

PART ONE

Key Option Elements

The objective of Part One is to provide a knowledge base for learning about the key elements of forex options. This includes a description of plain vanilla options and how option premiums are impacted by volatility. To prepare the forex trader for shaping option trades, Part One also provides a detailed outline on the basic elements of “the Greeks,” which are the components that provide insight on how forex option prices change with time and volatility.

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CHAPTER 1

The Elements of an Option Trade

PLAIN VANILLA OPTIONS

This chapter provides a review of the key elements that comprise an option trade. The simplest form of option trading is called plain vanilla. Plain vanilla options in all markets include calls and puts and are exactly the same as in forex trading.

PURCHASING AN OPTION

First, let's talk about purchasing an option. Purchasing an option means holding an option. A trader purchases an option by paying a premium for it.

Calls

Once a trader has purchased (gone long) and is holding a call, he has the right but not the obligation to buy the underlying spot forex upon expiration. If it's a European-style option, exercising rights are on expiration and not before. If it's an American-style option, exercising rights are any time up to and including expiration.

The key concept is that a buyer of a call anticipates an upward move or is bullish. The trader selects a target called a strike price. If the price of the spot forex moves through and beyond the strike price, the position will be in profits. If the spot price is beyond the strike price at the time of expiration, the position is known as "in the money." We can see in the profit payout graph (see Figure 1.1) that a call option becomes profitable once

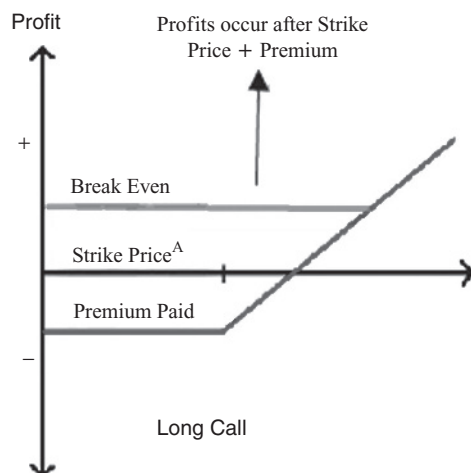


FIGURE 1.1 Currency Call Option Example

the price is beyond the strike price and beyond the cost of the position. This is a generic example for any call.

Let's begin to examine the elements of an option trade by looking at the following example involving the EURUSD.

After scanning the weekly chart of the EURUSD, a trader is anticipating a stronger EUR against the dollar and has selected a 1.47 strike price for a February 14 expiration. The premium charged for this is calculated to be \$790 USD. Notice that the EURUSD spot position is at 1.4419. To be clear, the example as shown in Figures 1.2 and 1.3 would mean the trader expects the EURUSD to move to and beyond 1.47 by the expiration date. Actually, to be profitable if held to expiration, the spot position needs to be 79 pips beyond that, or 1.4779 to recover the costs of the premium since each pip is worth \$10. But the most that the trader would lose is the premium paid and any associated other fees (source of the premium price example: www.ikongm.com).

Puts

Once a trader has purchased (gone long) and is holding a put, he has the right but not the obligation to buy the underlying spot forex upon expiration. If it's a European-style option, exercising rights are on expiration and not before. If it's an American-style option, exercising rights are any time up to and including expiration.

What is important about purchasing an option is the element of risk control. Once an option is purchased and the premium is paid (along with any other fees), this total cost is the maximum risk facing the trader. No matter what happens to the price action, the *most* the trader can lose is the cost of the premium paid.

The key concept is that a buyer of a put anticipates a downward move or is bearish. The trader selects a target called a strike price. If the price of the spot forex moves

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FIGURE 1.2 Placing a Call on the EURUSD
Source: © ProRealTime.com, web-based charting software

Hypothetical Option Chain Data					
Call Options					
Strike	Bid	Ask	Delta		
1.4300	0.0251	0.0261	0.6090	Currency Pair :	EUR/USD
1.4350	0.0221	0.0231	0.5680	Expiration Date :	2/14/2008
1.4400	0.0192	0.0202	0.5255	Market Price :	1.4418
1.4450	0.0168	0.0178	0.4823	Option Premium	
1.4500	0.0147	0.0157	0.4398	Ask Price :	\$790
1.4550	0.0127	0.0137	0.3983		
1.4600	0.0109	0.0119	0.3584		
1.4650	0.0093	0.0103	0.3202		
1.4700	0.0079	0.0089	0.2843		
1.4750	0.0066	0.0076	0.2507		
1.4800	0.0055	0.0065	0.2195		
1.4850	0.0046	0.0056	0.1910		

FIGURE 1.3 Trader Expects EURUSD to Move Beyond 1.47

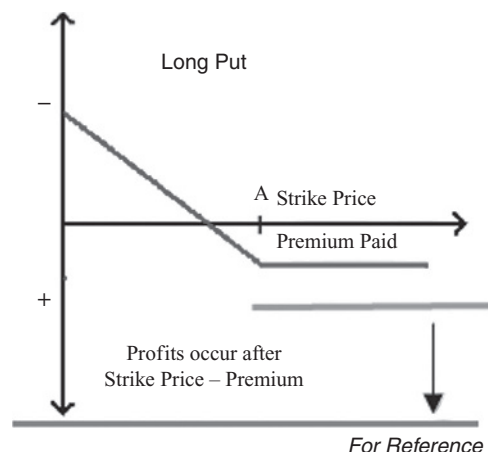


FIGURE 1.4 Profit Region on Puts

toward, and possibly through and beyond the strike price, the position will be in profits. If the spot price is beyond the strike price at the position is known as “in the money.” We can see in the generic profit payout graph (see Figure 1.4) that a put option becomes profitable once the price is beyond the strike price and beyond the cost of the position.

In Figures 1.5 and 1.6 we see an example regarding the GBPUSD. The market price is at 1.9816. The strike price selected is at 1.9400. The expiration date is February 14. The cost of a put is \$1290. The trader placing this put will pay in pip terms 129 pips if trading a standard lot of 100,000. This means that the break-even point will be $1.9400 - 0.0129$, or 1.9271 if the trade is allowed to go to expiration. It is possible that the premium price could move up in value if volatility in the market increased and the GBPUSD fell quickly and early toward the strike point (source of premium price examples: www.ikongm.com).

The trader needs to always remember that time itself is important. The longer the time to expiration, the greater the risk that the strategy can go wrong and a new event will interfere and change the price direction. However, more time can allow the trade to work out and overcome periods where the price movements go against the trader. Time is a double-edged sword for the forex option trader.

Figure 1.7 shows an example of a put option on the EURUSD. The trader expects a fall in the EURUSD and has selected 1.46 for the strike price. The amount of the premium charged is estimated to be \$580. Remember this is 200 pips away from the spot price which is at 1.4829 (see Figure 1.8).

Compare the premium price of this put to the call that was at 150 or 180 pips away, which was at 763. In other words, the market expected the move to be up because the price of an option almost the same distance was much higher for the call.

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FIGURE 1.5 Profit Range for Put on GBPUSD
Source: © ProRealTime.com, web-based charting software

Hypothetical Option Chain Data					
Put Options					
Strike	Bid	Ask	Delta		
1.9300	0.0104	0.0114	-0.2451	Currency Pair :	GBP/USD
1.9350	0.0116	0.0126	-0.2670	Expiration Date :	2/14/2008
1.9400	0.0129	0.0139	-0.2901	Market Price :	1.9811
1.9450	0.0143	0.0153	-0.3143	Option Premium	
1.9500	0.0159	0.0169	-0.3396	Ask Price :	\$1,290
1.9550	0.0175	0.0185	-0.3658		
1.9600	0.0193	0.0203	-0.3930		
1.9650	0.0213	0.0223	-0.4209		
1.9700	0.0233	0.0243	-0.4496		
1.9750	0.0255	0.0265	-0.4788		
1.9800	0.0279	0.0289	-0.5083		
1.9850	0.0305	0.0315	-0.5379		

FIGURE 1.6 Put Option Chain for GBPUSD

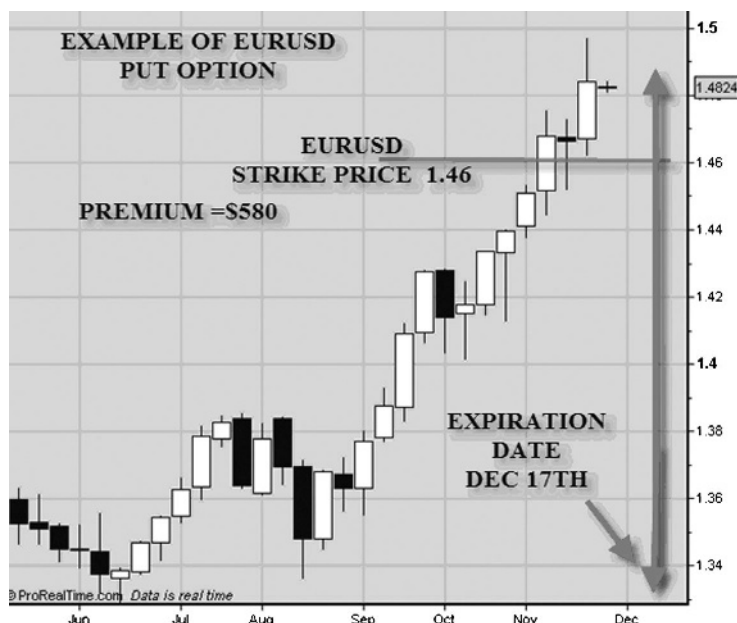


FIGURE 1.7 EURUSD Put Option
Source: © ProRealTime.com, web-based charting software

When there is a difference in the premiums between a call and a put at the same distance from the market, this is an important sentiment indicator that we will discuss in detail.

WRITING AN OPTION—BEGINNERS DON'T

When an option trade is undertaken, there are, of course, two parties to the trade. The trader purchases an option, but from whom? In forex, the other side is the forex firm that makes the market and establishes the premium prices. (In the future it might become direct matching between buyers and writer or options.) The writer originates the option trade and is looking for a buyer. The writer of a call is anticipating that the price of the underlying spot forex position will not get any higher than the strike price at expiration. The writer of the put is anticipating that the underlying spot price will not get any lower.

In the examples earlier, what if the trader wrote the call option? He would have received the premium (minus the spread).

The writer receives the premium from the buyer of the option. That is the most the writer will get! It's always important to ask the question, "Is it worth it?" because there is

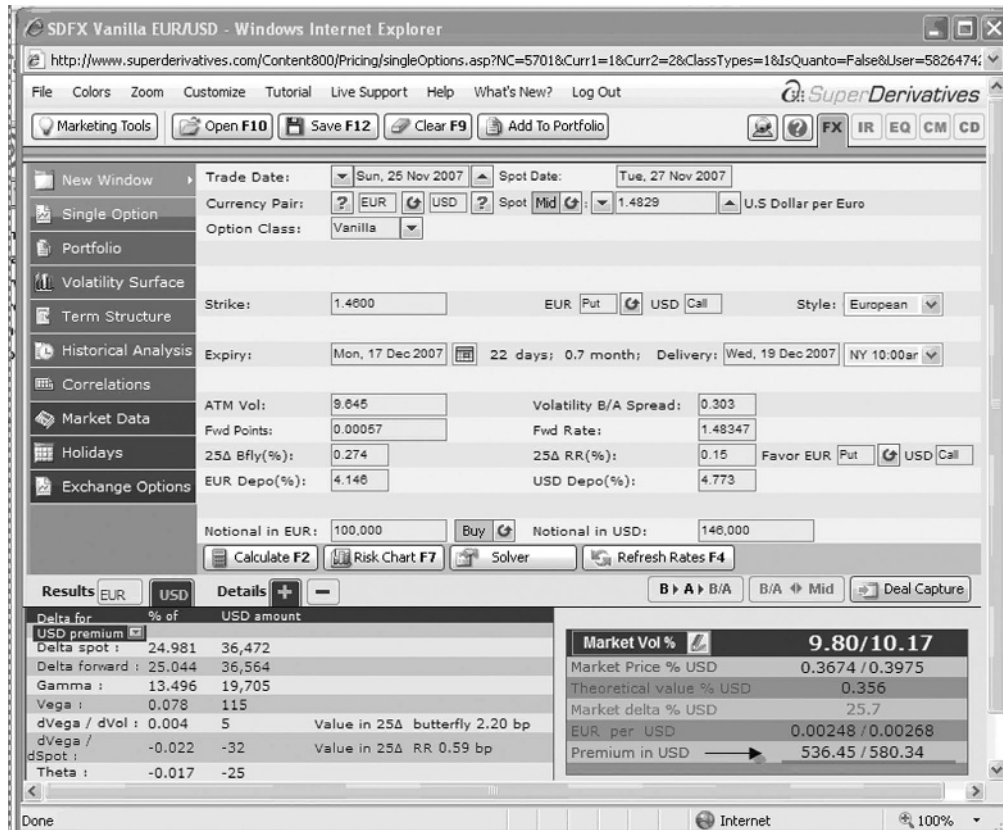


FIGURE 1.8 Premium Prices for EURUSD Put
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substantial risk involved to the writer. If the spot price doesn't behave as anticipated and goes up through and beyond the strike price (in case of a call) or below the strike price (in case of a put), the writer is obligated to pay the difference. The risk is theoretically unlimited if the price of the option goes the other way.

A visualization of the risks of writing a call or put is provided in Figures 1.9 through 1.11. At first, many traders who try writing these options tend to underestimate the risks. The strike prices seem far away, and it appears that the risks for the price to move against the trader are very small. This is a dangerous assumption, particularly in forex markets. Prices move hundreds of pips in hours on unexpected news. Therefore, in writing a call or put, the trader needs to make sure that the strike price gives room for larger-than-expected moves. Figure 1.9 shows a strike price that is below resistance for writing a call. In Figure 1.10 we see a strike price that supports writing a put.



FIGURE 1.9 Risk Zone of Writing a Call
Source: © ProRealTime.com, web-based charting software

ELEMENTS OF AN OPTION TRADE OR TICKET

When putting on an option trade, the forex trader will encounter key terms that are important to know, including the following:

Trade date—the time when the trade is put on.

Spot price—the exact market value of the spot currency at the moment.

Option type—refers to whether the option is a call or put or other variety.

Strike price—the price the trader selects as the barrier, which will determine if the trade becomes profitable.

Valuation date—the date on which the valuation is valid.

Expiration or maturity date—the date when the option expires and the owner of the option no longer has the rights to it.

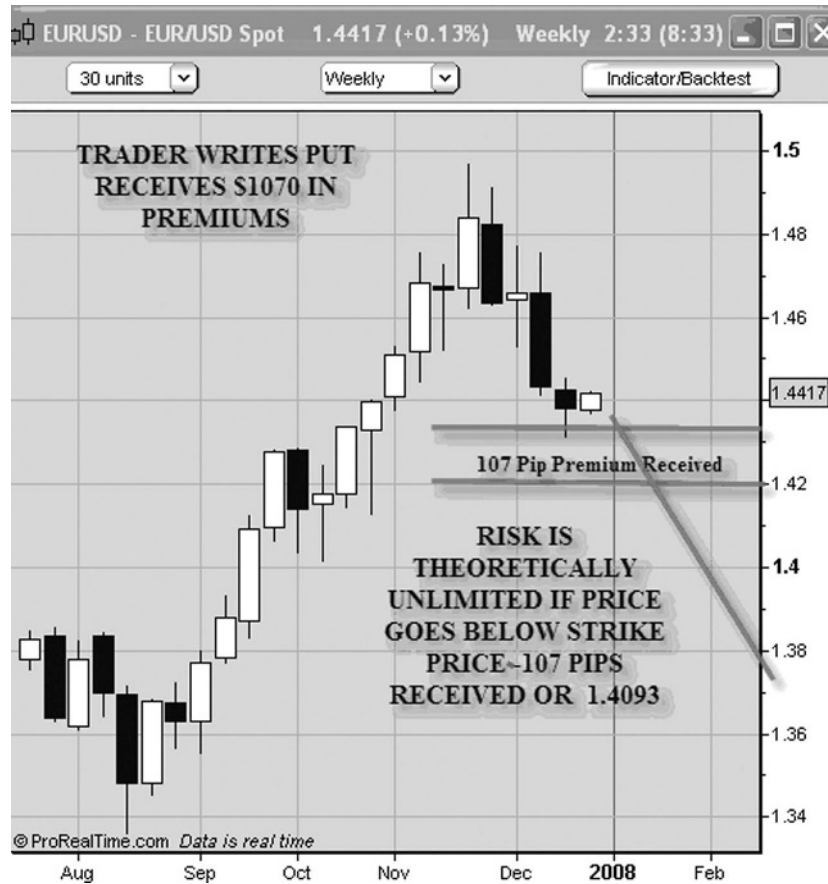


FIGURE 1.10 Risk Zone of Writing a Put
Source: © ProRealTime.com, web-based charting software

Option style—A European option can be exercised only on the exercise date and not before. An American-style option can be exercised before. With European-style options, which are very common in forex, the trader is protected from being exercised against if the trade is not going his way.

Days to expiration—the time until option rights expire.

Notional amount—the amount that a unit of the option (a lot) is controlling (i.e., a standard lot controls 100,000 EURUSD on an option on the EURUSD pair of the underlying spot currency the option is leveraging).

Comparison of Option Premium Pricing among Forex Firms

It is advisable that the forex option trader carefully review option premium pricing among the different firms offering it. There are often great variations in the premiums

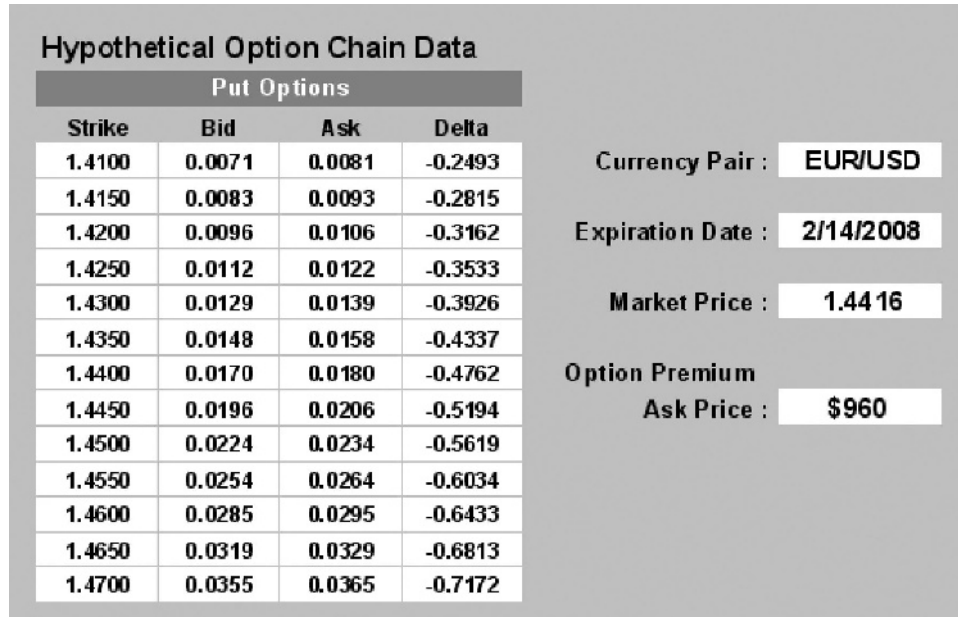


FIGURE 1.11 EURUSD Put Option Chain

offered. One of the reasons for this variation is the lack of many participants in the industry.

In the Money, At the Money, and Out of the Money

In placing an option trade, the center of attention for the forex trader is on where the spot forex price is. The spot price is called the **at-the-money** strike price. Whenever a call or put option is purchased, the strike price is either **in the money (ITM)**, **at the money (ATM)**, or **out of the money (OTM)**. Options can also be deep in the money and deep out of the money. The term *moneyness* refers to this relationship of the option price to the at-the-money price.

Since there is no “free lunch” in trading, the trader has a range of choices in putting on an option trade regarding increasing the probability of success. The most likely option strategy for success is buying an in-the-money option position. This means that he will get the maximum movement of the option with the spot. Once a position is in the money, it moves on a 1:1 basis with the spot. The advantage of an in-the-money option versus a spot position is that it will cost the trader only the premium and no other risk is associated with it. The disadvantage is that the premium costs a lot more.

The next type of trade relating to moneyness is the at-the-money option. This is when the option strike price is where the spot is. This kind of positioning allows the trader to be close to the action without paying as much as the in-the-money option. ATM

options are very common in hedging a position. ATM options move with the spot at 50 percent of the movement. This is called a delta factor and will be discussed in more detail shortly.

The out-of-the-money option trade is the most popular trade. Let's see why: By selecting a strike price that is away from the spot, the trader is anticipating the move. The hope of the forex trader is, of course, that the price will (during the duration of the option trade) move toward the strike price or exceed it. The option trader makes money by being right not only if the spot price actually moves to and beyond the strike price at expiration, but whether along the way it is expected to move in the direction of the price. The objective is trying to use all the tools that are available to increase the probability of being right about the direction of the option trade about market expectations, and about its timing. Time value and the moneyness of an option have a direct relationship, which is shown in Figures 1.12 and 1.13.

Intrinsic Value versus Time Value

The forex option trader is always undertaking a multidimensional bet. Affecting the result is a combination of variables that have to come together in favor of the trader. Of critical importance is the time left to expiration and the risk changes in volatility. Sometimes, if central banks increase interest rates while the trader is holding an option

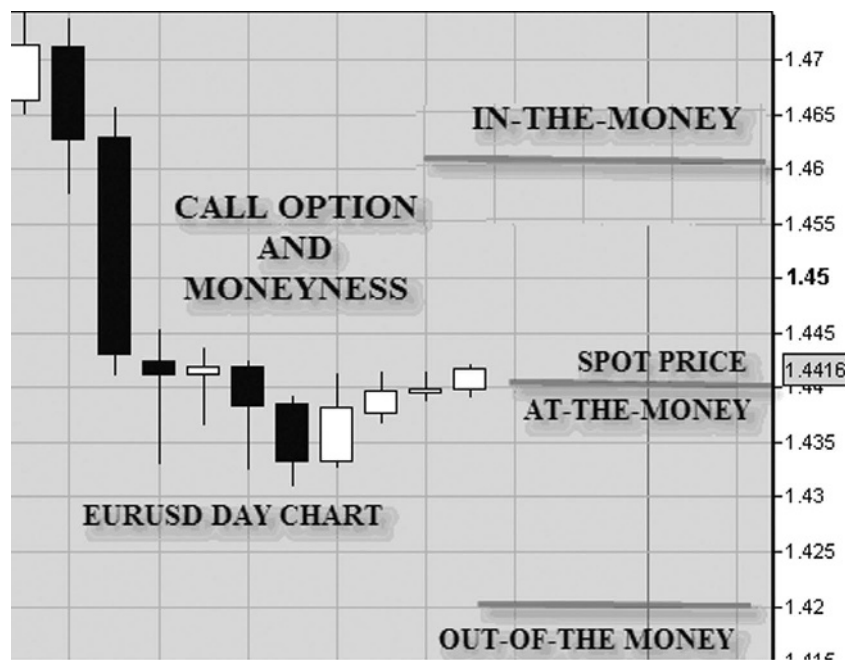


FIGURE 1.12 Moneyess in Option Premiums for Put Options

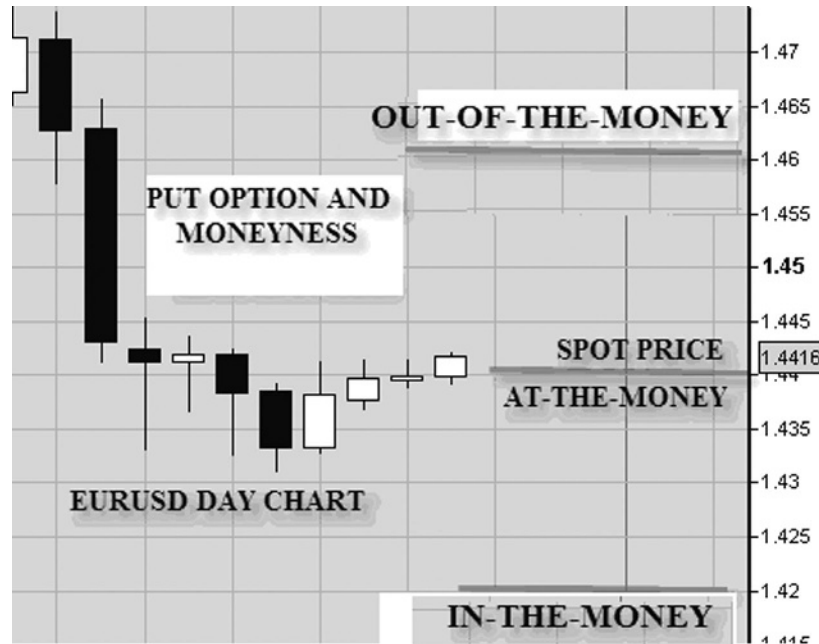


FIGURE 1.13 Moneyness in Option Premiums for Call Options

position, the option premium price will be impacted. This interest rate effect is a small factor (called *rho*). Generally, a lowering of interest rates will reduce the option price. The currency market takes in (known as discounting) all factors and reflects them in the option premium price. This means it also takes in the psychological aspects of fear and greed in the market. Therefore, it would be a mistake for the forex trader to think that the premium price of an option is always fair. The reality is that there is great uncertainty regarding market directions. But, ultimately, it is a balancing act between the trade that the trader has on and the time left for it to work. The best term describing this is *intrinsic value versus time value*. After an option trade is put on, the intrinsic value is the value of the option if it were to expire at that moment. If the option strike price has not yet been reached, the value is all time value. Intrinsic value increases if the underlying price exceeds the option strike.

Fair Value

Often, the trader will see the term *fair value* applied to options. A good way to understand the meaning of fair value is to realize that the market would not tolerate for too long an option premium that is mispriced. Traders would spot this discrepancy and take advantage of it through arbitrage. Therefore, fair value is the price where any arbitrage would be impossible.

THE GREEKS

Forex and other options are bets on the future direction of the underlying instrument. The market is always seeking a way to efficiently price an option. If pricing was inefficient or unfair, the thousands of participants in trading the market would seek to find an advantage and be able to significantly profit from that advantage. These are called arbitrage opportunities. A vast body of financial mathematics and expertise has developed to constantly improve the algorithms that generate a fair price of an option. The most famous of all of the mathematics of option pricing has been the Black-Scholes equation. The Nobel Prize was awarded for developing the mathematics behind this equation. It forms the basis for the market to fairly price an option because the equation showed what a fair value would be for a premium on an option. But the equation assumes constant volatility. *Black-Scholes was not developed for forex markets where there is no constant volatility.* The world of forex options is not a Black-Scholes world, and for the average trader, this means he or she must be even more cognizant of the probability that during the option trade period, changes will occur in the market environment that cannot be fairly reflected in the premium prices. The forex option trader has a paramount need during the option trade to allow enough time to be right but not enough time for too many changes in the real-world environment.

More important for the forex trader is monitoring and understanding the Greeks. These are Greek terms that indicate quantifiable parameters that affect the price of the option. Let's look at them briefly. The average retail forex trader does not have to pay too close attention to all of the Greeks. However, they are very important to large hedges and institutional traders who take on big positions. For these traders a small factor in one of the Greeks can make a difference. Among the Greeks, delta is the most important in developing trading strategies. Later on, we will use them in some real trading examples showing the Greeks.

The Popular Greeks in Options

This section provides a review of the most used, or popular, "Greek" terms.

Delta Delta measures the rate of change of the option premium price to the change in the underlying currency pair. For example, a delta of .50 means that the premium of an option will change half as much as the percentage change in the underlying price.

Vega Vega displays the amount the price of an option changes when there is a 1 percent change in volatility. The forex trader needs to always observe if vega is expanding or contracting. If vega is expanding, this means volatility is increasing and vice versa.

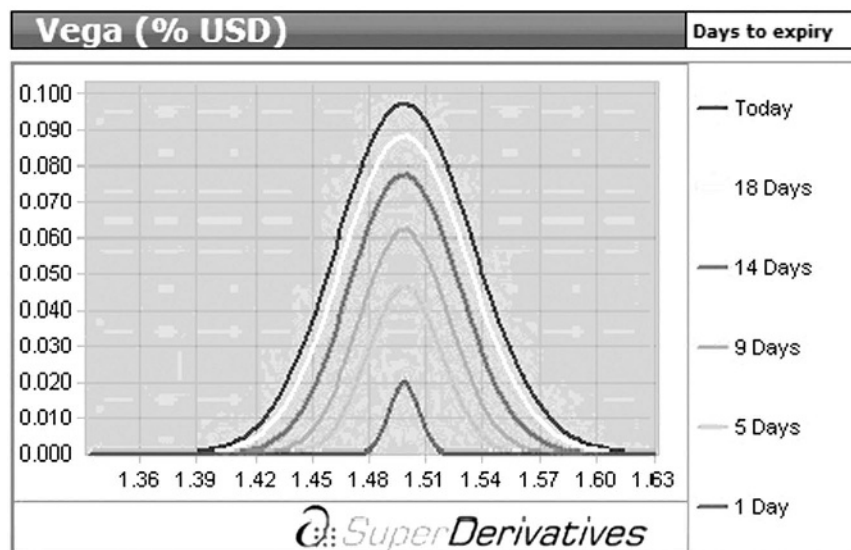


FIGURE 1.14 The Shape of Vega
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dVega/dSpot—Measures a percentage change in vega for a 1 percent change in the spot rate based on ATM volatility.

Vega and time—Vega usually expands with time.

Figure 1.14 shows what a vega chart looks like for a recent EURUSD 150 CALL expiring December 17, 2007.

Now if we go out to 53 days, look at what happens to vega (see Figure 1.15). It expands, showing that volatility will increase over time.

Gamma Gamma displays the percentage change in the delta for a 1 percent move in the underlying. High gamma values become important for those who need to hedge their positions using delta because hedgers need to be constantly rehedging to assure against changes in the delta. When gamma is very high, it means that the potential profit due to a change in the underlying price is higher.

Let's look at the gamma chart in Figure 1.16. We see an overlay of hills. All of the hills are centered and peak at the ATM. This is because gamma is highest at the ATM. This is what makes ATM options very attractive to traders. The ATM options move the most quickly when the underlying currency changes prices. Of course, there is a price to pay for being ATM. The cost of the premium is higher than OTM. This leads to a reason to avoiding ITM options. They don't move much because they are already close to a gamma value of 1. Gamma's being highest at the ATM is another reason to avoid ITM options. ITM options are already close to 1.

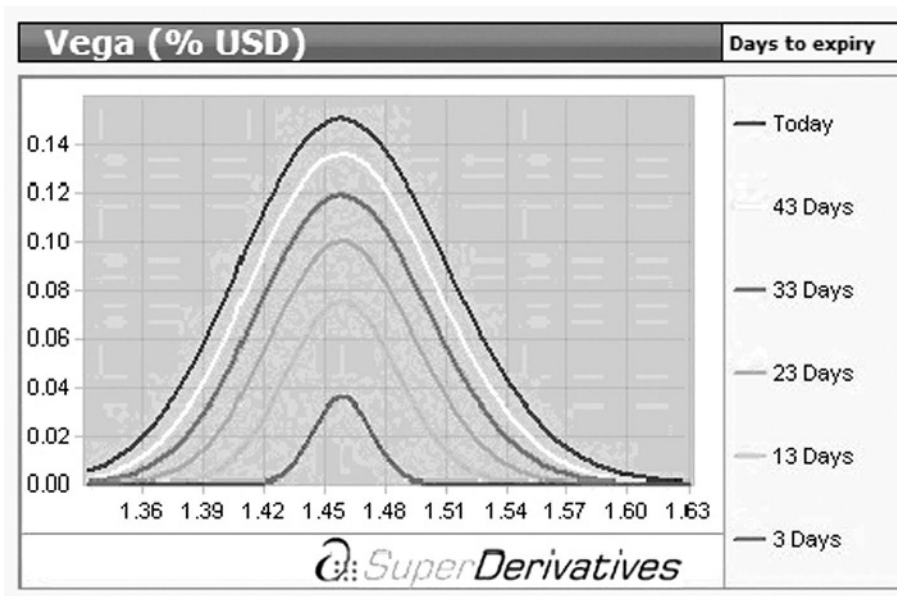


FIGURE 1.15 The Shape of Vega as Time Extends to Expiration
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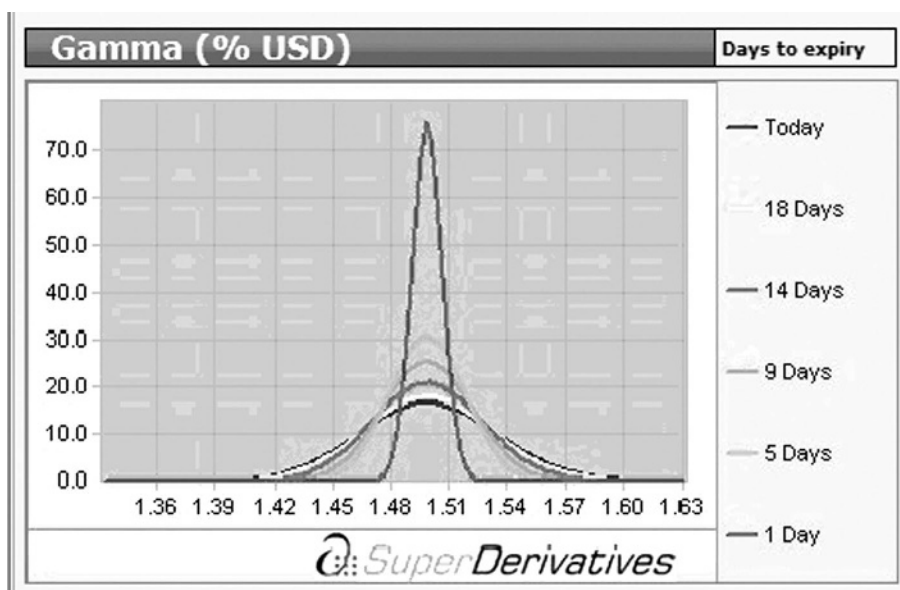


FIGURE 1.16 The Shape of Gamma
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What should the trader look for in gamma? We see that positive gamma means that the delta will move up and, as a result, the option price will also move up. A trader trading a short-term expiration will have a harder time making money if gamma is low. The trader wants a swift move.

Gamma Long Position and the Yen A recent article in Bloomberg serves as an example of how gamma is viewed by professionals. It noted that traders purchased \$500 million of dollar call and yen put options to go long gamma. Here is an excerpt:

Banks traded \$500 million of dollar call-yen put options today that expire this week...said Takeharu Mmiki, a currency options manager... All the options traded at an implied volatility of 16 percent, he said. Traders quote implied volatility, a measure of expectations for future currency swings, as part of pricing options.

Traders who purchased options today probably did so to increase their exposure to gamma, according to Ryousei Ishida, senior vice president of foreign-exchange options in Tokyo at Mizuho Corporate Bank Ltd.

—Stanley White, Bloomberg.com (January 7, 2008)

Theta Theta is the rate of change in an option's price with respect to the time to expiry. Theta has a well-known decay curve; the option trader who is a buyer is always worried about theta, while a seller has time decay on his side. However, the focus on theta becomes more intense as time to expiration decreases. The rate of decay is not linear and is exponential. In other words, when purchasing calls and puts, there is a negative theta, and the opposite (a positive theta) is true for shorting calls and puts. Once again at the ATM, theta has the highest value. The trader who wants to put on calls or puts trades when forex currencies have wider ranges, giving the currency the time to move through the range. Figure 1.17 depicts the curve of decay in value of the option as time decreases.

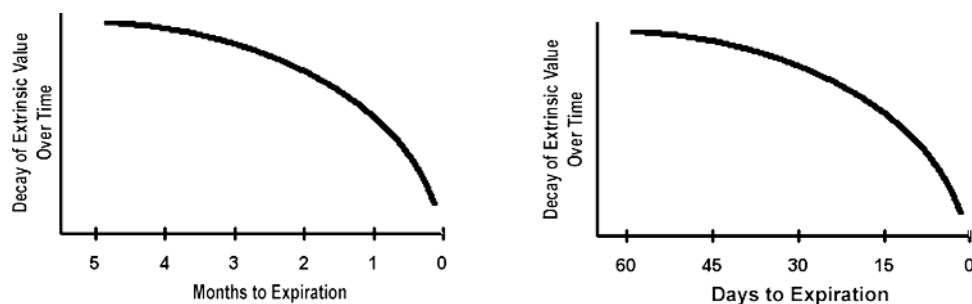


FIGURE 1.17 Extrinsic Value Decay Chart

Rho Rho is the rate at which the price of an option changes relative to a change in the interest rate. It measures the sensitivity of an option to a 1 percent change in the underlying interest rate. This is one of the least used of the Greeks. But during times when central banks are changing interest rate policies, rho can become a factor to consider. Also, if an option is greater than three months, there is increased interest rate risk: It becomes more expensive to hold. Interestingly, if a currency is in an interest rate-cutting environment, the options on that currency will tend to become less costly (unless volatility increases). For forex traders, rho is more important for longer-term options that go beyond a year. In this longer time frame, rho can affect the price of the option more significantly.

Volatility Quotes at Chicago Mercantile Exchange (CME)

The CME has begun to offer volatility-based quotes on forex options. The CME made this decision because the professional community of traders directly trade volatility. In announcing volatility quoting, the CME Group said: This quoting convention enables “delta-neutral” trading, which eliminates the execution risk inherent to trading in live premium by quoting forex options.

Spot Delta

This Greek term relates to how much the option price changes in response a change in the underlying spot forex prices. It is the most important of the Greeks and there are many delta-related trading strategies the trader can become familiar with, which will be discussed in a later chapter. The trader will primarily look at delta to help identify the ability of the option premium to move. A high delta means that the option premium will track more closely the move of the underlying spot currency. Delta ranges from 0.00 to 1.00. Calls have a positive delta, and puts have a negative delta. An option call or put with a 1.00 delta will move exactly with the underlying spot. When an option is ATM or at the money, the delta is at 0.50. This means that the option premium price will move 50 percent of the movement of the underlying currency pair. Many new beginners, who may have purchased deep-out-of-the money options become surprised when an option trade they took doesn’t move as much as the underlying. They were surprised because they didn’t look at the deltas, which most likely would have shown deltas below 0.20. While deep-out-of-the-money options may be cheap, they are cheap for reason!

Delta itself is affected by time and by volatility. When an option is ATM, it is the least affected by time and volatility. But if the option is ITM or OTM, it becomes more sensitive to volatility and to changes in time. For example, if a currency option is ITM, its delta may move closer to 1 as it approaches expiration, and deltas of OTM options would approach 0 as expiration came due. Another way to understand the direction of delta is to view it as a probability of becoming profitable. As the chances of being profitable increase, the delta approaches 1, and as it decreases, it approaches 0.

(continued)

Other Delta Measurements

There are also related delta measurements that can be useful if the forex trader wants to be more advanced. There is **dDelta/dVol**, which tracks the change in delta for a 1 percent change in volatility. For those who are technically oriented, there are also forward delta and driftless delta measurements.

Comparing Delta Calls versus Delta Puts—Detecting Market Skew

Traders often compare delta calls with delta puts. When the premiums of calls and puts with the same delta are not equal, the forex trader needs to be alerted to a *skewing* of the market sentiment. This should be taken into consideration on developing trading strategies. In Figure 1.18, for the USDJPY we see a comparison of the deltas along different strike prices and volatility. In the center is the ATM strike price. The 25 delta strike price for the put is 111.05, and for the call it is 113.25. The ATM is 112.24. The volatility for the put is 11.51 percent versus 9.46 percent for the call. At this moment in time, the market shows more volatility for a downward direction but is still pricing calls more than puts, which shows market sentiment favoring the calls. It is important to note that this skew is not a prediction of direction. It is just a reflection of the market sentiment.

Let's look further at this example of the USDJPY and whether there is a market skew. In Figure 1.19, the USDJPY call option (90 days out) shows a premium price of \$1115. In Figure 1.20, the USDJPY put option (90 days out) shows a premium price of 1858. Note that both options have the same expiration date of March 28, 2008. The difference in the price of the call option versus the put option may reveal a market sentiment skew.

	5 Δ	10 Δ	15 Δ	20 Δ	25 Δ	30 Δ	ATM	30 Δ	25 Δ	20 Δ	15 Δ	10 Δ	5 Δ
Vol	13.51	12.68	12.19	11.82	11.51	11.18	10.225	9.59	9.46	9.40	9.35	9.34	9.38
Strike	108.86	109.76	110.31	110.72	111.05	111.34	112.24	113.03	113.25	113.49	113.77	114.13	114.68
Vol	14.89	13.70	12.96	12.41	11.96	11.55	10.350	9.56	9.41	9.30	9.20	9.12	9.12
Strike	103.54	105.86	107.26	108.29	109.11	109.81	111.90	113.78	114.28	114.83	115.47	116.29	117.54
Vol	15.22	13.85	12.99	12.36	11.86	11.40	10.100	9.26	9.11	8.99	8.89	8.83	8.89
Strike	100.41	103.55	105.44	106.81	107.90	108.82	111.51	113.93	114.57	115.29	116.12	117.18	118.87
Vol	15.45	13.98	13.02	12.33	11.78	11.29	9.900	9.00	8.83	8.70	8.60	8.55	8.64
Strike	97.88	101.65	103.94	105.58	106.88	107.97	111.11	113.91	114.66	115.49	116.45	117.70	119.70
Vol	15.79	14.09	12.97	12.17	11.54	10.97	9.450	8.47	8.29	8.16	8.07	8.07	8.31
Strike	92.06	97.29	100.47	102.74	104.52	106.00	110.06	113.71	114.70	115.79	117.08	118.79	121.69
Vol	16.17	14.31	13.08	12.20	11.50	10.88	9.250	8.21	8.00	7.87	7.82	7.87	8.23
Strike	87.48	93.83	97.70	100.46	102.61	104.40	109.12	113.40	114.57	115.87	117.43	119.55	123.29
Vol	16.17	14.22	12.96	12.04	11.32	10.66	9.000	7.93	7.72	7.61	7.59	7.70	8.17
Strike	84.03	91.18	95.54	98.65	101.08	103.11	108.28	113.00	114.31	115.79	117.58	120.07	124.59
Vol	15.92	14.02	12.74	11.78	11.02	10.33	8.450	7.28	7.07	6.96	6.94	7.07	7.57
Strike	74.21	82.90	88.40	92.39	95.52	98.13	105.29	111.91	113.53	115.39	117.68	120.94	127.06
	5 Δ	10 Δ	15 Δ	20 Δ	25 Δ	30 Δ	ATM	30 Δ	25 Δ	20 Δ	15 Δ	10 Δ	5 Δ

FIGURE 1.18 Comparing 25 Delta Calls and Puts and Their Premiums
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The Elements of an Option Trade

21

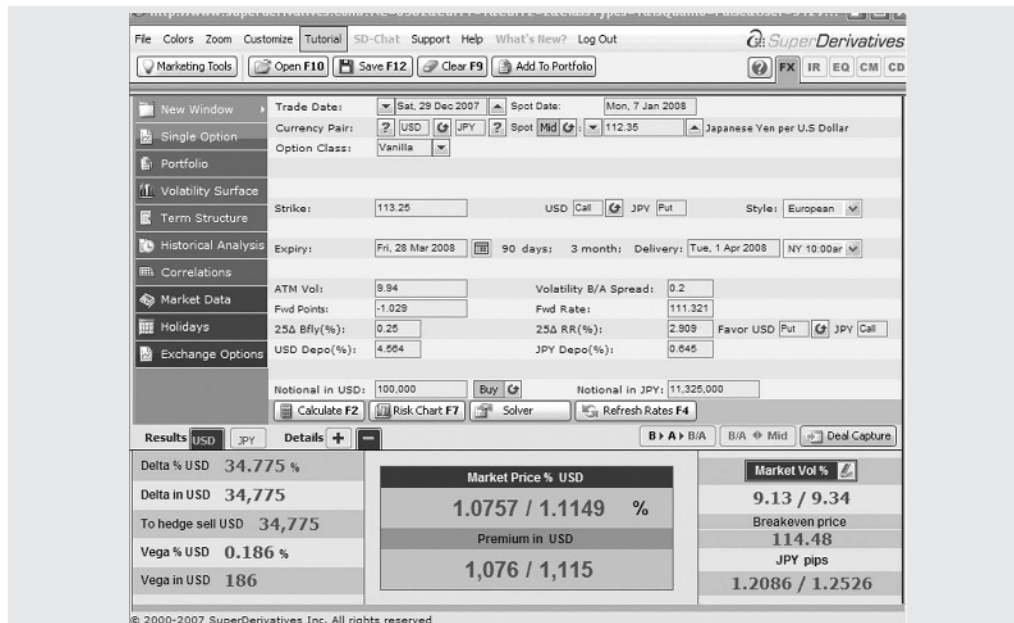


FIGURE 1.19 USDJPY Call Option
Source: Reprinted with permission of Super Derivatives, Inc.

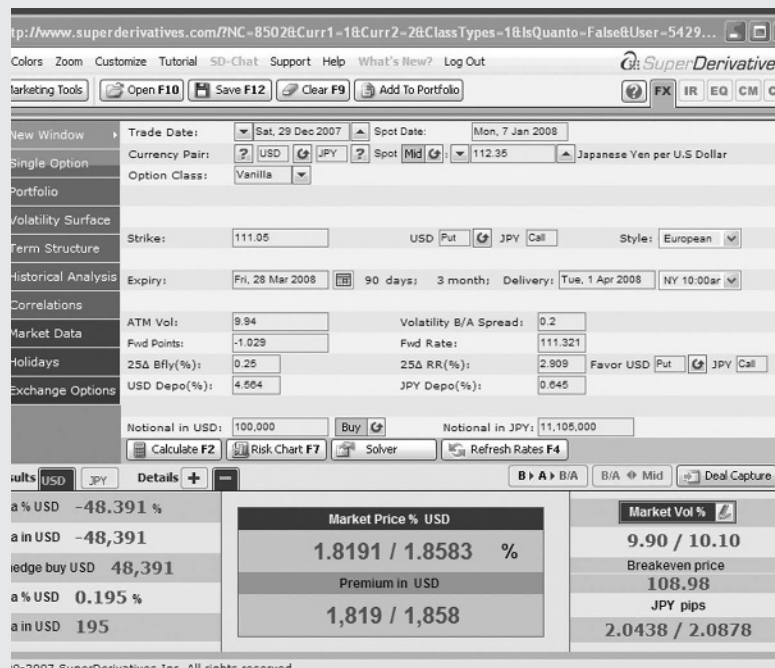


FIGURE 1.20 USDJPY Put Option
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Volatility and Time: The Effect of Volatility's Declining on Premium Prices

When the duration of an option extends over time, more things can go wrong and as a result the price of the premium would go up to reflect this increased level of uncertainty. But that is not always the case. When the premium price does not go up, the forex trader confronts the phenomenon of a decline in implied volatility. Here is an example where the premium price hardly moves up!

We compare the USDJPY spot call at 110 strike price with a duration of 62 days in Figure 1.21 against the same 110 strike price, with the only change being a duration of 92 days in Figure 1.22.

The volatility of the first strike price is 13.62 percent, while the volatility of the second option is 12.817 percent. The premium price of the first was \$1182 but buying another 30 days' duration only increased the price to \$1314.

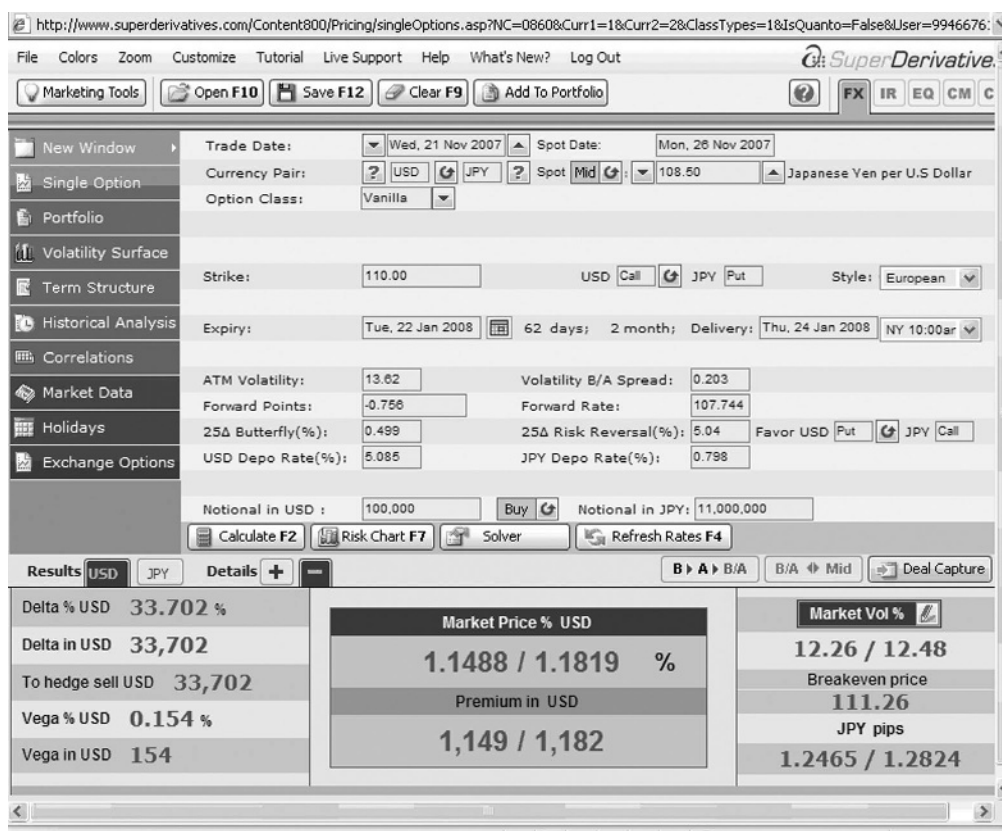


FIGURE 1.21 USDJPY Call Option 62 Days Expiration
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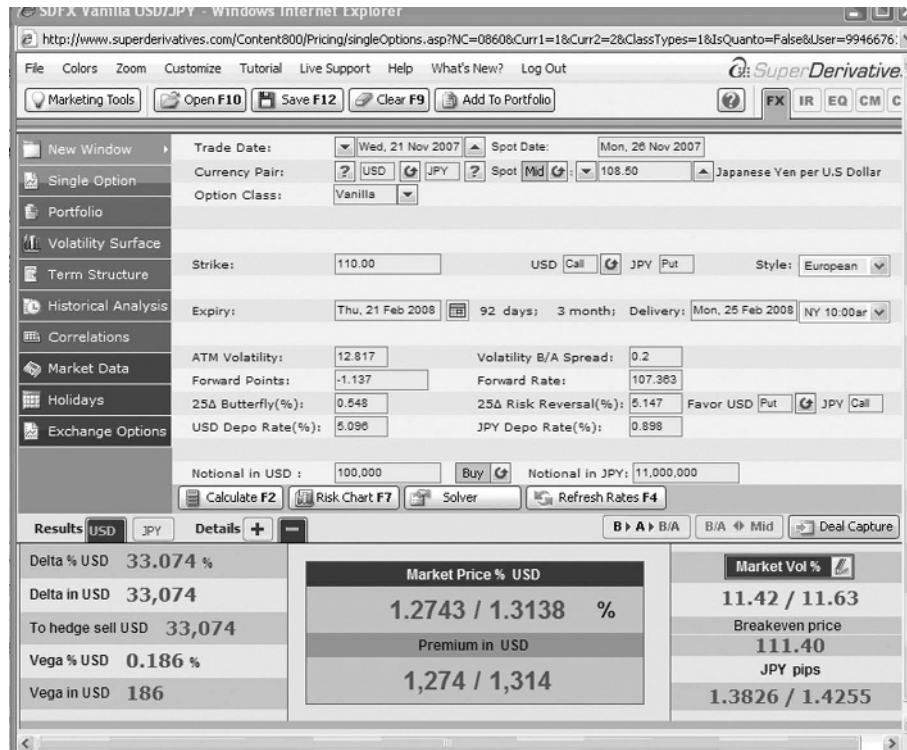


FIGURE 1.22 USDJPY Call Option 92 Days Expiration
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ASSIGNMENT

Test Your Knowledge For Finding Market Skew

Find any currency pair and go to a 30-day call option at-the-money strike price; then find the option premium for calls and puts; form an opinion about the future direction of the currency pair; then go to 120 days for the same strike price and find the option premium for calls and puts. What is the difference when expiration is extended? Do the results confirm your opinion? Practice this exercise over and over.

SUMMARY

Risks and Potential of Plain Vanilla Options

- Option buyers have risks limited to the premium paid.
- Option writers (sellers) have theoretically unlimited risks.

- Option buyers have theoretically unlimited potential.
- Option writers have a profit potential limited to the premium received.

In this book, we concentrate only on options strategies that have predetermined and limited risk. This includes writing an option when it is part of a spread or combined with a covered position such as an underlying spot position. However, we are not discussing writing options as an isolated strategy.

In this chapter, the reader learned about key elements of an option trade and how those elements are reflected in the nomenclature of the forex market. The reader also learned about how those elements provide clues to market sentiment. A key concept is comparing call option premium prices with put option premium prices to detect which way the sentiment is skewing. Now that we have covered the essential components of forex option trades, we can move to the task of developing trading ideas.