade against the trend". The fact that markets trend is why traders make profits. Price is not completely random. Price tends to move in trends.

Trends are often delineated by trend lines.

When price is consolidating it tends to move in whipsaws about a moving average with choppy overlapping sideways movements. Price tends to move from resistance to support and back again, but not in a straight line. Overshoots of resistance and support can also happen yet price can turn back into the consolidation zone. It is impossible to tell exactly when and where price will turn, so if trying to trade a consolidating market losses are inevitable. Mean reverting systems for trading during a consolidating market are suited for the most experienced and nimble of traders only, not at all for beginners or those with only a few years experience.

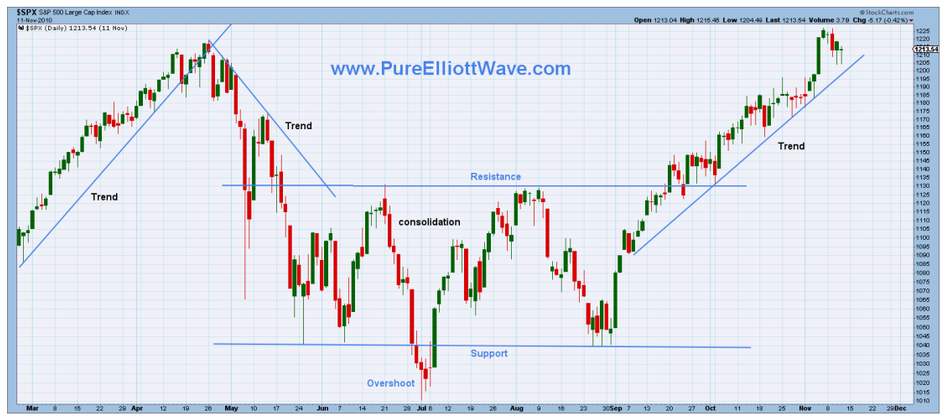
When price has been consolidating for a while, then horizontal lines can be drawn to show the upper and lower boundaries of the consolidation zone. It then becomes a waiting game. Waiting for a breakout. When price breaks above resistance or below support on a day with an increase in volume, then a breakout is indicated and the market has begun to trend again.

When price is trending it moves in a clear direction, usually finding support (an upwards trend) or resistance (a downwards trend) at a sloping trend line. The clear direction of price movement is what makes profit

easier, so the trick is to identify a new trend early enough to allow for profit to be made and then to identify when it is over early enough to exit the trade with a profit. For less experienced traders, it is advised to wait for a clear trend to be evident and then to only trade in the direction of that trend. Profits should be relatively easy as long as the trend is not exhausted.

If staying with the trend is the easiest way to make a profit, then it makes sense to avoid trading when the market is not trending. It is often the trades that a trader does NOT take which makes the difference between profit and loss. Cut losses by avoiding consolidating markets.

If there is only one lesson that new traders can learn which will improve trading performance, it is to only trade a clear trend in the direction of that trend.



Volume Basics

The activity of buyers is required for prices to rise sustainably. This is indicated by increasing volume on upwards days.

The opposite isn't necessarily true for a falling market. Prices can fall due to an absence of buyers, just as it can with increasing activity of sellers. Rising volume with falling price is good to see as it supports the trend, but it is not necessary.

Does Gold's price and volume conform to this basic principle of technical analysis?

1. This first rise in price is close to textbook perfect. The trend is well supported by volume. Volume does not increase in a straight line each day; some days are lighter than the prior day, but overall there is an increase.

2. This next rise is not so clear, but there is still overall an increase in volume as price rises. Volume is lighter than the prior stronger trend though, so the deep pullback that followed should not have been entirely unexpected.

3. As price falls initially volume declines and then shows some steady increase. The fall in price has support from increasing selling activity.

4 & 5. As price rises volume is not clearly rising. Sometimes the market can drift higher on light volume, so this type of rise is suspicious. The following deep decline again should not have been entirely unexpected.

6 & 7. As price falls volume declines. The market is falling of its own weight.

8. At the end of the fall volume begins to increase.

9. The start of the next rise has some support from volume by day 5. This shows an increase. However, the fifth day volume spike may also be a blow off top signalling an end to the rise temporarily. Blow off tops are not usually the very end; they usually signal a period of consolidation before the trend has a final rise.

The area between 9 and 10 is very unclear, with choppy overlapping price action generally trending higher and mostly flat volume.

10 & 11. As price falls volume declines. The market is mostly falling of its own weight.

When volume clearly supports a trend, then more confidence may be had in it. When volume does not support a trend, it is suspicious. Lack of support from volume will not tell when price will change direction, but it can warn that price may likely change direction and not just consolidate.

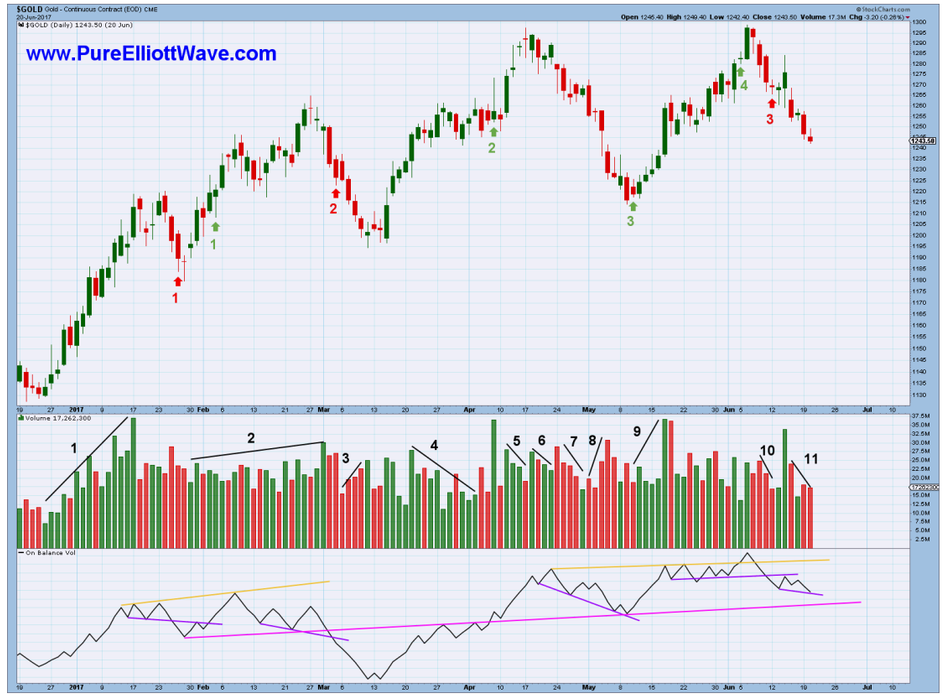
Volume analysis is essential to a full technical analysis. One of the simplest techniques is to look at volume during a consolidation and note which days, upwards or downwards, have the strongest volume.

One technique to predict the direction of a breakout from a consolidation zone, is to identify which days have strongest volume, upwards or downwards. Strongest volume on upwards days indicates more buying power and more likely an upwards breakout. Strongest volume on downwards days indicates more selling pressure and more likely a downwards breakout.

This technique does not always work, but it works more often than it fails. This technique is an exercise in probability and not certainty.

On Balance Volume (Beyond Volume Basics)

Volume alone is not always a clear indicator. It is necessary to add another volume indicator, like On Balance Volume, to add depth to volume analysis and improve accuracy.



On Balance Volume can be used in two ways.

1. When On Balance Volume creates a range draw trend lines across its highs and lows. A breakout by On Balance Volume can sometimes precede a breakout from price, so On Balance Volume can be a leading indicator. Other times On Balance Volume may break out with or after price, it can then be a confirming indicator. Used this way On Balance Volume works very well.

2. Divergence between price and On Balance Volume can be used to indicate weakness and an impending trend change. This divergence can persist for some time prior to a trend change, so it is not useful in picking highs or lows.

Trend lines are drawn on On Balance Volume in the chart above. Resistance is in yellow, support in purple. A long term line is added in pink.

Bullish signals are noted in green arrows on price:

1. Halfway through an upwards trend On Balance Volume breaks above resistance which was prior support. This adds some confirmation to the trend. Traders may have more confidence in long positions.

2. The long term trend line which previously provided support, then resistance, is breached. This adds confidence in the upwards trend continuing.

3. The long term trend line is touched after some time. The bounce up and away is bullish.

4. A breach of resistance is a bullish signal. This illustrates that this technique does not always work. Price continued higher for only one more day before a major reversal.

Bearish signals are noted in red arrows on price:

1. A breach of support is a bearish signal, which should confirm the downwards trend. But a low is found the next day. Again, this technique works more often than it fails, but it can fail.

2. A break of a long term support line halfway through a downwards trend offers confidence in short positions.

3. Another break below a support line offers confidence in the downward trend.

In addition to breaches of trend lines, tests of support and resistance also offer signals.

Using On Balance Volume in conjunction with volume bars adds considerable depth to analysis.

Volume and Breakouts

After a consolidation price will break out. The presence or absence of support from volume on the breakout tells us how reliable the breakout may be.

Pennant patterns are one of the most reliable continuation patterns. But in an upwards trend the breakout should have support from volume.

For price to keep rising it requires increased activity of buyers. Upwards breakouts that do not have support from volume are suspicious.

This upwards breakout comes on a day with slightly higher volume, but the balance of volume for the session is downwards. Stronger volume during the session supported downwards movement, not upwards.

The breakout is suspicious and may turn out to be false.

While volume is important for upwards breakouts, it is not so important for downwards breakouts. The market may fall of its own weight. Price can fall a considerable distance on weak volume due to an absence of buyers, just as easily as it can due to increased activity from sellers.

Two days prior to publication of this chart, it was warned that the possible upwards breakout of the 8th of August lacked support from volume and may turn out to be false:

That was proven correct. The strong downwards movement from the S&P (shown in the second chart) comes on a day with an increase in volume. This is a classic downwards breakout.

When a downwards breakout has support from volume, that adds confidence in it. Downwards breakouts do not require support from volume; the market may fall of its own weight. But when volume supports downwards movement, it may be more sustainable, at least for the short term.

This downwards breakout was predicted by strongest volume during the consolidation being a downwards day.

This volume analysis technique looks at the presence or absence of support from volume on the breakout after a consolidation period to tells us how reliable the breakout may be.

Average Directional Indicator - ADX

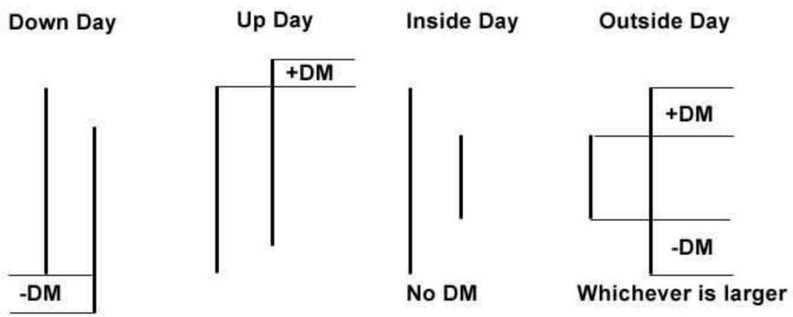
Why ADX?

At any one time a market will be doing one of two things: trending or consolidating. A trader's approach needs to be different to each type of market. If trend following systems could avoid the whipsaws of a consolidating market, then unnecessary losses can be avoided.

ADX offers a solution. It helps identify which type of market is current.

How is it calculated?

Welles Wilder developed the concept of directional movement in 1978. Directional movement compares two trading periods (usually daily, but it may be used on all time frames).



If price moves higher, the difference between the highs is positive directional movement (+DM). If price moves lower, the difference between the lows is negative directional movement (-DM). Inside days do not result in overall directional movement and so are ignored. Outside days take the larger movement only. The figure above illustrates the idea graphically.

A moving average of +DM and -DM is calculated; the standard time frame is 14 days. This creates the +DX and -DX lines in the ADX indicator.

The +DX and -DX lines can be used in (at least) two ways. Whichever is uppermost indicates the direction of the trend; if the +DX line is above the -DX line the trend is up and vice versa.

When the DX lines cross a potential trend change is signalled. When a market moves from trending to consolidating the DX lines will come close together and fluctuate about each other.

The ADX line (normally black and more solid) is the difference between the two DMs divided by the total of the two DMs. Thus if price is moving strongly in one direction, the numerator will be larger than if price were not moving strongly in one direction:

$$ADX = \frac{\text{absolute difference between +DM and -DM}}{\text{sum of +DM and -DM}}$$

ADX is bound between 0 and 100. Generally, high and increasing levels indicate a trending market and low and falling levels indicate a consolidating market.

How to use it?

There are no commonly agreed upon rules, so it is up to each individual trader to test their own rules to determine which approach fits their trading style and preferred market. Below some guidelines are offered as a starting point.

From Dahlquist and Kirkpatrick, "Technical Analysis":

These general rules for using ADX were originally provided by Ashwani Gujral.

When ADX is rising and at a level:

– Between 15 and 25: Beginning of trending; use trending indicators

– Between 25 and 45: Definite trending; use trending indicators

– At 45 or above: Overextended; watch for trend turning point; use price or indicator patterns

When ADX is declining and at a level:

– Below 20: Low volatility; very short swings; no trend; use oscillators

– Between 20 and 30: Consolidation; use oscillators

– Between 30 and 45: Correction from extreme likely; use patterns; trending indicators

Ruggerio offers the following rules which are a little different (from Kaufman, "Trading Systems and Methods"):

1. If ADX crosses above 25 the market is trending.

2. If ADX crosses below 20 the market is consolidating

3. If ADX crosses below 45 after being higher, the market is consolidating.

4. If ADX rises above 10 on 3 of 4 days after being lower, the market will start to trend.

5. A trend based on rule 4 remains in effect until the 5 day difference in the ADX is less than zero.

Limitations

Because ADX and +DX and -DX are based on moving averages of +DM and -DM, it suffers from the effect of lag that all moving average systems have. The standard period to average is 14 days, so a new trend will not be indicated until well into the first two weeks of it.

References: Kaufan, P. Trading Systems and Methods; Kirkpatrick, C and Dahlquist, J. Technical Analysis: The Complete Resource For Financial Market Technicians; Pring, M. Technical Analysis Explained.

Drawing Trend Lines? Simple is Best

One of my favourite Technical Analysis texts is the classic "Technical Analysis of Stock Trends" by Magee. In this book Magee describes how to draw trend lines for bull and bear markets.

To draw a trend line in a bull market find the first two bottom reversal points, then draw a line across them. Extend the line out to the right. Assume the bull market remains intact while price remains above the line. When the line is properly breached, it is an indicator of a potential trend change from bull to bear.

The chart of GOOGL shows the entire price history. A trend line for this bull market is drawn from the first major low formed in November 2008. The line in lightest pink would be drawn first. The first line is drawn in July 2010 after the next major low is formed. The first line is breached in May 2011. A new low is formed and then a new line in the next darker shade is drawn in June 2011. In October 2011 the second line is breached and so a new line is drawn after the October 2011 low is formed. This third line holds and shows where following downwards movement found support, until October 2018 when it is breached. The final line may be drawn across the low for March 2020, so far this has not been breached.

The technique is essentially the same for trend lines for bear markets. Find the first two top reversal points and draw a line across them. Assume the bear market remains intact while price remains below the line. A breach of the line may indicate a potential trend change from bear to bull.

This chart adds a new trend line in blue for a bear market. When two highs have formed, draw a trend line across them. This trend line in blue for the bear market from November 2007 to November 2008 is drawn across the November 2007 high to the first major high within the bear market in May 2008. Price remained below the line until June 2009 when it was breached by upwards movement, indicating the bear market was over and the bull market resumed.

Three Simple Trend Line Rules

Trend lines used for support and resistance may have varying degrees of technical significance. Here are three simple rules to use to determine how much significance a trend line has and how much attention to pay to a breach.

Technical significance of a trend line increases if:

1. The line is horizontal; it has no slope.

2. The line is often tested. Each successful test of a line increases technical significance of the line.

3. The line is long held. The longer a trend line is held the stronger the technical significance of the line.

The stronger the line, the more important the breach.

Thus a line which is close to horizontal, very often tested, and very long held would be the most significant.

A line which is steep, only tested a very few times, and not long held offers very little technical significance.

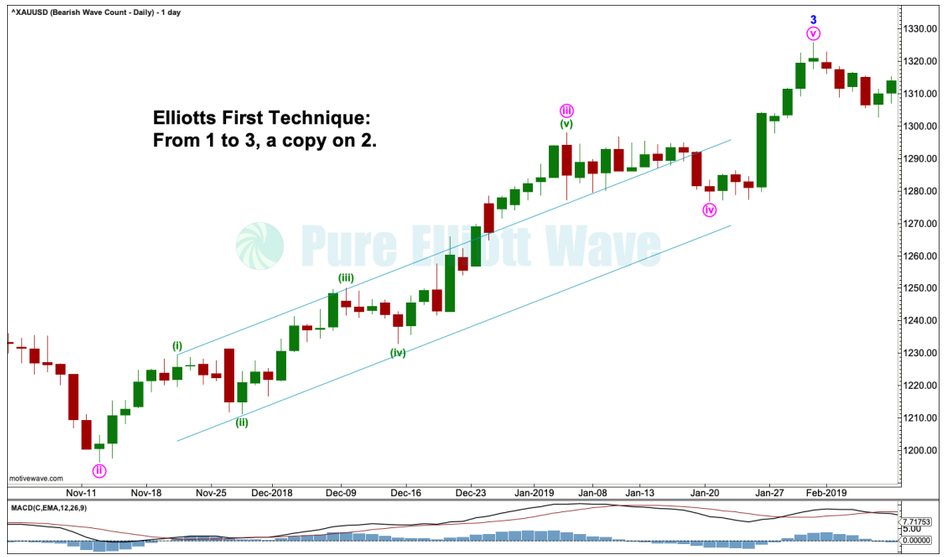
On the weekly chart of GOOGL two trend lines are dawn. The pink trend line has a steep slope, is tested only once and is long held. This line has weak technical significance. The breach of the trend line on May 2010 therefore is a weak technical signal.

The blue trend line has no slope, it is horizontal. It is tested at least five times, and it is long held. This trend line has strong technical significance. The breach of the trend line in August 2012 is a strong technical signal.

Drawing Trend Channels - Three Elliott Wave Techniques

The three basic Elliott Wave channels are:

1. First Technique – Impulse



Once enough structure is complete to begin to draw an Elliott channel (about one third to halfway through a wave) use the first technique.

A trend channel drawn using this technique may show where the fourth wave may end. If the fourth wave is contained within the channel, then the fifth wave usually ends either midway or at the opposite edge of the

channel. While most markets behave this way, commodities can be different. Commodities often exhibit swift and strong fifth waves which overshoot channels, as in this example.

When the channel is breached by subsequent movement in the opposite direction, it indicates the wave is over and a trend change may have occurred.

2. Second Technique – Impulse

If the fourth wave is not contained within a channel drawn using the first technique, then redraw the channel using Elliott's second technique.

This redrawn channel may show where the fifth wave may end: either mid way or about the side opposite the fourth wave.

When the channel is breached by subsequent movement in the opposite direction, it indicates the wave is over and a trend change may have occurred.

3. Technique for a Correction

If the movement is expected to be a correction, then it may be contained within a channel. Most corrections are contained within channels, but a few such as expanded flats are not.

The channel may show where wave C ends, either mid way or at the edge of the channel.

When the channel is breached by subsequent movement in the opposite direction, it indicates the wave is over and a trend change may have occurred.

Two Early Channel Techniques

Channels drawn using Elliott's techniques, outlined here, cannot be drawn until a reasonable amount of a wave has completed. There are two techniques to draw a channel about a new movement earlier.

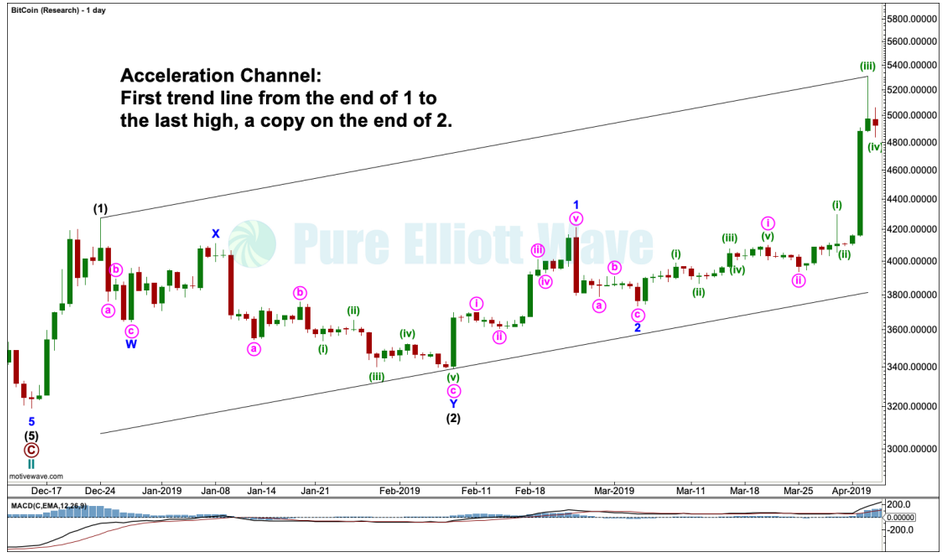
1. Base Channels

This is the earliest channel that can be drawn about a new movement. This channel was drawn at the end of minor wave 2.
Base channels have two main purposes:

1. As the wave progresses the edge which is opposite to the main direction of movement should provide support or resistance. Here, the wave is up and the lower edge should provide support to pullbacks along the way up. It is the opposite for a bear wave; the upper edge should provide resistance for bounces along the way down. A sloping trend line offering support or resistance can be used to place trailing stops.

2. A third wave may be identified or confirmed if it has the power to break through the base channel in the direction of the trend. A third wave should have the power to break above resistance at the upper edge of a base channel for a bull wave. Here, minor wave 3 should have the power to break above resistance at the upper edge of the base channel.

2. Acceleration Channels



Later on in the development of a wave the base channel may be redrawn as an acceleration channel. This may be done after a third wave shows enough power to break out of the base channel in the direction of the trend, or it may be done earlier.

Acceleration channels are redrawn each time price makes a new extreme in the direction of the trend.

When a third wave is complete, then this channel is an Elliott channel (drawn using the first technique).

Acceleration channels have one main purpose:

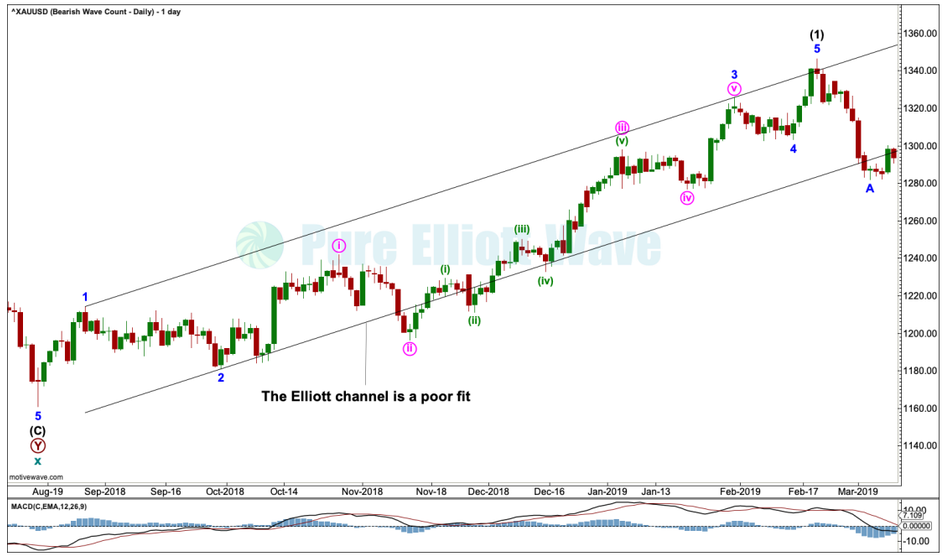
To show where corrections within the trend find support or resistance, on the side opposite to the trend.

The side opposite to the trend may be used to place a trailing stop when trading the trend.

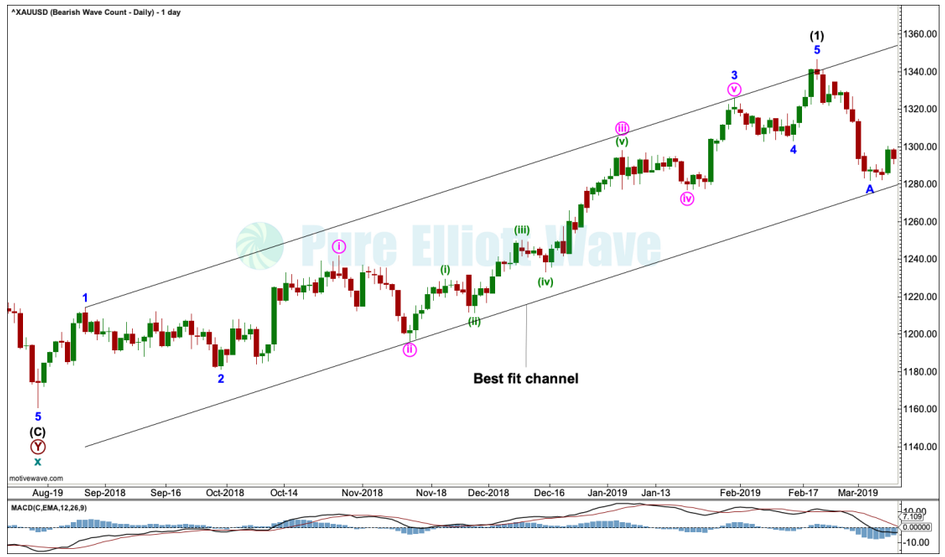
Best Fit Channels

If an Elliott channel does not fit a movement, then a best fit channel has to be drawn. The best fit is a channel which contains most or all movement within a trend and is tested the greatest number of times.

Example:



A channel drawn about this impulse using either of Elliott's techniques does not contain all movement. Therefore, when compared to a best fit channel, Elliott's channel drawn this way may not be as reliable in indicating when the movement has been over and there may have been a trend change.

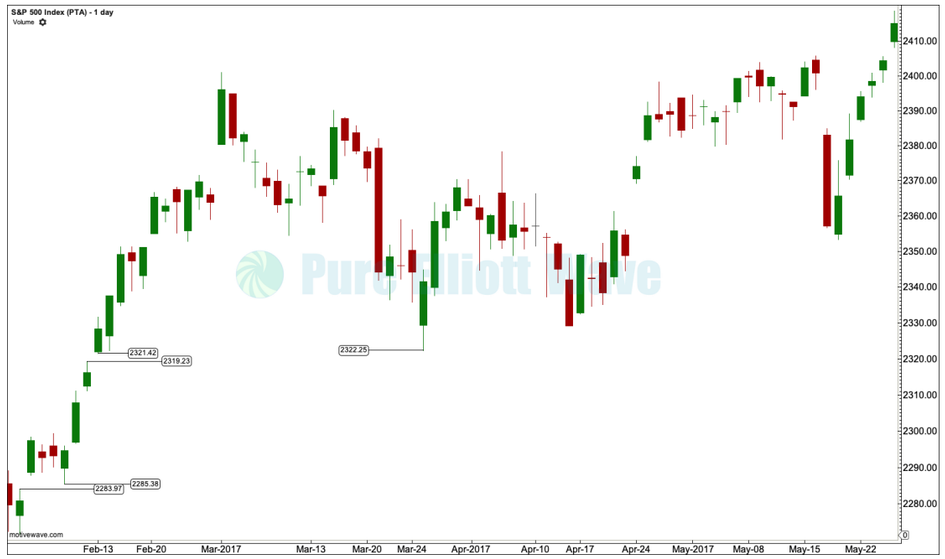


Redrawing the channel as a best fit now contains all the impulse. Therefore, for this impulse on this chart, this best fit channel should be a more reliable and more conservative indicator of a trend change.

All Gaps Have to be Closed - Myth or Fact?

The answer to the question is in the charts.

If gaps can be seen, which were not filled, then not all gaps must be filled.



Some markets have more gaps than other markets.

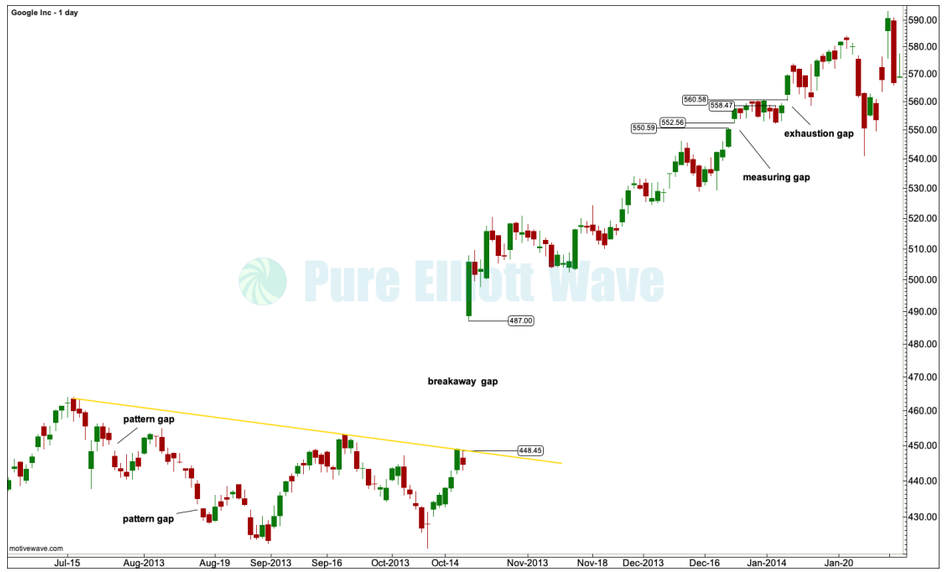
Gold is a global market and rarely has gaps at the daily chart level, but it may have gaps occasionally at the hourly chart level and below.

The S&P 500 cash market is a good example of a market with gaps.

There are two examples of gaps not filled in the daily chart above for the S&P 500, from price movement during February of 2017. To this day, five years later, these gaps remain unfilled.

Four Different Types of Gaps

Not all gaps have to be closed. So how can we know which gaps are going to be filled and which ones aren't? The answer lies in what type of gap the gap may be.



The above chart of Google shows daily data.

Equities more commonly have gaps and session only data of indices often does too. Forex rarely has gaps because forex markets are open 24 hours.

The four different types of gaps are:

1. Pattern Gaps

These gaps are the ones which are almost always closed. Only the very last gap within a consolidation may not be closed.

These gaps suggest a congestion area is forming. They are not useful in trading.

2. Breakaway Gaps

These are the most profitable gaps. After a period of sideways movement draw trend lines to determine support and resistance for the consolidation. A breakout above or below the zone accompanied by a gap signals the end of consolidation and the return of a trend.

Breakaway gaps are rarely closed within any reasonable time frame. They may be used as areas of support or resistance to set stops.

If the gap is filled reasonably quickly, then it is unlikely to be a breakaway gap.

3. Measuring Gaps

These are gaps that occur within a clear trend. Assume such a gap is a measuring gap until proven otherwise. Proven otherwise means until the gap is closed.

Measuring gaps are not closed within any reasonable time frame. They may be used as areas of support or resistance, and to place stops. They may also be used to set targets. They often occur about mid way within a price run, so calculate the distance of the pole prior to the gap and add that to the end of the gap to give a target.

4. Exhaustion Gaps

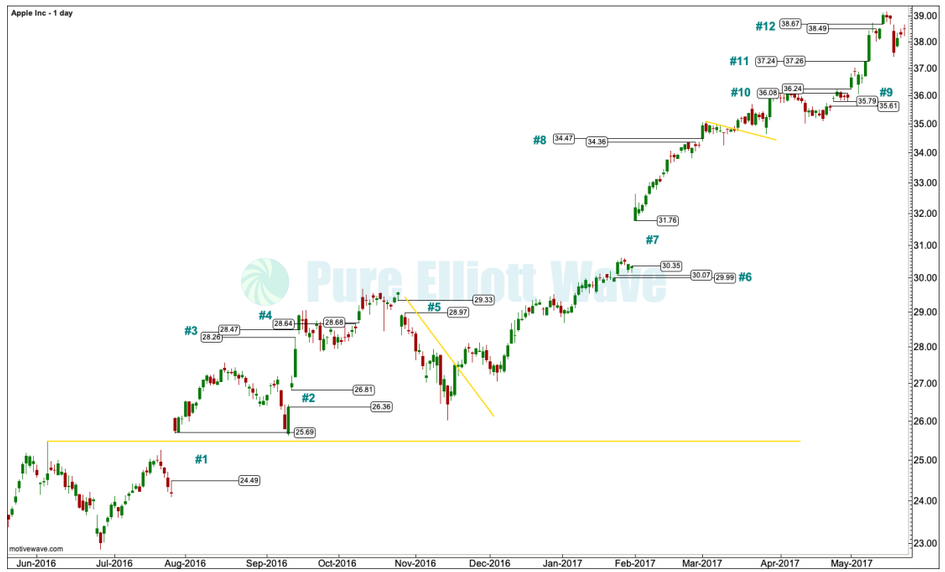
These gaps are closed within a relatively short time frame. As soon as the gap is closed, it indicates an end to the price run and the start of either a trend change or a period of consolidation.

Exhaustion gaps are filled within a few candlesticks.

Trading With Gaps - AAPL Case Study

Following on from the last two chapters on gaps, here is an example of practical trading application.

This daily chart of AAPL data shows at least 11 gaps.



After a period of consolidation gap #1 appears. It breaks above an upper range from a consolidation, so it should be considered a breakaway gap. A position may be entered in the direction of the gap, with a stop just below the lower edge of the gap. Breakaway gaps should not be closed, so the lower edge should offer support if there is a new upwards trend.

After some upwards movement price curves down to test support, but the breakaway gap remains open and so should long positions.

Thereafter, another gap at #2 indicates another breakaway from the last consolidation. Stops may now be moved up to the lower edge of this gap.

Another gap at #3 may be initially expected to be a measuring gap, which would give a target at 29.02. If this is a measuring gap, it should not be closed for a long time and the lower edge should offer support; stops may again be pulled up to just below it. But this gap is closed three days later, which should trigger an exit from a long position opened after gap #1 and which should yield a reasonable profit.

Gap #4 may initially be expected to be another breakaway gap after another small consolidation. It may trigger another long entry, but the gap is closed six days later for a small loss.

Gap #5 is not a breakaway below support and should be considered a pattern gap. These are most often closed. This should not trigger any new position.

After several days of falling price, a trend line may be drawn across resistance. When the trend line is breached, a long position may be entered or traders may choose to wait for another gap. There is not another gap until a few weeks later at #6.

Gap #6 may be taken as another breakaway gap after a small consolidation. This may again signal an entry in the direction of the gap with a stop just below the lower edge. Four days later price curves down to test support and the gap remains open.

Another large gap opens at #7. Given the size of this gap the appropriate measure for the movement before it may be the last reasonable swing low on the 14th of November. This gap looks like a measuring gap. A target may be calculated from the base of the movement prior to the gap and added to the upper edge of the gap. This gives a target at 36.54.

Stops may again be moved up to just below the lower edge of the gap; it should provide support as measuring gaps should not be closed. Now some profit is protected on a long position with a target at 36.54.

Gap #8 opens up prior to the target being met. This should be expected to be another measuring gap until proven otherwise. Stops may again be moved up to just below the lower edge of the gap to protect more profit. The new target would be calculated from the last rise from the last gap and added to the upper edge of the gap, giving a new target at 37.02.

But this gap is closed six days later signalling it was an exhaustion gap and not a measuring gap. Positions would then be closed for a reasonable profit.

After some further consolidation in which trend lines may be used to find

another entry, or traders may wait for another gap, the next gap opens up at #9 a few weeks later. Again, this comes after some consolidation, so it may be either a pattern gap (it may be considered within a consolidation) or it may be a breakaway gap. A position may be entered in the direction of the gap with a stop just below the lower edge. If it is a pattern gap, a small loss may be incurred. If it is a measuring gap a good entry point for the next upwards movement may be found.

Price curves down to test support at the upper edge of the gap two and three days later. The gap remains open and long positions remain open.

Another gap opens at #10. This may be another breakaway gap, but coming so soon after the last one it may also be a measuring gap. The move prior to it is small, so the target would be calculated from the move prior to the gap and added to the upper edge of the gap, giving a target at 36.67. This target is met the following day, so positions may be closed for a profit. Two days later the gap is closed indicating it is an exhaustion gap and not a measuring gap. No new positions should be entered as price may be entering a larger consolidation.

Another gap opens up at #11 on a strong upwards day. This may be another breakaway gap, so a new position in the direction of the gap may be opened with a stop just below the lower edge of the gap.

The last gap opens up at #12. This may be another measuring gap, so it should not be closed. Stops may be moved up to just below the lower edge

of the gap, which would now protect some profit. A target calculated from the rise prior to the gap added to the upper edge of the gap gives a target at 38.43. However, the target was met on the day the gap was created, so the position may be closed for a profit at the close of the session or the following day.

Conclusion: Gaps can be useful for trading in markets where they appear regularly. Some patience is required in holding onto positions, which may be underwater for the first few days, but overall this approach may yield more profit than loss. Small losses are inevitable and risk must still be managed.

Candlestick Reversal Patterns - Three Most Important Things to Consider

This daily chart of the S&P 500 identifies 16 candlestick reversal patterns. Only reversal patterns are considered here, not continuation patterns.

The first #1 and #2 patterns are both Three White Soldiers. Pattern #1 comes after a short sharp fall in price, so it may be considered a reversal pattern. But pattern #2 comes within an upwards trend, so it is more of a continuation pattern here and would not be considered a reversal pattern as there was nothing to reverse.

This leads to point number 1:

For a reversal pattern to have meaning there must be something to reverse. A bullish reversal pattern should come after a decline in price. A bearish reversal pattern should come after a rise in price.

Pattern #3 is an important reversal pattern and it does come after a steady rise in price. It correctly predicted a consolidation.

This leads to point number 2:

Reversal patterns mean a reversal of the prior trend to the opposite direction or sideways. They do not only mean a complete 180 degree reversal; sideways is a direction too.

The Shooting Star at #4 does not come after a bullish rally. It comes within a consolidation, so it should not be considered a reversal pattern. This is another illustration of point number 1.

Likewise, the Hammer pattern at #5 comes within a consolidation. There is nothing here to reverse.

The Piercing Pattern at #6, however, does come after a short sharp fall in price, so it should be considered a reversal. It did correctly predict the following 7 days of upwards movement.

This leads to point number 3:

Reversal patterns make no comment on how far price may travel in the new direction.

The Morning Star at #7 is the second reversal pattern at lows after a short sharp fall. Along with the Piercing pattern, it correctly predicted the next rise in price.

However, the Bullish Engulfing pattern at #8 does not come after a fall in price. It comes within a consolidation. There is nothing here to reverse, so it should be ignored.

The Gravestone Doji at #9 is normally a bearish reversal pattern. Its forte is in calling tops. Here, it comes at the end of a bearish movement, so it is out of context. It cannot be calling a reversal in a bull move as there was no bull move prior to the pattern.

At #10 the Bullish Engulfing pattern does come after a reasonable fall in price, so it should be considered a reversal pattern. This pattern was followed by a persistent bullish move.

Like the Gravestone Doji, the Dragonfly Doji at #11 is out of context. Here, it is at highs and within a small consolation. Dragonfly Doji are bullish reversal patterns when they occur after a bearish move, but this one does not.

Another pattern within the consolidation at #12 should be ignored. There is no bullish move here to reverse for the Bearish Engulfing pattern.

The Hammer pattern at #13 does not come after a reasonable bearish trend; it was only the second day of a fall in price. There is nothing to reverse, so it should be ignored. The long lower wick is still bullish though. As a Hanging Man pattern it would require bearish confirmation in the following candlestick, which did not come.

The Hanging Man at #14 though does come after a bullish move. But the bullishness of its long lower wick still requires bearish confirmation, which did not come. The following candlestick is quite the reverse; it is a strong bullish candlestick.

Finally, the Piercing pattern at #15 comes after a long upwards trend, so it should be considered as a bearish signal.

Setting Targets Using Elliott Wave

When is it appropriate to use targets that are longer than 1.618?

It is appropriate to use targets calculated using Fibonacci ratios greater than 1.618 (following ratios in the sequence) when:

1. A first wave is very short, and a target calculation using only 1.618 would see the third wave not move far enough for a ratio using a higher degree to be reached.

2. Price reaches the first target using 1.618 and keeps moving through it. Then the next Fibonacci ratio in the sequence should be used.

3. The particular market analysed often exhibits extreme Fibonacci ratios such as 6.854 and 11.09. Bitcoin is an example of such a market. This behaviour can be determined by Fibonacci analysis of completed waves.

Example

The chart (above) shows a fairly typical example of an impulse for Gold.

Intermediate wave (1) was very short and intermediate wave (2) was very deep. A target calculated for intermediate wave (3) using the Fibonacci ratio 1.618 would be at 1,575.36, which for this example would have looked too low. A target calculated at 2.618 would be at 1,638.18 which would look about right, but price continued through that target and kept rising. Intermediate wave (3) could have been prematurely labelled over at the high of minor wave 3, but the next high of minor wave 5 exhibits no decline in momentum and so at that stage it could have been determined that intermediate wave (3) might have been over with a blow off top. Blow off tops are not normally the end of a trend, and so after a pullback and some consolidation, the final fifth wave of intermediate wave (5) exhibits a decline in momentum and could have been determined as the final fifth wave and the end of the trend.

Scale - Arithmetic or Semi-Log?

The choice of what scale to use on your charts makes a big difference to how trend lines sit. Which scale is correct?

The chart above shows Gold 2 weekly on an arithmetic scale. Notice the bear market trend line has been breached, but did not show where price exactly found support and resistance in the process.

The next chart shows Gold 2 weekly on a semi-logarithmic scale. An arithmetic scale is best used for short term price movements. But for long term movements a semi-logarithmic scale is more correct, particularly for markets like Gold which can exhibit blow off tops and selling climaxes.

Any long term movement a year or more should always use a semi-logarithmic or ratio scale.

From Magee ("Technical Analysis of Stock Trends", 9th edition, page 11):

"Our own experience indicates that the semilogarithmic scale has definite advantages in this work; most of the charts reproduced in this book employ it… Percentage relations, it goes without saying, are important in trading in securities… certain trend lines develop more advantageously on the ratio scale."

From Pring (“Technical Analysis Explained”, 4th edition, page 68):

“Arithmetic scaling is not a good choice for long-term price movements, since a rise from 2 to 4 represents a doubling of the price, whereas a rise from 20 to 22 represents only a 10 percent increase… For this reason long term price movements should be plotted on a ratio or logarithmic scale. The choice of scale does not materially affect daily charts, in which price movements are relatively small in a proportionate sense. For periods over 1 year, in which the fluctuations are much larger, I always prefer to use a ratio scale”.

Two Steps to a High Probability Trade Setup

This is my favourite trade set up. Here's what to look for and why.

To begin, look for a trend line which has strong technical significance. In deciding how strong or weak a line is use the guidelines given in the prior chapter in this book, 'Three Simple Trend Line Rules'.

This trend line on Gold's weekly chart has strong technical significance; it is long held, close to horizontal and has multiple tests.

Zooming on at the daily chart level to see exactly where the line sits, we can see a final test perfectly at resistance on the 14th of June 2019 before

price broke above the trend line on the 19th and 20th of June.

This is the trade set up:

Step 1: Look for a breach of the trend line. If this is achieved on strong volume, then have more confidence in the breach. In the example here volume did show an increase on June 20th.

Step 2: Look for price to curve around and back test support at prior resistance (or in a bear market resistance at prior support). Enter in the direction of the larger trend when price moves back towards the trend

line. In this example price did not move low enough to touch the trend line, but the consolidation following the deepest part of the pullback on the 1st of July 2019 would have indicated the test might be complete..

This set up takes time. In this case a wait of about 14 days or more after the initial break above the trend line.

Why is this such a good trade set up?

With a technically significant trend line, the set up offers an entry point to a trend which traders may have confidence in. The more significant the line, the more significant the breach.

Stops may be set quite close by. Allow a little room for overshoots, and for longer held lines slightly larger overshoots, but stops may be closer than the last swing low or high. This reduces risk.

Market Correlations - Statements and Assumptions

Occasionally, members and visitors to Pure Elliott Wave make a statement along the lines of “market X is doing this, so how come you think Gold is going to go up / down?”

Such statements are based upon unacknowledged assumptions that the markets have a correlation. The problem with assumptions is they can be wrong. So is there a simple mathematical technique to determine if two sets of data are correlated, either positively or negatively?

Yes, there is: by looking at the correlation co-efficient range between two sets of data.

Correlation co-efficient ranges from -1 to +1. A perfect positive correlation will have a correlation co-efficient of +1. A perfect negative correlation will have a correlation co-efficient of -1.

Two sets of data which have a statistically significant positive correlation will have a correlation co-efficient between +0.5 to +1. Two sets of data which have a statistically significant negative correlation will have a correlation co-efficient between -0.5 to -1.

Any two sets of data which have a correlation co-efficient between +0.5 and -0.5 are not correlated as the correlation is not strong enough to be statistically significant..

Any two sets of data which have a correlation co-efficient that spends any time between +0.5 and -0.5 does not have a correlation which is reliable.

This area of unreliability is shaded in the chart above for several markets which are often assumed to have a correlation to Gold price.

GDX, US Bonds, US Crude Oil, the US dollar index and even Silver do not have a reliable statistically significant correlation with Gold price. All of these markets have correlation co-efficients which spend time in the shaded areas.

Even if these markets do sometimes exhibit a correlation with Gold, the point is that because this is not always true that when it is so it cannot be assumed to continue. The math shows that it does not.

To base an analysis of Gold on an assumption that another market is moving in a particular direction, and therefore Gold must move in a particular direction, is to base the analysis on assumptions and not data. Such assumptions are unreliable, and why you will not find them in my analyses.

To base an analysis of Gold on actual data and math is more likely to lead to accurate predictions and profitable trading. This does not mean the analysis will always be right, but it does mean the analysis will be based on facts and not assumptions.

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23-May-2022

Technical Analysis Basics

About Lara Iriarte, CMT

Lara is a distinguished Chartered Market Technician with over 17 years of experience in the financial industry. As a director and chief technical analyst of Pure Elliott Wave, she possesses an exceptional grasp of Elliott Wave and Technical Analysis, enabling her to offer insightful, data-driven analyses to a diverse clientele. Her skills help clients—from asset managers to professional investors—navigate complex market landscapes, forecast trends, and achieve investing success.

Beyond her role in finance, Lara is deeply involved in educating on Elliott Wave and Technical Analysis. She has developed a range of educational materials, including books, courses, and analysis reports that cover a variety of assets such as indices, commodities, and cryptocurrencies.

When she is not analyzing financial markets or crafting educational content, Lara enjoys pursuing her passion for outdoor activities such as surfing, snowboarding, and traveling.