Tips for Traders | 7/20/2009 10:32:00 AM

How to Determine Risk/Reward Ratio on Your Trades

I made a nice gold futures trade this past week in my live pre-market session. It's an interesting trade to review because it combines several techniques and also caused quite a stir in the live session when I introduced the concept of dynamic risk/reward ratios to the group.

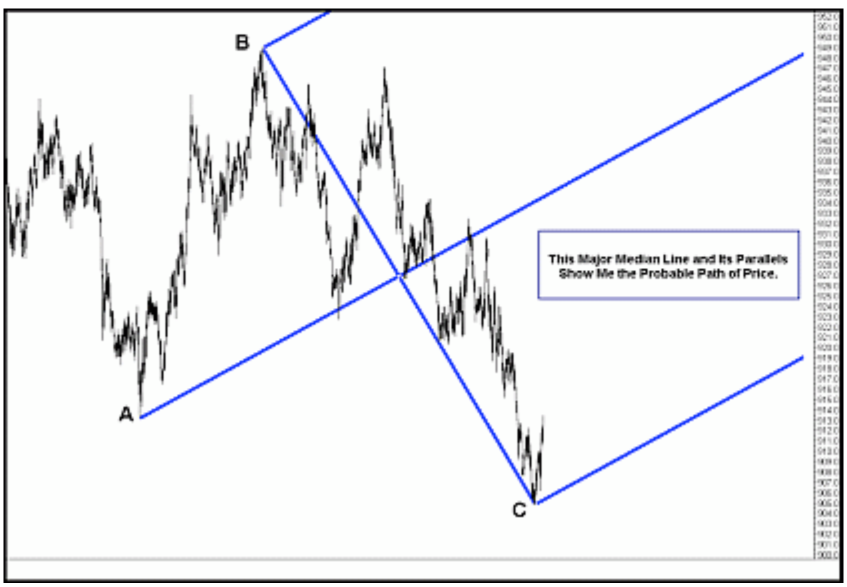
Let's take a look at the gold futures charts as I marked them up during the first morning session:

As you look at this chart of gold futures, your eyes should notice two things: 1) Price is cascading lower in a strong trend and each cascade is lower; and 2) None of the swing highs that make up each of the “cascades,” or “wavelets” against the trend were able to break above the top of a previous cascade's swing high. By analyzing the quality of this downtrend and seeing price's pattern repeating over and over, we are able to watch for any signs that a change in trend may be occurring and our first cue will generally be a change in these repeating patterns.

Let me show you what I mean:

Price suddenly spikes higher, breaking above two prior swing highs and well above the top of the prior cascade's pullback. This is a major change in behavior and a sign that though it may not yet be time to enter a long position, it is time to watch for further signs of strength.

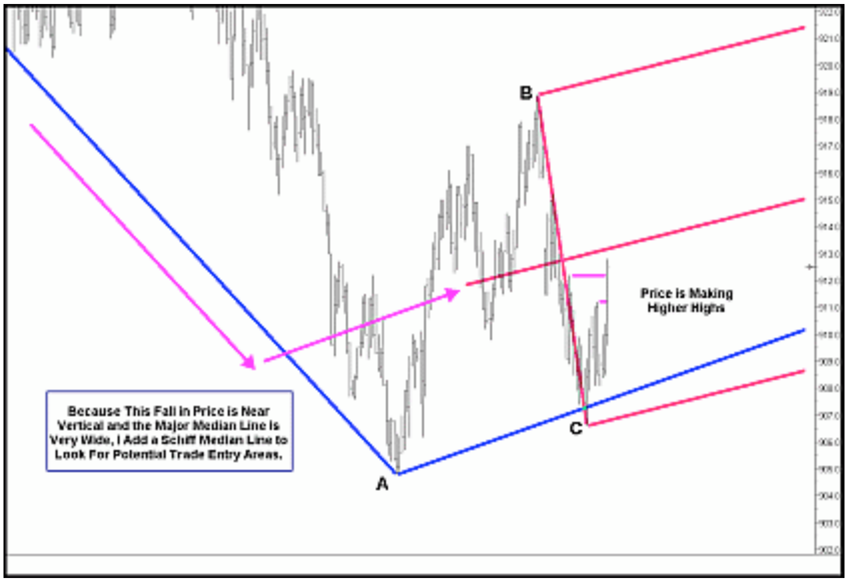
If price just made an important change in behavior, what would the probable path of price be?



I use the major low at 'A', the major high at 'B,' and the major low at 'C' to produce a Median Line and its parallels. The Median Line will project the probable path of price forward into time and space and the upper and lower parallels will show me the likely distance price will oscillate around the probable path of price.

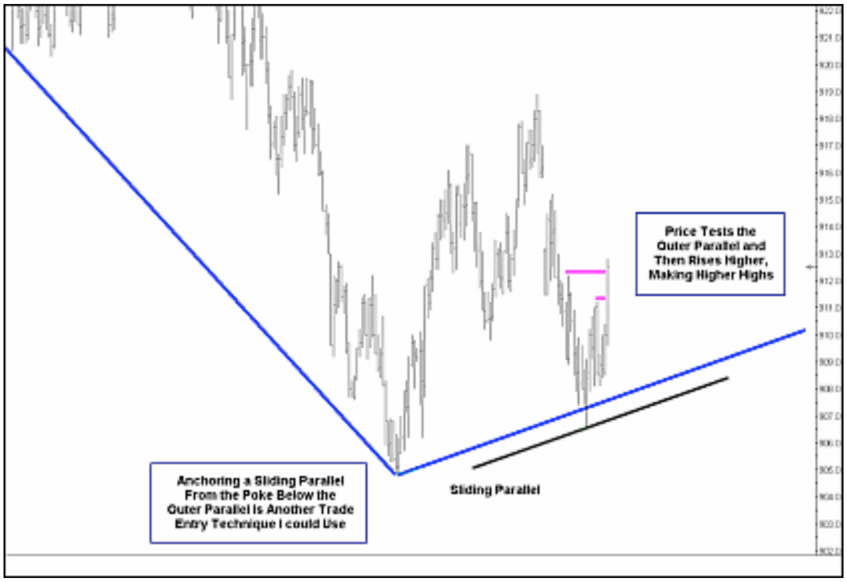
This is quite a large Median Line, and because the distance is so great between the Median Line and its parallels, I'll need to use a finer tool to help me identify a high-probability trade entry set up that I am willing to trade.

Let's see what tools I can come up with that will help me narrow in on a high-probability trade entry. I zoomed in here so you can see that price has pulled back to test and briefly penetrate the blue, up-sloping lower Median Line parallel, but the pullback was brief. Price is once again making higher highs.



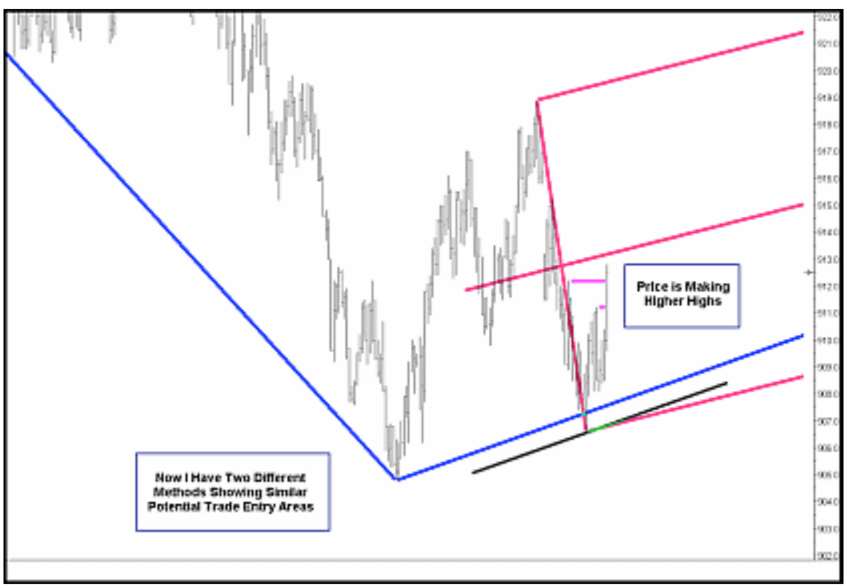
Price fell in a near-vertical fashion, so I know from experience that a specific type of Median Line, the modified Schiff Median Line, will give me the best projection of the likely path of price going forward. I add a modified Schiff Median Line and its parallels from pivots A, B, and C. This new, smaller Median Line should project forward the probable path of price and its upper and lower parallels should give me a good idea of how far away from the Median Line price can oscillate without running out of directional energy. You can think of the Median Line as the anchoring line and think of price as it comes off of the Median Line as a pendulum swinging from that anchoring line. But you have to keep in mind that while the length of the pendulum may contain the length of the downward move, the pendulum can literally slide forward along the anchoring Median Line, so it's not a simple arc movement.

Let's see if there are any other tools I can use to predict a high- probability trade entry:



Price poked below the lower Median Line parallel and then immediately traded higher, making higher highs and higher lows. This immediate rejection of any price action below the lower parallel tells me there are buyers in the area. I draw a line parallel to the Median Line from the low of that poke, and that's called a sliding parallel. If price comes back to test this line and I can afford the initial stop loss, I'll consider a long position entry.

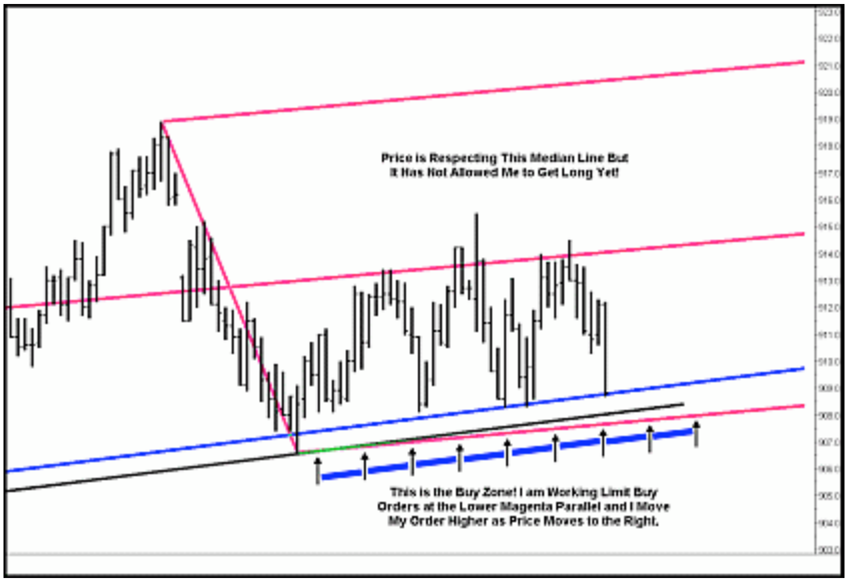
So what do we have working for us?



I have two different techniques that I know produce high-probability trade entries in very similar areas. And price has shown a further sign of strength by trying to break and close below the lower parallel, although failing to do so. In fact, price is now making higher highs and higher lows.

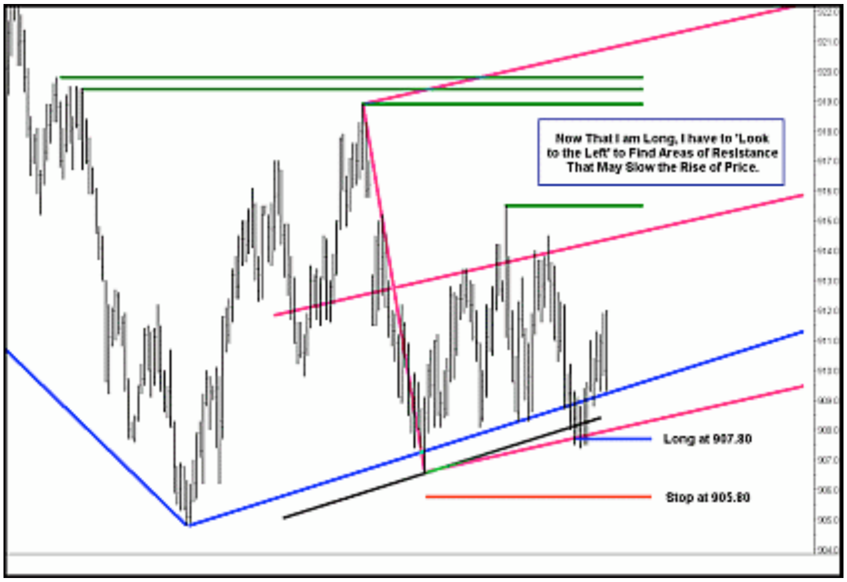
These two techniques give me a zone of confluence, a zone where I'd like to get long if price comes back to test while I still have a reasonable initial stop loss order.

I begin entering buy orders at the lower parallel of the modified Schiff Median Line. I'm in no hurry, because as you can see, although price is clearly vibrating at the same frequency as this Median Line set, it is also trading in a range, right inside the Median Line.



It hasn't yet traded low enough to fill my limit buy order, but it isn't running away to the upside either. I'll continue to leave my limit buy order where price will intersect with the lower parallel until I can no longer afford the initial stop loss order or until price changes its behavior dramatically.

Though price continues to trade quietly, it finally dips low enough to fill my limit buy order at 907.80. My initial stop loss on the trade will be below the major swing low at pivot C, at 905.80.



Now that I am long gold futures, I have to look left to see what obstacles price may run into. I do this to map the market and because I have to have a realistic profit target when calculating my risk/reward ratio. Note that I am purposely not disclosing my initial profit target right now, because I want to know what profit target you would choose!

Looking to the left, there is a prior high just above 915. I don't think that will be a major problem if price can break and close above the magenta, up-sloping Median Line. Take a close look! Price has been above the magenta Median Line a number of times, but so far, it's only closed above it once. Any close above it now will be above that prior close, and I think, would be a change in behavior.

The next set of obstacles is a bit more formidable. There are a series of prior highs that range from the high that formed the B pivot of the current magenta, Schiff Median Line and two prior swing highs further to the left, all ranging from 919 to 920.

Do you think price will stop at this clump of prior highs?

Let's see what's above these highs to the left:

If price makes it past the 919-920 area of resistance, there are three swing highs that made up the cascade highs on the major downtrend. These swing highs come in between 930 and 933, and they look a bit more serious to me.

Have you decided where you would put your profit order if you were long gold futures at 907.80?

Wait…I forgot one last possibility! Median Line theory tells us that price should run out of upside directional energy at the blue, up-sloping Median Line, and that once price begins taking out swing highs after testing the blue, lower Median Line parallel, it should reach the blue Median Line about 80% of the time.

So, what's your profit target? You're long at 907.80. Do you think price will stop…

1. At the recent spike high at 915 1/2.
2. At the cluster of highs between 919 and 920.
3. Somewhere between the three cascade swing high tops (the 930 to 933 area).
4. At the blue, up-sloping Median Line, currently just below 940.

Some traders and analysts feel that trailing stops are folly. In fact, one recently wrote in a national trading magazine: “Because the big scores are so hard to catch, *anyone using any form of trailing stops doesn't understand risk reward analysis*.” Let's see if we can make the case for using some form of trailing stops:

If you are long at 907.80 and price manages to climb to 930.80, if I don't move my initial stop loss order, price will fall $25 before stopping me out of my position. And even if I am using the most optimistic profit target on this chart, I'll be looking for price to climb an additional $9 to reach my profit target. That means that at the beginning of the trade, my risk/reward was 16 to 1. But what is my risk reward ratio now? Is it infinite, because my position is very profitable? That would only be the case if I moved my stop loss to a stop profit, and even then, I believe we always need to consider opportunity costs.

If you literally will not move your stop loss order above 905.80 and you will not move your profit target from 939.80, you are risking a fall from the current price of 930.80 to the stop loss at 905.80 ($245) to make $9. That makes your risk/reward ratio 0.36 to 1, which is...well… awful! The risk/reward ratio has been completely tipped on its head.

If we currently have $25 in potential profits in this position, can the risk reward ratio really be that bad?

Let me suggest a middle ground in logic and trading practice:

If you look at this chart, you'll see how this trade played out for me. I risked an initial $2 per contract and made $33 per contract. Did you pick the right profit target? (I have a secret for you: You could have picked any of the four I mentioned and done just fine, because you were risking $2 to make at least $7 in each case, and that means that at minimum, your risk reward ratio was 3.5 to 1.) All four profit targets were acceptable and all four were met.

The difference between the four was time spent in the trade, and at times, you should have been able to hide profit stops under swing lows that formed as price climbed higher. Instead of using cash stops, I always hide my stops and profit stops beyond swing highs and lows, because there are generally a great deal of resting limit entry orders at those levels. And you can see that I boxed in my profits by hiding my stop profit orders under each new swing low as price continued higher. Had price backed up unexpectedly, I didn't have $25 in potential profits left on the table—I was quickly working profit orders to ensure I would book at least some profits after price had climbed a minimal amount.

I hope you found this discussion about entries, profit orders, dynamic risk/reward ratios, and stop profit techniques interesting. Trading is both an art and a science, so there is room for many styles as long as they are profitable in the long run!