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Development of Modern Approaches to Exchange-Traded Financial Asset Evaluation

Desarrollo de enfoques modernos para la evaluación de activos financieros cotizados
en bolsa

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Abstract

In recent years, the accelerated development of the global financial market was the result of the entry of a large number of novice private investors into the market. This circumstance leads to a significant change in financial asset evaluation principles. Estimation of exchange-traded financial asset fair value is one of the most important tasks in modern financial science. However, the importance of methods for the prediction of future prices is constantly changing. The study provides a comparative analysis of fundamental and technical analysis methods, reveals their advantages and disadvantages. Such characteristics of fundamental analysis as profit, income, profitability and the level of debt burden are considered in detail. The degree of their influence on the price of securities is analyzed. After the study, conclusions were drawn about the increasingly narrow use of technical analysis during short-term and investment problem solutions. A prediction is given for a further decrease of fundamental analysis importance as the primary method of assessment. In order to obtain these conclusions, we used statistical data reflecting the dynamics of exchange-traded assets when companies entered IPOs. The data obtained indicate a clear correlation between a business's innovation component, market share, and price. At the same time, the company profit has finally ceased to be the main characteristic of the business during its assessment. Additionally, they studied the relationship between the fairness of exchange-traded asset evaluation and quantitative easing (QE) programs. Conclusions are made about the need to increase the forecast prices in the case of a soft monetary policy application.

Keywords: financial assets; securities; IPO; stock market; price forecasting.

Resumen

En los últimos años, el desarrollo acelerado del mercado financiero mundial fue el resultado de la entrada de un gran número de inversores privados novatos en el mercado. Esta circunstancia conlleva un cambio significativo en los principios de evaluación de activos financieros. La estimación del valor razonable de los activos financieros cotizados en bolsa es una de las tareas más importantes de la ciencia financiera moderna. Sin embargo, la importancia de los métodos para la predicción de precios futuros cambia constantemente. El estudio proporciona un análisis comparativo de los métodos de análisis fundamental y técnico, revela sus ventajas y desventajas. Las características del análisis fundamental como la ganancia, los ingresos, la rentabilidad y el nivel de carga de la deuda se consideran en detalle. Se analiza el grado de su influencia en el precio de los valores. Después del estudio, se sacaron conclusiones sobre el uso cada vez más limitado del análisis técnico durante las soluciones de problemas de inversión y a corto plazo. Se da una predicción para una disminución adicional de la importancia del análisis fundamental como método principal de evaluación. Para obtener estas conclusiones, utilizamos datos estadísticos que reflejan la dinámica de los activos negociados en bolsa cuando las empresas ingresaron a OPI. Los datos obtenidos indican una clara correlación entre el componente de innovación de una empresa, la participación de mercado y el precio. Al mismo tiempo, el beneficio de la empresa finalmente ha dejado de ser la principal característica del negocio durante su evaluación. Además, estudiaron la relación entre la equidad de la evaluación de activos negociados en bolsa y los programas de flexibilización cuantitativa (QE). Se llegan a conclusiones sobre la necesidad de incrementar los precios de pronóstico en el caso de una aplicación de política monetaria blanda.

Palabras clave: activos financieros; valores; OPI; bolsa de Valores; previsión de precios.

Introduction

Recently, classical fundamental analysis began to gradually lose its significance, while the subjective predictions of individuals began to play an increasingly important role in evaluating stocks. The opinion of popular financial bloggers has become so significant that even some of their statements can significantly affect the change of large companies and entire industry market value.

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In modern economics, the attempts to determine the most accurate value of public companies have always been relevant. To obtain a short-term result, technical analysis data was used, while the data of a fundamental approach had an undeniable advantage over long periods of time. For example, the companies receiving losses were previously extremely rarely considered as attractive for investment, while now, the overwhelming majority of IPOs conduct unprofitable technological business services.

Previously, when predicting the value of shares in absolute terms, traditional benchmarks were traditionally used, such as company revenues, profits, the level of debt burden, and capitalization. At the same time, EBITDA, profit, and cash flow margins were mainly considered as relative indicators of efficiency and investment attractiveness.

A modern private investor has become more selective; he is interested in the company's business profile, concern for the environment, and usefulness to society. At the same time, investors are ready to pay a significantly higher price for participation in the capital of such companies, which consequently leads to their securities value increase.

This study aims to determine the most significant criteria for exchange-traded financial asset evaluation based on current trends in the world.

Literature Review

The problem of changing the principles of security fair evaluation is fundamental. The evolution of approaches to forecasting has become a separate area of scientific

research. The solution to this problem is successfully addressed by domestic and foreign scientists, whose main task is to monitor modern trends affecting stock market quotes.

The study of the fundamental analysis principles was carried out in the works by Zavodovskaya & Protas (2020), Tailak (2018), Edilbaeva (2015), Seroshtan (2015), and Imamzazina (2019).

The issues of intellectual capital and social responsibility of business influence on the fundamental financial characteristics of organizations are reflected in the works by Miroshnikova & Taskaeva (2018), Miroshnikova & Taskaeva (2019), Salova (2018), and Koikova (2019). The authors assessed the factors that have a significant impact on the activities of sectoral business structures.

Such scholars as Azieva & Sadulaeva (2020), Shuklina (2019), Gorelova. (2019) studied the issues of exchange-traded financial asset assessing and forecasting. Modern and classical approaches to the evaluation of securities are considered in the works of scholars.

The need for research of the relationship between the movement of exchange prices and the change in approaches to their forecasting determined the choice of the article topic, the logic of disclosing conclusions, and the format for statistical data analysis.

Methods

The methodological basis of the study was the analysis of exchange data covering the main parameters of the global financial markets, including the main characteristics of the most relevant IPOs. They performed a retrospective analysis of domestic and foreign security quotations, sectoral and national indices, as well as exchange-traded funds. The data used in the analysis made it possible to obtain many conclusions, estimates, and forecasts necessary for deeper research in the future.

Results

As a result of the pandemic 2020, the prices of global financial assets have declined worldwide. The decline of prices looked quite natural given the fact that the future profits of many companies have tended to decline. Several analysts talked about the beginning of the global recession and the downgrading of forecasts for the prices of global financial assets. Such conclusions, at first glance, looked very logical since the profits and incomes of most of the world's companies have actually declined.

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Indeed, the financial performance of companies has always been the basis of fundamental analysis. World rating agencies lowered forecasts of future incomes of the most important sectors of the economy everywhere and began to point to a significant increase of investment risks. A number of indicators of technical analysis, as a rule, indicate the emergence of a profitable acquisition of financial asset possibility when their prices fall (Miroshnikova et al., 2019).

The development of technology for distance trading in financial assets has led to a significant increase of private investors around the world; this is especially noticeable in such countries as the United States, China, and Russia. Private investors have the greatest propensity to purchase securities when their price decreases (Koren & Pustovarov, 2018).

In a number of cases, this has led to the unjustified growth of fundamentally weak companies operating in the air transportation, tourism, and entertainment sectors. Moreover, contrary to expectations, all major stock indices in the world began to grow in April (Figure 1)

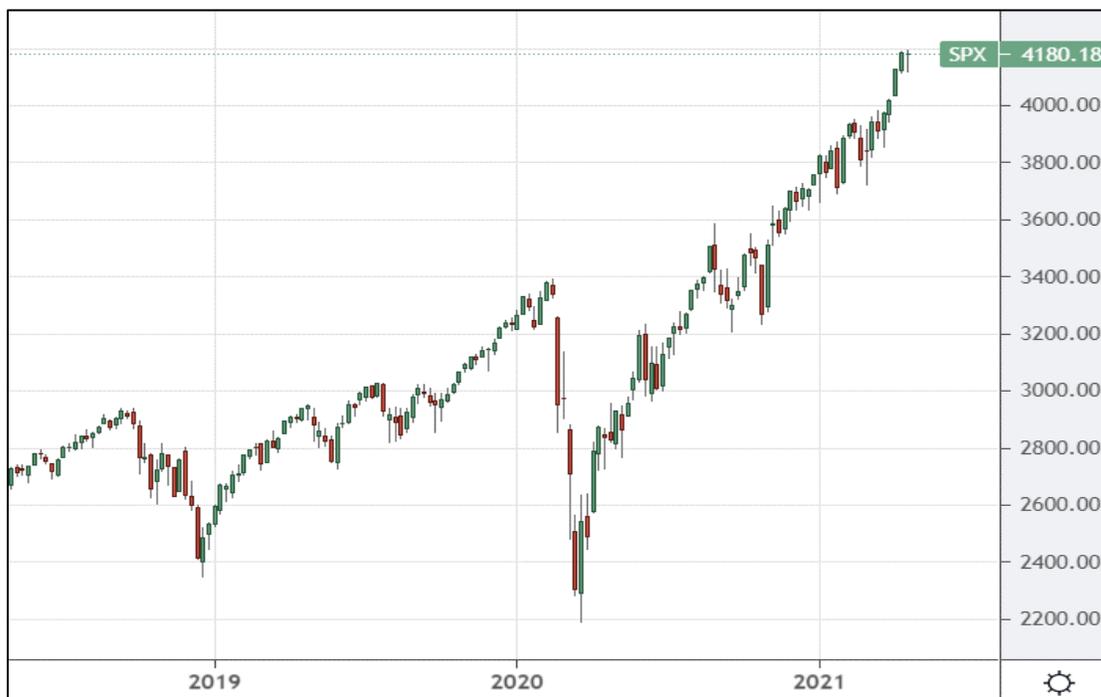


Figure 1. Dynamics of the S&P500 index before and after the pandemic

However, at present, the importance of technical analysis is not so great. In most cases, technical analysis is used for short-term planning horizons, so large investors attach decisive importance to fundamental analysis, which examines the main financial indicators of a company over a given period. In fact, when assessing the value of a business, the indicators of revenue and earnings per share (EPS) dynamics are taken as a basis. At the same time, the fair value of a financial asset can be significantly adjusted based on the relative indicators of fundamental analysis. First of all, these include indicators of profitability, the level of debt burden, and a dividend yield of a corporation.

In a pandemic, the main problem of fundamental analysis is the difficulty of business financial indicator dynamics prediction. Thus, most analysts were convinced that the closure of amusement parks and hotels will inevitably lead to significant losses for Disney. In reality, the company losses turned out to be extremely small due to the rapid development of video services and their subscribers' number. On the contrary, the utility sector, traditionally considered defensive, showed significant stagnation in key indicators. In fact, we are forced to admit that it is not the fundamental analysis itself

that is becoming important, but rather accurate forecasting of its indicator changes in the future.

It should be noted that the governments of most countries have succeeded in adopting important programs of the quantitative economy easing. Such actions are essential for the global stock market. Excess liquidity increases demand even for financial assets that have become less attractive from the point of view of fundamental analysis, and a lower price leads to automatic purchases from long-term investors. Indeed, the share of investors focused on long-term capital investment is constantly growing on the stock market. At the same time, they are not interested in the fundamental attractiveness of security decrease, while the moment of price decline is viewed as a valuable time for making investments or building up positions in risky assets (Spiridonova & Sayfutdinov, 2019).

The emission of liquidity, occurring on an enormous scale, significantly reduces the possibility of using fundamental analysis indicators during investment decision-making. In the case of a low discount rate application, the opportunities for earning income are particularly limited while obtaining a loan to buy shares becomes profitable. Thus, a global indicator such as the Buffett Indicator, which is the ratio of US market capitalization to US GDP, shows exceptionally high evaluations of US stocks. However, many US-based multinational companies continue to grow due to economic expansion outside the country (Figure 2).

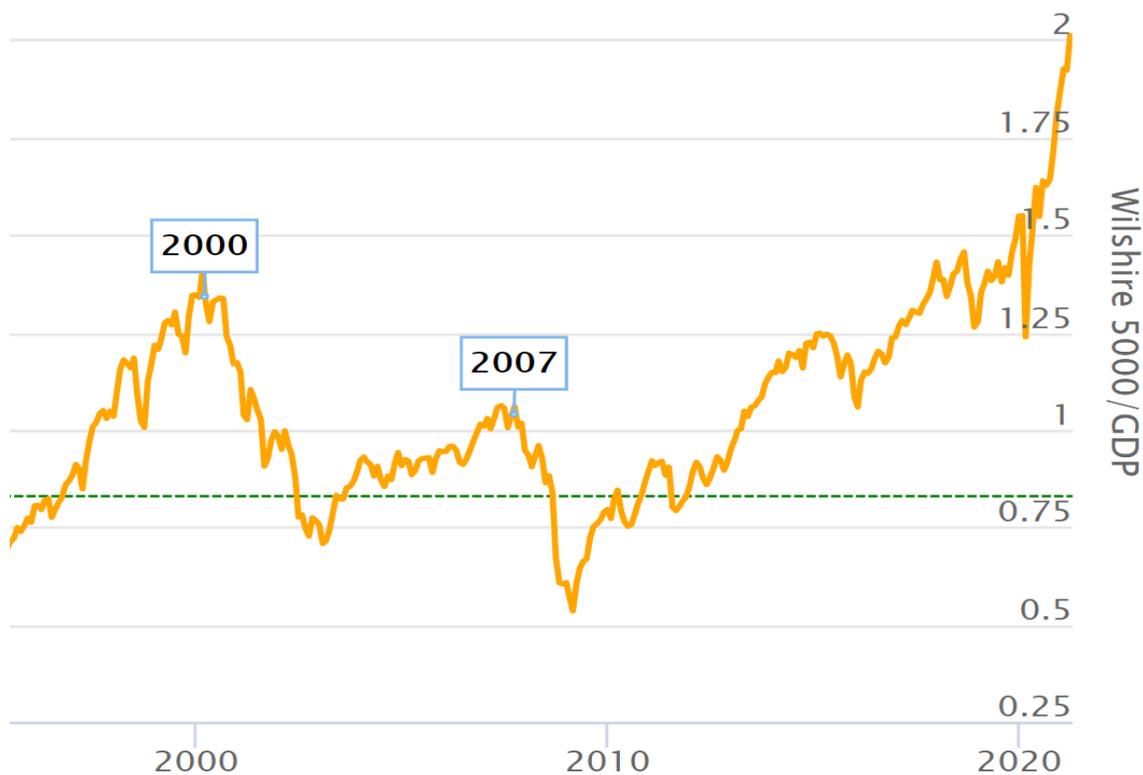


Figure 2. Buffett indicator (the ratio of US market capitalization to US GDP)

It is important to note that fundamental analysis poorly enough considers the innovation component of the business. Its main drawback is that it evaluates the current state of the company instead of the future. The trends of recent years clearly indicate a shift in interest to unprofitable companies with high development potential in the future (Tastulekova et al., 2018).

This approach to high valuing innovative company shares has practically become the norm when conducting an initial public offering (IPO). In recent years, the acquisition of such securities is extremely weakly correlated with the objectivity of their assessment within the framework of the fundamental approach, and on the first day of trading, they almost always grow even with an initially overestimated value (Table 1)

Table 1. Dynamics of innovative company shares that have entered the IPO

Company	IPO date	Price of placement	Opening price	First-day growth, %
TalisQBF	12.02.2021	16	33	106
DecibelQBF	12.02.2021	18	22	22
ApriaQBF	11.02.2021	20	28	40
Signify Health	10.02.2021	24	32	33
Bumble	10.02.2021	43	76	77
Immunocore	04.02.2021	26	41	58
Sana Biotechnology	03.02.2021	25	35	40
Vinci Partners Investments	27.01.2021	18	17	-6
Qualtrics	27.01.2021	30	43	43
Affirm	12.01.2021	49	91	86
Cullinan Oncology	07.01.2021	21	42	100
Wish	15.12.2020	24	20	-17
Upstart Holdings	15.12.2020	20	26	30
BioAtla	15.12.2020	18	30	67
AbCellera Biologics	10.12.2020	20	61	205
Airbnb	09.12.2020	68	145	113
DoorDash	08.12.2020	102	194	90
Ozon	23.11.2020	30	42	40
Telos	19.11.2020	17	22	29
Maravai LifeSciences	19.11.2020	27	32	19

These statistics indicate a clear shift in investor interest from a fundamentally sound evaluation of shares in favor of their popularity, the uniqueness of the product, and financial advisers' opinion. Even unprofitable companies can be so popular among investors that it becomes almost impossible to buy their shares within an initial public offering. Moreover, the analyzed data point to the profitability of such security purchases within the IPO, even at biased inflated prices (Doronina, 2020).

Discussion

The research carried out allows us to draw many important conclusions. The use of standard methods of fundamental and technical analysis continues to lose its relevance. Technical analysis as one of the short-term forecasting of financial asset prices is becoming an even more highly specialized tool. Fundamental analysis continues to be widely used by actively managed ETFs and professional investors. At the same time, an increasing number of novice investors are guided in trading not by the principles of analysis but by the popularity of individual issuers (Bogatyrev, 2020; Terentyeva et al., 2018; Konvisarova et al., 2020).

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The considered model of investment behavior may turn out to be very effective during a period of up to 3 years, but it has several serious risks in the future. Many novice investors do not have sufficient experience in prolonged price declines for a wide range of financial assets. In fact, the behavior of novice investors in this context should be viewed as purely speculative. Such portfolios may be overly volatile and require additional hedging instruments. As a further application of this study results, a broader use of a number of principles of behavioral economics should be proposed.

Conclusion

Modern approaches to the analysis of exchange prices for world financial assets are in constant development. Behavioral economics methods play an increasingly important role in making decisions about a security purchase. At the same time, the companies that are not of investment interest from a fundamental point of view can significantly outperform classical types of business. Novice investors are willing to overestimate the shares of innovative companies, even when the risk is too high.

The stability of profit, profitability, and debt burden indicators is becoming less and less important in the environment where business prospects are not innovative enough from the point of view of the mass investor. The distortion of fundamental business evaluation principles became especially noticeable during the IPO. Unprofitable

companies entering the stock exchange for the first time quite often receive higher ratings for a relatively stable, growing, and profitable business. In this case, it should be noted that the modern investor is forced to expand significantly the range of analytical tools used for exchange price prediction.

References

Azieva, L. D., & Sadulayeva, B. S. (2020). Modern approaches to solve the problem of the stock price prediction. *Trends in the development of science and education*, 63-2, 6-8.

Bogatyrev, S. Yu. (2020). Behavioral Evaluation in Russian and Western Stock Markets. *Finance and credit*, 3(795), 549-564.

Doronina, L. V. (2020). Assessment of the prospects for IPO market development. *Modern Science*, 5-3, 59-64.

Edilbaev, A. A. (2015). Analysis of investment attractiveness as a fundamental factor for the development of the Russian stock market. *Innovation and investment*, 10, 42-45.

Gorelova, D. A. (2019). Modern methods of business evaluation. *Colloquium-journal*, 7-6 (31), 21-24.

Imamzazin, T. R. (2019). Basic methods and models for future stock price prediction. *Science, technology and education*, 10 (63), 63-67.

Koikova, L. N. (2019). Problems and risks of classical approaches to stock evaluation. *Theory and practice of modern science*, 4(46), 102-107.

Konvisarova, E. V., & Levchenko, T. A., & Pustovarov, A. A. (2020). Problems of Statistical Accounting in Russian Price Index Determination. *Reice-Revista Electronica De Investigacion En Ciencias Economicas*, 8(15), 272-285. doi: 10.5377/reice.v8i15.9958.

Koren, A. V., & Pustovarov, A. A. (2018). Development of the bond market in Russia: problems and prospects. *Azimuth of Research: Economics and Management*, 7, 2 (23), 169-172.

Miroshnikova, T. K., & Epifanova, V. I., & Kharlamov, A. V. (2019). Developing a Project of an Integrated Supply Chain Planning and Establishment of Budgeting. *International Journal of Supply Chain Management*, 8(6), 837-844

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Miroshnikova, T., & Taskaeva, N. (2018). Model for assessing the financial potential of the region. *International Scientific Conference on Business Technologies for Sustainable Urban Development (SPbWOSCE)*. 170. 1042. doi: 10.1051/mateconf/201817001042.

Miroshnikova, T., & Taskaeva, N. (2019). Approaches to the assessment the innovation-and-investment projects within the system of Smart City criteria. *Xxii International Scientific Conference: Construction The Formation of Living Environment (Form-2019)*. 97. 1022. doi: 10.1051/e3sconf/20199701022.

Salova, L. V. (2018). Methods of Assessing and Monitoring Investor Appeal of Agricultural Companies. *Rptss 2018 - International Conference On Research Paradigms Transformation in Social Sciences*, 50, 1027-1034. doi: 10.15405/epsbs.2018.12.126.

Seroshtan, V. S. (2015). Fundamental analysis of the stock market. *Management of economic systems, electronic scientific journal*, 11(83), p. 32.

Shuklina, M. A. (2019). Taking into account the additional competitive advantages of public companies when assessing the value of their shares. *Property relations in the Russian Federation*, 2 (209), 66-76.

Spiridonova, E. A., & Sayfutdinov, A. A. (2019). The factors of an IPO effectiveness in the innovation sphere: systematization and management. *Economics and Entrepreneurship*, 5 (106), 992-998.

Tailak, A. E. (2018). Fundamental and technical analysis of the stock market. Actual problems of our time, 2 (20), 119-123.

Tastulekova, A. B., & Satova, R. K., & Shalbolova, U. Z. (2018). Business valuation and equity management when entering the IPO market. European Research Studies Journal, 4, 875-886. REICE | 70

Terentyeva, T. V., & Konvisarova, E. Vi., & Levchenko, T. A., & Borovitskaya, M. V. (2018). Theoretical and methodical approaches for control introduction in the management system of industrial organization. Amazonia Investiga, 7(14), 50-60.

Zavodovskaya, N. I., & Protas, N. G. (2020). Analysis of the investment attractiveness of stocks based on fundamental analysis. Modern aspects of economics, 4 (272), 80-88.