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Warren Buffett's Investment Strategy on the Warsaw Stock Exchange: Performance Analysis Accounting for Taxes and Transaction Costs (2004–2025)

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Abstract

The aim of this article is to empirically verify the effectiveness of Warren Buffett's investment strategy on the Warsaw Stock Exchange in the years 2004–2025. The study fills a knowledge gap by focusing on the analysis of the impact of transaction costs and capital gains tax on the effective return on value investing in the specific conditions of the Polish market. In terms of methodology, historical financial data was used to conduct an investment simulation, consisting of creating annually rebalanced portfolios that meet modified quality criteria, such as high ROE or earnings stability. The results were compared with a passive strategy for the WIG index, taking into account commissions, a 19% tax and a loss settlement mechanism, and the significance of the differences was verified using the Wilcoxon test. The analysis showed that, in gross terms, Buffett's strategy achieved a significant advantage over the market (CAGR 10.60% vs. 6.14%). However, after taking into account fiscal burdens, this advantage was drastically reduced to only 0.25 percentage points. This means that although the strategy effectively identifies companies with high growth potential, the need to frequently crystallise tax liabilities negates the generated "alpha". The originality of the work lies in proving that in the Polish tax system, the classic benefits of value investing are significantly reduced by the inability to fully utilise the tax deferral effect. These results provide a key insight for investors in emerging markets, suggesting that the effectiveness of the strategy depends equally on fundamental selection and tax optimisation.

Keywords: value investing; Warren Buffett's strategy; capital gains tax; transaction costs; Warsaw Stock Exchange

JEL classification: G11; G12; H24; G14

1. Introduction

Warren Buffett's investment strategy, derived from value investing, has been the subject of interest for decades among both capital market practitioners and finance researchers

(Wu & Begum, 2021). Its sustained effectiveness in the American market (Frazzini et al., 2018) raises the question of whether this strategy can be adapted to other institutional systems, particularly emerging markets such as the Polish capital market. One of the key, yet relatively rarely analysed factors differentiating the effectiveness of investment strategies between countries is the tax burden imposed on capital income (Huizinga et al., 2012).

In Poland, the capital income tax, commonly referred to as the Belka tax, applies to income derived from the sale of shares as well as dividend income, which significantly affects the effective rate of return achieved by the investor (Kosidłowska, 2016). Buffett's strategy, based on long-term holding of high-quality companies, reinvestment of profits and a preference for entities generating stable cash flows, shows stable results compared to more active portfolio trading strategies (Enow, 2024). Strategies with lower turnover respond differently to capital gains taxation than active strategies, as deferring tax payments allows for the reinvestment of larger funds, which can enhance long-term returns (Arnott et al., 2018).

Despite a significant amount of analysis on the general aspects of capital gains taxation and its impact on the behaviour of capital market participants, there is a lack of empirical research analysing the direct impact of capital gains taxes and transaction costs on the effective profitability of specific investment strategies on the Polish capital market, which constitutes a research gap.

In an effort to fill this gap, the following research objectives were formulated based on Warren Buffett's strategy:

1. Empirical analysis of the effectiveness of Buffett's investment approach in the selection of companies exhibiting above-average growth potential on the Warsaw Stock Exchange.
2. Examination of the impact of transaction costs and capital gains taxation on the performance of an investment strategy based on Buffett's principles.

The article formulates the following research hypotheses:

H_1: *Buffett's investment strategy enables the effective identification of entities with above-average growth potential listed on the Warsaw Stock Exchange*.

H_2: *The effectiveness of Buffett's investment strategy is maintained after accounting for transaction costs and capital gains taxation.*

For the purposes of the study, the accuracy of the strategy is understood as its ability to generate higher rates of return in the adopted period than the rates of return on investments in the broad WIG index on a "buy and hold" basis.

The article consists of the following sections:

1. Literature review – analysis of value investing in the context of market efficiency, including the influence of fiscal burdens.
2. Research methodology – description of the assumptions, procedures, and research methods adopted.

3. Presentation of results – reporting the findings of the empirical research.
4. Conclusions and discussion – key conclusions, verification of research hypotheses, and comparison with the results of previous studies.

2. Theoretical background: Literature review

The foundation for analysing the effectiveness of contemporary investment strategies lies in classical capital market theory, particularly the efficient market hypothesis (EMH), popularised by Eugene Fama. According to the fundamental premise of this theory, financial instrument prices fully and immediately reflect all available information, implying that it is not possible to consistently achieve above-average returns once risk is taken into account (Ang et al., 2010). Fama identified three forms of market efficiency: weak, semi-strong, and strong (Fama, 1970). From the perspective of Warren Buffett's strategy, which represents the paradigm of value investing, the semi-strong form of market efficiency is particularly relevant. This suggests that fundamental analysis of publicly available financial data should not confer a lasting competitive advantage. (Frazzini et al., 2018). Buffett's approach, based on fundamental analysis of financial statements and long-term company valuation, challenges the classical market efficiency paradigm, indicating the possibility of generating superior returns that cannot be explained solely by exposure to risk factors (alpha) (Frazzini et al., 2018).

This phenomenon is well supported in the literature. A study by An et al. (2017), analysing a sample of 4,952 firms over the period 1999–2014, found that value stocks consistently generate higher returns than growth stocks. The authors highlighted that the effectiveness of value investing strategies increases significantly when qualitative criteria, such as profitability and moderate leverage, are applied. These findings are further corroborated by Piotroski and So (2012). In particular, implementing a threshold for return on equity (ROE above 5%) allows the exclusion of firms with weaker financial positions, which aligns with the stock selection approach employed by Buffett. Similar conclusions were reached by Piotroski (2000), who demonstrated that the application of financial quality indicators significantly enhances the performance of value stock portfolios.

Empirical research on capital markets points to the existence of anomalies such as the outperformance of value stocks over growth stocks (Fama & French, 1992; Arshanapalli et al., 1998), the profitability premium (Fama & French, 2015; Novy-Marx, 2013) and the low volatility anomaly (Blitz & van Vliet, 2007), all of which pose a challenge to the traditional interpretation of the EMH. In particular, value investing strategies show the ability to generate above-average returns in the long term (An et al., 2017; Srikandi & Soekarno, 2024), which opens up theoretical space for analysing their effectiveness also outside developed markets (Aras & Yilmaz, 2003; Mikutowski et al., 2019; Zaremba & Konieczka, 2015).

Value investing was pioneered by Benjamin Graham, who introduced a systematic approach to selecting stocks that are undervalued relative to their fundamental value, emphasising the analysis of financial ratios and the use of a margin of safety (Terzi, 2016). Graham's classic approach was dominated by quantitative criteria such as low price/earnings (P/E) and price/book (P/B) ratios and a conservative corporate financing

structure (Oppenheimer & Schlarbaum, 1981; Bhatt, 2019). The effectiveness of these criteria in eliminating companies with excessive risk is also confirmed by research in emerging markets, where Graham's conservative approach allows for positive rates of return (Barros et al., 2024; Palazzo et al., 2018). His approach has become the foundation of contemporary value investing strategies and has exerted a significant influence on the development of behavioural finance theory (Lakonishok et al., 1994).

Empirical research indicates that combining classic value criteria with quality filters leads to a significant improvement in investment portfolio performance over the long term, which is particularly important in markets characterised by increased volatility, such as emerging markets (Feng et al., 2022; Aras & Yilmaz, 2003; Srikandi & Soekarno, 2024). This strategy was developed by Warren Buffett, who shifted the emphasis from simple quantitative criteria to the assessment of company quality, including the sustainability of competitive advantage, the ability to generate stable cash flows and long-term value growth potential (Martin & Puthenpurackal, 2008; Wirawan & Sumirat, 2021). Qualitative factors such as sustainable competitive advantage (economic moat), stability and predictability of profits, and high return on equity (ROE) play a key role in his approach (Srikandi & Soekarno, 2024; Max & Svanberg, 2019). Buffett also emphasises the ability of companies to reinvest profits with relatively low capital expenditure, which enables them to generate significant free cash flows and supports long-term growth in the company's value (Srikandi & Soekarno, 2024). Research on strategies based on the above quality criteria confirms their effectiveness, indicating that portfolios created according to such principles systematically generate alpha, even after taking into account classic risk factors (An et al., 2017; Martin & Puthenpurackal, 2008).

The development of multi-factor asset pricing models has made it possible to formally capture the sources of above-average returns generated by these strategies. Models by Fama and French, ranging from the classic three-factor model (Fama, French, 1992) to five- and six-factor models (Fama & French, 2015; Taib & Benfeddoul, 2023), indicate that factors such as the relative valuation of companies relative to book value (HML), company size (SMB), profitability (RMW) and capital investments (CMA) significantly explain the differences in the rates of return on investment portfolios. These models constitute an extension of the classical CAPM framework (Sharpe, 1964), which proved insufficient to account for the empirical variations in returns observed in capital markets.

Particularly relevant in the context of Buffett's strategy is the research by Frazzini, Kabiller and Pedersen (2018), who showed that a significant portion of Buffett's portfolio's excess returns can be explained by exposure to value, profitability and conservative investment factors, while using moderate financial leverage (Martin & Puthenpurackal, 2008). At the same time, part of this excess remains unexplained by standard factor models, suggesting the existence of real alpha resulting from a unique approach to company selection and quality assessment.

From the perspective of this study, it is crucial that these factors materialise over a long time horizon, which makes long-term strategies particularly sensitive to institutional market conditions (Damodaran, 2012; Swinkels & Umlauf, 2022).

Capital gains taxation is an important element of the institutional environment of the financial market and influences investors' decisions regarding both portfolio structure

and investment horizon (Damodaran, 2012). In public finance theory, capital gains tax is seen as a factor that reduces investment efficiency and lowers real rates of return, as it reduces the funds available for reinvestment and may influence decisions regarding portfolio structure (Auerbach, 1991). The level of taxation may also incentivise investors to seek more tax-efficient financial instruments or investment jurisdictions (Sialm, 2009).

The concept of tax deferral is particularly important. According to this concept, strategies characterised by low portfolio turnover allow for the deferral of capital gains tax, which increases the amount of funds available for reinvestment and, as a result, improves the long-term rate of return (Brunel, 2001). Buffett's strategy, which involves holding high-quality company shares for many years, transforms deferred tax liabilities into additional funds available for reinvestment. Bergstresser and Pontiff (2012) demonstrated that strategies characterised by low frequency of profit realisation generate significantly higher after-tax returns, which is conducive to long-term capital accumulation.

Capital gains taxes are an important factor in determining the actual rate of return on investment, especially in the context of long-term strategies such as Buffett's approach. As Auerbach (1991) points out, capital gains taxation influences decisions about the timing of investments and the investment horizon, leading to a lock-in effect (i.e., postponing the sale of assets to avoid immediate taxation), which can reduce the effectiveness of capital reinvestment and lower the expected value of cash flows. Damodaran (2012) draws similar conclusions, pointing out that capital gains taxation reduces after-tax cash flows and affects the effective rate of return, which is directly reflected in asset valuation and reinvestment decisions.

In the context of the Polish capital market, a significant component of the institutional environment is the capital gains tax (Belka tax) – which is levied at a rate of 19% (Denerski, 2025). Such fiscal burdens reduce the effective rate of return on investments and may influence asset selection, transaction frequency, and the investment horizon. The specific characteristics of the Polish tax system, including the lack of broad opportunities for tax deferral for individual investors, may further constrain the effectiveness of long-term investment strategies compared with developed markets (Antkiewicz, 2025). Despite the interest in value investing strategies and numerous related studies in the international literature, analyses examining the impact of capital income taxation on the efficiency of long-term investments in Poland remain relatively scarce, thereby highlighting the need for research in this area.

3. Methodology and research assumptions

The full research period covers the years 2004-2025. Data from financial statements downloaded from www.biznesradar.pl (Biznesradar.pl, 2026) and www.stockwatch.pl (dividend amounts for 2004-2014) (Stockwatch.pl, 2026) are taken from reports for the years 2004-2024. The company selection criteria were calculated for the years 2009-2024, as the strategy also takes into account indicators that require data from two to five years to calculate. Purchase transactions were concluded in 2010-2024, and sale transactions in 2011-2025. The calculations were based on daily closing prices from www.stooq.pl, adjusted for splits, dividends, pre-emptive rights, acquisition rights and subscription rights (Stooq.pl, 2026).

31 May was chosen as the date for a full rebalancing of the portfolio, involving the sale of all shares in the portfolio and the purchase of new ones. Although some companies met Buffett's criteria for more than a year, full rebalancing was assumed due to the need to correctly adjust the weights in each annual period when new positions appeared in the portfolio. This assumption is a deliberate measure, a kind of stress test for the strategy under review. Adopting such a model forces the payment of maximum annual tax liabilities and generates the highest possible transaction costs. It was assumed that if a strategy selected on the basis of Buffett's fundamental criteria can compete with the market (or generate gross alpha) even in such an extremely unfavourable and rigorous tax environment, this demonstrates the powerful strength of the company selection process itself. This shows the so-called lower bound of the profitability of this strategy. 31 May is the date which, under the Polish reporting cycle, fulfils the requirement to ensure the availability of annual financial information, giving the investor a safe time buffer to avoid using information that would not yet be public at the time of making an investment decision, while minimising the risk of look-ahead bias (Daniel et. al., 2008).

The research sample consisted of companies listed on the Warsaw Stock Exchange (WSE), and the broad WIG stock market index was used as a benchmark. The portfolio of companies in each year was a balanced portfolio. Table 1 presents the original criteria from Buffett's strategy and their modification used in the study, adapted to the less liquid Polish market. Relaxing certain qualitative selection criteria (e.g., earnings stability and ROE) was necessary to secure a sufficient sample in the Polish capital market. Swinkels and Umlauf (2022) emphasise that adjusting selection parameters to local market depth and issuer availability is crucial to prevent portfolio concentration and allow robust testing of Buffett's strategy outside the US.

Table 1: Criteria for selecting companies according to Buffett's investment strategy

Criterion	Buffett's original strategy	Buffett's strategy adapted to the Polish market
Earnings predictability	Earnings per share (EPS) in each subsequent year over a 10-year period higher than in the previous year, possibly with the exception of declines in earnings from the previous year, which in total do not exceed 45%, and no years with negative EPS. $\mathbf{B_1 \geq B_2 \geq B_3 \geq B_4 \geq B_5 \geq B_6 \geq B_7 \geq B_8 \geq B_9 \geq B_{10}}$ where: B_1 – EPS for the last fiscal year; B_{10} – EPS from 10 years ago	Earnings per share (EPS) in each subsequent year over a period of 5 years, except for the last year, higher than in the previous year. $\mathbf{B_2 \geq B_3 \geq B_4 \geq B_5}$ where: B_1– EPS for the last fiscal year; B_5 – EPS from 5 years ago
Long-term debt	Long-term debt less than or equal to five times net profit.	Long-term debt less than or equal to five times net profit.
Return on equity	Return on equity (ROE) averaged over the last 10 years greater than or equal to 15%.	Return on equity (ROE) averaged over the last 5 years greater than or equal to 15%.

Return on total capital	Average return on total capital ($\frac{net\ profit}{total\ capital}$) for the last 10 years greater than or equal to 12%.	Average return on total capital ($\frac{net\ profit}{total\ capital}$) for the last 5 years greater than or equal to 12%.
Capital expenditure	Free cash flow greater than zero.	Free cash flow greater than zero.
Use of retained earnings	The level of utilisation of undistributed profit from the 10-year period ($\frac{EPS_1 - EPS_{10})}{\sum retained\ earnings_{1-10}}$) higher than or equal to 12%.	The level of utilisation of undistributed profit from the 5-year period ($\frac{EPS_1 - EPS_5)}{\sum retained\ earnings_{1-5}}$) higher than or equal to 12%.

Source: own study based on (Buffett & Clark, 2012).

The research method used was statistical analysis of time series of rates of return, and the Wilcoxon signed-rank test was used to verify the statistical significance of the results obtained (Barber & Lyon, 1997). The rates of return calculated in the study were adjusted for share purchase and sale fees; for the purposes of the study, a fee of 0.39% was assumed (Alior Bank, 2026). The rates of return were also adjusted for capital gains tax at a rate of 19%. The study period also took into account the mechanism of deducting losses from income from the same source, with a limit of up to 50% (and from 2019, 100%) of the amount of losses incurred in previous years over a period of up to 5 years, in accordance with the applicable provisions of the Personal Income Tax Act [Act of 26 July 1991, Journal of Laws 2025, item 163, Article 9(3) and (3a)].

The study was conducted according to the following research procedure:

1. Collection of data necessary to calculate the individual criteria of Buffett's strategy from the websites www.biznesradar.pl and www.stockwatch.pl for all companies.
2. Processing of data and calculation of partial indicators.
3. Identification of companies meeting all 6 criteria.
4. Downloading the share prices of the selected companies from www.stooq.pl.
5. Assigning share price values for each of the selected companies at the beginning and end of each transaction.
6. Calculation of annual rates of return for: each company, annual company portfolios and the WIG index, followed by average rates of return.
7. Adjustment of the calculated rates of return for brokerage fees for the purchase and sale of shares. In the case of Buffett's strategy, these fees were taken into account annually (in connection with portfolio rebalancing, with only the fee for the final sale being charged in the last year), while in the case of the "buy and hold" strategy for the WIG index , transaction costs were deducted only in the first (at the time of purchase) and last (at the time of sale) years of the investment.
8. Adjustment of calculated rates of return by the amount of capital gains tax – annually in the case of the Buffett strategy and at the end of the period under review in the case of the "buy and hold" strategy for the WIG index.
9. Verification of the statistical significance of the results obtained using the Wilcoxon test.
10. Compilation of results and formulation of conclusions.

4. Research results

Table 2 presents the number of companies in the portfolio and a comparison of rates of return from Buffett's strategy and investments in the broad WIG index on a buy-and-hold basis in 2011–2025.

Table 2: Number of companies in the portfolio and comparison of rates of return from Buffett's strategy and investments in the broad WIG index in 2010–2025

Investment period (1)	Number of companies in the portfolio (2)	Buffett's strategy (3)	WIG Index (4)	Difference (3)-(4)	Buffett's strategy after commissions and tax (5)	WIG Index after commissions and tax (6)	Difference (5)-(6)
2010-2011	1	6.19%	20.46%	-14.26 p.p.	4.34%	19.99%	-15.65 p.p.
2011-2012	3	-35.06%	-24.45%	-10.61 p.p.	-35.57%	-24.45%	-11.11 p.p.
2012-2013	3	79.81%	26.49%	53.31 p.p.	68.76%	26.49%	42.26 p.p.
2013-2014	4	28.51%	8.91%	19.60 p.p.	25.39%	8.91%	16.48 p.p.
2014-2015	5	16.81%	6.65%	10.15 p.p.	12.88%	6.65%	6.22 p.p.
2015-2016	6	-8.64%	-17.45%	8.80 p.p.	-9.35%	-17.45%	8.09 p.p.
2016-2017	5	20.54%	31.08%	-10.54 p.p.	-21.16%	31.08%	-52.24 p.p.
2017-2018	5	-11.69%	-4.68%	-7.02 p.p.	-12.38%	-4.68%	-7.70 p.p.
2018-2019	4	-23.01%	1.09%	-24.11 p.p.	-23.61%	1.09%	-24.70 p.p.
2019-2020	3	60.38%	-16.89%	77.27 p.p.	59.13%	-16.89%	76.02 p.p.
2020-2021	4	25.22%	37.73%	-12.50 p.p.	24.25%	37.73%	-13.48 p.p.
2021-2022	6	-16.68%	-13.36%	-3.32 p.p.	-17.33%	-13.36%	-3.97 p.p.
2022-2023	9	18.68%	8.45%	10.23 p.p.	17.76%	8.45%	9.31 p.p.
2023-2024	11	34.90%	38.58%	-3.68 p.p.	29.05%	38.58%	-9.53 p.p.
2024-2025	5	21.41%	17.56%	3.85 p.p.	16.96%	4.03%	12.93 p.p.
Arithmetic mean	**4.93**	**14.49%**	**8.01%**	**6.48 p.p.**	**9.27%**	**7.08%**	**2.20 p.p.**
CAGR	**-**	**10.60%**	**6.14%**	**4.46 p.p.**	**5.50%**	**5.25%**	**0.25 p.p.**

Source: own elaboration.

The investment portfolio built on the basis of Buffett's criteria throughout the entire research period was characterised by strong concentration, with an average number of companies of 4.93. The average annual rate of return including reinvestment of profits (CAGR) for Buffett's strategy exceeded the "buy and hold" strategy based on the WIG index. After taking into account transaction costs and tax burdens, the result of Buffett's strategy still exceeded that of the passive strategy, but the difference decreased significantly by 0.25 percentage points.

Buffett's strategy, after taking into account transaction costs and tax burdens (table 3), offers a slightly higher average rate of return (9.27%) than the WIG index (7.08%), with a higher risk of deep declines in the entire portfolio (-35.57% to -24.45%), but with greater upside potential (+68.76% to +38.58%) and slightly higher annual volatility (standard deviation of 29.98% to 20.09%). After taking into account transaction costs and capital gains tax, Buffett's strategy has a worse risk/reward ratio than investing in the broad WIG index (323.24% to 283.74%). Interestingly, the volatility coefficient calculated on the basis of gross rates of return favours Buffett's strategy (212.35% to 253.17%).

Table 3: Measures of return volatility from Buffett's strategy and investments in the broad WIG index in 2010-2025

Volatility measure	Buffett's strategy	WIG index	Buffett's strategy after commissions and tax	WIG index after commissions and tax
Arithmetic mean	14.49%	8.01%	9.27%	7.08%
Min	-35.06%	-24.45%	-35.57%	-24.45%
Max	79.81%	38.58%	68.76%	38.58%
Range	114.87%	63.03%	104.32%	63.03%
Standard deviation	30.77%	20.29%	29.98	20.09%
Average deviation	24.36%	16.99%	25.31	16.40%
Coefficient of variation	212.35%	253.17%	323.24%	283.74%

more favourable value less favourable value

Source: own elaboration.

In light of these data, the strategy based on Buffett's criteria is characterised by significantly higher volatility than investing in the broad WIG index. Although in theory (before taxation) it generates higher rates of return per unit of risk taken, the actual costs offset this efficiency advantage. It is therefore an approach intended for investors with strong nerves, resistant to deep market fluctuations, who are willing to accept a worse net profit-to-risk ratio in exchange for higher absolute growth potential.

Figure 1 presents a comparison of cumulative rates of return from Buffett's strategy and investments in the broad WIG index.

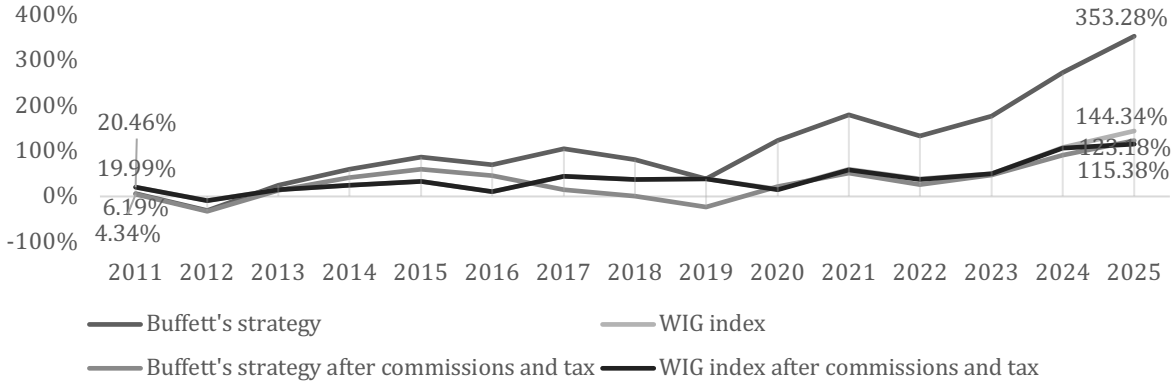

Figure 1: Comparison of cumulative rates of return from Buffett's strategy and investments in the broad WIG index
Source: own elaboration.

The cumulative rates of return obtained using Buffett's strategy, both before and after taking into account transaction costs and tax burdens, exceed the corresponding rates of return on investments in the broad WIG index (353.28% vs. 144.34% and 123.18% vs. 115.38%). However, after taking into account transaction costs and tax burdens, the difference decreases significantly. When comparing pre- and post-tax rates of return, it is

worth noting that in the case of Buffett's strategy, the difference is 230.10 percentage points, which translates into a gross rate of 65.13%, and in the case of investments in the broad index, 28.97 percentage points, which represents a gross rate of 20.07%. Such a large difference (65.13% vs. 20.07%) is the result of a greater number of transactions executed under Buffett's strategy and the associated costs than in the case of the passive "buy and hold" strategy.

5. Research conclusions and discussion

The research conducted allowed the following conclusions to be drawn:

1. The strategy based on Buffett's concept yielded an average annual rate of return, including reinvestment of profits, of 10.60% (5.50% after costs and tax) compared to 6.14% (5.25%) average annual rate of return for the broad WIG index in the period under review.
2. The rates of return achieved using Buffett's strategy on the Polish market in 7 out of 15 analysed periods (46.67% of the total) exceed the rates of return from the broad market.
3. A strategy based on Buffett's concept (before taxation) generates higher returns per unit of risk taken than an investment in the broad WIG index, but actual charges offset this efficiency advantage.
4. In the analysed period, the average rates of return from Buffett's strategy, taking into account the reinvestment of profits, were positive in 78.57% of cases for two-year rates (11 out of 14), in 90.91% for five-year rates (10 out of 11) and in 100% of cases for ten-year rates (6 out of 6).
5. The portfolio of companies built on the basis of Buffett's strategy consisted of an average of 4.93 companies per year, with the number of companies ranging from 1 to 11.

The results of the study were not statistically significant at the 0.05 significance level. However, the lack of statistical significance does not undermine the economic effectiveness of the strategy in the period under review. This suggests that Buffett's concept effectively identifies companies with the potential for above-average, rapid growth on the Polish market, rather than companies with stable, linear growth. Although formal statistical verification requires caution in generalising the results, the analysis confirms the investment usefulness of the strategy. The ability of Buffett's strategy to generate excess returns does not lie in generating profits in a linear manner, but in the effective selection of undervalued companies with high growth potential.

Due to the lack of statistical significance of the results obtained, there are no grounds for categorically accepting the hypotheses put forward. Nevertheless, in purely economic terms, the hypothesis assuming the ability of Buffett's strategy to identify entities with above-average growth potential on the WSE ($\mathbf{H_1}$) finds directional support in the generated gross return surplus. On the other hand, hypothesis $\mathbf{H_2}$ should be rejected. The analysis shows that after taking into account transaction costs and capital gains tax, the initial advantage of the strategy is drastically eroded, and the portfolio itself has a worse net profit to risk ratio than a passive investment in the broad market.

The results obtained, indicating a significant advantage of Buffett's strategy over the broad market in gross terms (CAGR 10.60% vs. 6.14%), correspond to the findings in the literature on the existence of a premium for investing in value and quality. This confirms the thesis of Frazzini, Kabiller and Pedersen (2018) that the selection of companies based on fundamental analysis of financial statements and quality indicators allows for the generation of so-called alpha, i.e. above-average rates of return that cannot be explained solely by exposure to market risk. Importantly, the effectiveness of this strategy on the WSE fits into the broader context of research on emerging markets, where, as shown by Srikandi and Soekarno (2024) and Aras and Yilmaz (2003) have shown, combining classic value criteria with quality filters (such as high ROE or earnings stability) brings measurable investment benefits. The strategy's ability to select entities with high growth potential, as observed in the study, is also consistent with the conclusions of An, Cheh and Kim (2017), who demonstrated that portfolios of value companies with strong financial health consistently outperform growth companies.

On the other hand, the drastic reduction in the advantage of Buffett's strategy over the passive strategy after taking into account capital gains tax and transaction costs (from 4.46 p.p. to only 0.25 p.p. difference in CAGR) highlights the critical role of the institutional environment, as pointed out by Damodaran (2012) and Auerbach (1991). Although Brunel (2001) and Bergstresser and Pontiff (2013) argue that long-term strategies should benefit from the tax deferral effect, the assumption of annual portfolio rebalancing adopted in the study forced more frequent crystallisation of tax liabilities, which offset the positive effect of reinvesting gross profits. These results suggest that, under the specific conditions of the Polish tax system, fiscal costs may erode the premium resulting from the application of Buffett's strategy more effectively than in the US market, confirming the concerns expressed by Antkiewicz (2019) regarding the impact of the Belka tax on the effective rate of return. A potential reason for the blurring of the advantage of Buffett's strategy over investing in a broad index, after taking into account transaction costs and tax burdens, may be a significant narrowing of the original criteria, especially the most stringent criterion of profit stability from 10 to 5 years. However, due to the small number of companies listed on the Warsaw Stock Exchange, the application of more stringent criteria could reduce the number of companies in the portfolio to such an extent that the results obtained could be completely unreliable.

The main limitations of the presented study include the lack of statistical significance of the obtained results at the 0.05 level and the risk of survivorship bias, which consists in analysing only those companies that "survived" on the stock exchange until the end of the research period (Baquero et al., 2009). However, this limitation is difficult to eliminate in long-term empirical studies due to the objective lack of access to complete and structured historical data for entities that have gone bankrupt or been delisted from public trading.

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References

- Alior Bank. (2026) *Taryfa opłat i prowizji Biura Maklerskiego Alior Bank*. Available at: https://www.aliorbank.pl/dam/jcr:726116b4-5e1a-4ef3-aef5-b00d1843c5cb/taryfa-oplat-i-prowizji-biura-maklerskiego-alior-bank.pdf (Accessed: 31 January 2026).

- An, C., Cheh, J. J. and Kim, I. (2017) 'Do Value Stocks Outperform Growth Stocks in the U.S. Stock Market?', *Journal of Applied Finance & Banking*, 7, pp. 99–112.

- Ang, A., Goetzmann, W. N. and Schaefer, S. M. (2010) 'The Efficient Market Theory and Evidence: Implications for Active Investment Management', *Foundations and Trends in Finance*, 5(3), pp. 157–242. https://doi.org/10.1561/0500000034.

- Antkiewicz, S. (2019) 'Opodatkowanie dochodów z kapitałów pieniężnych w Polsce — ewolucja i perspektywy', *Przestrzeń, Ekonomia, Społeczeństwo*, 16(2), pp. 41–56. Available at: https://www.ssw-sopot.pl/wp-content/uploads/2021/04/ssw_zn_16_elektr_b5.pdf (Accessed: 10 February 2026).

- Antkiewicz, S. (2025) 'Opodatkowanie zysków kapitałowych z funduszy inwestycyjnych w Polsce – ewolucja i perspektywy,' Współczesna Gospodarka, 19(2 (44)). https://doi.org/10.26881/wg.2025.2.08.

- Aras, G. and Yilmaz, M. K. (2003) 'Price-earnings ratio, dividend yield, and market-to-book ratio to predict return on stock market: Evidence from the emerging markets', *Journal of Global Business and Technology*, 4(1), pp. 11–24. Available at: https://mkyilmaz.com/wp-content/uploads/2014/11/price-earnings-ratio.pdf (Accessed: 10 February 2026).

- Arnott, R., Kalesnik, V. and Schuesler, T. (2018) 'Is your alpha big enough to cover its taxes? A Quarter-Century retrospective,' *The Journal of Portfolio Management*, 44(5), pp. 78–102. https://doi.org/10.3905/jpm.2018.44.5.078.

- Arshanapalli, B., Coggin, T. D. and Doukas, J. (1998) 'Multifactor asset pricing analysis of international value investment strategies', *Journal of Portfolio Management*. DOI: https://dx.doi.org/10.2139/ssrn.54002.

- Auerbach, A. J. (1991) 'Retrospective Capital Gains Taxation', *The American Economic Review*, 81(1), pp. 167–178. Available at: https://www.jstor.org/stable/2006793 (Accessed: 10 February 2026).

- Baquero, G., ter Horst, J. and Verbeek, M. (2005) 'Survival, look-ahead bias and the persistence in hedge fund performance', *Journal of Financial and Quantitative Analysis*, 40(3), pp. 493–517. DOI: https://doi.org/10.1017/S0022109000001848.

- Barber, B. M. and Lyon, J. D. (1997) 'Detecting long-run abnormal stock returns: The empirical power and specification of test statistics', *Journal of Financial Economics*, 43(3), pp. 341–372. DOI: https://doi.org/10.1016/S0304-405X(96)00890-2.

- Barros, M. A., Martins, O. S. and Girão, L. F. A. P. (2024) 'Value Investing in Brazil: A Novel Application of Benjamin Graham's Criteria to Generating Abnormal Returns', *Revista de Educação e Pesquisa em Contabilidade (REPEC)*, 18, pp. 509–529. DOI: http://dx.doi.org/10.17524/repec.v18i4.3346.

- Bergstresser, D. and Pontiff, J. (2013) 'Investment taxation and portfolio performance', *Journal of Public Economics*, 97, pp. 245–257. DOI: https://doi.org/10.1016/j.jpubeco.2012.04.005.

- Bhatt, S. N. (2019) 'Corroborate Benjamin Graham's Approach of Valuing Equity with Special Reference to Indian Capital Market', *Accounting and Finance Research*, 8(3), pp. 169–175. DOI: https://doi.org/10.5430/afr.v8n3p169.

- Biznesradar.pl. (2026) *Biznesradar.pl*. Available at: https://www.biznesradar.pl (Accessed: 10 February 2026).

- Blitz, D. C. and van Vliet, P. (2007) 'The Volatility Effect: Lower Risk Without Lower Return', *Journal of Portfolio Management*, 34(1), pp. 102–113. DOI: 10.3905/jpm.2007.698039.

- Brunel, J. L. P. (2001) 'A tax-efficient portfolio construction model', *The Journal of Wealth Management*, 4(2), pp. 43–49. DOI:10.3905/jwm.2001.320411.

- Buffett, M. and Clark, D. (2012) *Buffettology: Warren Buffett's Investing Techniques*. New York: Simon and Schuster.

- Damodaran, A. (2012) *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. Hoboken: John Wiley & Sons.

- Daniel, G., Sornette, D. and Wohrmann, P. (2008) 'Look-Ahead Benchmark bias in Portfolio Performance Evaluation,' SSRN Electronic Journal [Preprint]. https://doi.org/10.2139/ssrn.1289222.

- Denerski, M. (2025) *The impact of capital income taxation on investment efficiency in Poland: Working Paper 60*. Available at: https://inepan.pl/wp-content/uploads/2025/12/Working-Papers-60.pdf (Accessed: 24 February 2026).

- Enow, S. T. (2024) 'Investing in the long-term: an empirical approach', *International Journal of Research in Business and Social Science (IJRBS)*, 13(4), pp. 537–541. DOI: https://doi.org/10.20525/ijrbs.v13i4.3276.

- Fama, E. F. (1970) 'Efficient Capital Markets: A Review of Theory and Empirical Work', *The Journal of Finance*, 25(2), pp. 383–417. DOI: https://doi.org/10.2307/2325486.

- Fama, E. F. and French, K. R. (1992) 'The Cross-Section of Expected Stock Returns', *Journal of Finance*, 47(2), pp. 427–465. DOI: https://doi.org/10.2307/2329112.

- Fama, E. F. and French, K. R. (2015) 'A five-factor asset pricing model', *Journal of Financial Economics*, 116, pp. 1–22. DOI: https://doi.org/10.1016/j.jfineco.2014.10.010.

- Feng, F. Y., Kang, W., Liu, S., Zhang, H. and Zhang, K. (2022) 'Is Value Strategy Still Alive? Evidence from the Chinese A-Share Market', *SSRN*. DOI: https://doi.org/10.2139/ssrn.4029336.

- Frazzini, A., Kabiller, D. and Pedersen, L. H. (2018) 'Buffett's Alpha', *Financial Analysts Journal*, 74(4), pp. 35–55. DOI: https://doi.org/10.2469/faj.v74.n4.3.

- Huizinga, H., Voget, J. and Wagner, W. (2012) 'Capital gains taxation and the cost of capital: Evidence from unanticipated cross-border transfers of tax bases', *SSRN*. DOI: https://doi.org/10.2139/ssrn.2127609.

- Martin, G. S. and Puthenpurackal, J. (2008) 'Imitation is the Sincerest Form of Flattery: Warren Buffett and Berkshire Hathaway', *SSRN*. DOI: https://doi.org/10.2139/ssrn.1106478.

- Max, D. and Svanberg, J. (2019) *The Moat of Finance: Does complexity reward the private investor?* Bachelor of Science thesis. Stockholm: KTH. Available at: https://www.diva-portal.org/smash/get/diva2:1335619/FULLTEXT01.pdf (Accessed: 10 February 2026).

- Mikutowski, M., Kambouris, G. D. and Zaremba, A. (2019) 'A note on value investing in the UAE stock market', *Journal of Research in Emerging Markets*, 1(2), pp. 33–38. DOI: http://dx.doi.org/10.30585/jrems.v1i2.339.

- Novy-Marx, R. (2013) 'The other side of value: The gross profitability premium,' J*ournal of Financial Economics,* 108(1), pp. 1–28. https://doi.org/10.1016/j.jfineco.2013.01.003.

- Kosidłowska, A. (2016) 'Fiscal function of capital gains tax,' *Annales Universitatis Mariae Curie-Skłodowska Sectio H Oeconomia*, 50(1), p. 93. https://doi.org/10.17951/h.2016.50.1.93.

- Lakonishok, J., Shleifer, A. and Vishny, R.W. (1994) 'Contrarian investment, extrapolation, and risk,' The Journal of Finance, 49(5), p. 1541. https://doi.org/10.2307/2329262.

- Oppenheimer, H. R. and Schlarbaum, G. G. (1981) 'Investing with Ben Graham: An Ex Ante Test of the Efficient Markets Hypothesis', *Journal of Financial and Quantitative Analysis*, 16(3), pp. 341–360. DOI: http://dx.doi.org/10.2307/2330242.

- Palazzo, V., Savoia, J. R. F., Securato, J. R. and Bergmann, D. R. (2018) 'Analysis of value portfolios in the Brazilian market', *Revista Contabilidade & Finanças*, 29(78), pp. 452–468. DOI: https://doi.org/10.1590/1808-057x201804810.

- Piotroski, J.D. (2000) 'Value Investing: The Use of Historical Financial Statement Information to Separate Winners from Losers,' Journal of Accounting Research, 38, p. 1. https://doi.org/10.2307/2672906.

- Piotroski, J.D. and So, E.C. (2012) 'Identifying expectation Errors in Value/Glamour Strategies: A Fundamental Analysis approach,' *Review of Financial Studies*, 25(9), pp. 2841–2875. https://doi.org/10.1093/rfs/hhs061.

- Sialm, C. (2009) 'Tax changes and asset pricing,' American Economic Review, 99(4), pp. 1356–1383. https://doi.org/10.1257/aer.99.4.1356.

- Sharpe, W.F. (1964) 'Capital Asset Prices: A Theory of Market Equilibrium Under Conditions Of Risk' The Journal of Finance, 19(3), pp. 425–442. https://doi.org/10.1111/j.1540-6261.1964.tb02865.x.

- Srikandi, M. P. A. and Soekarno, S. (2024) 'Applying Warren Buffet's Investment Strategy to Indonesia Stock Market', *International Journal of Current Science Research and Review*, 7(1), pp. 772–783. DOI: 10.47191/ijcsrr/V7-i1-75.

- Stockwatch.pl. (2026) *Stockwatch.pl*. Available at: https://www.stockwatch.pl (Accessed: 31 January 2026).

- Stooq.pl. (2026) *Stooq.pl*. Available at: https://www.stooq.pl (Accessed: 31 January 2026).

- Swinkels, L. and Umlauf, T. S. (2022) 'The Buffett Indicator: International Evidence', *SSRN*. DOI: http://dx.doi.org/10.2139/ssrn.4071039.

- Taib, A. and Benfeddoul, S. (2023) 'The empirical explanatory power of CAPM and the Fama and French three-five factor models in the Moroccan stock exchange', *International Journal of Financial Studies*, 11(1), 47. DOI: https://doi.org/10.3390/ijfs11010047.

- Terzi, N. (2016) 'An Assessment on Graham's Approach for Stock Selection: The Case of Turkey', *International Journal of Financial Research*, 7(1), pp. 50–56. DOI: https://doi.org/10.5430/ijfr.v7n1p50.

- Ustawa z dnia 26 lipca 1991 r. o podatku dochodowym od osób fizycznych [Act of 26 July 1991 on Personal Income Tax, Journal of Laws 2025, item 163, Art. 9(3) and (3a).

- Wirawan, G. H. and Sumirat, E. (2021) 'Performance Analysis of Investment Portfolio Strategy Using Warren Buffett, Benjamin Graham, and Peter Lynch Method in Indonesia Stock Exchange', *European Journal of Business and Management Research*, 6(4), pp. 394–401. DOI: 10.24018/ejbmr.2021.6.4.1040.

- Wu, R. and Begum, Y. (2021) 'Does Buffett's value investing strategy really work well, especially during the 2020 epidemic? Evidence from the American stock market', *Financial Forum*, 10(4), 11. DOI: 10.18282/ff.v10i4.2349.

- Zaremba, A. and Konieczka, P. (2015) 'Are Value, Size and Momentum Premiums in CEE Emerging Markets Only Illusionary?', *Finance a úvěr – Czech Journal of Economics and Finance*, 65(1), pp. 84–104. Available at: https://journal.fsv.cuni.cz/storage/1317_zaremba.pdf (Accessed: 10 February 2026).