EDUCATIONAL MATERIAL

What Is Forex

Forex trading is the buying and the selling of specific currency pairs.

The foreign exchange or 'Forex Market' is the world's largest financial market. It is the place in which individuals, companies and governments all trade different currencies with one another. Put simply, the forex market is the marketplace where money is bought and sold.

Open 24 hours a day and 5 days a week, unlike stock or bond markets, the forex market doesn’t close at the end of each day. Instead, trading just shifts to different financial centers around the world. The day starts with the Sydney session and moves to Tokyo, London, Frankfurt and finally New York before it is time for Sydney to do it all over again!

When compared to various stock, commodities and bond markets worldwide, the forex market is by FAR the biggest financial market in the world. The NYSE sees an average of $22.4 billion per day in volume traded, while the London Stock Exchange sees an average day turn over $7.2 billion in volume traded.

They sound like big numbers, don’t they? Well the forex market does an absolutely massive $5.3 TRILLION, monstering them all in comparison!

The most appealing thing about trading forex is just how accessible it is to trade for regular people like you! Known as ‘retail traders’, these are the people trading the forex market from their own homes with nothing more than a computer, a connection to the internet and their own personal trading account with a forex broker such as 10TradeFX.

Why trade Forex?

Trading material to educate the trader has become far more readily available. Support services via forums have become increasingly popular and, in the event, that you the private investor no longer wish to trade the account yourself, you have professional money managers that will take-over via managed account.
Introduction to Forex

The retail "Forex" market is an off-exchange retail foreign currency market where the participants are able to buy, sell, exchange and speculate on currencies. Essentially, the process to exchanging one currency for another is a simple trade that is based on the current rates of the two currencies involved. The currency market is comprised of central banks, investment and commercial banks, fund management firms (mutual funds and hedge funds), major corporations, and individual investors or speculators. The forex market, in conjunction with the interbank market, is one of the largest financial markets in the world with the retail sector contributing a small portion of the overall forex market volume.

How can I trade Forex?

Private investors or individuals are often referred to as Retail Forex Traders. Retail Forex traders, or speculators, commonly access the off-exchange retail foreign currency market (or Forex market) via a Forex broker such as www.10tradefx.com, a CySEC regulated broker. Private investors or traders do not trade in the actual Interbank market itself. Typically this includes specific Forex trading software developed for the Retail Forex Market - such as MT4 (a Meta Quotes product) or trading platforms that have been developed in-house for use on the internet.

Brokers act as a bridge between you and their liquidity partner or partners (sometimes larger global banks) that you would otherwise not have sufficient capital to do business with. This can happen in one or several ways. Whilst some Forex Brokers act as market makers, meaning that they create the liquidity and assume some risk, other retail brokers clear trades directly through larger banks that provide them with their liquidity. The latter is referred to as straight through processing.

Forex Market Hours

Unlike other financial markets, the Forex market operates 24 hours a day, 5 days a week. Starting from Sydney, then Tokyo followed by Europe and finally the USA. The market opens after midnight on Sundays and closes at midnight on Fridays. It is conducted through an electronic networking of banks, corporations and individual traders in exchanging currencies. For retail traders Forex is primarily used as a means for speculative investing.
Understanding Forex Pricing

The Spread

The **SPREAD** is the difference between the two prices. The bid price is always less than the ask price because brokers pay less than they receive for the same currency pair. This difference – known as the spread – is how your broker is compensated for their services in executing your trade. Some brokers, including 10TradeFX, also offer pricing options that include a commission combined with lower spreads. A spread is commonly measured in pips. The pip is the value of the 4th decimal place for pairs other than for JPY, where it is 2nd decimal place. 10TradeFX, however, offers increased pricing transparency by displaying 5 decimal places for currency pairs, other than JPY in which 3 decimal places are shown. This is called a pipette.

**BID PRICE**

The BID price is the rate that your broker is willing to pay for the currency pair; in other words, this is the rate you receive if selling to the market.

**ASK PRICE**

The ASK price is the rate at which your broker is willing to sell and represents the rate you must pay to buy the base currency, dollars.

**Pips**

A pip is the price move in a given exchange rate. Understanding the change in value helps traders to often use pips to reference gains, or losses. A pip measures the amount of change in the exchange rate for a currency pair and is calculated using last decimal point. Since most major currency pairs are priced to 4 decimal places, the smallest change is that of the last decimal point which is equivalent to 1/100 of 1%, or one basis point. For a trader to say "I made 40 pips on the trade" for instance, means that the trader profited by 40 pips. The actual cash amount this represents depends on the pip value.

**MEASURING TRADE VALUE CHANGE**

<table>
<thead>
<tr>
<th>Currency Pair</th>
<th>Exchange Rate at Close</th>
<th>Pip Change</th>
<th>Trade Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR/GBP</td>
<td>0.8714</td>
<td>+29</td>
<td>350,000 EUR</td>
</tr>
</tbody>
</table>

Number of GBP per pip: 350,000 × 0.0001 = 35
Per Pip Value: 35 ÷ 0.8714 = 40.17 EUR per pip
Trade Profit / (Loss): 29 pips × 40.17 = 1,164.93 Euros
Price Quotes: What do they mean?

Reading a Forex quote may seem a bit confusing at first. However, it's really quite simple if you are able to remember two things:

- The first currency listed is the base currency
- The value of the base currency is always 1 (one)

A quote of GBP at 1.3300 is to say that 1 Sterling Pound (GBP) = 1.3300 US Dollar (US). When the Sterling Pound is the base unit and a currency pair's price increases, comparatively the Sterling Pound has appreciated and the other currency in the pair (usually known as the quote currency) has weakened. Using the above GBP/USD example as a reference, if the GBP/USD increases, from 1.3300 to 1.3400 (100 pips), the GBP is stronger because it will now buy more USD than before.

There are four currency pairs involving the US dollar in which the US dollar is not the base currency. These exceptions are the Australian dollar (AUD), the British Pound (GBP), the Euro (EUR), and the New Zealand dollar (NZD). A quote on the GBP/USD of 1.3300 would mean that one British Pound is equal to 1.3300 US dollars. If the price of a currency pair increases the value of the base currency in comparison to the quote currency thus increases. Conversely, if the price of a currency pair decreases, such is to say that the value of the base currency in comparison to quote currency has weakened.

What Influences Price?

Forex markets and prices are mainly influenced by international trade and investment flows. It is also influenced, but to a lesser extent, by the same factors that influence the equity and bond markets: economic and political conditions, especially interest rates, inflation, and political stability, or as is often the case, political instability. Though economic factors do have long term effects, it is often the immediate reaction that causes daily price volatility, which makes Forex trading very attractive to intra-day traders.

Currency trading can offer investors another layer of diversification. Trading currencies can be viewed as a means to protect against adverse movements in the equity and bond markets, movements that of course also impact mutual funds. You should bear in mind that trading in the off-exchange foreign currency market is one of the riskiest forms of trading and you should only invest a small portion of your risk capital in this market.
Understanding Currency Pairs

Currency pairs are always listed in the same order. For example, the most commonly-traded currency pair consists of the Euro and the U.S. dollar. This pair is always listed as EUR/USD and never the reverse order. In this example EUR is the BASE currency, and USD is the QUOTE currency. When published with an exchange rate, the currency pair indicates how much of the quote currency is required to purchase one unit of the base currency.

The Majors

Most currency transactions involve the "Majors", consisting of the British Pound (GBP), Euro (EUR), Japanese Yen (JPY), Swiss Franc (CHF) and the US Dollar (USD). Whilst these are the key five currencies, the Canadian Dollar (CAD) and the Australian Dollar (AUD) are starting to be considered as additional 'major' currencies.

Currencies in Pairs

The logic for currency pairing, is that if we had a single currency alone, we would have no means to measure its relative value. By pairing two currencies against each other a fluctuating value can be established for one versus the other.

Currency Pairs that do not include the US dollar are commonly referred to as Cross Currency Pairs. Cross Currency trading can open a completely new aspect of the Forex market to speculators. Some cross currencies move very slowly and trend very well. Other cross currency pairs move very quickly and are extremely volatile with daily average movements exceeding 100 pips.

The SWAP

When we execute a Forex transaction, we essentially borrow one currency and lend another. This borrowing and lending is like any other banking transaction and therefore subject to interest rates. The interest is referred to as the swap rate in the currency markets. The Swap is a credit or debit as a result of daily interest rates. When traders hold positions overnight, they are either credited or debited interest based on the rates at the time.
Market Psychology

Trading strategies should be kept as simple as possible. The majority of traders have the false expectation of becoming rich within a limited time.

If you are consistent with your strategy you can increase your probabilities of succeeding, especially in the long run, otherwise you will gamble and lose.

Therefore, traders possess two different mindsets, the short-term mentality and the long-term one.

The majority of traders have a short-term mindset, whereas the minority has a long-term mindset. Investors who trade based on longer time frames generally increase their probabilities for success.

What is Technical Analysis?

Technical analysis is a technique used to forecast the future direction of prices through the study of historical market data, primarily price, volume and open interest.

Technical traders use trading information (such as previous prices and trading volume) along with mathematical indicators to make their trading decisions. This information is
usually displayed on a graphical chart updated in real time that is interpreted in order to determine when to buy and when to sell a specific instrument.

**Dow Theory**

The ideas of Charles Dow, the first editor of the Wall Street Journal, form the basis of modern technical analysis. They are based upon three main premises:

1. The price is a comprehensive reflection of all market forces. At any given time, all market information and forces are reflected in the prices.
2. Prices move in trends that can be identified and turned into profit opportunities.
3. Price movements are historically repetitive.

**Advantages of Technical Analysis**

It requires much less data than fundamental analysis. From price and volume, a technical trader can obtain all the information he needed.

As it is focused on identifying trend reversal, the question of timing to enter a trade is easier to address with technical analysis.

**Drawbacks of Technical Analysis**

Technical analysis can become a self-fulfilling prophecy. When many investors, using similar tools and following the same concepts, shift together the supply and demand, this can lead to the prices moving in the predicted direction.

**Technical and/or Fundamental Analysis**

Technical Analysis is one of the most significant tools available for forecasting financial market behavior. It has been proven to be an effective tool for investors and is constantly becoming more accepted by market participants. When used in conjunction with fundamental analysis, technical analysis can offer a more complete valuation, which can make the difference in executing profitable trades.

**Chart**

A price chart is a sequence of prices plotted over a specific time frame. On the chart, the vertical axis represents the price scale while the horizontal axis represents time.
Chart properties

When looking at a chart, there are several factors that you should be aware of as they affect the information that is provided. They include the time frame and the price scale used.

- **Time frame**

  Each bar, candlestick or dot in a chart contains information regarding a defined time interval. The length of this interval is the chart interval.

  Deciding on which chart interval to use depends on your trading style and investment horizon. Day traders may use chart intervals as short as 1 minute, while swingers (traders that hold trades between several days to a couple of weeks) usually use intervals varying from several hours to a day.

- **Price Scale**

  There are two methods for displaying the price scale along the y-axis: arithmetic and logarithmic.

  On an arithmetic price scale, each price point is separated by the same vertical distance no matter what the price level. Each unit of measure is the same throughout the entire scale. If a stock advances from 10 to 100 over a 6-month period, the move from 10 to 20 (+100% variation) will appear to be the same distance as the move from 90 to 100 (+11% variation). Even though this move is the same in absolute terms, it is not the same in percentage terms.

  On a logarithmic scale, each price point is separated by a vertical distance that is equal in percentage terms. An advance from 10 to 20 would represent an increase of 100%. An advance from 20 to 40 would also be 100%, as would an advance from 40 to 80. All three of these advances would appear as the same vertical distance on a logarithmic scale.

**Type of Charts**

There are three main types of charts that are used by traders depending on the information that they are seeking and their individual skill levels. The chart types are: the line chart, the bar chart and the candlestick chart.

- **Line Chart**
INTERPRETATION: The line chart is the most basic type of chart. The line shown in the chart connects single prices over a selected period of time. The most popular line chart is the daily chart. Although any point in the day could be plotted, most traders focus on the closing price, which they consider the most important. However, this presents an immediate problem; using a daily line chart, one cannot see the price activity that occurred during the rest of the day.

BENEFIT: A line chart gives the trader a fairly good idea of where the price of an asset has traveled over a given time frame.

- Bar Chart
**INTERPRETATION:** Each vertical bar represents one period of price activity from the chosen periodicity, which could be as short as 1 minute for intraday charts, or as long as several years for historical charts. On a daily chart, the vertical bar represents one day's trading whereby:

+ the top of the bar represents the market's high price

+ the bottom of the bar represents the low

+ the left hash mark on the bar indicates the opening price

+ the right hash mark on the bar indicates the closing price

**BENEFIT:** By including open, high, low and close information, bar charts allow more detailed analysis than standard line charts.

*Candlestick Chart*
INTERPRETATION: The candlestick chart is closely related to the bar chart, as it also represents the four major prices: high, low, open, and close. Each candle represents a timescale of your choice. The following timescales are offered by different chart software: 1 min, 15 min, 30 min, 1 hour, 2-hour, 4-hour, 8 hour, daily, weekly and monthly.

For a daily chart, each candlestick represents one day's trading range and is displayed as "open" or "closed":

+ An open candlestick represents a higher close than open and is shown in blue.

+ A closed candlestick represents a lower close than open and is shown in red.

Each candlestick consists of two components, the real body and the shadows:

+ The real body is the thick part of the candlestick that represents the open and the close.

+ The thin lines above and below the real body are the shadows that represent the session's price extremes. The upper shadow (above the real body) measures the high of the session and the lower shadow (below the real body) measures the low of the session.

BENEFIT: The candlestick chart is the most common chart used for technical analysis. Many trading strategies are based upon patterns in candlestick charting.
Support and Resistance

Support and Resistance are lines that illustrate the ongoing battle between the buyers (the bulls) and the sellers (the bears).

- Support levels indicate the price where the majority of investors believe that prices will move higher. As the price declines towards support and the price becomes cheaper, buyers become more inclined to buy and sellers become less inclined to sell.
- Resistance levels indicate the price at which a majority of investors believe that prices will move lower. As the price moves towards resistance and the price becomes higher, sellers become more inclined to buy and buyers become less inclined to sell.

See below a graph representing the support and resistance of the EUR/JPY.

As long as the price of a security moves between the support and resistance level, the trend is likely to continue. A break beyond a level of support or resistance can be the sign of:

- An acceleration of a trend
- A reversal of a trend

When a resistance level is broken, its role is reversed and it becomes a support level. Similarly, when a support level is broken, that level becomes a resistance level.
You will see below a graph representing a trend acceleration of the AUD/JPY where a resistance becomes a support level.

Support and resistance analysis is used by technical traders to make trading decisions and identify when a trend is accelerating or reversing. Being aware of these important levels should affect the way you trade and help you significantly improve your performance.

**Continuation Patterns**

Continuation patterns indicate a pause in trend, implying that the previous direction will resume after a period of time. We will look at the following patterns: price channels, symmetrical triangles and flags & pennants.

**Price Channels**

A price channel is a continuation pattern that is bound by a trend line and a return line. A price channel may slope up (ascending pattern), down (descending pattern) or not at all (rectangle pattern). Depending on the channel slope, each of the lines can serve as either support or resistance.

An ascending price channel is considered bullish. Traders will look to buy when prices reach the trend line support and take profit when it reaches the return line resistance.
+ Descending price channel is considered bearish. Traders will look to sell when prices reach the trend line resistance and take profit when it reaches the return line support.
+ Rectangle patterns are neither bullish nor bearish, but simply reflect a pause in the underlying trend.

To draw a bullish price channel it is necessary to have at least two higher-lows and two parallel, or higher-highs. Conversely, to draw a bearish price channel, two lower-highs and parallel, or lower-lows are necessary.

Although channels are usually referred to as continuation patterns, there are exceptions when a reversal trend might occur. In those cases, prices usually fail to touch the return line before falling in what can be an early sign for an impending reversal.

Channels also have quantitative implications. Once price action breaks through the channel line, prices usually travel a distance equal to at least the width of the channel.

Because technical analysis is just as much art as it is science, there is room for flexibility. Even though exact trendline touches are ideal it is up to each individual to judge the relevance and placement of both the main trendline and the channel line. By the same token, a channel line that is exactly parallel to the main trendline is ideal.

**Symmetrical Triangle**

The symmetrical triangle is a continuation pattern that developed in markets that seems aimless in direction. The pattern contains at least two lower-highs and two higher-lows
that seem to come together. When the lines connecting these points are extended, they converge and a symmetrical triangle results.

The symmetrical triangle has both measuring and timing implications. As the pattern is completed, price and volume diminishes before they both react sharply to break out of the triangle's boundaries. When the breakout occurs, prices tend to travel a distance equal to the triangle's base or more (see the example below). From the timing perspective, the breach of a triangle should occur somewhere between half-way and two thirds along the distance from base to apex, i.e. the triangle's height.

The break may occur on either side out of the triangle. In the case of a bullish symmetrical triangle, the breakout occurs in the same direction of the previous bullish trend. In the case of a bearish symmetrical triangle, the breakout occurs in the same direction of the previous bearish trend.

**Example of a bullish symmetrical triangle**

![Diagram of a bullish symmetrical triangle]

**Flags and Pennants**

These two similar continuation patterns usually occur at the midpoint of a large price movement and represent only brief pauses in a dynamic market. They can be identified
and distinguished by the shape of their "body;" a rectangle sloping slightly against the trend in the case of the flag, and a triangle in the case of the pennant.

Flags and pennants are similar in both their form and interpretation. Both mark a small consolidation of a price movement, though to be truly considered as continuation patterns there should be evidence of a prior trend.

Flags and pennants are usually preceded by a sharp advance or decline in the direction of the trend, which provides the shape of the "flagpole" on the chart. The breakout from the pattern should show a minimal price move equal to the length of the flagpole.

Example of a Bullish Flag: When a breakout occurs, the minimal price move is equal to the size of the flagpole.

**Mathematical Trading Indicators**

The mathematical trading methods provide an objective view of price activity. It helps you to build up a view on price direction and timing, reduce fear and avoid overtrading. Furthermore, these methods tend to provide signals of price movements prior to their occurring in the market.

The tools used by the mathematical trading methods are moving averages and oscillators. (Oscillators are trading tools that offer indications of when a currency is overbought or
oversold). Though there are countless mathematical indicators, here we will cover only the most important ones.

1. Simple and Exponential Moving Average (SMA - EMA)
2. Moving Average Convergence-Divergence (MACD)
3. Bollinger Bands
4. The Parabolic System, Stop-and-Reverse (SAR)
5. RSI (Relative Strength Index)

**Moving Average**

A moving average is an average of a shifting body of prices calculated over a given number of days. A moving average makes it easier to visualize market trends as it removes – or at least minimizes - daily statistical noise. It is a common tool in technical analysis and is used either by itself or as an oscillator.

There are several types of moving averages, but we will deal with only two of them: the simple moving average (SMA) and the exponential moving average (EMA).

1. **Simple moving average (SMA)**
   - **Definition**

   The simple moving average is an arithmetic mean of price data. It is calculated by summing up each interval's price and dividing the sum by the number of intervals covered by the moving average. For instance, adding the closing prices of an instrument for the most recent 25 days and then dividing it by 25 will get you the 25-day moving average.

   Though the daily closing price is the most common price used to calculate simple moving averages, the average may also be based on the midrange level or on a daily average of the high, low, and closing prices.

   - **Advantages**

     Moving average is a smoothing tool that shows the basic trend of the market.

     It is one of the best ways to gauge the strength a long-term trend and the likelihood that it will reverse. When a moving average is heading upward and the price is above it, the security is in an uptrend. Conversely, a downward sloping moving average with the price below can be used to signal a downtrend.
0. **Drawbacks**

It is a follower rather than a leader. Its signals occur after the new movement, event, or trend has started, not before. Therefore it could lead you to enter trade some late.

It is criticized for giving equal weight to each interval. Some analysts believe that a heavier weight should be given to the more recent price action.

0. **Example**

You can see from the chart below examples of two simple moving averages - 5 days (Red), 20 days (blue).

![Chart](image)

2. **Exponential Moving Average (EMA)**

The exponential moving average (EMA) is a weighted average of a price data which put a higher weight on recent data point.

0. **Characteristics**

The weighting applied to the most recent price depends on the specified period of the moving average. The shorter the EMA period, the more weight will be applied to the most recent price.
An EMA can be specified in two ways: as a percentage-based EMA, where the analyst determines the percentage weight of the latest period's price, or a period-based EMA, where the analyst specifies the duration of the EMA, and the weight of each period is calculated by formula. The latter is the more commonly used.

- **Main Advantages compared to SMA**

  Because it gives the most weight to the most recent observations, EMA enables technical traders to react faster to recent price change.

  As opposed to Simple Moving Average, every previous price in the data set is used in the calculation of EMA. While the impact of older data points diminishes over time, it never fully disappears. This is true regardless of the EMA's specified period. The effects of older data diminish rapidly for shorter EMAs than for longer ones but, again, they never completely disappear.

- **Example**

  You can see from the chart below the difference between SMA (in blue) and EMA (in green) calculated over a 20-day period.

  ![Chart Image]

  **MACD (Moving Average Convergence-Divergence)**

  The moving average convergence-divergence indicator (MACD) is used to determine trends in momentum.
• **Calculation**

It is calculated by subtracting a longer exponential moving average (EMA) from a shorter exponential moving average. The most common values used to calculate MACD are 12-day and 26-day exponential moving average.

Based on this differential, a moving average of 9 periods is calculated, which is named the "signal line".

MACD = [12-day moving average – 26-day moving average] > Exponential Weighted Indicator

Signal Line = Moving Average (MACD) > Average Weighted Indicator

• **Interpretation**

Due to exponential smoothing, the MACD Indicator will be quicker to track recent price changes than the signal line. Therefore,

When the MACD crossed the SIGNAL LINE: the faster moving average (12-day) is higher than the rate of change for the slower moving average (26-day). It is typically a bullish signal, suggesting the price is likely to experience upward momentum.

Conversely, when the MACD is below the SIGNAL LINE: it is a bearish signal, possibly forecasting a pending reversal.

• **Example of a MACD**

You can see from the chart below example of a MACD. The MACD Indicator is represented in green and the Signal Line in Blue.
Bollinger Bands

Bollinger Bands were developed by John Bollinger in the early 1980s. They are used to identify extreme highs or lows in price. Bollinger recognized a need for dynamic adaptive trading bands, whose spacing varies based on the volatility of the prices. During periods of high volatility, Bollinger bands widen to become more forgiving. During periods of low volatility, they narrow to contain prices.

- **Calculation**

  Bollinger Bands consist of a set of three curves drawn in relation to prices:

  The middle band reflects an intermediate-term trend. The 20 day - simple moving average (SMA) usually serves this purpose.

  The upper band is the same as the middle band, but it is shifted up by two standard deviations, a formula that measures volatility, showing how the price can vary from its true value.

  The lower band is the same as the middle band, but it is shifted down by two standard deviations to adjust for market volatility.

  Bollinger Bands establish a Bandwidth, a relative measure of the width of the bands, and a measure of where the last price is in relation to the bands.

  \[
  \text{Lower Bollinger Band} = \text{SMA} - 2 \times \text{standard deviations}
  \]
Upper Bollinger Band = SMA + 2 standard deviations.

Middle Bollinger Band = 20 day - simple moving average (SMA).

- **Interpretation**

  The probability of a sharp breakout in prices increases when the bandwidth narrows.

  When prices continually touch the upper Bollinger band, the prices are thought to be overbought; triggering a sell signal.

  Conversely, when they continually touch the lower band, prices are thought to be oversold, triggering a buy signal.

- **Example of Bollinger Bands**

  You can see from the chart below the Bollinger Bands of the S&P 500 Index, represented in green.

  ![Bollinger Bands Chart](chart.png)

**The Parabolic System, Stop-and-Reverse (SAR)**

The parabolic SAR system is an effective investor's tool that was originally devised by J. Welles Wilder to compensate for the failings of other trend-following systems.

- **Description**
The Parabolic SAR is a trading system that calculates "stop-losses" in a trending market. The chart of these points follows the price movements in the form of a dotted line, which tends to follow a parabolic path.

- **Interpretation**

  When the parabola follows along below the price, it is providing buy signals.

  When the parabola appears above the price, it suggests selling or going short.

  The “stop-losses” dots are setting the levels for the trailing stop-loss that is recommended for the position. In a bullish trend, a long position should be established with a trailing stop that will move up every day until activated by the price falling to the stop level. In a bearish trend, a short position can be established with a trailing stop that will move down every day until activated by the price rising to the stop level.

  The parabolic system is considered to work best during trending periods. It helps traders catch new trends relatively early. If the new trend fails, the parabola quickly switches from one side of the price to the other, thus generating the stop and reverse signal, indicating when the trader should close his position or open an opposing position when this switch occurs.

- **Example of an SAR parabolic study**

  You can see from the chart below in green the Parabolic System applied to the USDJPY pair.
Relative Strength Index (RSI)

The RSI was developed by J. Welles Wilder as a system for giving actual buy and sell signals in a changing market.

- **Definition**

  RSI is based on the difference between the average of the closing price on up days vs. the average closing price on the down days, observed over a 14-day period. That information is then converted into a value ranging from 0 to 100.

  When the average gain is greater than the average loss, the RSI rises, and when the average loss is greater than the average gain, the RSI declines.

- **Interpretation**

  The RSI is usually used to confirm an existing trend. An uptrend is confirmed when RSI is above 50 and a downtrend when it's below 50.

  It also indicates situations where the market is overbought or oversold by monitoring the specific levels (usually “30” and “70”) that warn of coming reversals.

  An overbought condition (RSI above 70) means that there are almost no buyers left in the market, and therefore prices are more likely to decline as those who previously bought will now take their profit by selling.

  An oversold condition (RSI below 30) is the exact opposite.

- **Example of RSI**

  You can see in red from the chart below the Relative Strength Index of the GBPUSD pair.
Fibonacci Analysis and Elliott Wave Theory

Elliott Wave Theory (EWT)

Ralph Nelson Elliott referred to three important aspects of price movement in his theory: pattern, ratio and time. Pattern refers to the wave patterns or formations, while ratio (the relationship between numbers, particularly the Fibonacci series) is useful for measuring waves. To use the theory in everyday trading, the trader determines the main wave, or super cycle, goes long and then sells or shorts the position as the pattern runs out of steam and a reversal is imminent.

- The Five-Wave Pattern

In its most basic form the Elliott Wave Theory states that all market action follow a repetitive rhythm of a five waves in the directions of the main trend followed by three corrective waves (a "5-3" move).

The advance waves are denoted 1-2-3-4-5 and the retreat waves are denoted a-b-c. In the advance waves' phase, waves 1, 3, and 5 are "impulse waves" and move in the direction of the trend, while waves 2 and 4 are called "corrective waves". After the five-wave advance is completed, a three-wave correction begins denoted a-b-c. In the correction waves' phase, waves 'a' and 'c' move in the direction of the retreat, while wave 'b' heads in the opposite direction.
Note: In the chart shown here an uptrend is described and therefore the advance waves are moving upwards. In a downtrend the descending waves will be referred to in the form 1-2-3-4-5, with the ascending waves addressed as a-b-c.

- **Wave cycles**

  When a three-wave retreat is complete, another five-wave advance begins and so on, until a reversal is prompted. It is possible to see then, that each five-wave advance can be identified as a single advance wave. Similarly, when viewed from a larger perspective, and vice versa, each wave can be broken down into smaller waves.

  The Elliott Wave Theory classifies waves according to cycle length, ranging from a Grand Super cycle, spanning for decades; to a subminuette degree, covering no more than a few hours. However, the eight-wave cycle remains constant.
Note: The largest two waves, 1 and 2 here, can be subdivided into eight lesser waves that in turn can be subdivided into 34 even lesser waves. The two largest waves, 1 and 2, are only the first two waves in a larger five-wave advance. Wave 3 of that next higher degree is about to begin. The 34 waves that constitute a cycle can be broken down further to the next smallest degree which would result in 144 waves.

**Fibonacci Analysis**

Fibonacci numbers provide the mathematical foundation for the Elliott Wave Theory. While the Fibonacci ratios have been adapted to various technical indicators, their utmost use in technical analysis remains the measurement of correction waves.

- **Fibonacci Series Characteristics**

  The Fibonacci number sequence is made by simply starting at 1 and adding the previous number to arrive at the new number:

  
  \[
  0 + 1 = 1, \quad 1 + 1 = 2, \quad 2 + 1 = 3, \quad 3 + 2 = 5, \quad 5 + 3 = 8, \quad 8 + 5 = 13, \quad 13 + 8 = 21, \quad 21 + 13 = 34, \quad 34 + 21 = 55, \\
  55 + 34 = 89, \ldots
  \]

  This series has very numerous interesting properties:

  + The ratio of any number to the next number in the series approaches 0.618 or 61.8% (the golden ratio) after the first 4 numbers. For example: \(\frac{34}{55} = 0.618\)

  + The ratio of any number to the number that is found two places to the right approaches 0.382 or 38.2%. For example: \(\frac{34}{89} = 0.382\)

  + The ratio of any number to the number that is found three places to the right approaches 0.236 or 23.6%. For example: \(\frac{21}{89} = 0.236\)

  These relationships between every number in the series are the foundation of the common ratios used to determine price retracements and price extensions during a trend.

- **Fibonacci Price Retracements**

  A retracement is a move in price that "retraces" a portion of the previous move. Usually a stock will retrace at one of 3 common Fibonacci levels - 38.2%, 50%, and 61.8%. Fibonacci price retracements are determined from a prior low-to high swing to identify possible support levels as the market pulls back from a high.
Retracements are also run from a prior high-to-low swing using the same ratios, looking for possible resistance levels as the market bounces from a low.

- **Fibonacci Price Extensions**

  Fibonacci price extensions are used by traders to determine areas where they will wish to take profits in the next leg of an up-or downtrend. Percentage extension levels are plotted as horizontal lines above/below the previous trend move. The most popular extension levels are 61.8%, 100.0%, 138.2% and 161.8%.

- **Advice**

  In reality it is not always so easy to spot the correct Elliott wave pattern, nor do prices always behave exactly according to this pattern. Therefore, it is advisable for a trader not to rely solely on Fibonacci ratios, but rather to use them in conjunction with other technical tools.

*The material does not contain an offer of, or solicitation for, a transaction in any financial instruments. 10TradeFX accepts no responsibility for any use that may be made of these comments and for any consequences resulting in it. No representation or warranty is given as to the accuracy or completeness of this information. Consequently, any person acting on it does so entirely at their own risk. CFDs are leveraged products. CFD trading may not be suitable for everyone and can result in losing all of your invested capital, so please make sure that you fully understand the risks involved.*