В ходе исследования выявлена недостаточная самостоятельность региональных органов власти и управления в решении вопросов бюджетного планирования. Это также свидетельствует об их неполной вовлеченности в бюджетный процесс как основных распорядителей местного бюджета. Уровень бюджетной обеспеченности в исследуемых регионах остается не очень высоким. Вопрос муниципальных заимствований требует более системного подхода к учету всех потенциальных рисков.

Ключевые слова: региональное финансирование, бюджет, муниципальные облигации, инвестиции, бюджетные изъятия.

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ANALYZIN THE WORTH OF STOCKS THROUGH FUNDAMENTAL ANALYSIS: INSIGHTS FROM THE KAZAKHSTAN STOCK EXCHANGE (KASE)

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ABSTRACT

The purpose of the article is furnishing recommendations for judicious buy or sell signals conducive to informed investment decisions.

The methodology of this article was based on theoretical and empirical research methods: a comprehensive analysis of the value of Kazakhstan stock market, as well as the the utilization of coefficients derived from a multiple regression analysis and the consideration of key value drivers for the KASE Index, as of November 15, 2023.

Originality/value of the research: Nowadays there exists a multitude of misconceptions surrounding the practices of security selection and fundamental analysis, predominantly emanating from the fallacious belief that the entirety of available information is accurately incorporated into security prices. Nevertheless, fundamental analysis retains its pivotal role in evaluating the financial robustness of securities, particularly within the realm of long-term investment strategies.

Conclusion: Based on the analysis of KASE Index stocks with a focus on Earnings Yield (EY), PE Ratio to Price (PEP ratio) as well as B/P ratio, it was found that KZTO KZ and KEGC KZ shares are fairly priced

and it was also found that KCEL KZ and KAP KZ shares have attractive opportunities for investors in the long term. We believe that the information provided is of practical importance for investors and traders who aim to optimise their decision-making process and overall trading strategy.

Keywords: stock price, undervalued stock, value drivers, earnings yield, price earnings ratio, book value

INTRODUCTION

Eugene Fama presented a hypothesis known as the Efficient Market Hypothesis (EMH) in 1970. According to Fama, an efficient market is one in which prices always completely represent the information on the market [1].

Schleifer discusses these suppositions and suggests that for the Efficient Market Hypothesis (EMH) to be true, investors need to be rational in how they value securities. He also points out that if there are irrational investors, their impact on security prices should balance out. Even if irrational judgments occur, Schleifer argues that rational investors would exploit these opportunities, correcting the effects and bringing prices back to their true value [2].

According to Fama, the implications of the EMH suggest that not only is historical data unimportant, but it is also not worth examining reports or seeking insider information [1]. *This is because any obtainable information is already reflected in the stock price. This is because the stock price is already the reflection of any obtainable information.*

If the Efficient Market Hypothesis holds true, then research on value investing, including stock portfolios with low P/E and P/B ratios, should not yield significantly greater gains. This is because the pricing of these equities is expected to factor in future profits, resulting in no substantial risk-adjusted returns.

Supporters of Behavioral Finance generally agree that if stock prices accurately reflected their intrinsic value, there wouldn't be opportunities for returns. However, their divergence lies in the belief that irrational investors often influence the market, leading to prices that seldom mirror the true value of a company [3].

In the field of behavioral finance, proponents highlight various ways in which investor behavior disrupts the Efficient Market Hypothesis (EMH). Research by Kahneman and Tversky indicates that individuals tend to give extravagant importance to the latest experiences, leading to emotionally charged decisions based on limited data [4]. This phenomenon is evident in the misjudgment of the P/E ratio, where investors project earnings excessively based on recent events. Consequently, stocks with high P/E ratios may be overvalued due to inflated earnings expectations from recent developments, and vice versa for stocks with low P/E ratios [5].

Investors may also display biases in information processing through sample size neglect and representativeness [3]. Chopra et al. found that stock prices for companies with strong recent performance were lowered when earnings reports were released [6]. The debate on why stocks became overvalued stems from applying patterns inferred from too small samples to stocks with the latest favorable results. This resulted in a price surge that was adjusted when an earnings report did not align with the stock's intrinsic value [6].

According to De Bondt and Thaler, alternative behavioral preconception that many investors exhibit is regret avoidance, in which investors lament a stock losing value more if the stock is unusual [5]. This suggests that a stock with a low future predicted performance (for instance, a firm with a low P/E or P/B) outperforms a stock with a high price compared to its book value or earnings. As a result, investors avoid equities with low P/E and P/B ratios, causing them to be underpriced [3].

Numerous instances exist within the body of research wherein both the general populace and investors, in particular, exhibit conduct incongruent with the postulates of the Efficient Market Hypothesis (EMH). The collective findings of these studies consistently suggest the presence of avenues for achieving atypical returns within the stock market [3].

Modern Portfolio Theory (MPT) constitutes a structured framework devised to optimize returns given a specific level of risk or, conversely, to minimize risk for a predetermined level of return [7]. The theory posits that the attainment of such objectives is facilitated through diversification, a strategy aimed at alleviating unsystematic risk inherent in the ownership of a limited number of stocks characterized by significant correlation [7]. Markowitz further delineated the theory into two primary components, the first of which is grounded in a statistical concept [7]. This involves the representation of portfolio returns, comprising multiple stocks,

whereby the expected return of the portfolio is derived by aggregating the product of the weight assigned to stock A and its corresponding expected return, along with the product of the weight designated for stock B and its anticipated return [8].

$$r_p = W_a r_a + W_B r_b \quad (1)$$

where,
r_p – the expected return of a portfolio;
W_i – the weight of each investment in the portfolio;
r_i – the rate of return of each investment in the portfolio.

The alternative idea relates to how investors look at risk, specifically highlighting that they would be willing to take on a certain level of risk if the expected returns are considered satisfactory. To calculate the risk for this portfolio, you would approach it in the following way:

$$\sigma_{P,} = [W_A^2\sigma_A^2 + W_B^2\sigma_B^2 + 2W_A W_B \sigma_A \sigma_B \rho_{AB}] \quad (2)$$

where,
v_p – stands for the portfolio risk;
W_i – the weight of each investment in the asset i;
v_i – the standard deviation of return of asset i;
u_i – the correlation coefficient of returns between the aseets.

In this situation, how much risk (represented by the standard deviation, σ) exists in the portfolio depends on the assigned weights to the assets, the individual variance (σ^2) of each asset, and the combination of the standard deviation of the assets along with the correlation coefficient between them (ρAB). The critical aspect of risk diversification in this framework lies in the interdependence among stocks. The rationale underlying this strategy is that in the event of adverse developments impacting a company or sector, resulting in a decrease in the stock price of a particular asset in the portfolio, the price of another correlated stock in the portfolio will similarly decline. However, if the second stock lacks correlation with the first, it remains unaffected. Essentially, a portfolio characterized by a multitude of stocks exhibiting minimal positive correlation effectively mitigates unsystematic risk [8; 9;].

Arnold asserts that investors perpetually seek shares with the capacity to generate value, implying the necessity for investors to scrutinize the market in order to identify undervalued stocks with the potential for capital appreciation [10]. Graham & Dodd are credited as trailblazers in the realm of value investing theories, contending that investors can meticulously analyze a company's financial statements to discern stocks that are undervalued and merit investment [11].

Underpriced stocks typically display a lower market price in comparison to fundamental metrics such as book value and earnings per share [12]. Value premiums represent the extra returns generated by these undervalued stocks over a specific period [13]. This trend of excess returns has been observed since the 1980s and is expected to continue, given the careful selection of appropriate stocks. In simpler terms, undervalued stocks are expected to provide higher expected returns, a concept initially presented in a key paper titled "Persuasive Evidence of Market Inefficiencies" by Rosenberg, Reid, and Lanstein [14].

Rosenberg et al. noted in their groundbreaking work that stocks trading at lower prices relative to their fundamental value consistently yielded higher risk-adjusted returns, challenging the notion of an efficient market [14]. Fama and French further explored this by analyzing the risk-adjusted returns of US-listed equity securities from 1963 to 1991, discovering that undervalued stocks outperformed market predictions [15]. Over this period, they identified a significant annual value premium of nearly 4.9% associated with undervalued stocks.

Moreover, Fama and French assumed that undervalued stocks are subject to specific systematic risks which are different than other stock types [15]. Consequently, this resulted in formulation of the influential three-factor model for asset pricing, incorporating independent risk. In a subsequent study, Fama and French through

their analysis of the value premium between US stocks and the market from 1926 to 1963, they concluded that with a difference of 2.39 %, US stocks have always outperformed the market in terms of annual returns [16].

Collectively, these findings strongly support the presence of market inefficiencies and underscore the importance of choosing undervalued stocks for investment purposes [17]. Consequently, investing in financial markets is largely rooted in a valuation paradigm. Existing literature extensively documents that stock market valuations serve as reflective indicators of fundamental value drivers, including metrics such as price-earnings ratio (PE ratio), earnings per share (EPS), and book-to-market (BTM) ratio [18; 19; 20].

Fundamentally, the valuation of stock markets predominantly relies on metrics such as PE ratios, EPS, and BTM ratios. These indicators serve as essential tools through which financial experts, professionals, and market participants can intuitively assess the relative valuation of the stock market. The ongoing difficulty lies in distinguishing undervalued stocks from those that are overvalued. Therefore, the main goal of this research was to execute a thorough analysis of stock valuations, applying fundamental indicators across global stock markets. The objective was to identify market signals that are helpful for making investment decisions and managing portfolios.

Recognizing the inherent risks associated with investing in stock markets, the pursuit of undervalued stocks becomes imperative. This study specifically tackles the question: Are there undervalued stock markets? Answering this question not only adds to the current literature on managing portfolios and selecting stocks but also provides practical insights into stock market valuation, marking a significant advancement.

The next sections will outline the theoretical foundations through a literature review, followed by the methodology, results, and a detailed discussion and conclusion.

Literature review. Valuing stock markets entails the use of standardized metrics that investors find valuable for predicting future investment returns. In the past, undervalued securities have proven to be an independent source of risk, offering diversification benefits in portfolio management and risk reduction. Numerous studies, especially on US value premium stocks, have explored market research extensively [21; 22; 23]. Additionally, evidence suggests that anomalies in stock markets tend to diminish or disappear after publication [17; 24].

Thus, forming theories solely based on observations of outperforming undervalued stocks is not central to financial theory and lacks meaningful insight on its own. The value of such observations comes to light when paired with a strong theoretical framework. The synergy of experiential evidence and theory permits financial forecasters to make assumptions about the expected behaviour of financial markets. For instance, the assumption that stocks beginning with the letter «A» will continue to outperform the market based on historical trend has no logical or theoretical basis.

According to Fama and French, supporters of market efficiency theory attribute the superior performance of value stocks over growth stocks to the increased risk associated with value stocks [15]. The theoretical foundation for the High Minus Low factor lies in the principle that riskier investments should yield higher expected returns. These explanations are based on market anomalies, which are models or behaviors in financial markets that diverge from the predictions made by classical financial theories such as the efficient market hypothesis. Through these abnormalities, investors are able to generate additional earnings through the exploitation of incorrect prices or inefficiencies [24].

One significant market anomaly is the value anomaly, where firms with lower price-to-earnings and price-to-book ratios consistently outperform those with higher ratios over time, contradicting the efficient market theory. The momentum anomaly suggests that stocks with recent positive performance are likely to sustain such results in the future, while those that have lagged tend to continue trading unfavorably. Despite the increased risk and volatility associated with smaller firms, small-cap stocks have historically outperformed large-cap stocks over extended periods.

Moreover, substantial empirical evidence supports anomalies in the market concerning the risk-reward relationship, attributing undervalued stock premiums to behavioral factors. In terms of risk considerations, undervalued stocks are prone to crisis situations, heightened susceptibility to uncertainties in future profitability, and greater leverage [25]. Additionally, during distress periods, undervalued stocks exhibit greater risk compared to growth stocks, providing investors with compelling financial incentives to anticipate larger projected profits, acknowledging the assumption of higher risk [26].

Piotroski and So identified significant pricing discrepancies in their assessments, presenting a plausible explanation for the mispricing of value companies [27].

The following table 1 provides a summary of preceding research.

Table 1 – Literature review

Author & year of study	Used model	Time period	Main variables	Results
Eriksson, Forsberg & Gustavsson (2011), [28]	OLS regression	2008 – 2011	FCF (Free cash flow), P/E ratio (price to earnings ratio)	Stock price returns can be predicted using PE ratios.
Wafi, Hassan & Mabrouk (2015), [29]	Qualitative study	2015	DDM (dividend discounted model) and DCM (discounted cash flow method) and RIM (residual income model)	RIM appeared to be a more reliable indicator of stock performance compared to the other models.
Muhammad (2018), [30]	OLS regression	2007 – 2017	Liquidity and profitability ratios	In fundamental analysis, these financial ratios help assess the return of an index.
Daniswara & Daryanto, 2019), [31]	OLS regression	2014 – 2018	Price to Book value ratio, EY (Earnings yield), ROA (return on assets), and ROE (return on equity)	The results showed that EY, P/B ratio, and ROA may be utilized to forecast trading direction.
Tabot (2022), [32]	Multiple regression	2021	EY (Earnings Yield), BTM (book-to- market ratio) and book value per share.	The most of banking companies were undervalued, whereas the majority of companies from consumer goods were overpriced.
Note – developed by authors on the basis of source [28; 29; 30; 31; 32]				

The provided table aims to define valuations grounded in specific fundamental indicators. As discerned from Table 1, it becomes apparent that fundamentals serve a dual purpose, facilitating both the valuation process and the prediction of a security's future worth. Despite the relevance of these observations, it is noteworthy that no prior investigation has delved into fundamental analysis specifically centered on stock market valuation. Therefore, this study is a groundbreaking endeavor to broaden the scope of stock market valuation, making a noteworthy scholarly contribution. The following section details the thorough frameworks used for valuation.

DATA AND METHODOLOGY

This research contains all companies listed on the Kazakhstan Stock Exchange, considers that the entirety of this sample can be regarded as a population, as it encompasses the entire available group.

To reach the goal of this study, which is notably different from previous work, a two-stage plan was used.

In the initial phase of the study, we utilized fundamental value drivers of stock prices, specifically the Price to Earnings ratio (P/E ratio), Earnings per Share (EPS), and book value (BV). These factors were employed to calculate Earnings Yield (EY), PE ratio to Price Relative (PEP ratio), and Book to Market Price Ratio (B/P). These value drivers are widely acknowledged as key components of fundamental analysis [27; 33; 18; 32]. To perform fundamental analysis, we conducted an OLS regression analysis to obtain the coefficients needed. The general regression equation can be expressed as:

$$Stock\ market\ price = \beta 0 + \beta 1 * EY + \beta 2 * PEP\ ratio + \beta 3 * (B/P) + e\mu \quad (3)$$

where,

Stock market price (P) – The financial performance of companies as expressed by the Price;

β_0 – is the constant parameter;

$\beta_{1\text{-}3}$ – are model coefficients of the independent variables;

ε – residual term.

Dependent Variable:

Stock market price (P) denotes the present market value at which the company share of stock of the company is traded. Each publicly-listed company, upon the issuance of its shares, is designated a price – a valuation that ideally mirrors the intrinsic worth of the company. Fluctuations in the stock price are influenced by various factors, encompassing shifts in the broader economy, developments within specific industries, political occurrences, geopolitical events, and environmental changes.

Independent Variables:

Earnings yield (EY) indicates the relationship between earnings per share and the current market price per share. By being the inverse of the Price-Earnings (P/E) ratio, it offers a glimpse into the percentage of a company's earnings per share relative to its market price. This metric holds significance for investment managers in establishing optimal asset allocations, and investors often leverage it to discern the perceived underpricing or overpricing of assets.

***Book to market price ratio (B/P*)** is derived by dividing book value per share by stock price.

P/E ratio to price (PEP ratio) is found by dividing price to earnings by stock price.

All the equities included into KASE Index were chosen to be examined over the period of 2012–2022:

- Bank CenterCredit JSC (CCBN KZ),
- Halyk Savings Bank of Kazakhstan JSC (HSBK KZ),
- Kaspi.KZ JSC (KSPI LI),
- Kazakhstan Electricity Grid Operating Co (KEGC KZ),
- Kazakhtelecom JSC (KZTK KZ),
- KazMunayGas National Co JSC (KMGZ KZ),
- KazTransOil JSC (KZTO KZ),
- KCell JSC (KCEL KZ),
- NAC Kazatomprom JSC (KAP KZ).

All market data were acquired on November 15, 2023, from credible financial market source – Bloomberg Professional service (the Bloomberg Terminal). The primary data sources for this analysis were fundamental value drivers and daily market prices. These value drivers are characteristics that are considered to contribute to a stock's overall success. Determining and concentrating on the primary value drivers for individual equities can therefore improve the success of picking assets from emerging markets.

Empirical Results

Before conducting regression analysis, the model underwent robustness testing, including:

• Multicollinearity test to check for correlation among independent variables (which can lead to biased estimation).

• Autocorrelation test to identify correlated error terms.

• Heteroscedasticity test to examine if the distribution of error terms is not normally distributed.

Initially, the model was established through time series analysis. To ensure the adequacy of both the regression model and the coefficient values, each variable within the model underwent multicollinearity testing. Multicollinearity, which can compromise the robustness of coefficient values and diminish the statistical power of the model, was assessed using the Variance Inflation Factor (VIF).

The correlation matrix in Figure 1 revealed relationships between the dependent and independent variables. For instance, the dependent variable Price showed a positive correlation with the Book to Market Price Ratio (B/P) and a negative correlation with other independent variables, such as Earnings Yield (EY) and PE Ratio to Price Ratio (PEP).

Analyzing the correlation results allows us to understand how variables are influenced by the strength of correlation with independent variables. In Figure 2, the Variance Inflation Factors (VIFs) for the independent variables are presented, starting at a value of 1. A valid VIF typically falls between 1 and 5. In this model, the mean VIF is 1.02, which is below 5 or 10. This indicates the absence of multicollinearity in the model, making it suitable for further investigation purposes.

```
. correl P EY PEP BP
(obs=99)
```

	P	EY	PEP	BP
P	1.0000			
EY	-0.2496	1.0000		
PEP	-0.4457	-0.0323	1.0000	
BP	0.0432	0.1455	-0.0497	1.0000

Figure 1 – Correlation Analysis
Note – developed by the authors

```
. estat vif
```

Variable	VIF	1/VIF
BP	1.02	0.976807
EY	1.02	0.978209
PEP	1.00	0.996885
Mean VIF	1.02	

Figure 2 – Variance Inflationary Factor (VIF)
Note – developed by the authors

Moreover, the GLS panel-data model employs the Wooldridge test, as depicted in Figure 3, to identify autocorrelation, which typically reveals the degree of similarity between time series and a lagged time interval. If the p-value is less than 1%, 5%, or 10%, it indicates the presence of autocorrelation in the model, potentially influencing the dependent variable. In this regression model, the p-value is 0.0000, falling below all suggested thresholds, signifying the existence of autocorrelation in the model.

After all necessary test conducted, it became obvious that there are heteroscedasticity and autocorrelation presented in the model. It means that regression analysis cannot be performed using neither Fixed effect nor Random effect models. In other words, FE or RE is used only if there is no problem in Stationarity, Autocorrelation, multicollinearity, heteroscedasticity tests. In this case only Panel Corrected Standard Errors and Feasible Generalized Least Squares Model are appropriate for regression analysis. This model requires using FGLS model, because number of variables (4) is less than number of time periods (10).

```
. xtserial P EY PEP BP

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,       8) =     28.034
           Prob > F =      0.0007
```

Figure 3 – Wooldridge test for autocorrelation
Note – developed by the authors

To examine Heteroscedasticity, the Likelihood-ratio test is employed. Typically, in a time series model, there can be notable changes in error variance from the start to the end of the series, implying that the dependent variable Price may vary in value over the given period. The primary issue with heteroscedasticity is that

it introduces bias to the standard error. Figure 4 illustrates the test result. Conversely, homoscedasticity occurs when the error term maintains the same distribution across variables, as shown in Figures 5 and 6.

```
. lrtest hetero homo, df(98)

Likelihood-ratio test                                 LR chi2(98) =     48.66
(Assumption: homo nested in hetero)                   Prob > chi2 =    1.0000
```

Figure 4 – Heteroscedasticity test

Note – developed by the authors

The results indicate that there is heteroscedasticity nested within homoscedasticity, and the prob > chi2 statistic for the model rejects the null hypothesis, suggesting that all regression coefficients (except the constant term) are zero. In the present model, the p-value for Prob > chi2 is 1.0000.

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   no autocorrelation

Estimated covariances      =         9          Number of obs     =         99
Estimated autocorrelations =         0          Number of groups  =          9
Estimated coefficients     =         4          Time periods      =         11
                                                Wald chi2(3)      =      44.74
Log likelihood             = -81.01644          Prob > chi2       =     0.0000
```

P	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
EY	-.6591747	.2405561	-2.74	0.006	-1.130656	-.1876934
PEP	-9.308226	1.485274	-6.27	0.000	-12.21931	-6.397142
BP	.0128159	.00951	1.35	0.178	-.0058233	.0314551
_cons	3.421235	.0407366	83.98	0.000	3.341393	3.501078

Figure 5 – Heteroscedasticity test

Note – developed by the authors

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        homoskedastic
Correlation:   no autocorrelation

Estimated covariances      =         1          Number of obs     =         99
Estimated autocorrelations =         0          Number of groups  =          9
Estimated coefficients     =         4          Time periods      =         11
                                                Wald chi2(3)      =      36.99
Log likelihood             = -105.3489          Prob > chi2       =     0.0000
```

P	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
EY	-.9508484	.3020633	-3.15	0.002	-1.542882	-.3588153
PEP	-5.299333	1.008009	-5.26	0.000	-7.274995	-3.323672
BP	.0078381	.0112488	0.70	0.486	-.0142091	.0298853
_cons	3.549746	.0950488	37.35	0.000	3.363454	3.736038

Figure 6 – FGLS Regression Analysis

Note – developed by the authors

According to Table 2, the CCBN has the greatest Earnings yields, implying that investors have a strong possibility of receiving a larger return than the risk-free asset. It is also clear that the book values of CCBN and KZTK are substantially greater than the stock prices with the lowest in the KZTO and KSPI. These matrices are vital pieces of data that offer insight into relative values. So, it can be concluded that CCBN KZ, HSBK KZ, KZTK KZ, and KMGZ KZ have higher earnings yield relative to other Kazakhstani stocks. The stocks of companies like CCBN KZ, KZTK KZ, KMGZ KZ, KEGC KZ, and HSBK KZ demonstrate high P/B ratios, which indicates that these stocks are overvalued. In terms of the remaining representatives of the KASE Index, these stocks have a lower P/B ratio, which could mean that the stocks are undervalued. In terms of the PEP ratio, KEGC KZ, KZTO KZ, and KSPI LI exhibit higher P/E ratios, indicating that their stock prices are high relative to earnings, potentially signaling overvaluation. On the other hand, the remaining stocks with low P/E ratios suggest that their current stock prices are low compared to earnings. These stocks could present promising investment opportunities as potentially undervalued stocks.

Table 2 – Output of Value Drivers of stocks from KASE Index for 2022

Ticker	Earnings yield (EY)	PE ratio to price relative (PEP ratio)	Book to market price ratio (B/P)
KCEL KZ	13,6%	0,6%	46,6%
CCBN KZ	164,4%	0,2%	307,9%
KAP KZ	9,8%	0,1%	36,8%
HSBK KZ	40,9%	2,0%	141,4%
KZTO KZ	0,03%	0,007%	1,2%
KMGZ KZ	22,8%	0,05%	175,9%
KSPI LI	10,0%	0,04%	14,1%
KEGC KZ	6,2%	0,9%	150,6%
KZTK KZ	34,7%	0,009%	204,0%

The outcomes from the FGLS panel-data model in Figure 6 reveal that an increase in the PE ratio to price relative (PEP ratio) has a negative impact on Price. This implies that a higher Price to Earnings Ratio (P/E) in relation to Share Price might result in a decrease in stock market price. Similarly, Earnings Yield (EY) is found to have a negative correlation with stock market price, indicating that a higher stock price adversely affects Earnings Yield (EY) unless Earnings per Share (EPS) is sufficiently high. In terms of Book to market price ratio (B/P), it is positively related to stock market price. When investors are positive about the company and consider that the company will perform well in the future, they might value such stocks higher. However, this optimism can put pressure on the company to meet big financial goals. Sometimes, the high stock price doesn't match how well the company is actually doing, which could lead to worries about a market bubble forming.

CONCLUSION

In summary, the analysis of KASE Index stocks, focusing on Earnings Yield (EY), PE Ratio to Price (PEP ratio), and Book to Market Price Ratio (B/P), offers valuable insights for market participants. The current data highlights the relatively high pricing of KZTO KZ and KEGC KZ stocks, while KCEL KZ and KAP KZ stocks present appealing opportunities for long-term investors. This information carries practical implications for traders and investors seeking to optimize their decision-making and overall trading strategy.

The identified signals act as a guide for navigating the stock market, aiding in the strategic identification of optimal entry and exit points for trades. For example, recognizing undervalued stocks, like KCEL KZ and KAP KZ, may present favorable buying opportunities. This insight holds particular relevance for value investors, suggesting a potential advantage in allocating more capital to these undervalued stocks, given their demonstrated robust growth potential compared to counterparts.

In practice, integrating these findings into investment strategies has the potential to enhance portfolio performance and contribute to more informed and strategic decision-making. Long-term investors can use the

identified signals to align their portfolios with stocks displaying strong growth potential. The study underscores the significance of conducting sector-specific valuation analyses for different markets, providing a practical roadmap for future research endeavors. Additionally, adopting a comprehensive approach that combines quantitative metrics with qualitative insights, such as industry analysis, historical earnings growth, and an assessment of the debt landscape, offers a more complete understanding of international stock markets, thereby increasing the practical utility of research outcomes.

REFERENCES

1. Fama, E.F. Efficient Capital Markets: A Review of Theory and Empirical Work // Journal of Finance. – 1970. – Vol. 25. – No. 2. – P. 383-417.

2. Shleifer, A. Inefficient Markets: An Introduction to Behavioral Finance. – Oxford: Oxford University Press, 2000.

3. Bodie, Z., Kane, A., Marcus, A.J. Investments and Portfolio Management. – 9th ed. – Singapore: McGraw Hill, 2011.

4. Kahneman, D., Tversky, A. On the Psychology of Prediction // Psychology Review. – 1973. – Vol. 80. – P. 237-251.

5. De Bondt, W.M., Thaler, R.H. Do Security Analysts Overreact? // American Economic Review. – 1990. – Vol. 80. – No. 2. – P. 52-57.

6. Chopra, N., Lakonishok, J., Ritter, J.R. Measuring Abnormal Performance: Do Stocks Overreact? // Journal of Financial Economics. – 1992. – Vol. 31. – No. 2. – P. 235-268.

7. Markowitz, H. Portfolio Selection // The Journal of Finance. – 1952. – Vol. 7. – No. 1. – P. 77-91.

8. Ogden, J., Jen, F., O'Connor, P. Advanced Corporate Finance: Policies and Strategies. – New Jersey: Prentice Hall, 2003.

9. Brealey, R., Myers, S., Allen, F. Corporate Finance. – 8th ed. – McGraw-Hill, 2006.

10. Arnold, G. Corporate Financial Management. – 4th ed. – Pearson Education Limited, 2008.

11. Graham, B., Dodd, D.L. Security Analysis. – New York, NY, United States: McGraw-Hill, 1934.

12. Piotroski, J.D. Value Investing: The Use of Historical Financial Statement Information to Separate Winners from Losers // Journal of Accounting Research. – 2000. – Vol. 38. – P. 1-41. https://doi.org/10.2307/2672906.

13. Ying, Q., Tahir, Y., Qurat, U.A., Yasmeen, A., Shahid, R.M. Stock investment and excess returns: A critical review in the light of the efficient market hypothesis // Journal of Risk and Financial Management. – 2019. – Vol. 12. – No. 2. – P. 1-22.

14. Rosenberg, B., Reid, K., Lanstein, R. Persuasive Evidence of Market Inefficiency // Journal of Portfolio Management. – 1985. – Vol. 11. – P. 18-28.

15. Fama, E., French, K. The Cross-section of Expected Stock Returns // Journal of Finance. – 1992. – Vol. 47. – P. 427-465.

16. Fama, E., French, K. Forecasting Profitability and Earnings // The Journal of Business. – 2000. – Vol. 73. – No. 2. – P. 161-175.

17. Enow, S.T. Investigating The Weekend Anomaly and Its Implications: Evidence from International Financial Markets // Journal of Accounting, Finance and Auditing Studies. – 2022. – Vol. 8. – No. 4. – P. 322-333.

18. Suzana, B., Sinisa, B., Zoran, I. Strategy of stock valuation by fundamental analysis // Skopje. – 2013. – Vol. 4. – No. 1. – P. 45-51.

19. Herawati, A., Putra, A. The Influence of Fundamental Analysis on Stock Prices: The Case of Food and Beverage Industries // European Research Studies Journal. – 2018. – Vol. 21. – No. 3. – P. 316-326.

20. Sharma, L., Patil, P., Choudhari, S. Fundamental & Technical Analysis of Stock for Beginners // International Journal of Innovative Science and Research Technology. – 2021. – Vol. 6. – No. 5. – P. 1334-1339.

21. Jeong, J., Lee, Y., Mukherji, S. Do Dow Stocks Offer a Value Premium? // The Journal of Wealth Management. – 2009. – Vol. 12. – No. 3. – P. 95-103.

22. Athanassakos, G. Value versus Growth Stock Returns and the Value Premium: The Canadian Experience 1985–2005 // Canadian Journal of Administrative Sciences. – 2009. – Vol. 26. – P. 109-121.

23. Bevanda, L.M., Arnaut – Berilo, A.Z.A. Performance of Value and Growth Stocks in the Aftermath of the Global Financial Crisis // Business Systems Research. – 2021. – Vol. 12. – No. 2. – P. 268-283.

24. Enow, S.T. Modelling Stock Market Prices Using the Open, High and Closes Prices. Evidence from International Financial Markets // International Journal of Business and Economic Sciences Applied Research. – 2023. – Vol. 15. – No. 3. – P. 52-59.

25. Chen, N., Zhang, F. Risk and Return of Value Stocks // The Journal of Business. – 1998. – Vol. 71. – No. 4. – P. 501-535. https://doi.org/10.1086/209755.

26. Zhang, L. The value premium // The Journal of Finance. – 2005. – Vol. 60. – No. 1. – P. 67-103. https://doi.org/10.1111/j.1540-6261.2005.00725.x.

27. Piotroski, J.D., So, E.C. Identifying Expectation Errors in Value/Glamour Strategies: A Fundamental Analysis Approach // The Review of Financial Studies. – 2012. – Vol. 25. – No. 9. – P. 2841-2875. http://www.jstor.org/stable/23263573.

28. Eriksson, P., Forsberg, T., Gustavsson, N. Fundamental Stock Analysis. A study of the fundamental analysis for practical use at the Swedish Stock Exchange. – Unpublished bachelor's dissertation, University of Jonkoping, 2011.

29. Wafi, A.S., Hassan, H., Mabrouk, A. Fundamental analysis models in financial markets – review study // Procedia Economics and Finance. – 2015. – Vol. 30. – P. 939-947. https://doi.org/10.1016/s2212-5671(15)01344-1.

30. Muhammad, S. The Relationship Between Fundamental Analysis and Stock Returns Based on the Panel Data Analysis; Evidence from Karachi Stock exchange (KSE) // Research Journal of Finance and Accounting. – 2018. – Vol. 9. – No. 3. – P. 84-96.

31. Daniswara, H.P., Daryanto, W.M. Earnings per share (eps), price book value (PBV), return on asset (ROA), return on equity (ROE), and Indeks Harga Saham Gabungan (IHSG) effect on stock return // South East Asia Journal of Contemporary Business, Economics and Law. – 2019. – Vol. 20. – No. 1. – P. 11-27.

32. Tabot, E.S. Fundamental analysis from value drivers: the case of banking, industrial, consumer goods, healthcare and tech firms listed on the Johannesburg stock exchange // Academy of Accounting and Financial Studies Journal. – 2022. – Vol. 26. – No. 4. – P. 1-11.

33. Bentes, S.R., Navas, R. The Fundamental Analysis: An Overview // Int. J Latest Trends Fin. Eco. Sc. – 2013. – Vol. 13. – No. 1. – P. 389-393.

REFERENCES

1. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. Journal of Finance, 25(2), 383–417. Blackwell Publishing for the American Finance Association.

2. Shleifer, A. (2000). Inefficient markets: An introduction to behavioral finance. Oxford University Press.

3. Bodie, Z., Kane, A., & Marcus, A. J. (2011). Investments and portfolio management (9th ed.). McGraw Hill.

4. Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. Psychological Review, 80, 237–251.

5. De Bondt, W. M., & Thaler, R. H. (1990). Do security analysts overreact? American Economic Review, 80(2), 52–57.

6. Chopra, N., Lakonishok, J., & Ritter, J. R. (1992). Measuring abnormal performance: Do stocks overreact? Journal of Financial Economics, 31(2), 235–268.

7. Markowitz, H. (1952). Portfolio selection. Journal of Finance, 7(1), 77–91.

8. Ogden, J., Jen, F., & O'Connor, P. (2003). Advanced corporate finance: Policies and strategies. Prentice Hall.

9. Brealey, R., Myers, S., & Allen, F. (2006). Corporate finance (8th ed.). McGraw-Hill.

10. Arnold, G. (2008). Corporate financial management (4th ed.). Pearson Education.

11. Graham, B., & Dodd, D. L. (1934). Security analysis. McGraw-Hill.

12. Piotroski, J. D. (2000). Value investing: The use of historical financial statement information to separate winners from losers. Journal of Accounting Research, 38, 1–41. https://doi.org/10.2307/2672906

13. Ying, Q., Tahir, Y., Qurat, U. A., Yasmeen, A., & Shahid, R. M. (2019). Stock investment and excess returns: A critical review in the light of the efficient market hypothesis. Journal of Risk and Financial Management, 12(2), 1–22.

14. Rosenberg, B., Reid, K., & Lanstein, R. (1985). Persuasive evidence of market inefficiency. Journal of Portfolio Management, 11, 18–28.

15. Fama, E., & French, K. (1992). The cross-section of expected stock returns. Journal of Finance, 47, 427–465.

16. Fama, E., & French, K. (2000). Forecasting profitability and earnings. Journal of Business, 73(2), 161–175.

17. Enow, S. T. (2022). Investigating the weekend anomaly and its implications: Evidence from international financial markets. Journal of Accounting, Finance and Auditing Studies, 8(4), 322–333.

18. Suzana, B., Sinisa, B., & Zoran, I. (2013). Strategy of stock valuation by fundamental analysis. Skopje, 4(1), 45–51.

19. Herawati, A., & Putra, A. (2018). The influence of fundamental analysis on stock prices: The case of food and beverage industries. European Research Studies Journal, 21(3), 316–326.

20. Sharma, L., Patil, P., & Choudhari, S. (2021). Fundamental & technical analysis of stock for beginners. International Journal of Innovative Science and Research Technology, 6(5), 1334–1339.

21. Jeong, J., Lee, Y., & Mukherji, S. (2009). Do Dow stocks offer a value premium? Journal of Wealth Management, 12(3), 95–103.

22. Athanassakos, G. (2009). Value versus growth stock returns and the value premium: The Canadian experience 1985–2005. Canadian Journal of Administrative Sciences, 26, 109–121.

23. Bevanda, L. M., & Arnaut-Berilo, A. Z. A. (2021). Performance of value and growth stocks in the aftermath of the global financial crisis. Business Systems Research, 12(2), 268–283.

24. Enow, S. T. (2023). Modelling stock market prices using the open, high, and close prices: Evidence from international financial markets. International Journal of Business and Economic Sciences Applied Research, 15(3), 52–59.

25. Chen, N., & Zhang, F. (1998). Risk and return of value stocks. Journal of Business, 71(4), 501–535. https://doi.org/10.1086/209755

26. Zhang, L. (2005). The value premium. Journal of Finance, 60(1), 67–103. https://doi.org/10.1111/j.1540-6261.2005.00725.x

27. Piotroski, J. D., & So, E. C. (2012). Identifying expectation errors in value/glamour strategies: A fundamental analysis approach. Review of Financial Studies, 25(9), 2841–2875. http://www.jstor.org/stable/23263573

28. Eriksson, P., Forsberg, T., & Gustavsson, N. (2011). Fundamental stock analysis: A study of the fundamental analysis for practical use at the Swedish Stock Exchange [Unpublished bachelor's dissertation]. University of Jönköping.

29. Wafi, A. S., Hassan, H., & Mabrouk, A. (2015). Fundamental analysis models in financial markets: Review study. Procedia Economics and Finance, 30, 939–947. https://doi.org/10.1016/s2212-5671(15)01344-1

30. Muhammad, S. (2018). The relationship between fundamental analysis and stock returns based on the panel data analysis: Evidence from Karachi Stock Exchange (KSE). Research Journal of Finance and Accounting, 9(3), 84–96.

31. Daniswara, H. P., & Daryanto, W. M. (2019). Earnings per share (EPS), price book value (PBV), return on asset (ROA), return on equity (ROE), and Indeks Harga Saham Gabungan (IHSG) effect on stock return. South East Asia Journal of Contemporary Business, Economics and Law, 20(1), 11–27.

32. Tabot, E. S. (2022). Fundamental analysis from value drivers: The case of banking, industrial, consumer goods, healthcare, and tech firms listed on the Johannesburg Stock Exchange. Academy of Accounting and Financial Studies Journal, 26(4), 1–11.

33. Bentes, S. R., & Navas, R. (2013). The fundamental analysis: An overview. International Journal of Latest Trends in Finance and Economic Sciences, 13(1), 389–393.

ІРГЕРЛІ ТАЛДАУ АРҚЫЛЫ АКЦИЯЛАРДЫҢ ҚҰНЫН ТАЛДАУ: ҚАЗАҚСТАН ҚОР БИРЖАСЫНЫҢ МӘЛІМЕТТЕРІ (KASE)

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АҢДАТПА

Мақаланың мақсаты – негізделген инвестициялық шешімдерге ықпал ететін ақылға қонымды сатып алу немесе сату сигналдары бойынша ұсыныстар беру.

Осы *мақаланың әдіснамасы* теориялық және эмпирикалық зерттеу әдістеріне негізделді: Қазақстандық қор нарығының құнын жан-жақты талдау, сондай-ақ бірнеше регрессиялық талдаудан алынған коэффициенттерді пайдалану және KASE Индексі үшін негізгі құндылық факторларын қарастыру, 2023 жылғы 15 қарашадағы жағдай бойынша.

Зерттеудің өзіндік бірегейлігі/құндылығы – қазіргі уақытта қауіпсіздікті таңдау және іргелі талдау тәжірибесіне қатысты көптеген қате түсініктер бар, олар негізінен қолда бар ақпараттың барлығы қауіпсіздік бағаларына дәл енгізілген деген қате сенімнен туындайды. Дегенмен, іргелі талдау бағалы қағаздардың қаржылық тұрақтылығын бағалаудағы, әсіресе ұзақ мерзімді инвестициялық стратегиялар шеңберіндегі негізгі рөлін сақтайды.

Зерттеу нәтижелері – кірістілікке (EY), PE-Дің Бағаға Қатынасына (PEP коэффициенті), Сондай-ақ B/P коэффициентіне баса назар аудара отырып, KASE Индекстік акцияларын талдау Негізінде KZTO KZ және KEGC KZ акциялары әділ бағаланғаны анықталды, сонымен қатар KCEL KZ және KAP KZ акциялары ұзақ мерзімді перспективада инвесторлар үшін тартымды мүмкіндіктерге ие екендігі анықталды. Ұсынылған ақпарат шешім қабылдау процесін және жалпы сауда стратегиясын оңтайландыруға ұмтылатын инвесторлар мен трейдерлер үшін практикалық маңызды деп санаймыз.

Түйін сөздер: акциялардың бағасы, бағаланбаған акциялар, құн факторлары, кірістіліктің кірістілігі, бағалық кірістіліктің арақатынасы, баланстық құн

АНАЛИЗ СТОИМОСТИ АКЦИЙ С ПОМОЩЬЮ ФУНДАМЕНАТАЛЬНОГО АНАЛИЗА: ИНФОРМАЦИЯ ОТ КАЗАХСТАНСКОЙ ФОНДОВОЙ БИРЖЫ (KASE)

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АННОТАЦИЯ

Цель статьи – подготовка рекомендаций для обоснованных сигналов на покупку или продажу, способствующих принятию обоснованных инвестиционных решений.

Методологией данной статьи послужили теоретические и эмпирические методы исследования: комплексный анализ стоимость казахстанского фондового рынка, а также использование коэффициентов, полученных в результате множественного регрессионного анализа и рассмотрение ключевых факторов стоимости для индекса KASE по состоянию на 15 ноября 2023 года.

Оригинальность/ценность исследования – в настоящее время вокруг практики выбора ценных бумаг и фундаментального анализа существует множество заблуждений, в основном проистекающих из ошибочной веры в то, что вся доступная информация точно учитывается в ценах на ценные бумаги. Тем не менее фундаментальный анализ сохраняет свою ключевую роль в оценке финансовой устойчивости ценных бумаг, особенно в сфере долгосрочных инвестиционных стратегий.

Результаты исследования – на основе анализа акций с акцентом на доходность (EY), соотношение PE к цене (PEP), а также соотношение к рыночной цене (B/P), была выявлена достаточно высокая цена за акции KZTO KZ и KEGC KZ, и также было выявлено что акции KCEL KZ и KAP KZ имеют привлекательные возможности для инвесторов в долгосрочной перспективе. Мы считаем, что предоставленная информация имеет практическое значение для инвесторов и трейдеров, которые имеют цель оптимизировать процесс принятия решений и общую торговую стратегию.

Ключевые слова - цена акций, недооцененные акции, факторы стоимости, доходность, соотношение цены и дохода, балансовая стоимость.

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ИНТЕГРАЦИЯ БУХГАЛТЕРСКИХ И УПРАВЛЕНЧЕСКИХ ИНФОРМАЦИОННЫХ СИСТЕМ: ПРЕИМУЩЕСТВА И ВЫЗОВЫ

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АННОТАЦИЯ

Цель исследования – изучении процесса интеграции бухгалтерских и управленческих информационных систем в Республике Казахстан.

Методология – эмпирический и статистический анализы.

Оригинальность / ценность исследования – оригинальность и ценность данного научного исследования заключаются в анализе, основанном на междисциплинарном подходе и конкретизации исследования, в рамках условий Республики Казахстан. В современном мире динамика развития цифровой экономики, а также важность внедрения бухгалтерских и управленческих информационных систем в практические бизнес-процессы становится релевантной темой для исследований. Тем не менее в Республике Казахстан на текущий момент проведено и опубликовано недостаточно исследований, которые бы в полной мере анализировали данный процесс. Представленное исследование восполняет данный пробел в информационной базе научного сообщества, предлагая системный анализ преимуществ и вызовов, с которыми сталкиваются коммерческие компании в Республике Казахстан при интеграции бухгалтерских и управленческих систем.

Результаты исследования – представленное научное исследование демонстрирует, что внедрение бухгалтерских и управленческих информационных систем в коммерческих организациях Республики Казахстан обладает значительным потенциалом влияния на улучшение показателей эффективности и продуктивности. Проведенный в ходе исследования, анализ данных позволил выявить, что интеграция