Lecture №15

Risk Management

The development of the fundamental and technical analyses methods is a necessary condition for being successful at the financial market, but it is not the only one. Sufficiency is achieved through the effective management of capital, which is understood as the cumulative actions of the trader related to risk management and money.

If money management is primarily directed at profit maximization, then risk management is all about minimizing the setbacks. Below we will consider these two aspects in more detail.

The control over risks is an essential part of successful trading. Effective risk management requires not only a close examination of risk proportion, but also a strategy for minimizing losses. Understanding how to control the risk proportion allows both the newbie and the experienced trader to continue trading even when contingent losses arise.

As each deal is exposed to a certain degree of risk, the application of definite general principles of risk management will reduce the potential loss. Some of the adopted axioms of risk control are described below and can be used by everyone who has ever traded or is considering it.

1. Do preliminary homework.

To do your homework before the deal is a responsibility which can never be replaced. Before you expose your money to risk, you should have a well thought-out reason why you want to buy something someone is selling. You should be clearly aware of the financial risks you may be confronted with at any time. The homework includes an estimation of potential losses, in case the market starts moving against you by 5, 10 or 20 per cent. Doing a preliminary homework before trading can also help you work out the worst possible result and the potential exposure to risks. You can reduce the risk if you restrict the number of deals depending on how much research you can do.

2. Create a trading plan and observe it.

Every trader should create his/her own trading methodology. The methodology or trading model can be based on the fundamental or technical indicators, or on a combination of both. The methodology should be tested and processed when it does not show the required long-term positive result. Before you invest money, make sure that your trading methodology is reasonable and profitable. An important part of your trading plan consists of setting the limits of the amount of money you can lose. If you reach this limit, exit the position. Observe your trading plan and waive any impulsive deals.

If you do not follow the plan, then you do not have it.

The trading plan helps you to identify and evaluate the key factors which have an impact on your deals and may be an important educational tool for future deals. A reasonable trading plan will also inspire in you an essential sense of confidence. At the same time it is unlikely that, having in possession a definite plan, you will trade impulsively. However, you should not blindly follow the trading plan. If you do not understand how the market acts or if your emotional balance is slightly broken, you should close all positions. When creating your own trading strategy do not invest on the basis of market advice or rumors. Your money will be at risk. Before starting a trade, do the preliminary homework and think over your own deals' verification.

3. Diversify.

The risk portfolio is reduced by diversification. Do not invest all of you money in one deal. Diversify the amount of risk, trading on one position no more than 5% - 10% of your capital assets. To be effective, the diversification must include the tools according to which you will find out the correlation (namely, how the prices of those tools are moving at the same time). For example, if you are in a long position on the EUR/USD and in a short one on the USD/CHF, then in fact you do not have two positions. Indeed, these tools are highly correlated (the values of their price movements are very similar) and in reality you have one position with a double risk. This is essentially the same as two positions on one of these markets. Closely check the relationships between all your positions, re-evaluate and check for errors your portfolio. Predetermined stop-orders restrict the size of the risk and reduce your losses on the fast-moving markets.

4. Do not invest all your money.

Before finishing the deal, make sure that you have a fair amount of capital assets to pay as compensation for an unexpected loss. If a possible deal suddenly seems to be profitable, then perhaps you are too optimistic. Usually markets are rarely as good as they might seem at first glance. If the market suddenly turns down, then it is reasonable to have certain capital handy to compensate for modest losses or margin call. Some capital can be segregated for additional purchases to reduce stress and lower the necessity to assume extraneous risks.

5. Use stop-orders.

Predetermined stop-orders restrict the risk rate and reduce your losses in the fast-changing markets. Adopt a strict rule of stop-loss. For example, get out of the position quickly if you lose 5% -7%. Even the most experienced traders use stop-orders to limit the risk rate. Develop the habit to get out of trades if your plan does not work. Stop-signals are needed to protect you. Use them when you start trading. Some traders use stop-signals according to the time. If the market behaves itself as you have not expected, exit the market, even if you do not lose money. Using top-signals is a reminder that you must exit the market if you are not sure what is actually happening there.

6. Trade according to the trend.

It is unlikely that you will suffer a loss if you follow the market trend. The market direction does not matter as long as you have an open position on the existing trend. If you open a failed position, then you will have to systematically reduce the risk rate.

7. Concede to the probability of error and incurring losses.

An important aspect of risk control is the ability to admit that you are wrong and come out of the game quickly, even if it means losing money. Indeed, the best traders suffer losses from time to time. But we all hate to admit our mistakes, so it is difficult to follow this rule. The axiom is simple: let the profit increase and reduce the losses. Try to decrease the risk rate if the market moves against you. Do not add to a losing position, hoping to compensate for a loss. If you do not understand what the market is doing, exit the deal. Also you do not have to conclude another deal immediately after a losing one with a view to draw back the losses; it is necessary to take a break first.

8. Trade with taking protective measures.

One trader suggested a great idea about the trade in football terms: "The most important rule of trading is to play superbly in defense, but not greatly in attack." Think first about what you can lose and compare it with a possible prize. It is better to take into account the possibility of negative events development in advance and make a plan, than to change everything after the act. Always admit the idea that the market can start moving against you and be ready for this in advance. Calculate the maximum possible usage of the credit. If it is necessary, correct the stop-signal levels where it is more suitable. Create a plan for exiting the market. In this way when the market starts moving against you, you will be ready for it. Protect what you have.

9. Do not trade too much.

Reduce the risk by decreasing the amount of deals and maintaining smaller stakes. Be critical to the risks you are exposed to. Limit the amount of deals by one of them, the more attractive one. This forces you to do a preliminary homework and reduce the risk to make impulsive and emotional transactions. Since the number of deals will be lesser, you will be more patient. Fortunately, a smaller number of transactions also reduces the amount of commission you pay.

10. Control your emotions.

All traders from time to time go through severe stress and suffer losses. Anxiety, frustration, depression and sometimes despair are part of market trading. As part of risk management one must develop the ability to control these emotions. Do not let emotions control your trading. Focus on what you are doing. Trade on the basis of informed, rational decisions instead of emotions and fantasies. Communication with other traders is one of the ways to maintain such control over your emotions. Other traders understand the challenges you have faced and can provide important emotional support when you are discouraged. This

can help you understand that you are not alone and that others are faced with similar problems and have worked through them.

11. If you are in doubt, close your positions.

Individual doubts suggest that there is something wrong with your trading plan. Quickly exit the market if:

- the market behaves irrationally;
- you are not sure about the position;
- you do not know what to do.

Before exposing your money to risk, you should be completely sure what you are doing and that you will be lucky.

The basis of risk management consists of four steps:

1) Complete understanding of the risks that the deal is exposed to.
2) The lifting of the risks that are unnecessary, if it is possible.
3) Be aware of the risks the deal may be exposed to.
4) Act quickly to reduce the risk rate if the market moves against you.

Below we will consider an example of a risk profile and managing your own funds (account). This should be known by any person wishing to start trading on the world financial market.

The suggested figures are only the example for an ideal deal or for a training account at its best. There can be rather different variations of the suggested positions in practice. However, the planks of risk profiling have to be strictly endured.

Let's first examine the question about the amount of primarily deposited funds. The traditional and only answer to this is ‘the more the better.’ But this answer is probably not specific guidance for opening the account. Usually the balance between the risk capital assets part (that part which you can lose) and the invested sum is 1:10. This is a result from the general theory of western financial markets. It is correct - if you can afford it, but basically in real cases this balance is not exactly doable. A balance of 1:5 or 1:3 is used more often (and more rationally). The more rational recommendation is to take the sum which you can allow yourself to lose as a starting point. For example, if you are ready to take a risk on approximately USD 2000, then the sum of primarily opened account can be from USD 6000 to USD 10 000. If you are ready to risk only by USD 1000, then the amount of an account will fluctuate from USD 3000 to USD 5000 respectively, and so on.

As a rule, the leverage 1:100 is offered on the Forex market and the standard lots are presented in the amount of 100 000 US dollars, euros or pounds. The margin call conditions fluctuate between 70% of the amount of the guarantee for one open position (if there are several positions, then the sums are combined) and the forced closure of positions when the amount of the guarantee drops to 3-5% of the required one. Spreads are usually about 3 to 10 points on base currencies and 5-15 on cross-rates.

We would base all of our further calculations and examples on the statement that the volume of primarily deposited funds amounts to no less than USD 5000 and that you are ready to take a risk by approximately USD 1500. In other words, you did your first calculations:

- the amount of the account — USD 5000,
- the level of maximum losses — USD 1500.

Naturally, any changes in balances in favor of risk capital decline, for example up to USD 1000, are welcome.

The leverage and margin call level.

If you strongly intend to abide by your own rules and calculations, then the leverage rate and margin call will not have such a principal meaning (that is, opening only one position long before reaching this level). Generally we can suggest the leverage 1:100 (standard) and a margin call level of 30% for our approximate account. In other words, if you have one open position on the account of USD 5000, the floating loss will come to USD 4700, you will be asked to deposit additional funds. The margin call level will amount to USD 300. The results of the second round of calculations are the following figures:

1. the account rate — USD 5000,
2. the maximum losses level — USD 1500,
3. the leverage rate — 1:100,
4. the margin call rate — 30% of the actual balance of funds in the account.

The cost of standard lot point.

The next step consists in one point value determination of different currencies. Surely, with the change of the currency rate, the value of one point will vary, but only a change of at least 300-400 points can be considered a significant one. One point for 100 000 in the Euro and pound contract will cost equally — USD 10, as both these currencies have a direct quotation against the US dollar and contracts are usually quoted in the amount of GBP 100 000 and EUR 100 000. The point cost for the Swiss franc and the Japanese yen will come to 10 units of the base currency which then should be transferred into dollars, namely to normalize according to the current currency rate.

Thereafter, the cost of one point lot 100 000 dollars against the Swiss franc will cost approximately $6, but against the Yen will be nearly $8.5. The cost of one cross-rate point is similarly calculated — 10 points of the base currency, which further transfer into US dollars.

Average and maximum losses for one position.

According to the general recommendations of control over risks theory, you have to dispense the whole (maximum) sum of possible losses for your account to three entries at least. This is the theory. In practice it will be better to have four or five outlets, even ten if possible. At this step you should correlate your trading system opportunities. You need to

decide how close, according to the trading system's signal for exiting a losing position, you will put the stop-loss.

It is desirable to determine the amount of maximum possible loss from one position on high-yielding currencies such as the Euro and the British pound, and also the amount of the average loss for less expensive currencies such as the Swiss franc and the Japanese yen. For example, we can lose $375 on average for one usual position and $500 more for the most high-yielding currencies. To be more exact, we are able to afford losing twice $330-350 and once - $500. Considering the definite currencies it means on average about 30-35 points on the pound, approximately 40 points on the Japanese yen and nearly 55 points on the Swiss franc. Assuming the maximum losses on one position, it is 50 points on the Euro and the British pound, 60 points on the Japanese yen and 80 on the Swiss franc. Thus, we conclude the third step of our calculations. Now we have:

- the account rate — USD 5000,
- the maximum losses level — USD 1500,
- the leverage rate — 1:100,
- the margin call rate — 30% from the actual balance of funds at the account,
- the average level of losses on one position — USD 330 — 350,
- the level of maximum losses on one position — USD 500.

Profit.

According to the theory of risk and capital assets management, the profit encumbered on one position should be at least 300% of the possible losses (the upper limit obviously has no fixed restrictions). Consequently, from each position we have to expect the threefold profit rather than the possible loss: on average it is 90-100 points on the pound and the Euro, 120 points on the Japanese yen, and 150-160 points on the dollar-Swiss franc position. In fact, having such a small account makes it rather difficult to adhere to proportions, so some flexibility is permissible: do not encumber a balance less than two to one. For example, the profit is appointed to be twofold more than the set stop-loss. However, according to the risk-to-reward ratio, it is better not to experiment. In other words, it is better not to fall below the ratio of 1:2. As a result of these calculations, we have:

- the account rate — USD 5000,
- the maximum losses level — USD 1500,
- the leverage rate — 1:100,
- the margin call rate — 30% of the actual balance of funds on the account,
- the average level of losses on one position — USD 330-350,
- the level of maximum losses on one position — USD 500,
- the minimum profit level on one position - from 600 to 700 US dollars.

In all of these calculations you have to make a correction on the spread, on commission payment if the position is kept for a night, which can be thrice more if the payment is for Friday, Saturday and Sunday. The main principles according to which all of the above-mentioned estimates were done should remain unchanged. However, a rather wide variation of the main indicators in accordance with the tactics of your trading are permitted. For example, to encumber a profit of 150 points on the Swiss franc means to keep the

position for two or three days. If you are an intraday trader this is not suitable for you by any means. Consequently, the whole amount of losses can be divided to three consecutive unlucky days (so that during the further three days you will bear the maximum possible losses) and then to average quantities of income for every day. So if you are going to open and close approximately 5 positions during one day, then the loss rate will be $330-350 per day, the losses on one position will be nearly $65-70. But do not forget about the profit; it should be not less than USD120-140. Or, for example, if you use different tactics of trading - intraday, medium-term (one, two days) or long-term ones (one week), then allot the losses on each definite operation type, keeping one third of the total loss for each activity category. You can, for example, keep one week for intraday trading and count on three-five positions per day.

In mid-term trading — also one week, but only three positions - add some extra rules for self-checking: if during the week your account decreases on three out of five working days, then you will have to stop and think over where your mistake is, even before the margin call or reaching the maximum losses level. There are a lot of options. This is like cooking: the recipe is the same for everyone, but every person cooks in their own way. The main idea is not to cut back on the main ingredients. The principles of risk profiling and capital assets management are the most important ones in any financial market work. As we stated already, the main purpose is not only to make a profit but also not to lose more than was suggested. Only you can provide the safety for your capital assets and the sum of money won. Otherwise, even luck will not help you: if you cannot restrict the losses, then some consequent profit deals will turn to be a regular loss of almost all your funds as a result.

Unfortunately, perhaps due to a lack of experience, these principles are often overlooked. Most traders still consider that the main thing is to guess where the market is going. If you guess right, it will be good for you; if you do not, then you can try to wait - maybe the market will still move to your side? Unfortunately, you cannot hope this would happen on the off chance in real life. The main part of the trader's work is not to admit the worst but to take care of these and other troubles in advance. And if the market moves against you (this will take place very often), then you will be less stressed, because you had anticipated this outcome and provided for it in advance.

Planning how to manage your capital assets will bring you profit only when you follow it. This means that it is necessary not only to carefully plan your deals, as is written above, but to trade according to this plan. If you reach the stop-loss price, then you have to accept this stop. If you find that your trading system steadily gives you stops which worked, then perhaps you need to review the system rules. Otherwise you will be forced to absorb bigger risks than planned, enhancing the chances that a bad trading system will lead you to collapse. Accept the losses when they are small, otherwise they will become bigger. Discipline is of the utmost importance here. It is worse if the market turns and makes the deal profitable, as this would make you psychologically susceptible to making new mistakes. Quickly exit the position and overestimate the situation. If you suppose it might turn, then open a new deal with a new stop. Markets are false and unsteady idols, so hope alone will never help you.

Test

1. What does it mean to manage capital assets?
2. What are the fundamental principles of managing the capital assets?
3. What is ‘risk rate’?
4. According to your rules for managing capital assets, the risk on one deal cannot be more than 5% of the general sum. The account amounts to USD 5000. At what distance (how many points) from the open position should the stop-loss order be placed, if the price of a point is USD10?
5. According to the rules for managing capital assets, you can involve not more than 20% of the available funds in one deal. You have USD 5000 on your account, a fixed margin call — 1000 on one lot, and a leverage of 1:100. What maximum lots volume can you afford when opening a position?