Western Forex Association Presents:
The Forex Handbook

1st Edition by the Executives of 2014-2015 school year

Disclosure: This handbook is made solely for educational purpose for students to understand how the FX market operates. FX trading is highly risky and should only be traded by professionals. WFA or the University is not liable for any losses you made if you choose to trade with your own money.

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Introduction

Greetings,

Welcome to the first edition of the WFA Handbook, the execs at WFA worked very hard to get these materials into a digital copy where all of our members can learn at their own pace. This book complements the weekly meetings held by WFA so please also attend them, as they are core to the interactive learning experience that WFA wants to deliver for every student. In the meetings you will learn, through hands-on practice, how to trade and analyze both global trends and macroeconomic environments. You'll be given an opportunity to discuss with like-minded individuals as well...who knows, you might even find the love of you life.

Sincerely,
2014-2015 Executives at WFA

Chapter 1: Learning the Foundations

What is Forex:

Forex is a colloquial term for the Foreign Exchange Market; a global, decentralized market that trades currencies. Unlike stock or option exchanges, these are open 24 hours a day from Sunday afternoon to Friday afternoon. Forex is an OTC (over the counter) market and this means that it has little external rules imposed on what you can and can't do, and allows you to trade with a lot more flexibility. With the introduction of electronic trading, the FX market has a daily turnover of an incredible 5.3 Trillion Dollars[1]. That means 5.3 Trillion dollars exchanges hands, everyday, making it the single largest market in the world. Needless to say, this is a highly lucrative market that affects everyone in the world. Understanding the Forex market will bring you great knowledge regarding international markets, technical skills, and global economics.

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[1] http://www.bis.org/publ/rpfx13fx.pdf

[2] Boostrader.com

Reading Currency Pairs

In Spot Forex trading there is one type of trade. You buy some amount of currency using another currency. Thus you buy one and sell another. A currency pair is a unit that expresses the value of one of the currencies relative to another. When "trading currencies" what you're essentially doing is buying and selling units of currency pairs.

Ex. EUR/USD[3]=1.5

→ Here, the 1st currency (EUR) is the base currency, and the 2nd currency (USD) is the quote currency. You're buying the base currency using the quote currency.
→ The 1.5 is the exchange rate, and it indicates that 1.5 of the quote currency is needed to buy 1 unit of the base currency (these will always indicate the value of the quote relative to **1 unit** of the base currency).
→ If you long (or buy) the currency pair, you would buy the pair with for the bid price, which is how much of the quote currency you'd get if you buy 1 unit of the base currency.
→ If you short (or sell) the currency pair, you would sell it for the ask price, which is how much of the quote currency you'd get if you sold 1 unit of the base currency.

Unit of Measure

Trader use "pip" or "pips" to refer to the decimal places in forex or a basis point (1% of 1%). It usually refers to the fourth decimal place in forex except in the case of JPY which is the 2nd decimal. For example, if EUR/USD movies 0.0001 up, then it moved 1 pip up or 1 point up. If USD/JPY moves 0.01 up, then it moves 1 pip or 1 point up.

The standard unit of measure of contract in Forex is a "lot". One lot is equal to 100,000 units of the base pair. So if you buy a standard lot contract of a EUR/USD, you are buying 100,000 EUR with USD.

Check out this video that explain what a pip is:
http://www.investopedia.com/video/play/what-is-a-pip/

[3] Appendix of Currency Short Keys

Basic Orders

Long: Longing a currency pair means you are buying the base currency with the quoted currency. As a speculator, you hope the base currency will increase in value so that later you can close the position at a higher price than when you bought it; thus making a profit.

Short: Shorting a currency pair is the opposite of longing. You "sell" the currency and you profit when the pair's exchange rate decrease.

Leverage Basics

Leverage is the use of certain financial instruments (Ex. options or futures) or borrowed capital to increase your percentage of return relative to the amount of your own money that you invest in a trade. This amplifies your risk and reward, as you're essentially just trading with more capital than you have.

It's particularly noteworthy in forex trading, as the amount you're allowed to borrow is very high compared to other financial instruments, like stocks for example. Investors borrow money from their forex brokers to make trades. The amount that's borrowed is usually expressed in a series of ratios (ex. 1:50, 1:100, 1:300) that represent the margin on your account. In Canada, because of our stricter financial regulations, the most you can leverage in forex is 1:50, however, some brokers in other country offer as much as 1:888. The margin is the % of a total trade that you're expected to have in your account with your own cash.

Ex. 50:1 would be a 2% margin (1/50=0.02). If you wanted to make a trade of $50, you'd have to have at least $1 in your account. This is pretty significant, since if you wanted to make larger trades (which you will) you could trade and make a profit on, say, $50,000 while only really investing $1000 of your own money.

This ratio largely depends on the type of broker and size of position you're trading with. Leverage is significant to a normal individual to trade forex because the price of currency pairs don't fluctuate very much on a per dollar basis, so it isn't as risky as it seems. That being said, if you end up losing enough money that the funds in your account fall below your margin requirements, you may have to deal with a margin closeout or margin called, in which

your broker closes your positions, or you'd have to keep adding money into your account to maintain your margin.

Learning from a Scenario

Here is a quick quiz that tests what you have just learned. The answer is on the bottom so don't scroll down until you have tried the questions.

Scenario: You have a 1:100 leverage ratio. You want to buy a lot of EUR/USD. Suppose the exchange rate is 1.0000 right now.

1. How much of your own capital would you need?[4]
2. With the same scenario, if EUR/USD moves 20 pips up. What is the exchange rate?[5]
3. What return (in %) would you have made if you had 1,000 USD with 1:100 leverage, bought 1 lot at EUR/USD=1.0000 and it moved 20 pips up.[6]
4. Power of leverage: Suppose the exact same scenario but you had a $10,000 account with 1:10 leverage. You bought 1 lot of EUR/USD at 1.0000 and it movies 20 pips up. What's your return in %?[7]

Words of Caution:

From the scenario above, I hope you realize the power of leverage and how useful yet risky it is. It is a very lucrative market and you could easily double or wipe out your account within seconds. However, that is an act of gambling and traders generally try to avoid this. Successful traders trade systematically while understanding their risk and limiting their losses.

With a 1:100 leverage, you could easily wipe out your $1,000 account in 60 seconds on the forex market if you open a position without understanding how much you have at risk. If you bought one lot of a currency pair and the exchange rate move 100 pips, your account would be zero. The broker would probably close your account or "margin call" when your account is at around $40 so they don't lose money.

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[4] Answer: 1,0000 USD. Since your leverage is 1:100, you need 1,000 USD of capital to buy 1,000x100=100,000USD worth of EUR.

[5] Answer: 1.0020=1.0000+0.0020

[6] Answer: You bought 100,000 of euro with 1,000 USD, the exchange rate moved 20 pips (0.2%) up (which could happen within a minute easily) so now you have 100,000*1.0020=100,200USD. You close the position and make the $200 difference. You now have 1200 USD or you had a 20% return

[7] Answer: You bought 100,000 of euro with 10,000 USD, the exchange rate moves up 20 pips. You now have 100,200USD, you close the position and you made the $200 difference. You now have 10,200 or 2% return.

Needless to say, we cannot stress enough that leverage trading is very dangerous and should not be taken lightly. This handbook is meant to educate and we do not encourage students to trade with their own money.

Risk Management

One of the biggest reasons, if not THE biggest and most common reason that FX traders fail arises from improper risk management. You must understand your trading style, the size of your account and the leverage you are operating in through and through in order to be successful in trading. Consider this scenario: you have $1000 in your account and you open a position of 1 lot to long a currency pair. You went to the washroom when major news came out and the pair drops 80 pips in 2 minutes. You came back from the washroom, saw your screen and threw your laptop to the ground. This can easily happen if you don't understand and protect yourself from the risks of volatility in Forex. Leverage means that you amplify your risk that much more, so in order to understand how to trade forex, you must understand how to protect yourself from risks.

Stop Loss, Take Profit, and Trailer stop

Stop loss (SL) is a type of order that you preset. It is a certain price at which your opened order will be closed automatically to limit your losses, if the price of the currency pair reaches it.

For example. You buy 1 lot EUR/USD at 1.5, you set a stop loss at 1.4. You are outside eating dinner with a blind date, then BANG, EUR/USD drops to 1.2. Good thing though, with the stop loss, you only would have lost 10,000 because your position closed out at 1.4. If you didn't have a stop loss order in place, you would have lost 30,000. You should always set a stop loss because you never know when the market may move against you.

Check out a quick video here: http://www.investopedia.com/video/play/stop-loss-orders/

Take profit (TP) is very similar to stop loss. You present a certain price level at which your account automatically closes so that you take the profit of a trade at a specific point.

Trailing Stop is like a stop loss that moves with the market price, and only kicks in after your position turns positive. If you set the trailing stop for 10 pips, then if the trade ever drops in total below 10 pips, then the position will close. It is used to protect gains.

Ex. You open a long position and you set the stop loss at 50 points above and below the entry price. You also set the trailing stop at 10 points. As soon as the pair moves 10 pips above the entry price, your trailing stop kicks in and now your effective stop loss is at +0 pips. Say the pair moves another 10 pips up to 20 pips above your entry price, your effective stop loss is at +10 pips from the entry price. If at this point, the pair moves down 15 pips, your entry would've closed at +10 and so you would've made the 10 pips.

Risk and reward ratio

Before you enter a trade, you should always understand your risk and reward ratio. Your target risk is the amount of money you could lose on the trade and reward is the amount you can gain.

If you buy EUR/USD at 1.5, set SL at 1.3 and TP at 1.7, then your risk reward level is 1:1 (one to one). That is to say, you can either make 0.2 or lose 0.2.

When considering the risk and reward think about the probability of winning. If you're expecting a 50%:50% chance of winning, then you're expected to make $0 over time if you have a 1:1 risk and reward (you're basically expecting to lose and win as much). If you have a 50:50% chance of winning but your risk:reward ratio is 1:1.2, then over time you will have a positive account.

So essentially the trade off is that the probability of you winning (the win:lose ratio) is directly proportional to your risk and reward ratio. And you are always trying to get a positive EV (expected value for those of you who took statistics).

Risking your account

The convention is that you should never rule more than 2% of your account per trade.

Making a Trade:

Size of trade, fundamental analysis, news analysis

When you want to make a trade on any financial instrument, you should perform both fundamental and the technical analysis-however some people may disagree based on trading styles.

It is important to note that in FX market, the technical analysis takes on much more weight than fundamental analysis. However, to be thorough with your analysis, you should always perform both. Both of these skills are not limited to forex trading and will benefit you greatly as long as you are practicing business. You will learn the skills to forecast and understand how different elements in the financial industry interact with each other and how you can take advantages of the trends based on your analysis.

Fundamental Analysis: This analysis looks at the overall health of the underlying financial instrument you are looking at. Fundamental analysis on Forex will be explained further on below.

Technical Analysis: This analysis looks at historical price charts and patterns and attempts to forecast future prices based on those historical patterns. More in depth description of technical analysis will be discussed below as well.

Check this article out for a quick reference: http://www.investopedia.com/articles/active-trading/101713/technical-vs-fundamental-investing-friends-or-foes.asp

Chapter 2: Fundamental Analysis

Fundamental Analysis

In any sort of financial instrument analysis, a trader will perform fundamental analysis before entering a trade. Fundamental analysis refers to analyzing the underlying fundamentals of the asset you are trading in order to determine what could be its intrinsic value. For example, when you are analyzing the fundamentals of a stock, you are looking at the company's earning potential, future cash flows, business models, risk of default/bankruptcy and comparing that to other stocks to make a decision. Similarly, to perform fundamental analysis on currencies, you look at the economic health of the country, stability of the country's policies, what the underlying forces are that will drive the movement of the price of its currency, and so on.

Fundamental Analysis:

To understand fundamentals of an underlying currency pair, you have to look at both of the countries in the pair and understand how the two of them interact. You also need to understand what forex really is. Currency rate has to do with the value of one dollar from one country compared to another. The value of money has to do with supply and demand which is affected by a number of economic factors.

List of things to look out for when analyzing a country:

Economic growth rate
Employment Rate
Inflation
Monetary Policy
International trade between the two underlying countries
Government Expenditure, Debt
Investment rate, equities index
Interest rate

One of the key driving factors of exchange rates between two countries is the interest rate[8]. Many forex traders consider this the most important measure to look at because it not only affects the money supply but also the risk free rate that dictates the risk level of the financial system in the respective country. This is why whenever a central bank changes their interest

[8] Check out the explanation for the Bank of Canada here: http://www.bankofcanada.ca/core-functions/monetary-policy/key-interest-rate/

rate (which happens about 8 times a year in Canada) the forex market will likely be extremely volatile for that currency. You can see jumps of surpassing 100 pips within 5 minutes at times. This is largely due to the theory of interest rate parity[9].

[9] http://www.investopedia.com/terms/i/interestrateparity.asp

What moves currency prices:

Based on traditional economic theory, currency moves because of supply and demand of the country's currency. Currency is supplied by the central bank of the country and demand can come from a variety of sources.

Demand of currency comes primarily from speculators, aka people who trade currencies for profit. International trade actually doesn't move currencies that much contrary to what many people think. This is simply because speculators' trading takes up a huge amount of volume. Only 9% of currency trading is by non-financial customers[10].

Law of One price and Purchasing Power Parity:

The basic principle of currency comes from law of one price which states that a good must sell for the same price at all locations if there are no frictions (costs of shipping, imports etc.). The intuition is that without friction, if good a is cheaper in Canada than in US, then people will just buy Good A in Canada and sell it in US for a profit (known as price arbitrage). When a US person wants buys the cheaper Canadian Good A, the person must sell their US Dollar to buy Canadian Dollar so they can buy the Canadian Good. The act of selling US and Buying Canadian would change the exchange rate. Thus the exchange rate would move to an equilibrium where the price of Good A in US and Canada is equal.

P=Canadian Price of Good A
P*=US cost of Good A
e=exchange rate USD to CAD

formula for law of one price $P^*=P/e$

If P doesn't equal to P*, then e will fluctuate until the formula is true.

And from the law of one price comes the Purchasing Power Parity (PPP)

PPP is an economic measurement that uses law of one price to attempt to derive what the "true" (or economists call it "implied") exchange rate should be. It basically uses a sample

[10] 2013 BIS Triennial Survey

basket of goods and derive the exchange rate by comparing the prices of those goods between two countries. Here is a link that shows the implied exchange rate from the world bank[11].

One fun and well known index that shows how PPP works is the Big Mac Index from The Economist[12].

Check out a video on Big Mac Index here: http://www.investopedia.com/video/play/big-mac-index/

Monetary Policy

- Monetary policy is a critical driver of exchange rates especially since the 2008 financial crisis hit. Monetary policy is a policy that is usually set by the central bank of the country and is mandated by the government (usually) to stabilize the GDP growth rate, employment rate and inflation rate.
- Monetary Policy usually controls the flow of money in the economy and can have very real effects on it because it affects the demand and supply of money. The Central Banks also control the interest rate though exchange rate mechanisms.
- The Bank of Canada (BoC) uses an inflation target as its monetary policy goal. BoC wants the inflation to be at between 1~3%, in line with Canada's GDP growth rate. By injecting money into the system, the value of CAD would directly decrease when all else remain constant.
- Central banks also have a certain amount control over the exchange rate by using what is called a Foreign Reserve. If Canada wants to keep the CAD above a certain value to USD for example, the Bank of Canada would buy CAD using its foreign reserves of USD thus artificially propping up the CAD/USD currency pair.

[11] http://data.worldbank.org/indicator/PA.NUS.PPPC.RF

[12] http://www.economist.com/content/big-mac-index

News Events[13]

One of the key things that traders must pay attention to are key news events happening for the currency pair. No matter what kind of trader you are, you must pay attention to news because major news can easily wipe out your opened position if you weren't aware of it.
Key fundamental news comes out every week and can easily move an underlying pair as much as 100 pips.

Check out: http://www.investing.com/economic-calendar/

There are many sites like this that list out all important news coming in the coming week. Looking at news doesn't just limit to trading FX, this news affects all aspect of the financial world so try to learn what each item means and which ones are more important to look at than others.

Final Words about Fundamental Analysis:

In FX, technicals usually take a heavier emphasis. However, you should always check the fundamental analysis especially if you plan on holding a position for long term because you don't want to be exposed to the volatility of the news or strength of fundamentals trend. Always be cautious and don't try to go against the trend!

[13] Appendix 2: list of types of news

Chapter 3: Technical Analysis

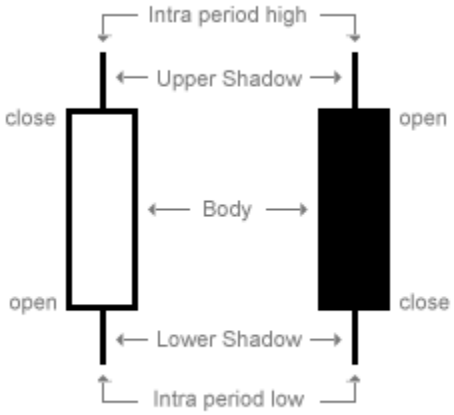
Technical Analysis

Introduction:

Technical analysis uses historical prices to forecast future prices. In foreign exchange, because the volume and volatility is so high, most trader would consider technical analysis as more important than fundamental analysis. Needless to say, it will definitely make you a better trader if you understand both and use both as complementarities skills in your trading. One key thing when looking at technicals is that you should never base your trade on a single indicator. You need to use your tools in conjunction with other analysis in order to paint a holistic picture of the underlying asset.

How to read a candlestick

When looking at graphs for technical analysis, we largely focus on candlestick charts. Candlesticks are a way of representing graphical trends that are a lot more informative than typical charts you're probably more familiar with (ex. line or bar graphs).



http://www.forexonlineguide.com/wp-content/uploads/2014/04/candlesticks.gif

Graphs will basically be made up of points called candlesticks, such as those above. The **body** of the candlestick represents how much the price has changed over the period of the graph (ex. daily, weekly, hourly. These can be adjusted by you and depend largely on which timeframe you want to trade at.

The open of the bar represents where the price started at the period, and the close of the bar represents where it finished off at the end of the period. Notice that the white bar has the open at the bottom and close at the top, and the black bar has them reversed. This means that the white bar represents a rise in prices, while the black represents a drop. The colour of the bars is just a matter of how you format the graph, but in this case the white bar is what you'd call a **bull** bar, and the black bar is a bear bar.

Longer bodies indicate larger price changes, and you'll start noticing trends in how the length of bars change as larger trends occur on the price charts when we start focusing more on price patterns. The little tails/shadows on the bars represent highest or lowest point in the time frame but didn't actually close or open on. These largely represent resistance, since they indicate that the price made it to a certain level, but something happened causing it to go above or below that level before the close.

Bars with small bodies and large tails on both ends represent indecision, as the open and close are fairly similar (represented by the small bodies) and there are tails on both ends (indicating that even though the price tried to move in both directions it still ended up at sort of a similar level as where it started).

Large tails in either particular direction represent resistance in that direction. For example, if a large tail is on top of a candlestick, that indicates that there's some resistance to the price level moving higher.

Psychological levels and why they're important

Psychological levels, are key price levels that all traders must look at. It derives from behavioural finance and is based on the simple intuition that a particular asset or pair has a maximum and minimum price that people are willing to pay for. Major support and resistance are usually easy to spot, while lower significant levels can take a bit of getting used to as well as experience.

http://www.dailyfx.com/forex/education/trading_tips/daily_trading_lesson/2014/03/08/3_Simple_Ways_to_Indentify_Support_and_Resistance_in_Forex.html

The top line is the resistance level and the bottom line is the support level. There are many other types of psychological level, such as moving averages, pivot points, Fibonacci levels and so on. However, the most simple, commonly used, popular, and therefore significant psychological is the horizontal levels.

Psychological levels are useful to set your stop loss and take profit. Trader tends to set take profit before the level and stop loss after the level. Many trading strategies also profit from trading at key psychological levels. Whole numbers are also important because that is the key level where most institutional banks eye their psychological level and set their stop loss[14].

Trend lines are a type of psychological level and are one of the most helpful and important things you can plot on a graph to get a general idea of market sentiment. They form the basis of price patterns (which we'll get to shortly) and help gauge the way the market currently feels, and consequently what may happen.

[14] Check out this link: http://www.dailyfx.com/forex/education/trading_tips/daily_trading_lesson/2012/06/14/Psychological_Whole_Numbers.html

http://www.chartsecret.com/images/trendlines-1.jpg

Trendlines are drawn by drawing a line through two (or more) peaks in a graph, or through troughs in a graph. The former represents a resistance line, while the latter represents a support line.

The idea is that, in most cases, the candlesticks should remain below the resistance line and above the support line. What's essentially happening here is that by drawing these lines, you're determining areas (while also taking natural/pre-existing rate of change into consideration) where the market seems reluctant to go below or above.

Accordingly, when the price chart appears to be nearing a resistance line it may be wise to enter a selling trade, as you could expect the chart to move downwards. Similarly, if the chart is near a support line you could expect a move upwards and subsequently place a buy trade when believe these lines will hold. When a support and resistance line are drawn together, as shown above, they form what's known as a channel. The slope of the channel can help you determine the general trend of the market. If it's slanted upwards, the market is trending upwards (as is the case above). Similarly, if it's slanted downwards there's an overall downward trend, and if it's sideways it represents market indecision.

In general, especially when starting out, it's wise to make trades only in the direction of the market. It can be a little difficult making trades during a sideways trending market, as you have to make fairly quick, accurate trades depending on the volatility. It can be also helpful to make multiple drawings of trendlines on different time frames, to get an overall picture of the broader trends and more short-term ones (with the former representing stronger trendlines and the latter weaker ones).

Fibonacci Level

Fibonacci retracements are predictive indicators that give you a general idea of future resistance and support levels. Their efficacy is controversial, as they (while technically all technical indicators are based on this, these are more so) are primarily predicated on the notion that because a lot of people use them, the expected patterns will occur (it's sort of a self fulfilling prophecy). The Fibonacci sequence is a mathematical sequence commonly seen in various natural occurrences. This is what the levels are based on, with the assumption that stock market fluctuations are no exception. As a result you should only use them in conjunction with other indicators and price patterns (the case with all indicators).
Nevertheless they are fairly commonly used and are worth going into.

http://fxtrade.oanda.ca/images/learn/fibonacci-retracement-lines-high-low-swings-525.png

The lines are drawn by extending a line, starting from a significant low on the chart to a significant high (ex. the diagonal yellow line above). The horizontal lines fall into place naturally as this line is drawn, and represent fibonacci ratios. These horizontal lines represent possible minor areas of resistance as the chart retraces upwards from a previous level of support (this level could be indicated by drawing your own support line through the troughs of the chart- independent of the fibonacci sequence). Similarly, if the chart is retracing downwards these areas represent minor areas of support. In this case, the idea is that the chart will likely make it back up to the high of its broader more noticeable trend lines, but it will face minor areas of resistance along the way. If you are a particularly quick trader (which likely won't be the case initially) you may be able to make short trades against the trend for little profit during these areas. This is very risky trading that probably won't be in your favour however. It also could represent minor pullback areas for you to enter in a more convenient location.

Price Patterns

Price patterns are common patterns that tend to show up in price charts, formed by resistance and support lines drawn, that often result in a particular move upwards or downwards. They're one of the fastest ways to get an intuitive understanding of what's actually happening in the market.

People often say trading is as much of an art as it is a science, and examining price patterns in conjunction with candlesticks is a great example of this. While it might be tempting to rely solely on indicators to give you an absolute yes/no answer as to what's going to happen, market sentiment is reflected in a number of different ways and it's imperative that the overall trends of the price chart itself are taken into consideration along with indicators. After all, indicators merely show a new way of representing what's happening in the price chart itself.

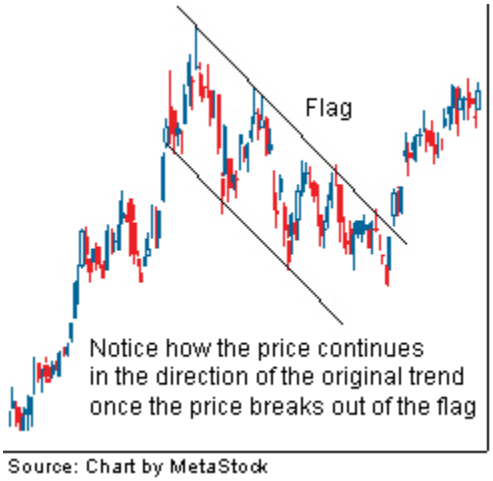
In the following section, we'll go over a few common price patterns. These, by no means, constitute the totality of patterns that exist. If you can get comfortable with using these to trade it may be useful to look into other patterns as well.

Continuation patterns:

These consist of patterns that denote temporary interruptions, or pullbacks, in current trends. They can be useful to recognize as it may be tempting to exit a trade too quickly based on what's only a minor pullback. It can also be helpful to enter an existing trend at a lower level, if you anticipate a pullback.

Some of these include:

Flags



Source: Chart by MetaStock

http://i.investopedia.com/inv/articles/site/flag.gif

Flags are drawn with two (mostly) parallel trendlines that seem to go against the prevailing trend. Since they too represent minor pullbacks, the assumption is that while this is trending in the opposite direction it does not constitute a full blown reversal. This is ensured when the

price pattern breaks out through the upper resistance line of the flag (or in the case of a downtrending market, the lower support line). This shows that while a smaller trend in the opposite direction attempted to occur, there were too many people in support of the original trend to allow this to occur and as a result it was immediately broken. What makes this a signal of a continuation pattern rather than simply two consecutive reversals is the fact that this opposite "trend" only occurred for a very short amount of time. As such a flag is typically going to occur when a sudden change in a long-time trend occurs, without any indication of larger reversals (we'll go more into these types of indications later). It is imperative that when making trades on flags, you wait for the price chart to break out of the flag channel before making the trade.

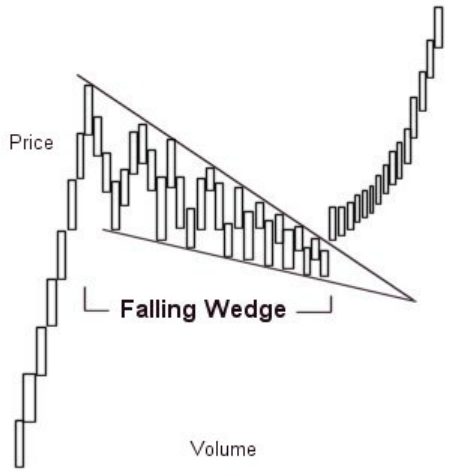
Pennants

http://i.investopedia.com/inv/articles/site/Pennant.gif

Pennants, like wedges consist of two converging trendlines at one point in the trend. They however are not sloped in a particular direction. The idea is that once this is formed, the trend will continue in its original direction. What's essentially happening here is that an upward trend continued for some time. Then, once the pennant was being formed, volatility in both directionslowers. This indicates that the market hesitated to continue the trend. After all, it had been bullish for some time, and maybe some institutions decided to sell. However, what's important is that even with these selling institutions enough buyers existed to stop the trend from reversing or significantly dropping. Instead, the two trend lines moved together and consolidated around one point. This shows that there isn't enough selling power to break the trend. As a result this must simply be a pullback, and a breakout in the direction of the trend can be expected. Paying attention to the pattern in the triangle can be very important in

ensuring that this is a pennant, rather than a reversal pattern (which we will get to shortly). For extra security, it can be worthwhile to wait till the trend breaks out of the contracted area before making the trade.

Wedges



http://upload.wikimedia.org/wikipedia/en/7/79/Falling_wedge.jpg

Wedges are drawn as two contracting trendlines that slope in a particular direction against the trend. The analysis of what exactly is going on in the market is similar to that of flags and pennants. The chart is pulling back, but there is weak pressure in the direction opposite of the prevailing trend, as indicated by a contracting point of the pattern of the wedge. As such, once the price pattern breaks out through the wedge (assuming it has broken out in the direction of the trend) you can expect the trend to continue.

Reversal Patterns:

Reversals tend to occur far less often than continuation patterns. The idea is that you should assume a trend will continue unless you have any indication otherwise. That being said, they offer a much larger opportunity to make money on only a few trades. As the name suggest, they indicate a complete reversal in the prior trend of the market. Due to the fact that they occur less commonly, it is often prudent to wait to ensure that a reversal is actually occurring rather than simply a protracted pullback.

Some of these include:

Head and Shoulders

http://i.investopedia.com/inv/articles/site/price-patterns-3.gif

Head and shoulder patterns can occur at the top or bottom of a market. In this picture, it's the latter, and it consists of a trough, a larger trough, and a smaller one that mimics it. In the former case it would consist of peaks rather than troughs. Typically you should draw a (mostly) horizontal trendline that connects the troughs or peaks that appear between the head and shoulders. What's essentially happening here is that a prior downtrend was occurring, and rather than occurring it resulted in a slight move upwards (the right side of the initial trough). While this could be brushed off as a minor pullback from a support line, an even larger move upwards occurred later (the right side of the 2nd trough). When the trend tried resuming again,

it still ended up mimicking the previous initial trough. This indicates a significant increase in buyers. You can confirm that it's indeed a reversal once the trend breaks up through the horizontal trend line, as this line essentially represents all the resistance the trend has experienced up till now.

Double Tops/Bottoms

http://www.forexfactory.com/attachment.php?attachmentid=485767&stc=1&d=1275719911

Double tops (and bottoms in the case of downtrends) consist of two (sometimes three in the case of triple tops) peaks that occur at similar levels. They essentially show that the market has made two (or three) unsuccessful attempts to continue the prevailing trend. By drawing a support (or resistance, depending on the direction of the trend) line, called a neckline at the troughs (in the case of a double top) or peaks of the pattern you can determine whether or not to place the trade. Once the pattern breaks through the support/resistance line it can be reasonable confirmation that a reversal has occurred.

Moving Averages

Moving averages are one of the most commonly used technical indicators, and are fairly easy to read.

http://fxtrade.oanda.ca/images/learn/candlestick-3-different-moving-averages-525.png

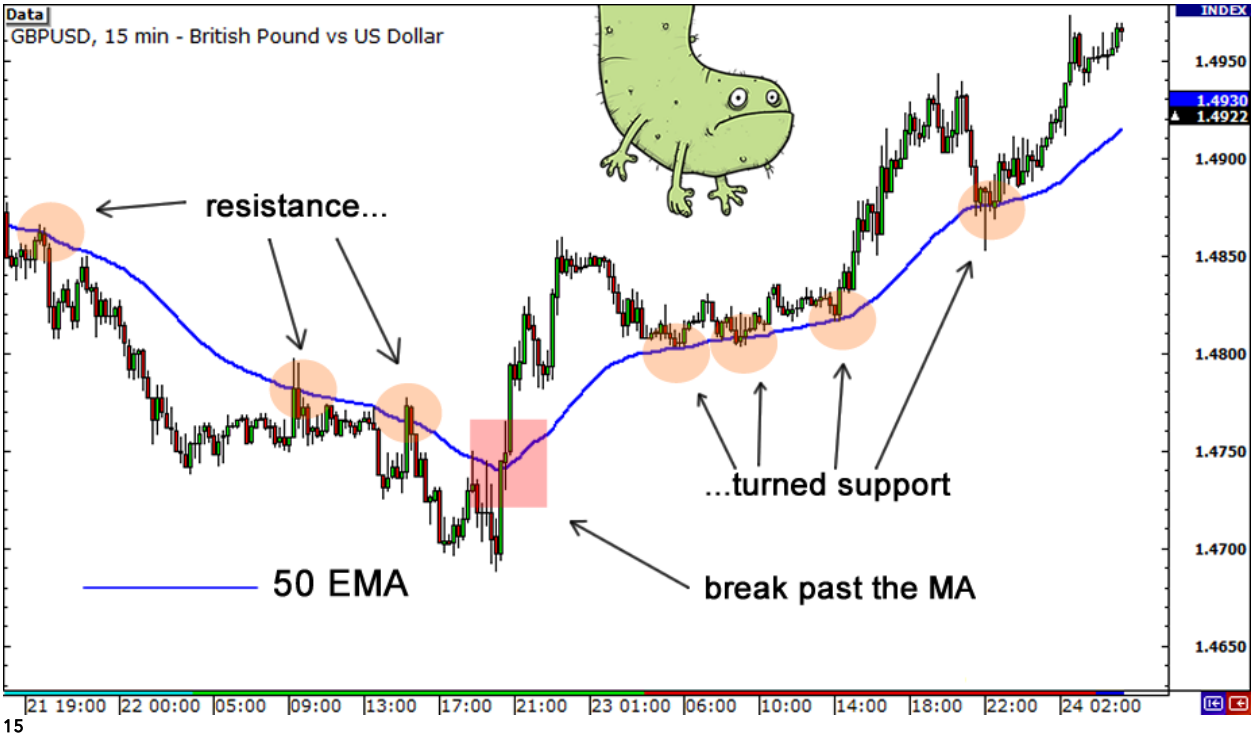
On this graph each red, yellow and blue line represents a different moving average. These are examples of **simple** moving averages. They're calculated by basically taking and plotting the averages of a certain number of price points, and plotting them along a line. This process helps smooth out the overall trend and allow you to see a broader picture of what's going on. The number next to each of the moving averages (in this case the 10, 15 and 20) represent the number of periods included in the calculation. This can be customized by you. The more periods that are included, the smoother the average. Signals generated from lines with more reporting periods (we'll elaborate on how to read signals shortly) are generally more reliable, but if the periods are too high then you'll get a line that doesn't conform to the graph very much at all and doesn't show you enough. If they're too low, you may get false signals.

Sell signals can be determined when the original price trend crosses down through the moving average. This basically indicates that the original price pattern is starting to decrease at a faster rate than its moving average.

Buy signals can be determined when the original price trend crosses up through the moving average. Similarly, this indicates that it's starting to rise at a more dramatic rate than its moving average.

You could also place multiple moving averages on the same chart with different periods included in their calculation. You essentially read crossover signals the same way as above, with the more volatile moving averages (i.e. those with fewer periods) acting as the "price pattern" and the smoother moving averages acting as the overall moving average.

Moving averages may act as *Support and Resistance* when treated like a psychological level.



15

Another type of moving average includes a weighted moving average. This is read just like a simple moving average, but is calculated slightly differently. Here the newer price points used in the calculation are given more weight than the older ones. This can be particularly helpful to use if you're trading on a fast moving market, but will be less smooth than a simple moving average.

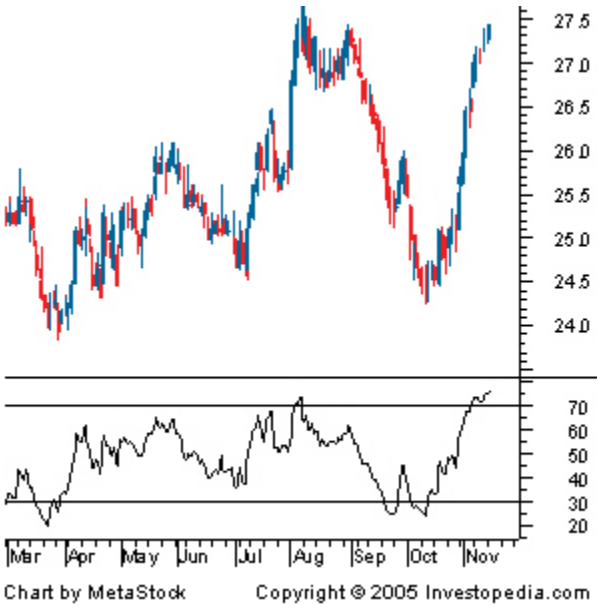
[15] http://www.babypips.com/school/elementary/moving-averages/dynamic-support-and-resistance.html

Finally, exponential moving averages are types of moving averages that take into consideration all price points, from a point you specify, in its calculation. This is unlike simple moving averages, which drop the oldest prices as new ones are added on.

These are all lagging indicators, meaning that they just reflect what has already happened, and don't necessarily make any claims as to what will happen. They help determine current trends and distinguish possible notable reversals from random fluctuations.

Check out a video here: http://www.investopedia.com/video/play/moving-average/

RSI



http://i.investopedia.com/inv/dictionary/terms/RelativeStrengthIndex.gif

An RSI, or relative strength index is a technical indicator that moves up and down in response to changes in the market price. In the example above, it's the black line below the currency chart in red/blue. It tracks a reading, which is essentially the result of a calculation that takes into account the average of gains and average of losses over a particular period (which you can customize). The idea is that when the RSI moves above a reading of 70 (represented by the upper dotted line-on trading platforms you'd be able to see the readings on the right hand side) the currency is "overbought" and you should expect it to decrease, and when it's below a reading of 30 (represented by the lower dotted line) it's "oversold" and you should expect an increase. As you can see in the picture above, these decreases and increases somewhat narrowly predict what is about to happen with the chart.

While you should expect the RSI band to fluctuate between 70 and 30 for the majority of time, it's possible that other factors, such as major economic events may affect the chart as well. In this case an increase above 70 or below 30 may not necessarily indicate that a turnaround should be expected, as there could be other valid explanations for the long-standing gains/losses. As such, it's important that all technical indicators be used in conjunction with other considerations and strategies as well.

Stochastic

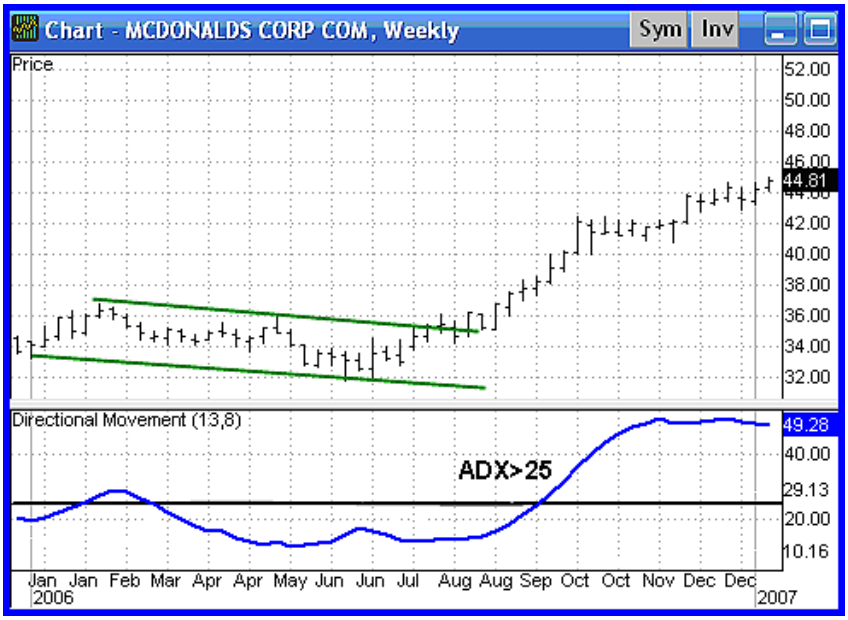
http://fxtrade.oanda.ca/images/learn/stochastic-oscillator-high-low-close-bar-chart-525.png

The Stochastic technical indicator consists of two lines (ex. the blue and white ones above). The blue line is the **% K** line; it tracks the current market rate for the currency pair. The white line is the **% D**, or signal line and it is essentially the moving average of the %K line. They're read pretty much the same way as a price chart and its moving average, where upward crossovers of %K going through %D represent a buy signal, and downward ones a sell signal. It basically represents the rate of chart movements relative to the overall rate of the trend.

Another feature worth noticing is **divergence**. Divergence is the space between the %D and %K line, with a larger divergence indicating increasing momentum of the trend, and smaller divergence indicating a possible reversal.

Like the RSI, stochastics can also be used to determine areas where a currency pair may be overbought or oversold. If the %K line crosses above a reading of **80**, this is an indication that the pair may be overbought and worth selling. If it crosses below **20** it may be oversold, and worth buying. The RSI can be especially useful here in verifying the accuracy of the trend.

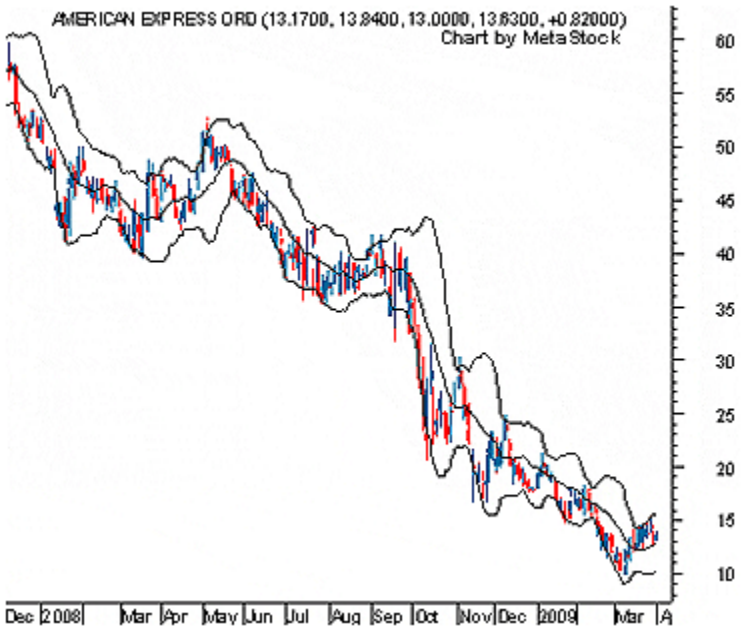
ADX



http://i.investopedia.com/inv/articles/site/AT-ADX2.gif

ADX is an indicator that shows **how strong a currency pair is trending**. It's displayed as a line on a scale of 1-100. Typically if a currency pair is trending sideways, the ADX is at 30 or below, while if the price chart is trending in either direction (up or down) the ADX will be above 30. It's important to notice that all the ADX measures is the strength of the trend, not the direction. This means that a high ADX simply indicates that there is a relatively strong trend which could be in either direction, though looking at the price chart should typically be enough for you to determine which way the chart is trending. In general you want to place trades that match the overall trend of the market (ex. if the trend is upwards, you want to place bull trades). As such it can be helpful to determine if and in what direction the market is trending.

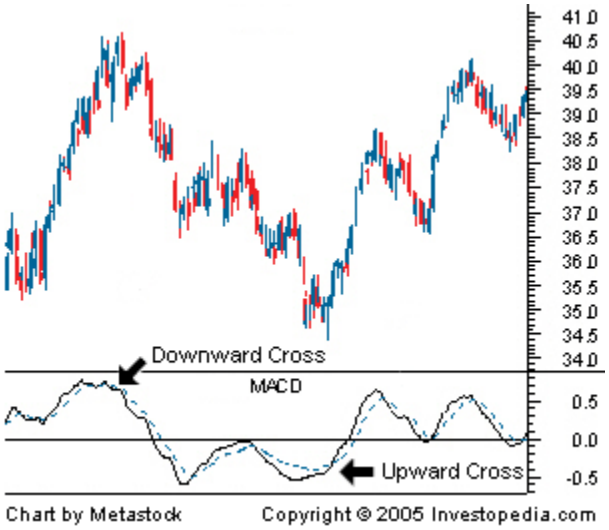
Bollinger



http://i.investopedia.com/inv/articles/site/BollingerBand1.gif

Bollinger bands help determine volatility. Unusual volatility is worth monitoring, since it often precedes a trend reversal. They consist of a moving average (the middle band) and an upper and lower bound that represent standard deviations from the moving average. When the market becomes more volatile the bands move away from the moving average, and when it starts evening out they move towards the moving average. Typically when the bands tighten towards the average, it's an indication that volatility may follow. It's also usually the case that the price chart will remain within the upper and lower bounds. If it's been close to the upper bounds for a while, you could expect it to be overbought and expect a move downwards. Similarly if it's close to the lower bound you can expect it to move up shortly.

MACD: Moving Average Convergence/Divergence



A MACD indicator is particularly useful to use when making trades in a wide ranging or volatile market. It consists of two lines: a **MACD** line (the black one in the example above) and a **moving average of the MACD** line (the dotted line above). The MACD line is calculated and plotted by subtracting two exponential moving averages of the price chart from each other. You can adjust the periods of these moving averages, though typically they're either 12 and 26 or 10 and 20 when the markets are volatile.

If the MACD line pulls upwards rapidly away from its moving average, it's an indication that the currency may be overbought. Similarly if it pulls downwards rapidly it may be oversold.

If the MACD crosses up through the 0 line (the horizontal line at a reading of 0 above), it's considered a buy signal. If it crosses down through the 0 line it's considered a sell signal. Like stochastics and a regular price chart, buy and sell signals can also be determined based on how it crosses up and down through its moving average.

Finally, if the MACD is moving in a direction that doesn't match that of the price chart, it's a sign that the price trend may change.

Check out a video here: http://www.investopedia.com/video/play/moving-average-convergence-divergence-macd/

Chapter 5: Pulling It All Together

Trade Strategies

Everyone has different time commitments, personalities and goals when it comes to trading. One key thing to be successful in trading is to understand what kind of trader you are. If you are more passive and patient, you may be a fundamental trader who holds the position for longer periods of time. If you are a person who likes speed and has time to analyze charts every moment of the day, then you may be a technical trader who gets in and out of trades very quickly.

Which one suits you:

Based on your trading habits and goals, everyone could trade differently. Here, we will list a number of different but common types of traders.[16]

- Scalping - The scalper is an individual who makes dozens or hundreds of trades per day, trying to "scalp" a small profit from each trade by exploiting the bid-ask spread.
- Momentum Trading - Momentum traders look to find stocks that are moving significantly in one direction on high volume and try to jump on board to ride the momentum train to a desired profit.
- Technical Trading - Technical traders are obsessed with charts and graphs, watching lines on stock or index graphs for signs of convergence or divergence that might indicate buy or sell signals.
- Fundamental Trading - Fundamentalists trade companies based on fundamental analysis, which examines things like corporate events such as actual or anticipated earnings reports, stock splits, reorganizations or acquisitions.
- Swing Trading - Swing traders are really fundamental traders who hold their positions longer than a single day. Most fundamentalists are actually swing traders since changes in corporate fundamentals generally require several days or even weeks to produce a price movement sufficient enough for the trader to claim a reasonable profit.
- High Frequency Trader: with the introduction of electronic trading came to huge increase in popularity in algorithmic trading. HFT (high frequency trading) is a type of algorithm trading and aims to make hundreds if not thousands of trades per day. They trade in microseconds and take fractions of a cent of a profit at a time.

[16] http://www.investopedia.com/articles/trading/02/100102.asp

Golden Rules of Trading:

Here is a list of "best practices" that are usually considered the golden rules of trading.

- Trading Is An Art, Not A Science
- Always Demo Trade to learn
- Never Let A Winner Turn Into A Loser
- Logic Wins; Impulse Kills
- Never Risk More Than 2% Per Trade
- Use Both Technical And Fundamental Analysis
- Always Pair Strong With Weak
- Being Right And Early Means You Are Wrong
- Differentiate Between Scaling In And Adding To A Loser
- What Is Mathematically Optimal Is Psychologically Impossible
- Risk Can Be Predetermined; Reward Is Unpredictable
- No Excuses, Ever
- Never go against the change
- Develop a habit to review your good and bad trades

Chapter 6: Others

Extra Resources:

Web links, books, videos

Place to learn FX:

http://www.babypips.com/school

Calendars

These sites show up-to-date calendars of major (and minor) news events worth keeping an eye on. They make our job much easier by being able to keep track of both the event dates and the 'predictions' of what the outcomes are expected to be. Different sites tend to have different predictions (based on their sources). Each site usually has a priority system of one sort or another, to further make your job easier. This too tends to be different between the sites, so it's usually best to cross reference at least two sites, to get an average importance rating

1. Forex Factory
2. Forex Pros
3. FX Street
4. BabyPips
5. DailyFX
6. Yahoo Finance

Data

Some pure sources of data, often mostly being the equity markets, usually with graphing tools too.

1. FINVIZ
2. ADVFN
3. SEC EDGAR
4. US Bureau of Economic Analysis

5. FRED
6. Bank of Canada
7. Wharton WRDS
8. OECD
9. UK National Statistics
10. EconoMagic
11. Oanda Historical Rates
12. Dukascopy Historical Rates
13. RBS Historical Rates

Forums

Discussions outlets can be incredibly productive, particularly when you begin doing forex on your own time at home. Forums are the best avenue to do this (and the most popular) but be warned: they can be incredibly cruel as well as draining if you do not go about them carefully. Approach wearily.

1. Forex Factory
2. BabyPips
3. DailyFX
4. Oanda fxTrade

Knowledge:

There are many, many different sites on the internet that *teach* forex, and the quality as well as depth varies tremendously. These are some that we found to be decent (doesn't get too much better than that as far as we've found yet unfortunately). These also tend to be good as refreshers. Similar to the forums, be very weary of what you see here.

1. BabyPips
2. StockCharts
3. FX Street Learning Center

4. IncredibleCharts
5. MT4 Guide
6. Forex Glossary

News

These are sites that are useful for getting various information on the going-on's in the world. Some are real-time (or so) and some are not updated so regularly, but are focused more on in-depth analysis of events. *Forex News isn't necessarily different from regular business news* that a stock trader, options trader or even a regular business man might read. It comes down to the quality of analysis and relevancy of material to overall markets. Over time, take a look at each of them, and see which you tend to like. Look for those who give you analysis that you can understand, but you didn't/wouldn't come up with yourself (after all, no point in reading things that just reconfirm what you already know/think). Of course, some sources don't provide any analysis at all, choosing to remain neutral and simply deliver facts as quickly as possible.

Business/Political

1. Bloomberg
2. Economist
3. Reuters
4. BNN
5. CNBC
6. MorningStar
7. Yahoo Finance
8. Business Week
9. Market Watch
10. Wall Street Journal
11. Financial Times

Forex Specific

1. FX Street
2. Forex Pros

3. FX Week
4. Forex Factory

Canadian

1. Globe Investor (Globe&Mail)
2. Financial Post
3. CBC Business
4. Star Business
5. CTV Business
6. Canadian Business
7. Canada's Finance Ministry

Official/Governmental

1. BIS: List of Central Banks

News Subscriptions

http://www.cfainstitute.org/learning/products/newsletters/pages/index.aspx

Books:

Stock Market Wizards
Reminiscences of a Stock Operator
Market Wizards

Videos

Appendix I: Currency Short forms

- USD - US Dollar
- EUR - Euro
- GBP - British Pound
- INR - Indian Rupee
- AUD - Australian Dollar
- CAD - Canadian Dollar
- AED - Emirati Dirham
- MYR - Malaysian Ringgit
- CHF - Swiss Franc
- CNY - Chinese Yuan Renminbi
- THB - Thai Baht