NADEX

# BINARY OPTIONS: A SMARTER WAY TO TRADE THE WORLD'S MARKETS

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# BINARY OPTIONS

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# TO BE OR NOT TO BE? THAT'S A BINARY QUESTION




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## A BINARY OPTION ASKS A SIMPLE YES/NO QUESTION:

# WILL THIS MARKET BE ABOVE THIS PRICE AT THIS TIME?

You buy the option if you think yes and sell if you think the answer is no.

When the binary option expires, if you were right about the market's price, you'll get the full $100 value. If you were wrong, you'll get zero.

When you enter a trade, you pay an amount less than $100 based on the probability of the binary option expiring with an answer of "yes." You can never lose more than you paid.

Your maximum profit is $100 minus that amount you paid (and a low, capped fee).


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## WITH NADEX BINARY OPTIONS, YOUR TRADE CAN ALSO GO A THIRD WAY.

You can also close your position before expiration:

- If the trade is losing and you don't want to stay
- If you want to take a smaller profit early

Suppose the option starts moving in your direction and its value goes up, but you aren't sure it will stay there.

Naturally, you might want to just cash out while you can and get some profit.

You can do that. Just sell the option if you bought it, or buy it back if you sold it. On Nadex it just takes a couple of clicks.

Maybe you want to cut your losses rather than risk losing the full amount.

Maybe the market just isn't doing what you thought it would.

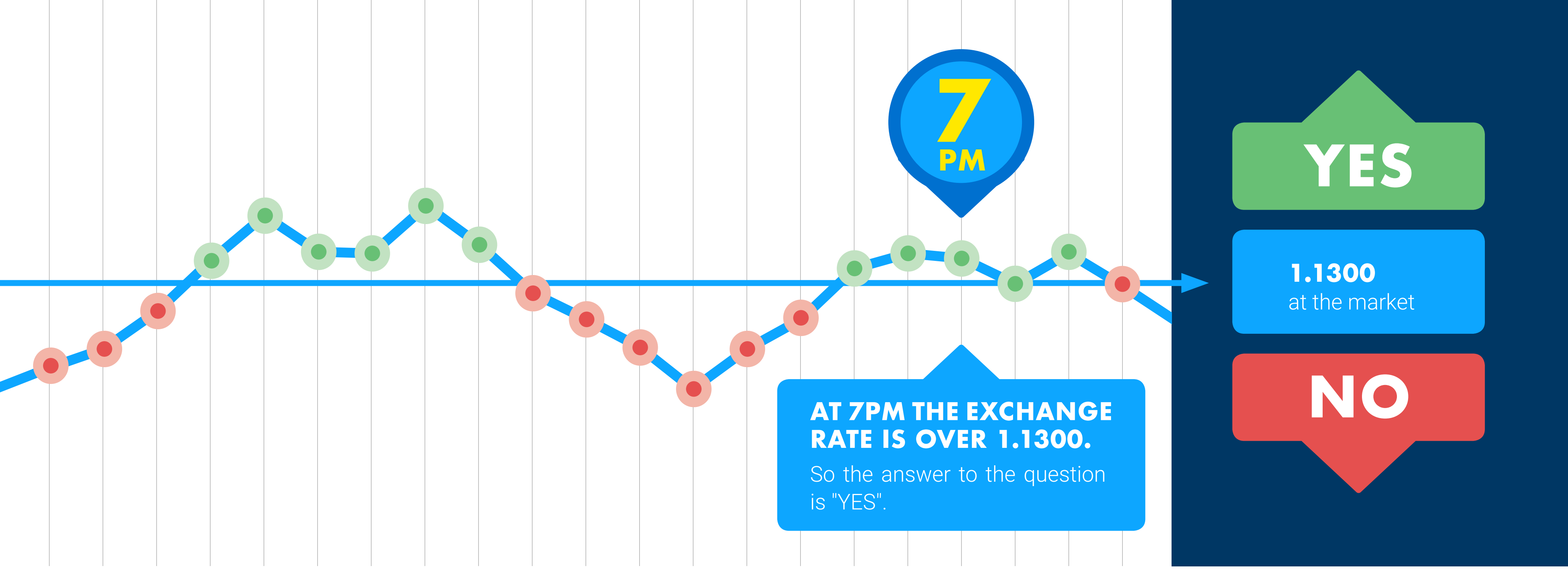
Whatever the reason, you can exit the trade before expiration. So the question is always a simple yes/no: Will it be or not be above the strike price at the expiration time? But there are many ways to trade that question.

It will take all your trading skill and acumen. But it won't take more money than you decide to risk up front.

Nadex doesn't issue margin calls, ever. We don't have to. And you don't have to worry about getting one.

Since both buyer and seller put up their share of the option's $100 value before entering the trade, it's "fully collateralized," meaning neither side uses leveraged debt.

And that means that the answer to this question: "Will I be or not be able to trade again after a loss?" is much more likely to be "yes."




# EXAMPLE:

This is a hypothetical example, so we'll leave out some of the finer details and focus on the basics.

Let's say you're looking at a binary option based on the following question:

**"WILL THE EXCHANGE RATE BETWEEN THE EURO CURRENCY AND US DOLLAR BE ABOVE 1.1300 ($1.13 PER EURO) AT 7PM TODAY?"**

On the Nadex platform it would be written like this:

**"EUR/USD > 1.1300 (7PM)"**

Now let's say you buy this binary. That means you think the answer to the question will be "yes."

If you are right, and the spot EUR/USD FX rate is higher than 1.1300 at 7pm (ET), the binary will settle at $100.

If not, and the spot EUR/USD FX rate is lower than 1.1300 at 7pm (ET), the binary will settle at $0.



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You're probably wondering, what if the EUR/USD is exactly 1.1300 at 7pm? It will still settle at $0. (See the box to the right to learn how we calculate that final price.)

The question for every binary option is always "Is it greater than (strike price)?" In other words, both "less than" and "equal to" get the answer "no." The final price of the underlying indicative market at the expiration time is called the "settlement" price. That's the price we compare to the strike price, 1.1300, to say whether it is greater than, less than, or equal.

In short, at expiration we compare the settlement price of the underlying market to the strike price of the binary option. If the market settlement is greater, the binary is worth $100. In all other cases, the binary is worth $0.

The calculation doesn't consider whether the EUR/USD was higher than 1.1300 at some earlier time. We only look at the 7pm expiration.

Since it's possible for the euro or any market to spend all day above the strike price (1.1300) and then drop just before 7pm, it's possible for a binary that looked ready to expire at $100 to end up at $0.

That's one of the challenges of binary option trading, but also one of the opportunities. If the market is even a tiny bit above 1.1300 at expiration, you still get the full $100. You get a substantial return on a small margin of difference.

This difference is especially powerful in flat markets, where a market might not move up or down very much. With binary options, it doesn't have to be more than a tick above the strike price for a buyer to get the full $100 payout. That's because with binary options, as the name says, it's all or nothing.

Unless you exit early. More about that in the next section...

## HOW DOES NADEX CALCULATE THE SETTLEMENT PRICE?

To accurately represent the underlying markets, Nadex calculates expiration values differently for various markets.

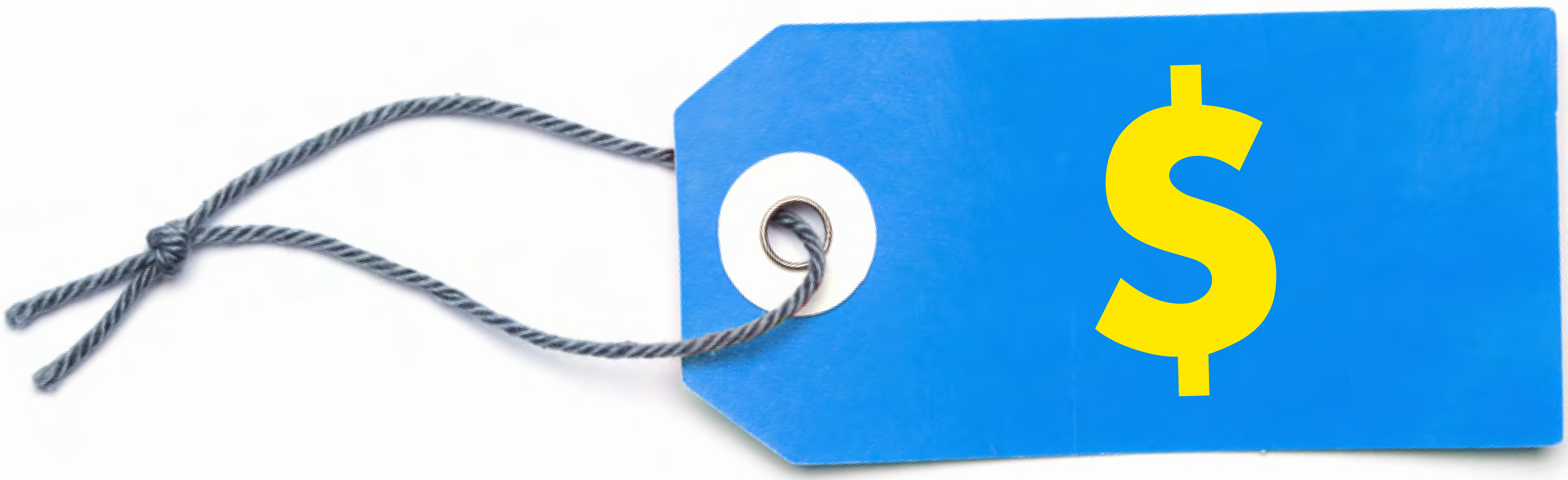
**Stock index and commodity contracts:**
If it takes more than 10 seconds to collect the last ten trade prices, Nadex takes the last 25 trades before expiration and removes the highest and lowest 5 prices. We average the remaining 15 prices and round to one decimal point past the precision (Wall St 30: same precision) of the underlying market.

**Forex contracts:**
If it takes more than 10 seconds to collect the last ten midpoint prices between the best bid and offer (10 pips wide or less) leading up to expiration of the contract, Nadex takes the last 10 midpoints (10 pips wide or less) before expiration and removes the highest and lowest 3 prices. We then calculate the average of the remaining 4 prices and round to one decimal point past the precision of the underlying market.

When 10 or more midpoint prices between the best bid and offer (10 pips wide or less) are collected from the underlying market in the final 10 seconds before expiration of the contract, Nadex takes all midpoints collected (10 pips wide or less) and removes the highest and lowest 30% of prices. If 30% of the data set is a non-integer, the nearest rounded-down integer is used. We then average the remaining prices and round to one decimal point past the precision of the underlying market.

*Nadex uses market data from Reuters, Bloomberg, and/or other trusted sources and a proprietary forex data feed based on data from ten major banks.*

# WHO SETS A BINARY OPTION'S PRICE? AND HOW?



## "WHO?" IS AN EASY QUESTION TO ANSWER: IT'S THE MARKET PARTICIPANTS THEMSELVES.

The buyers and sellers decide the price at any given moment based on their collective opinion. Nadex doesn't play a role in pricing. We operate the matching engine, connecting buyers to sellers and making sure all trades are fair and accurate.

Now let's look at how those buyers and sellers determine price. Before a binary option expires at either $100 or $0, its price moves up and down as long as the underlying market moves (though not in a strict correlation). During that period, the price of the binary options can be anywhere between $0 and $100. The price of the binary reflects the probability that it will expire "in the money," meaning above the strike price.

## IN THE MONEY:

### IT'S WHEN YOU ARE ABOVE THE STRIKE PRICE.

So in the case of our euro example:

**"EUR/USD > 1.1300 (7PM)"**

The price of the binary option will go up and down based on whether it looks likely to expire above 1.1300 at 7pm.

Can you see how all the factors that play into that probability will also affect the price? If it is still several hours from 7pm and the market keeps bouncing above and below 1.1300, it's hard to say what is likely to happen.

Anything could happen between then and 7pm. The price will reflect that 50/50 probability by being about $50 at that time. The best bid and offer may be something like 48-52.

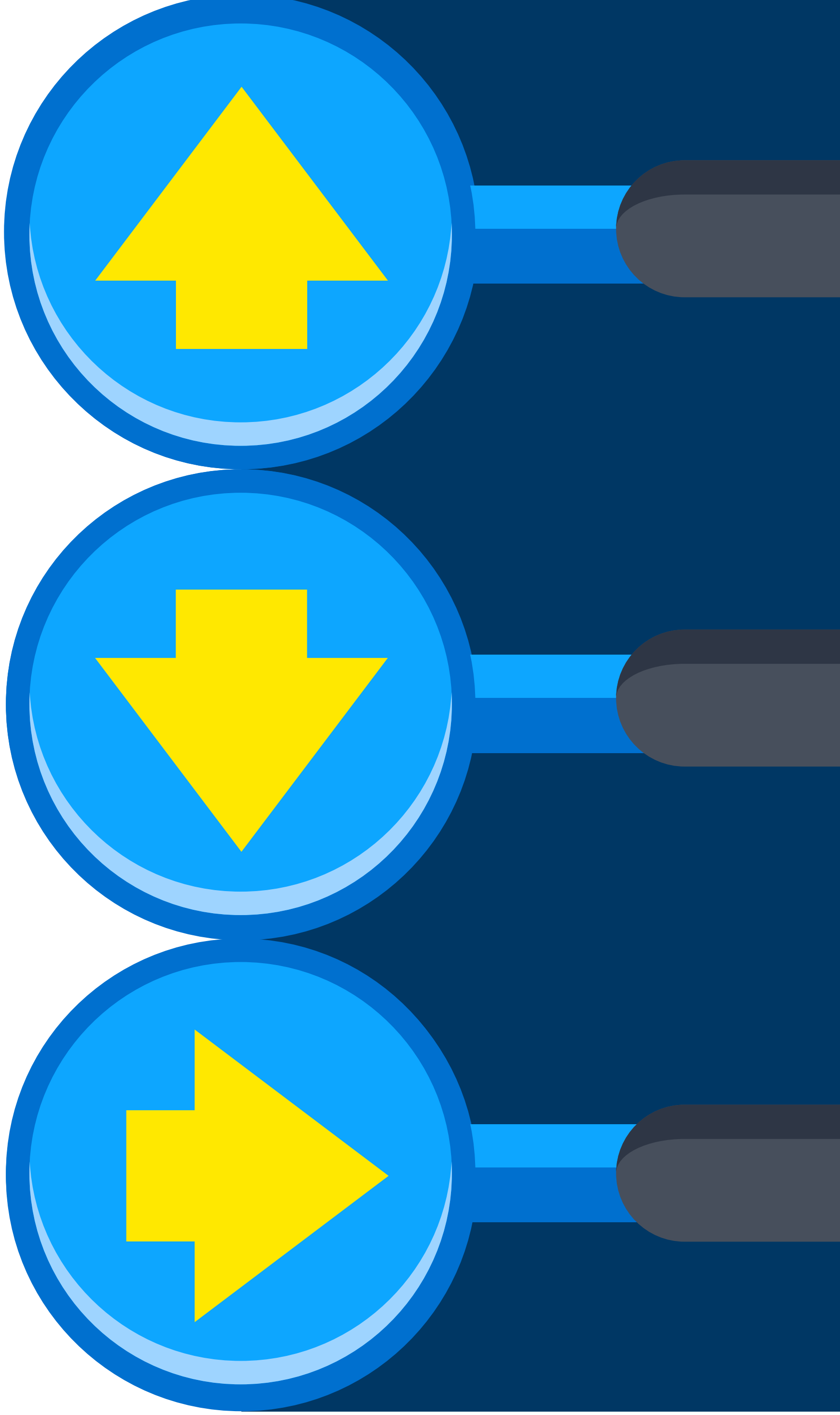
Continuing with the same example:

**"EUR/USD > 1.1300 (7PM)"**

Imagine it is 6pm (ET), one hour before expiration, and that the underlying spot EUR/USD FX rate is standing at 1.1290. If it is at 1.1290 an hour from now, at 7pm, the binary option will expire with a value of $0 and you will lose whatever you paid (but not more).

Let's think about the probabilities of where it can go in the final hour before expiration.

# MARKETS CAN GO IN ONE OF THREE DIRECTIONS: UP, DOWN, OR SIDEWAYS.



Right now, it's below 1.1300. So the odds of it staying below 1.1300 are good compared to other possibilities. It doesn't have to do anything to get there. It's already there.

1. If the market stays below 1.1300, the binary option will expire at zero.
2. If it goes down further, the binary will also expire at zero.
3. Then there's the third possibility: that the EUR/USD rate will go up in the next hour and be above 1.1300 at 7pm.

And actually, it's a little less than a one-third possibility, since the market could go up but then still be below 1.1300 at 7pm.

In other words it is reasonable to believe it is more likely that the binary will settle at $0 than that it will settle at $100.

That's why one of the key skills in trading is learning to think in probabilities.

# THE PRICE IS RIGHT

- Price Reflects Probability
- Actually, Price Reflects Probability and Volatility



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# PRICE REFLECTS PROBABILITY

## THE PRICING OF THE BINARY OPTION WILL REFLECT THE PROBABILITY OF THE EUR/USD RATE BEING ABOVE 1.1300 AT 7PM.

Since right now that is less probable than the market staying at or below 1.1300, the binary option might trade on Nadex at around $30.

This price would imply that Nadex participants (those actively buying and selling that binary option) believe there is only a 30% chance that the binary option will settle at $100.

Remember that Nadex doesn't influence the pricing or participate in trading. The value judgements are made by the buyers and sellers. We're just the exchange, making sure everything is done fairly and accurately.

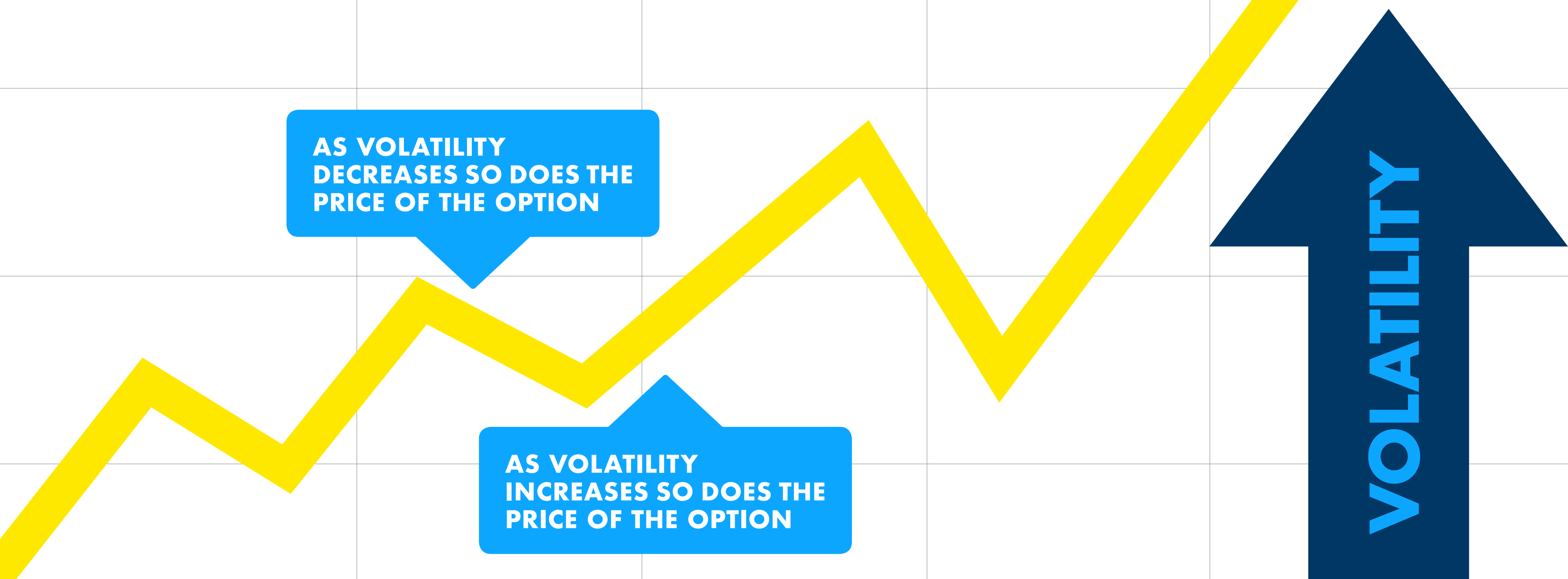
So with the underlying market at 1.1290 at 6pm (ET), the market is likely to think there's a smaller chance (about 30%) of the rate being above 1.1300 in another hour, and greater chance (about 70%) that it will be the same or lower than it is now.

So at 6pm, the answer to "Will the EUR/USD exchange rate be above 1.1300 at 7pm?" seems more likely to be "no" than "yes." The pricing will roughly correspond to that and be about $30 to buy the option and $70 to sell it.

**WHEN THE PROBABILITY IS THAT THE OPTION WILL BE A YES WHEN IT EXPIRES, IT WILL USUALLY COST MORE TO BUY.**

**WHEN THE PROBABILITY IS THAT THE OPTION WILL BE A NO WHEN IT EXPIRES, IT WILL USUALLY COST LESS TO BUY.**

# ACTUALLY, PRICE REFLECTS PROBABILITY AND VOLATILITY




There's another factor that affects the price, besides probability. On a busy trading day, when the EUR/USD rate is moving up and down frequently, the binary may trade at a higher price than $30. On a quiet day, when the EUR/USD rate has barely moved, the binary may trade at less than $30.

A market that is making a lot of big moves, the kind of market that is sometimes called "choppy" or "spiking," looks more likely to make the kind of 10-point move needed to get that EUR/USD > 1.1300 (7PM) binary option up from 1.1290 to 1.1300.

Does that make sense? If it has been making big moves all day, another one wouldn't be a surprise, right?

On the other hand, if it has barely moved 5 points all day, a 10-point move in the last hour of trading would be unusual and unexpected for that day.

Imagine what a news report might say. If they would call it "a sudden 10-point jump," then it's probably not likely to happen.

On the other hand, if the report of the day's trading would be about multiple big price moves, then one more move like that would not be out of place.



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An article about a day with multiple big price moves is almost certain to use the word "volatility." That's all volatility really is: a lot of relatively large moves happening in a short time.

On a volatile trading day, the price to buy that binary option might be $35 rather than $30, because the market participants see a higher-than-usual chance that it will rally up above 1.1300.

On a quieter day, the market might decide that the EUR/USD rate is not likely to move by much over the next hour. Accordingly, not as many people will want to buy that binary option.

And when there's less demand of anything, what happens? The price goes down.

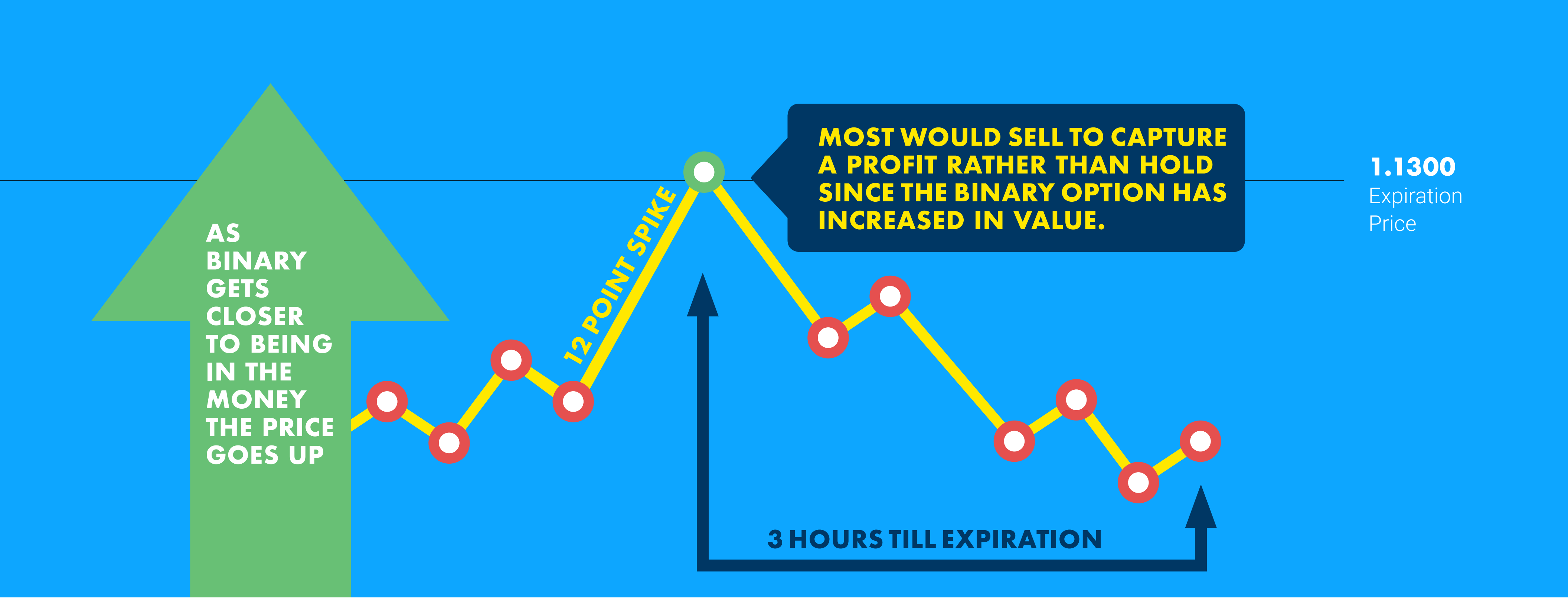
So that binary option might trade for $25 instead of $30.

There's no precise calculation for this, but generally, low volatility makes any market look less likely to make a major move. In fact, "volatile" is just another way of saying, "moving around a lot."

# TIMING IS EVERYTHING

Wait Until Expiration or Get Out Early?

# WAIT UNTIL EXPIRATION OR GET OUT EARLY?




No one can give you a hard and fast rule about when to hold a binary option until expiration and when to exit early. It's a personal choice.

Generally people exit early for one of two reasons: to take profits or get out with a smaller loss than the maximum (the amount you paid to enter the trade).

Here's a situation where traders often take profits rather than holding on. Let's say that same EUR/USD > 1.1300 jumps up 12 points and is now in the money. ("In the money" means on the right side of the strike price.)

## IF IT'S IN THE MONEY, THE BINARY OPTION HAS LIKELY GONE UP SIGNIFICANTLY IN VALUE,

maybe to $80 or more. If you have a binary option that is trading at $90 with three hours left until expiration, do you want to hold out for that last $10 of *potential* profit? Or do you take the actual profit you now have?

After all, if you bought it at $30 you've just gotten a nearly 200% return in a few hours. Not bad for a day's work, as they say. (Of course, that's a hypothetical result and not meant to represent a typical trade on Nadex. Your actual results may vary.)



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This isn't a suggestion of what you should do, but many traders would do what old floor traders who came up in the 70s and 80s call the "Steve Miller" move: they take the money and run. (Remember that song?)

They weigh the two choices: risk losing some of their gains while they hold out for a little bit more, versus lock in those gains and give up a *chance* to squeeze out a few more dollars.

After all, you can always get back in with a new trade.

The same kind of choice would move some traders to get out if their $30 binary option went down to $15 in value, with no sign that the market was about to turn around.

In that situation, the calculation is, better to admit the trade didn't go as you expected and salvage some of your money, than to lose it all clinging to an increasingly faint hope.

One of the hardest but most important skills for a trader to learn is the discipline to quickly admit you were wrong about a trade.

Some traders put it this way: the purpose of trading isn't to prove yourself right. It's to make money.

You know, that's important enough to repeat.

**THE PURPOSE OF TRADING ISN'T TO PROVE YOURSELF RIGHT. IT'S TO MAKE MONEY.**

## THEY WEIGH THE TWO CHOICES:

1. **RISK LOSING SOME OF THEIR GAINS WHILE THEY HOLD OUT FOR A LITTLE BIT MORE**
2. **LOCK IN THOSE GAINS AND GIVE UP A CHANCE TO SQUEEZE OUT A FEW MORE DOLLARS**

# SO WHEN SHOULD YOU HOLD ON TILL EXPIRATION?

There are multiple scenarios and only practice will tell you when you want to hold versus exiting early. But if that EUR/USD did a slow but steady climb to 1.2998, then 1.2999, and now there's about ten minutes left, you'll be facing a situation where your binary has already lost some value, but is just one tick away from being in the money and worth the full $100.

There's no right or wrong choice, but can you see why some would hold on to give the market a chance to gain that last tick?

You already know your maximum loss. It's the $30 (plus fees) that you paid upfront.

If trying for that last tick is worth $30 to you (versus the $20 or so you'd lose if you exited early) then hold onto the binary until expiration.

Either way, it's your choice. A choice you can make knowing precisely what the worst-case scenario is. That's the point of binary option trading. Defined risk just might remove some of the limits on your own sense of confidence and possibility.

# OPEN A NADEX ACCOUNT TODAY

Start trading with low cost and defined risk. You can also open a free, full-featured practice account.
Or start trading live with as little as $250 to start.

**OPEN AN ACCOUNT**

**WANT TO PRACTICE FIRST? OPEN A FREE DEMO ACCOUNT.**

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