Calculating Risk and Reward

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Are you a risk taker? When you're an individual trader in the stock market, one of the few safety devices you have is the risk/reward calculation.

Risk vs. Reward

Sadly, retail investors might end up losing a lot of money when they try to invest their own money. There are many reasons for this, but one of those comes from the inability of individual investors to manage risk. Risk/reward is a common term in financial vernacular, but what does it mean? Simply put, investing money into the markets has a high degree of risk, and you should be compensated if you're going to take that risk. If somebody you marginally trust asks for a $50 loan and offers to pay you $60 in two weeks, it might not be worth the risk, but what if they offered to pay you $100? The risk of losing $50 for the chance to make $100 might be appealing.

That's a 2:1 risk/reward, which is a ratio where a lot professional investors start to get interested because it allows investors to double their money. Similarly, if the person offered you $150, then the ratio goes to 3:1.

Now let's look at this in terms of the stock market. Assume that you did your research and found a stock you like. You notice that XYZ stock is trading at $25, down from a recent high of $29. You believe that if you buy now, in the not-so-distant future, XYZ will go back up to $29, and you can cash in. You have $500 to put toward this investment, so you buy 20 shares. You did all of your research, but do you know your risk/reward ratio? If you're like most individual investors, you probably don't.

Before we learn if our XYZ trade is a good idea from a risk perspective, what else should we know about this risk/reward ratio? First, although a
little bit of behavioral economics finds its way into most investment decisions, risk/reward is completely objective. It's a calculation, and the numbers don't lie. Second, each individual has her own tolerance for risk. You may love bungee jumping, but somebody else might have a panic attack just thinking about it.

Next, risk/reward gives you no indication of probability. What if you took your $500 and played the lottery? Risking $500 to gain millions is a much better investment than investing in the stock market from a risk/reward perspective, but a much worse choice in terms of probability.

The Calculation

The calculation of risk/reward is very easy. You simply divide your net profit (the reward) by the price of your maximum risk. Using the XYZ example above, if your stock went up to $29 per share, you would make $4 for each of your 20 shares for a total of $80. You paid $500 for it, so you would divide 80 by 500 which gives you 0.16. That means that your risk/reward for this idea is 0.16:1. Most professional investors won't give the idea a second look at such a low risk/reward ratio, so this is a terrible idea. Or is it?

Let's Get Real (Limiting Risk and Stop Losses)

Unless you're an inexperienced stock investor, you would never let that $500 go all the way to zero. Your actual risk isn't the entire $500.

Every good investor has a stop-loss, or a price on the downside that limits their risk. If you set a $29 sell limit price as the upside, maybe you set $20 as the maximum downside. Once your stop-loss order reaches $20, you sell it and look for the next opportunity. Because we limited our downside, we can now change our numbers a bit. Your new profit stays the same at $80, but your risk is now only $100 ($5 maximum loss multiplied by the
20 shares that you own), or 80/100 = 0.8:1. This is still not ideal.

What if we raised our stop-loss price to $23, risking only $2 per share or $40 loss in total? Remember, 80/40 is 2:1, which is acceptable. Some investors won't commit their money to any investment that isn't at least 4:1, but 2:1 is considered the minimum by most. Of course, you have to decide for yourself what the acceptable ratio is for you.

Notice that to achieve the risk/reward profile of 2:1, we didn't change the top number. When you did your research and concluded that the maximum upside was $29, that was based on technical analysis and fundamental research. If we were to change the top number, in order to achieve an acceptable risk/reward, we're now relying on hope instead of good research.

Every good investor knows that relying on hope is a losing proposition. Being more conservative with your risk is always better than being more aggressive with your reward. Risk/reward is always calculated realistically, yet conservatively.

The Steps

To incorporate risk/reward calculations into your research, follow these steps:

1. Pick a stock using exhaustive research.

2. Set the upside and downside targets based on the current price.

3. Calculate the risk/reward.

4. If it is below your threshold, raise your downside target to attempt to achieve an acceptable ratio.

5. If you can't achieve an acceptable ratio, start over with a different
investment idea.

Once you start incorporating risk/reward, you will quickly notice that it's difficult to find good investment or trade ideas. The pros comb through, sometimes, hundreds of charts each day looking for ideas that fit their risk/reward profile. Don't shy away from this. The more meticulous you are, the better your chances of making money.

The Bottom Line

Finally, remember that in the course of holding a stock, the upside number is likely to change as you continue analyzing new information. If the risk/reward becomes unfavorable, don't be afraid to exit the trade. Never find yourself in a situation where the risk/reward ratio isn't in your favor.