



# ANALYSIS OF TRADING VOLUME AND ITS USE IN PREDICTING FUTURE PRICE MOVEMENTS IN THE PROCESS OF MAXIMIZING TRADING EARNINGS

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# Abstract

- **Research background:** In our article, we elaborated the theoretical basis of the analysis of trading volume as a tool for predicting the movement of prices of financial instruments.
- **Purpose of the article:** The aim of our article is to explore the possibilities, methods and procedures of analysis of trading volumes and the possibilities of their use in maximizing earnings from trading of financial instruments.
- **Methods:** We used formal methods such as analysis and synthesis of theoretical findings and others.
- **Findings & Value added:** Based on the study of the analysis and synthesis of theoretical data, we identified and described the possibilities of using the analysis of trading volume in the process of predicting the price movements of financial instruments.

# Introduction

- In a deeper study of the methods of analysis used today in the financial market, we will undoubtedly come across efforts to use the analysis of trading volumes as a tool to predict future price movements of financial instruments.
- In general, we can say that the analysis of trading volumes is considered as an advanced and complex prediction tool and is not widespread among investors and traders.
- However, in today's age of modern technology, we see huge progress in the trading of financial markets in the software equipment of traders, which allows the efficient and easy use of even complex and advanced methods.
- In our article we will deal in more detail with the analysis of trading volumes in the financial markets, we will describe the individual procedures and their use in trading practice and then identify the basic advantages and disadvantages of these methods.

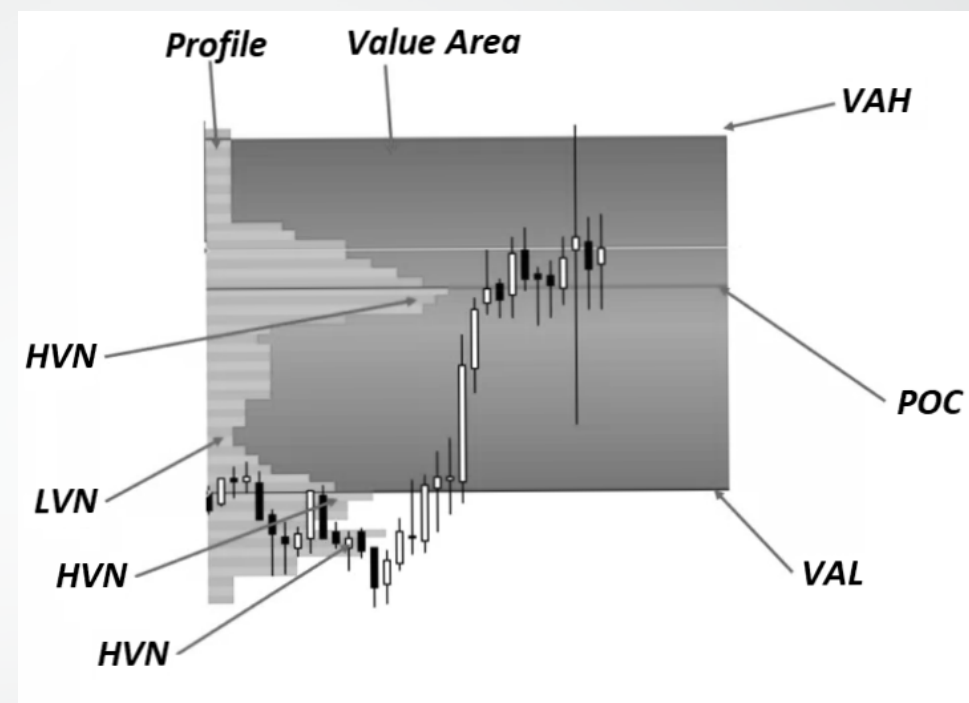
# Analysis and prediction

- International financial markets have undergone various turbulent changes in recent decades. Globalization, and especially scientific and technological progress in information technology, has meant rapid development in the world of finance. The effort to predict developments in the financial markets can be traced back to ancient times.
  - Paragraph 48 of the Chamuraphi Code mentions that in the case of non-harvest, when farmers have losses, the persons with losses (i.e. not only farmers) do not have to pay interest (in the form of grain) for one year.
  - Thales of Miletus, his goal was to prove that using reason can easily get rich. Based on his knowledge of astronomy, he assumed a rich olive harvest, so he bought the option to rent olive presses.

# Market Profile

- Market profile is a method that aims to monitor and analyse the structure of the development of the price of a financial instrument.
- This method is based on Time price opportunity (TPO). The individual TPO market profile is displayed as alphabetical letters.
- Each TPO is plotted on the price levels at which the market traded during a predefined interval.
- The market profile provides the trader with the following specific price areas and identifies them in the price chart

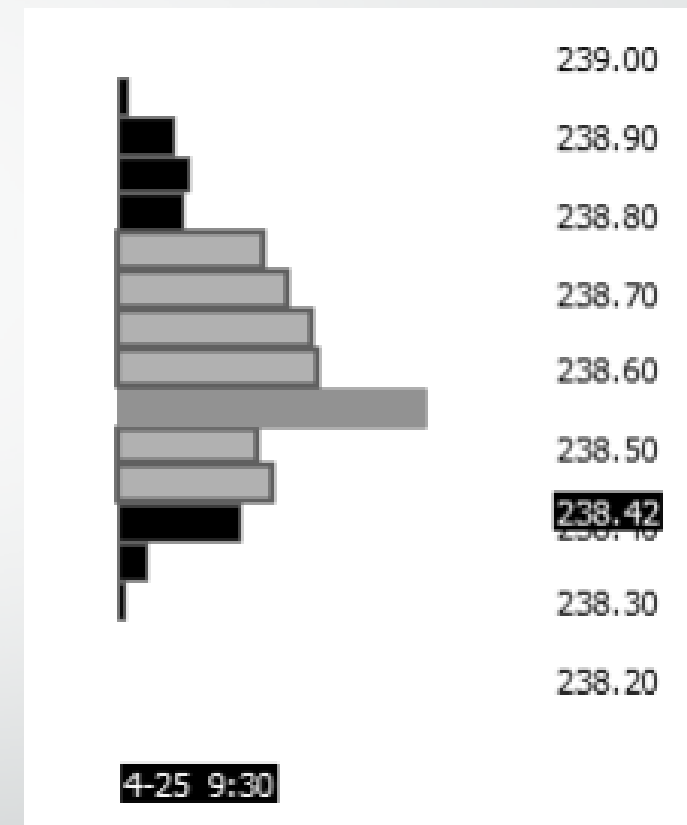
- **Profile** - market profiling according to the time spent at a certain price, or according to the size of the volume.
- **Value Area** - or the area of value, which is the area where the market has spent 70% of its time (or where 70% of the volume has been traded).
- **VAH** - Value Area High, the upper edge of the value area.
- **VAL** - Value Area Low, the lower edge of the value area.
- **POC** - Point Of Control, or fair price (the market perceives this price as fair).
- **HVN** - High Volume Node, ie an area of increased interest of traders.
- **LVN** - Low Volume Node, ie an area of low interest of traders.



# Volume profile

- Based on the study of the analysis and synthesis of theoretical data in the subject area, we can say that the idea of analysing trading volumes depending on price levels through the volume profile is logically based on the Steidlmayer market profile itself.
- Although these two methods may seem almost identical to us, there is a significant difference between them. The market profile does not analyse the trading volume, it focuses on the structure of the market and its price development over time.

- On the other hand, the volume profile itself does not deal with market structures but only with the volume of trades at certain price levels. Graphically, based on the histogram, it shows us the distribution of trading volume in a certain price and time interval.
- It is a continuous curve, again often similar to Gauss's, which interprets how many trades were made at different price levels over a given period of time (for example, one day).
- The basic information that the volume profile generates is the division of price levels into two areas.





# Results

- Based on the study of the analysis and synthesis of theoretical data in the subject area, we can say that the idea of analysing trading volumes depending on price levels through the volume profile is logically based on the Steidlmayer market profile itself.
- From a logical point of view, we can also find this theoretic causality, because the statement that the longer a lot is traded on a given price, the more volume is traded on it, is definitely true, but the flow of orders over time can certainly not be considered linear and this relationship can be disrupted at any time.
- A huge advantage of using the volume profile to predict future price movements of financial instruments is the fact that we are getting to the very micro-level of market functioning. If it is true that the price of a financial instrument can change only in the event of a market imbalance and thus based on the interaction between demand and supply, then the analysis of the realized volume paves the way to identify the equilibrium price, deficit and excess of the financial instrument at a given time.

# Conclusion

- The aim of our article was to explore the possibilities, methods and procedures of analysis of trading volumes and the possibilities of their use in maximizing earnings from trading of financial instruments.
- The first chapter of our article is devoted to the compilation of the theoretical apparatus needed for further research.
- In the following chapters we deal with a detailed description of methods of analysis of trading volumes and their use in trading.
- In the last chapter of our paper, we compared the advantages and disadvantages of the described methods and procedures of analysing of trading volumes. We consider the aim of the article to be fulfilled and we believe that it will be a valuable contribution in the field of research on this issue