



Global financial market and tools for its prediction

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Abstract

- **Research background:** In our article, we dealt with the issue of financial markets, their development and prediction tools.
- **Purpose of the article:** The aim of our article was to provide a brief overview of the path that the financial markets area has taken in the recent past to the present day.
- **Methods:** We used formal methods such as analysis and synthesis of theoretical findings and others.
- **Findings & Value added:** Based on the above-mentioned methods, we developed a clear framework for the development of financial markets, forecasting tools and specified the volume profile method and identified its strong relationship to the functioning of financial markets and the auction process itself.

Introduction

- If we look closely at the financial markets, we can say that they have undergone great and turbulent developments since their inception.
- Rapid changes have occurred especially in recent decades, when, mainly due to scientific and technological progress in the field of IT, financial markets have become faster, more integrated, more interconnected and, most importantly, more efficient than in the past.
- When we start talking about trading on the financial markets, the tools of their prediction are inseparable. As the financial markets change, so do the methods for predicting and analyzing them. In our article, we would like to approach the issue of financial markets, their changes and the tools of their prediction

History of trade

- According to Inna Sarkisyan, trade as a special and independent economic activity began to emerge only at the interface of family and slave society after the separation of crafts from agriculture and towns from villages step back and 5.-8. For centuries, trade throughout Europe has declined.
- P. Musilek states that the development of stock exchanges on the North American continent began at the turn of the 18th and 19th centuries. The official establishment of the secondary organized market in New York dates back to 1792.
- Shortly afterwards, however, the two largest derivatives exchanges in the world were established in the United States, namely the Chicago Board of Trade (CBOT) in 1848 and the Chicago Mercantile Exchange (CME) in 1874.

Modern financial markets

- The financial market is, in short, a set of instruments, procedures and licenses by which free funds are transferred from surplus entities (who own) to deficit entities that want to dispose of them. In simplicity, it is a place of conflict between the supply of free capital and the demand for free capital.
- Thanks to rapid scientific and technical progress, especially in the field of IT, today's financial markets perform their function much more efficiently than in the past. The process of internationalization and subsequent globalization of financial markets has a great deal to do with this.
- Globalization is currently considered a key factor in the further development of the world economy. At the same time, it provokes considerable discussions both in theoretical circles, in government circles, as well as in the whole society.

Financial market prediction

- One of the most discussed areas of financial markets is the area dealing with methods and ways to successfully and as effectively as possible predict future price movements of financial instruments in financial markets.
- The first major academic study to examine technical analysis as an equivalent tool for analyzing the prices of financial assets and predicting future price movements of financial instruments in the financial market was the "Can Stock Market Forecasters Forecast?" By Alfred Cowles III.. The subject of this study was whether 45 professional entities were able to predict future price movements of financial instruments based on the rules of technical analysis

Volume profile

- The profile of market, or "volume profile", has been used relatively recently, sometime in recent decades. It is a kind of technical analysis and its purpose is to show the market in terms of volume distribution at different price levels.
- The basic theoretical idea of this method is to analyze and display the structure of the realized volume of trades of a given financial instrument at a predetermined time horizon and in a predefined price interval.
- Based on microeconomic theories, we can assign certain properties to such an equilibrium price. The most important feature of the equilibrium price is that it is characterized by maximum sales volume. When applying a volume profile, the trader must predetermine certain variables that will partially define the given volume profile and determine its size.

Result

- The histogram is applied to the horizontal axis of the graph, and the corresponding columns of the histogram belong to the individual price levels and the volume that was realized at these levels. The whole essence of financial markets could be called "the search for a fair price".
- Based on a study of the theoretical background presented in the previous chapters of this paper, we can clearly see a huge shift in financial markets from their beginnings to the present day. Although the basic essence of financial markets remains the same, namely to enable and mediate the implementation of individual trades, progress is noticeable in almost every aspect. The biggest changes clearly occurred mainly in the efficiency of mediation and execution of trades in increasing the speed of executions to almost milliseconds, in the process of settlement of orders, especially in clearing procedures, but especially as is evident in the number of analytical tools available to today's traders.

Conclusion

- The aim of our article was to provide a brief overview of the path that the financial markets area has taken in the recent past to the present day.
- In the first chapter of our paper, we focused on trading as such, the history and the current state.
- In the next chapter, we focused on a brief overview of the tools for predicting the price movements of financial instruments.
- In the last chapter, we continued with a detailed description of the Volume profile and its relationship with basic microeconomic processes. Subsequently, based on the methods of formal logic, we formulated the advantages of using this method in the practice of predicting the price movements of financial instruments in financial markets.
- We consider the goal of the paper to be fulfilled and we believe it will bring a certain benefit of research in the given area.