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Developing an FX Trading Strategy

ISE
INTERNATIONAL SECURITIES EXCHANGE.

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For the sake of simplicity, the examples that follow do not take into consideration commissions and other transaction fees, tax considerations, or margin requirements, which are factors that may significantly affect the economic consequences of a given strategy. An investor should review transaction costs, margin requirements and tax considerations with a broker and tax advisor before entering
into any options strategy.

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Options give you alternatives

- Options allow for the transferal of risk from those investors that would like to reduce risk to those who would willing to increase risk.
- Efficient markets assume risk and reward are inherently linked. If investors desire higher rates of return they normally will have to take more risk to achieve the higher rates of return.
- Options values are based on the risk appetite of investors and the cost of money.

Foreign Currency explained

- Foreign currency markets allow investors to implement strategies based on their own forecasts of the currency markets.
- When trading foreign currencies, an investor buys one currency and sells another, that relationship is called a currency pair.

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ISE FX pairs

- All pairs are dollar based- The base currency is the US dollar, using this convention when trading options an investor could simply buy call options if they are bullish on the US dollar and buy put options if they are bearish on the US dollar.

- There are many other strategies that can be implemented when trading ISE FX Options, straight call and put buying are the most basic strategies.

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Four currency option pairs are currently trading at ISE

• US dollar/Japanese yen	YUK
• US dollar/Canadian dollar	CDD
• US dollar/Euro	EUI
• US dollar/British pound	BPX

Creating a Trading Plan for ISE FX options

- Learn as much as possible about the basics of options.
- Understand risk and reward and how that concept relates to options and formulate that into your trading plan.
- Select a trading style that you are comfortable with based on your goals and risk tolerances.
- Learn more about the foreign exchange market to be better positioned to make timely forecasts of the currency pairs.

Creating a Trading Plan for ISE FX options

- Study the various currency relationships and choose the pair that best suits your trading forecast and trading personality.
- Establish more refined expectations by learning more about the options “Greeks.”
- Actively manage your trades, although FX markets may display lower volatility than equity options and even equity index options.

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Which pair to trade?

- A recent study revealed that 90% of all FX trading involved the US dollar (currently all ISE FX option pairs involve the U.S dollar).
- Investors can select among the differing pairs based on their views.
- An investor that is bullish on the US dollar normally would pair that view with the currency they felt would be weakest to achieve the best potential results.
- An investor that is bearish on the US dollar normally would pair that view with the currency they felt would be the strongest to achieve the best potential results.

How do you select the “other” currency?

- Markets will normally concentrate on certain “themes”, investors should learn as much as they can about those “themes.”

- Some examples of recent “themes”
  – Canada- Commodities driven
  – Japan- Slower international growth, risk aversion
  – Euro-region- Balanced growth with some risk aversion
  – UK- Highest risk-free rates relative to US and Canadian dollar, yen and euro

“Pips”

- In the spot forex market a “pip” is the smallest unit of price that is traded for a currency. Most currencies are traded to four decimal points, so that a pip is 0.0001 or 1/100 of a cent.
  - Using ISE FX options the exchange rate value is multiplied by 100 to create the value the options trading underlying value. Therefore one “pip” would equate to .01
- The exception to the four decimal points is the Japanese yen which is normally traded to two decimal points.
  - Using ISE FX Options, when trading US dollar/yen, the exchange rate is multiplied by 1 to create the options trading underlying value. Therefore one “pip” would also equate to .01

“Themes” change though

- Be careful as these “themes” can change (others might call these “themes” correlations).
- Investors will want to consider their own time frame selections and also whether they like to trade with trends, against trends or using some other methodology.
- Whatever methodology an investor uses, an alternative exit strategy may be appropriate to limit your losses and take profits at the correct times.

Views on FX can be implemented at ISE

- Using ISE cash settled FX options your views on FX can be easily implemented through the using of many of the familiar options strategies.

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Initial ISE FX Offerings (September 24)

- USD/EUR (ticker symbol, **EUI**) 71.08
  (0.7108 x 100)
- USD/GBP (ticker symbol, **BPX**) 49.64
  (0.4964 x 100)
- USD/JPY (ticker symbol, **YUK**) 114.74

  (114.74 x 1) the rate modifier is 1 for JPY
- USD/CAD (ticker symbol, **CDD**) 100.45
  (1.00.45 x 100)

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Balance of Risk and Return and Forecasting

- Markets move due to fear, greed, hope and despair.

- Your trading methodology is important. Investors should consider their own financial goals and their own risk tolerances when considering their methodology.

- The essence of foreign exchange options investing is forecasting how far an asset will move, up or down, and in what time frame. The volatility component is important when entering and exiting trades. Interest rate differentials are also very important in foreign currency pairs.

- Investor forecasts are the foundation of all options strategies.

Markets move for various reasons

- Interest rates in either or both countries, or the so called interest rate differentials.
- Macro economic government reports such as industrial production, capital spending and employment.
- Consumer confidence surveys.
- Growth of the respective countries' economies
- Amount of debt of the respective countries economies.
- Unexpected "shocks" to the economies.

Three important factors for FX

- **Productivity**- How much time (labor hours) does it take to produce output? The less time it takes the better for the economy

- **International Investment flows-** If investors (either locals or foreigners) are confident in the future economy, capital will normally fund investments creating future growth.

- **Interest rates-** Interest rates combine productivity and investment flows to price the cost of money. The interest rates are a primary factor in the pricing of currencies.

Trading Psychology

- Gaining confidence, but not over-confidence, this is a difficult balance.
- Trade in your comfort zone (not anyone else's).
- Assume all your trades will not be necessarily right, understand what to do if things go wrong. Consider the phrase "the return on your money vs. the return of your money."
- Markets are like soap operas, they continue forever with similar themes, but prices may occasionally move in an unexpected fashion, sometimes quickly.

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Trading Style

- Style will be based on your financial goals.
- Investing in options based on foreign currencies give investors many choices. The pair selection should be based on your own view of the respective countries.
- Some choices for the time frame are: position (longer-term), swing (intermediate) and intraday (short-term).
- Your style will help form your trading methodology, whether it is buying calls or puts, option spreads, or any other options strategy.

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Time frame for trades for FX options

- Position- Normally, as short-term as a few weeks to as long-term as a few years.

- Swing- Can be any period longer than a day but less than a few weeks.

- Intraday- Trades that are closed out that same day, this may be very challenging due to the lower volatility of the pairs relative to equities.

Which time frame is appropriate for you?

- This is dependent on what time frame you are most comfortable forecasting.
- Many investors feel more comfortable with position trades, some feel more comfortable with swing trades.
- Using ISE FX options investors can implement their longer term views of the FX markets without the concerns of the intra-day stop-loss order concerns.
- An investor should trade in the period that they are most comfortable in forecasting based on their own goals and their own risk tolerances.

Each investor must determine what information is vital for them

- Interest rate differentials are important when considering foreign exchange markets and FX options.

- Investors must weigh the interest differentials relative to the actual future growth rates of the respective economies.

- If an investor believes that a certain currency pair has a relatively wide interest rate spread and they believe the economy with the higher interest rates will continue to “outgrow” the other country the investor may want to implement a complementary options strategy.

- Or, if an investor believes that a certain currency pair has a relatively narrow spread and the investor believes that one of the countries will sustain much higher growth in the future, the investor may want to implement a complementary options strategy.

Risk and Reward

- Once you determine your acceptable risk and reward balance, and how you view the markets you can select the appropriate currency pair to trade and the time horizon that is suitable for your personality.

- When trading options an investor must consider how far they expect the exchange rate to move, how long will it take for the rate to move, and also the potential for implied volatility change.

Simple but sometimes very effective

- Long call- If an investor feels the US dollar will rally strongly, this may be a viable strategy.

- Long put- If an investor feels the US dollar will weaken significantly, this may be a viable strategy.

And a couple of more moderate strategies

- Long lower strike call, short higher strike call = Long vertical call spread (bullish on US dollar)
- Short higher strike put, long lower strike put = Short vertical put spread (bullish on US dollar)
- Long higher strike put short lower strike put = Long vertical put spread (bearish on the US dollar)

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And a couple of more moderate strategies

- Short lower strike call, long higher strike call= Short vertical call spread (bearish on the US dollar)

- Buy two out of the money puts against one at the money call= Synthetic long straddle (long FX volatility)

- Sell out of the money call spread and out of the money put spread= Iron Condor. This position creates a short FX volatility position with limited risk.

Options strategies should be personalized

- Never trade options strategies that you do not fully understand.
- Never trade options strategies that are not compatible with your own individual risk reward tradeoffs.
- Trade in your comfort zone not someone else's.

These strategies may look similar, but??

- Understanding the basic strategies will enable option investors to grasp the advantages and disadvantages of the more complex options strategies.
- Risk and reward are inherently linked, even though selling options looks attractive, be careful...
- Remember the term “unlikely” does not mean “impossible.”
- This year we have already seen some unlikely events occur, trade within your own goals and your risk tolerances.

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Option Trading Levels

- The trading levels are determined by each individual broker. Being approved for the higher trading levels does not require that investors implement those more complex strategies immediately, or ever.

- Approval gives investors increased flexibility if the investor chooses to implement those more complex strategies.

- An investor should not trade outside their own comfort level, carefully balancing their own risk tolerances and their own financial goals.

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Implementing your forecast using options

- Have a forecast, implement a complementary options strategy
- What period of time will you require for your forecast to come true, considering the risk and reward of the trade?
- Predetermine your entry point at price you deem attractive.
- Predetermine your “pain threshold” or “tilt number”, taking into account the possibility of potential opening market gaps.

Implementing your forecast

- Predetermine your goal for the trade.
- What are the best and worst case scenarios?   Delta, gamma, vega, theta and rho may be helpful “risk gauges.”
- What happens to my trade if the underlying pair doesn’t move in the time frame, or doesn’t move far enough or the volatility changes dramatically?
- Enter the market at your appropriate predetermined price.
- Continue to monitor your pain threshold.
- Make adjustments as necessary, either due to your “pain threshold” or due to your profit objectives.

“Tilt number”, what should that be?

- Your “pain threshold” by definition is your maximum risk number, not someone else’s. Remember, the market can move against you as easily as it can move for you.

- Your pain threshold should be a small percentage of your overall options portfolio. The goal is to have enough staying power to carry you through periods of poor performance. The actual amount is entirely up to each investor.

- One other consideration; if the FX options investment is a hedge, will you hold it until the end of the option’s life.

Active Management

- The goal is to try to let your profitable trades grow and cut your loses on your losing trades.
- Think of this, if you lose 50% of your assets on any one trade you need to achieve roughly a 100% rate of return on your remaining assets just to break even. Managing trades that move against an investor are also important.
- “The portfolio approach”- How much capital am I willing to use as risk capital. Or, how much capital do I wish to hedge?

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Active Management

- Long options do have embedded “stop-loss” amounts, but they carry time-decay risk (theta risk)
- If the options are priced reasonably high and have higher deltas maybe active management is needed investors should consider the delta risk
- Understanding the option greeks are helpful:
  - Theta
  - Delta
  - Gamma
  - Vega
  - Rho

Active Management

- Short options do not have an embedded “stop-loss” amounts, naked short options (gamma risk) may be only for the most experienced investors. Ask your broker if you qualify based on your risk tolerances and the capital held at the broker. Not only should your trading experience and capital qualifications be considered, but your own trading personality and attitude toward risk aversion.

Active Management

- When implementing long call and put strategies, one method for managing profitable positions might be the use of spreads, if you are approved for spread trading. Spreads can help reduce risk with more moderate potential payoffs.

- In lieu of outright selling profitable positions, one strategy is to hedge them by selling the upside call against a profitable call or a downside put against a profitable put.

- The use of the credit spread strategy is an attempt to profit from selling options with a pre-defined limited risk. The risk will vary in each instance, depending on how wide apart the strikes are from each other.

Active Management

- When managing option positions that have gone awry, the use of stop-loss orders may be recommended. Of course, there are some disadvantages of the stop-loss option order, if the market rebounds after your stop-loss order is elected you will not participate in your original market forecast.

- Just remember FX volatilities are low but the currency pairs may still move, although the amount should be much less than comparable equity options or even equity index options.

Cars have caution gauges, options have Greeks

- The Greeks can help investors “detect” when situations might be getting riskier.
- FX pair volatility (vega risk) and the respective countries interest rates are the two important parameters for foreign currency options pricing.
- The interest rate differential is an important pricing input for foreign currency options. (Rho risk)

Options Greeks can help form expectations

- **Delta**- How much the options price moves in price given a unit change in the underlying exchange rate.
- **Theta**- How much the option depreciates or “decays,” normally measured on a daily basis.
- **Gamma**- The amount the delta of an option changes given a unit change in the underlying.

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Option Greeks

- **Vega**- How much an option gains or loses given a unit change in the volatility.

- **Rho**- How much an option gains or loses given a one percent change in risk-free interest rate differential.

Delta

- Calls have positive delta, puts have negative delta.
- Deep-in-the-money options have high deltas, near 100, and deep out-of-the-money options have low deltas near 0.
- At-the-money options calls and puts have deltas with an approximate delta of 50 or an equivalent of 50% of the underlying value.

Theta

- Options are worth 0 or intrinsic value at expiration.
- The loss of the extrinsic value is also called time decay.
- Short options have positive decay, long options negative decay.
- Greatest ATM due to the highest amount of extrinsic value for ATM options.
- ITM vertical spreads benefit from positive decay.
- OTM vertical spreads suffer from negative decay.
- Options do not decay in a linear basis, shorter term options have greater theta relative to longer term options.
- Higher theta results in more gamma.

Gamma

- Gamma “manufactures” delta, long options delta increases as it moves toward the strike price and eventually “ITM”

- Gamma is highest at the strike price just prior to expiration

- Options far “ITM” and “OTM” have low gamma

Vega

- ATM options with the most time left until expiration are most sensitive to nominal change in vega.
- OTM options are the most sensitive on a percentage basis.
- Some market professionals believe that predicting future volatility is just as difficult as predicting the future asset price.
- Shorter-term options have less vega relative to longer-term options, but have more theta.

Rho for ISE dollar based FX options

- Measures the interest rate differential cost of holding a position.
- An FX option with a positive Rho will increase in value for each percentage point increase in interest rates
- Long calls and short puts have **negative** rho (a decrease of the US interest rates increases the theoretical value of the US relative FX pair in the future).
- Short calls and long puts have **positive** rho (an increase of US interest rates decreases the theoretical value of the US relative FX pair in the future).

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Greeks, who cares?

- Investment decisions begin with your forecasts. FX investment decisions are no different. Your own financial goals and risk tolerances will shape your decision making.

- Understanding the risk and reward of the various option strategies and how the differing risk parameters can affect the profitability of each are of vital importance.

- Consider what can go wrong, not just one can go right.. The greeks can help approximate the risks involved with some unexpected events.

A word of caution about pricing models

- The strength or the weakness of any option pricing model is the assumptions used, be careful of the assumptions.
- In order to use a basic option pricing model, investors will need to have the correct risk-free interest rates in both countries.
- Using ISE FX options the dollar is the base currency for all pairs.

Models have flaws but they help build investor expectations

- In most cases the option pricing model reflects the known risk-reward of each trade
- Occasionally circumstances change, investors should be aware that the model may not be 100% accurate all the time.
- Most importantly the option pricing model “Greeks” are similar to gauges in a car, helping warn you when something may be wrong.
- But these models are not 100% accurate either, they should be used along with other tools.

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Greeks, who cares?

- By using an option pricing model and “stress-testing” your strategies you may be able to better understand how the pricing parameters affect your trade.

- Adjusting the FX pair value, volatility used and the days left until expiration and the respective pair’s interest rates give you a glimpse of what can go wrong.

- Remember, options are about magnitude, timing, and what will the volatility be when I exit my trade?

Actively managing your trades

- Goal is to actively manage your trades, both winners and losers.
- One idea is to use either percentage or standard deviation using volatility.
- Carefully monitor delta, gamma, theta, vega and rho to manage risk.
- The objective is to maximize profits and minimize losses.

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No Single easy answer

- Investors must make some type of forecast.
- Will the underlying be higher, lower or stay in a range?
- What time frame am I comfortable with forecasting?
- How far can the asset move (reasonably)?
- Why will I change my forecast?
- What will I do?

Should I stay or should I go..

- If your original forecast is wrong, maybe it is best to close out the position and start over.
- If I did not have a position would I want a position, or would I prefer a more “hedged” position.
- Risk and reward must be considered along with your own forecast for the underlying instrument.

Adjustments

- The future FX pair value, timing and volatility will ultimately impact the economics of the trade. The correct interest rate differential is also very important when trading foreign exchange options.

- Adjustments do not “guarantee” turning a losing trade into a winning trade though.

- There are a myriad of alternatives to consider if you feel an adjustment is warranted rather than exiting the position.

Risk vs. Reward

- Investors must consider “what if” scenarios prior to adjustments and balance the risk and reward to determine if the adjustments make sense to you.
- Investors must try to remember that sometimes the simplest way to cut a loss may be the best, close the position. If however, you feel that adjusting the position gives you a better risk reward position then the adjustment may be warranted.
- Sometimes the easiest way to rectify a poor trade is to close it out and start new with another strategy or another trading instrument.

Options knowledge is good

- A thorough understanding of option synthetics will further help your assessment of the required adjustments.
- The option risk gauges (Greeks) also helps to assess risk.
- Hedging delta, gamma, theta, vega and rho may be required.
- Spread trading is one options strategy that can often reduce the “Greek” risk.

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Summary of Developing a Trading Strategy

- Learn to manage your expectations by learning more about the options "Greeks."
- Understand risk and reward and how that concept relates to options and formulate that into your trading plan.
- Learn more about FX options market, it should help you better comprehend the ebbs and flows of the other markets.
- Select a trading style that you are comfortable with, based on your goals and risk tolerances.

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Summary of Developing a Trading Strategy

- Trading with confidence, yet not over-confidence is the goal.
- Creating your comprehensive trading plan is normally the sum of your forecast for the FX pair, options knowledge, risk reward tradeoffs, managing your expectations and actively managing your trades.
- Never trade beyond your comfort zone risk tolerances. Remember, FX markets as well as other markets can sometimes move in unexpected ways.

Commonly asked questions regarding ISE FX Options

- Can I get price charts? Yes, Bigcharts.com has all of the ISE traded pairs available as well as the option chains
- Do the "greeks" work for FX options pricing? Yes, if an investor inputs the correct interest rate and dividend yield (US risk-free rate) option calculators will work, and of course the volatility
- How much do these options cost? Same as equity options, $1.50 options costs $150
- How does the term "pips" relate to ISE FX Options. Roughly speaking 100 pips equals 1 ISE point
- What does dollar relative mean? The base currency is the US dollar, if the US dollar increases relative to the foreign currency the value of the pair increases, if the dollar decreases the value of the pair decreases

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