Al-Manara University

جامعة المنارة

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كلية إدارة الأعمال

"Technical Analysis"

Chapter 8

Forex: Margin and Leverage

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Foreign Exchange: Margin & leverage

- ✓ Margin and leverage are among the most important concepts to understand when trading in forex.

- ✓ These essential tools allow forex traders to control trading positions that are substantially greater in size than would be the case without the use of these tools.

- ✓ At the most fundamental level, margin is the amount of money in a trader's account that is required as a deposit in order to open and maintain a leveraged trading position.

Foreign Exchange: Margin & leverage

Leverage

- ✓ Leverage is a feature offered by the broker, to help the traders to trade larger amounts of securities by having a smaller account balance.

  - ✓ **For example,** when your account leverage is 100:1,

    - ✓ That means: you can buy $100 by paying $1. Therefore, to buy $100,000 (one lot), you should pay only $1000.

Foreign Exchange: Margin & leverage

Leverage

- ✓ Excersie:

How much you have to pay to buy 10 lots USD through an account that its leverage is 50:1 ?

- ✓ You have to pay $20,000 to buy 10 lots or $1,000,000 USD:
  - ✓ **$1,000,000 / 50 = $20,000**

Foreign Exchange: Margin & leverage

Margin

- ✓ Margin is calculated based on the leverage, but to understand the margin, let's forget about the leverage for now and assume that your account is not leveraged or its leverage is 1:1

- ✓ Margin is the amount of the money that gets involved in a position or trade.

- ✓ Let's say you have a $10,000 account and you want to buy €1,000 against USD. How much US dollars do you have to pay to buy €1,000?

Foreign Exchange: Margin & leverage

Margin

- ✓ Let's assume that EUR/USD rate is 1.4314. It means each Euro equals $1.4314. Therefore, to buy €1,000, you have to pay $1,431.40:

$$\underline{€1{,}000 = 1000 \times \$1.4314}$$

- ✓ If you take a 1000 EUR/USD long position (you buy €1000 against USD), $1,431.4 from your $10,000 account will be paid to buy 1000 Euro against USD.

- ✓ **This $1,431.4 in this example, is called margin.**

Foreign Exchange: Margin & leverage

Margin

- ✓ Now, if you close your EUR/USD position, this $1,431.4 will be released and will be back to your account balance.
- ✓ Now let's assume that your account has a 100:1 leverage.
  - ✓ To buy 1000 Euro against USD, you have to pay 1/100 or 0.01 of the money that you had to pay when your account was not leveraged.
- ✓ Therefore, to buy 1000 Euro against USD, you have to pay $14.31:

1431.4/100=14.31$

Margin

- ✓ Exercise:

If you take a one lot EUR/USD position with an account with the leverage of 100:1, **how much margin will be locked in this trade**?

One lot EUR/USD = 100,000 Euro against USD

EUR/USD rate: 1.4314 ⟶ 100,000 x 1.4314 = 143,140.0

Therefore: One lot EUR =$143,140.00

Leverage: 100:1 ⟶ Margin=$143,140.00/100= $1,431.40

Therefore, to have a one lot EUR/USD position with a 100:1 account, a $1,431.40 margin is needed, while the EUR/USD rate is 1.4314. This needed $1,431.40 margin is called "required margin"

Foreign Exchange: Margin & leverage

Required margin

- ✓ Numerical example:

Leverage simply allows traders to control larger positions with a smaller amount of actual trading funds.

In the case of 50:1 leverage .

How much is the required margin?

1/50 = 2% margin required, that means: $1 in a trading account can control a position worth $50.

- ✓ To illustrate further, let's look at a typical USD/CAD (US dollar against Canadian dollar) trade.

Foreign Exchange: Margin & leverage

Margin level

- ✓ To buy or sell a 100,000 of USD/CAD without leverage would require the trader to put up $100,000 in account funds, the full value of the position.
- ✓ But with 50:1 leverage (or 2% margin required), for example, only $2,000 of the trader's funds would be required to open and maintain that $100,000 USD/CAD position.

Foreign Exchange: Margin & leverage

Equity:

- ✓ Equity is the account balance plus the floating profit/loss of an open position (short or long position).

Equity = Balance + Floating Profit/Loss

- ✓ When you have no open position, and so no floating profit/loss, then your account equity and balance are the same.

- ✓ When you have some open positions and for example they are $1,500 in profit in total, then the account equity is your account balance plus $1,500.

- ✓ If your positions were $1,500 in loss, then the account equity would be your account balance minus $1,500.

Foreign Exchange: Margin & leverage

Free Margin

- ✓ Free margin is the difference of the account equity and the open positions' required margin:

Free Margin = Equity – Required Margin

- ✓ When you have no positions, no money from your account is used as the margin.
  - ✓ Therefore, all the money you have in your account is free.
- ✓ As long as you have no positions, your account equity and free margin are the same as your account balance.

Foreign Exchange: Margin & leverage

Free Margin

- ✓ Let's say you have a $10,000 account and you have some open positions with the total required margin of $900 and your positions are $400 in profit. **Therefore**:

Equity = $10,000 + $400 = $10,400

Free Margin = $10,400 – $900 = $9,500

Foreign Exchange: Margin & leverage

Margin level

- ✓ Margin level is the ratio of equity to margin:

$$\text{Margin Level} = (\text{Equity} / \text{Margin}) \times 100$$

- ✓ **Margin level is very important**.
  - ✓ Brokers use it to determine whether the traders can take any new positions or not.
  - ✓ Different brokers have different limits for the margin level, but this limit is usually 100% with most of the brokers. **This limit is called Margin Call Level.**
  - ✓ **What does that mean?**

Foreign Exchange: Margin & leverage

Margin level

- ✓ 100% margin call level means if your account margin level reaches 100%, you can still close your open positions, but you cannot take any new positions.

- ✓ Indeed, 100% margin call level happens when your account equity equals the margin.

- ✓ It happens when you have losing position(s) and the market keeps on going against you and when your account equity equals the margin,
  - ✓ you will not be able to take any new positions anymore.

Foreign Exchange: Margin & leverage

Margin level

✓ Example:

Let's say you have a $10,000 account and you have a losing position with a $1000 required margin.

If your position goes against you and it goes to a $9000 loss, then the equity will be $1000 ($10,000 – $9,000), which equals the required margin.

Therefore, the margin level will be 100%. If the margin level reaches 100%, **you will not be able to take any new positions,** unless the market turns around and your equity becomes greater than the required margin.