Money Management: A Key Ingredient in Stock Trading/Investment

Good money management is the key to controlling RISK in stock trading and investment. The primary objective of every successful trader must be to manage risk. It is only through good risk management that losses can be kept small and trading/investment capital maintained. Risk management requires having an objective method for setting a risk level for each issue to be bought, a method of determining an appropriate position size, a stop loss point to cut losses on positions that go against you, and a systematic exit strategy to maximize profits while limiting downside risk. The following is offered as one method for controlling risk.

Step One: The first step in money management is to determine how much of your portfolio value you are willing to risk per position. Typically, one might be willing to risk .005 up to .02 depending on how aggressive you want to be. For example, on a $100K portfolio a .005 risk would be $500 per position. At the total portfolio level you must set the overall risk you're willing to expose yourself to. Typically, one might be willing to risk .02 to .10 depending on how aggressive you want to be. For example, in a $100K portfolio a .05 risk would be $5000 total.

Step Two: The second step is to determine the number of position that you can enter and hold your risk to the parameters set in step one. For example, using .005 for each position and .05 for the total portfolio would limit one to approximately 10 positions (5000/500 = 10) at any one time. This assumes of course that you properly size your positions so that the risk is held to the criterion you've set. If you buy very low volatility issues where large positions are recommended, you may use up your funds before you reach 10 positions. On the other hand, if you use very high volatility issues where small positions are recommended, you may fill your 10 positions and still have cash remaining. In the former case, your overall risk will be lower. In the latter case, your risk will be at the criterion level. If you take on additional positions in the latter case, your overall risk will exceed the criterion level.

Step Three: The third step is to systematically determine the size of your positions. There are various methods of doing this but one is to tie position size to the volatility of the issue that you're putting money into. Generally, the more volatile the issue the less one should risk in it. A very simple measure of volatility is daily range in price. That is, how much difference there is between the day's high price and the day's low price. There is a more accurate measure of range in price called True Range that is a bit more complicated to compute. For simplicity let's just use daily range to illustrate.

If one were looking at a stock XYZ that had a high for the day of $55.67 and a low for the day of 53.98 then the daily range would be $1.69 ($55.67 - $53.98), which let's call a volatility unit (VU). There are several ways that VU can be used. One is to compute an average for the daily values during some specific period of time, for example, the last 20 trading days. Another is to take the maximum VU for some specific period of time.

Finally, one might use the median value for VU for some specific period of time. The period of time, you select should be associated with the time frame you typically use. Someone might take a position with the intent of only holding it for a few days and elect to use a time period of 5 days to calculate VU. Another person might take a position with the intent of holding it for a few months and elect to use a time period of 60 days to calculate VU. In short, this calculation must be an individual decision.

After settling on how you will determine VU the next choice is how much elasticity to give to the value. The easiest choice is to simply use the computed VU but elasticity can be added by taking the standard deviation of the daily range values for the selected time period and them adding multiples of the SD to VU. For example, if VU is $1.45 and the SD is .15 then adding one SD would give you $1.60, two SDs would give you $1.75 and adding three SDs would give you $1.90. Let's call elasticity determined using SD a standardized VU (SVU). Once you have the SVU, you can compute position size.

Step Four: Position size is now fairly simple to determine. If your risk per position is set at $500 and your SVU for the stock XYZ is $1.75, you should buy approximately 285 shares of the stock (500/1.75 = 285). If the stock is selling for $55.75 per share when you enter the position, you will have $15,888.75 of the $100K sample portfolio in XYZ and have established one of your ten potential positions.

Step Five: In this step you need to set a stop loss price based on your SVU value. This will hold any loss to approximately the criterion level set. The initial stop loss price is simply the purchase price minus the SVU value. Thus, in the example for XYZ the stop loss price would be $54 ($55.74-$1.75 = $54). You should be aware that a stop loss order might not execute at exactly the price set. In short, there is often some slippage. Usually, slippage is not a big factor and will result in minor variations from the stop loss price. However, there can be extreme circumstances where the slippage will be large. For example, I once had a position open down 25% from where it closed the night before, which was significantly below the price on my stop loss order. There kinds of events are not common, unless you customarily take positions in very volatile stocks.

Step Six: Now that you have computed a SVU value, you can use this value to set potential take profit prices. You can do this by adding multiples of the SVU to the purchase price. For example, if SVU is $1.75 and the purchase price is $55.75 then adding one SVU would give you $57.50; two SVUs would give you $59.25 and adding three SVUs would give you $61.00, and so on.

A further elaboration on the above method is to make it adaptive. You can make the stop loss computation adaptive so that the recommended exit price rises as the stock rises and becomes similar to a trailing stop price. You can also link the exit price to the take profit price so that once significant profits have been obtained the computed exit price adjusts to protect those profits while allowing some room for continued growth.

Step Seven: To make the stop loss price adaptive, you must compute a new stop price each day by subtracting the SVU from the day's price. You could use the high price for

the day to compute this value, the closing value or an average of the open, high, low, and close price. I favor the average price but either of the other two can be used. The biggest problem with using the high is the possibility of getting a spike in price such that when a new stop loss price is computed using the high the new stop loss price exceeds the current price. In short, it is useless because it can't be implemented. This can happen even using an average price, but it is less likely. As new stop loss prices are computed, the exit price is always the highest stop loss price computed since the position was entered. If a stop loss price is computed that is below the base stop loss price set at entry, the lower price is ignored.

Step Eight: To link the exit price to your take profit targets, you simply shift to use of stops based on the take profits prices once you've achieved the first target price. Thus, the exit price is now oriented to protecting profits rather than limiting loss. In the earlier example, the SVU was $1.75 and the first profit target was $57.50. Once your position has reached or exceeded the first profit target, compute an exit price based on that value. Before doing the computation, you need to decide what percent of profit you're willing to risk for further potential up side movement. To illustrate, let's set that risk at .5 or 50%. You may also want to consider using a progressive scale so that as profits increase the amount risked decreases. Let say that the stock closed last night at $57.56. Half of the SVU value would be $.875, which rounds to $.88. Thus, the new exit price would be $56.68 ($57.56-$.88 = $56.68), which protects half of the profit achieved to date.

A position management program such as this can be set-up in a spreadsheet so that the computations are updated automatically. I use such a spreadsheet myself and may make a version of this spreadsheet available through this page at a future date. Anomalies will occur sometimes due to unusual circumstances in the markets or due to the way one has configured parameters in the spreadsheet. Common sense should always inform the use of a system like this rather than applying it blindly. For example, if the spreadsheet may give you a new stop loss or take profit price of say $39.67 and you go to your broker to change your stop loss order the next morning and the price for the stock is at $39.71. In a case like this it would be almost pointless to change the order to $39.67. You should probably make a judgment to leave the existing and lower stop price in place, make an adjustment in the stop price before changing it or go ahead and execute the sale of the issue.

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