

## Market Reactions to Dividend Increases and Cuts: A Decade-Long Event Study Analysis of the Warsaw Stock Exchange

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### Abstract

**Aim:** This study examines how dividend increases and cuts influence stock prices on the Warsaw Stock Exchange over a decade, testing the signaling hypothesis and assessing market efficiency in an emerging market context.

**Methodology:** Using an event study methodology, the author analysed 395 dividend increases and 232 decreases (2015-2024). Abnormal returns (AAR, CAAR) were calculated via the Market Model and Constant Mean Model, with statistical significance tested using one-tailed *t*-tests.

**Findings:** Dividend increases triggered immediate positive reactions (+1.39% AAR on announcement day,  $p < 0.005$ ), while cuts led to sharp declines (-1.23% AAR,  $p < 0.005$ ). Cumulative effects were asymmetric: CAAR for decreases persisted at -2.97% (day +16), whereas post-announcement gains for increases partially reversed. Firms raising dividends exhibited higher yield (5.19%) and payout ratios (59.48%), signalling stability.

**Implications and recommendations:** Practitioners should prioritise dividend policy as a strategic signal, particularly in emerging markets where reactions are amplified.

**Originality/value:** This is the first decade-long event study on the WSE to compare dividend increases and cuts, offering insights into investor behaviour in Central and Eastern Europe. The dual-model approach strengthens reliability, while findings challenge assumptions about market efficiency in emerging economies.

**Keywords:** dividend policy, event study, Warsaw Stock Exchange, emerging markets, abnormal returns

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## 1. Introduction

The subject of dividend has been one of the central topics of academic debate in recent decades. The method and amount of cash returned to shareholders pose a key challenge for financial managers (Brealey et al., 2023). Dividend decisions are not merely about capital allocation, they represent a form of communication between management and the market, where managers, having asymmetric information, use dividends to signal their expectations about the company's future prospects (Damodaran, 2015). While groundbreaking, this theory assumes the existence of a perfect market, which rarely aligns with reality, particularly in emerging markets like the Warsaw Stock Exchange (WSE). On the WSE, where 40% of listed companies are family-owned and characterised by high ownership concentration (Grant Thornton, 2023), dividends serve not only as a capital allocation tool but also as a means to manage relationships with minority shareholders.

The aim of this study was to identify patterns in WSE investors' reactions to dividend changes between 2015 and 2024. The analysis included both dividend increases and cuts, as well as dividend initiations (treated as an increase) and omissions (treated as a cut). A dividend omission is defined as a situation where a company paid a dividend in year  $t-1$  but does not do so in year  $t$ , corresponding to a year-over-year change of -100%. Dividend initiations, when a company did not pay a dividend in  $t-1$  but initiated one in  $t$ , were also incorporated into the dataset, although not assigned a relative percentage change due to the undefined nature of the rate (i.e. division by zero). Periods of sustained non-payment of dividends or payment of the same amount (i.e. no dividend/equal dividend in  $t-1$  and  $t$ ) were not analysed as they did not provide a measurable change and therefore fell outside the core objective of the study, which was to capture investor reactions to changes in dividend policy. This explicit delimitation addresses the choice of event selection and the methodological focus on dynamics rather than static states. The author employed an event study methodology to analyse abnormal returns, addressing a gap in the literature by providing a decade-long event analysis for the WSE that spanned periods of GDP growth and crises (e.g. the COVID-19 pandemic and 2022-2023 inflation). Although the sample was not formally split into "growth" and "crisis" periods, the time frame of the study naturally covered typical market conditions and also significant macroeconomic shocks (the so-called "black swan" events), allowing the theory to be tested in conditions of high variability to verify its universality.

The study contributed three key insights to the literature: (1) explored investor responses during a period that includes both standard economic cycles and extraordinary market disruptions, such as the COVID-19 pandemic and inflationary shocks, (2) tested the universality of signaling theory in a high ownership-concentration market, and (3) offered practical recommendations for managers and investors, guiding executives on optimal dividend policy communication in volatile environments while providing investors with strategies for capitalising on predictable market reactions to dividend policy changes.

## 2. Literature Review

Research on dividend decisions has evolved through several theoretical frameworks, from early analyses of corporate payout policies (Lintner, 1956), through practical valuation models (Gordon, 1959, 1962), perfect market assumptions (Miller & Modigliani, 1961), to theories incorporating informational imperfections (Bhattacharya, 1979) and agency costs (Easterbrook, 1984; Jensen, 1986). The foundation for this study's methodological approach was based on the efficient market hypothesis, which states that it is impossible to make excess profits by trading on all available information (Fama, 1970). This hypothesis initiated discussions on how to measure market efficiency, leading to the development of event study methodologies that allowed researchers to examine market reactions to dividend and earnings announcements (Aharony & Swary, 1980; Eades et al., 1985; Ghosh & Woolridge, 1989; Kane et al., 1984). Using these models, researchers verified various hypotheses, such as

significant price reactions triggered by dividend change announcements, synergistic effects between earnings and dividend announcements, and the efficient processing of dividend information as evidenced by price reactions clustering within narrow event windows. This study applied this same conceptual framework for understanding investor reactions and profit capture in response to dividend policy changes. Allen & Rachim (1996) examined the link between dividend policy and stock price volatility in Australia. Their analysis of 173 firms (from 1972 to 1985) found no significant correlation between dividend levels and price volatility, contradicting Baskin's (1989) findings for the U.S. market.

In the context of the Warsaw Stock Exchange, the literature draws on these global theories but highlights emerging market specificities. Early studies, such as Gurgul & Majdosz (2005), confirmed that dividend and share buyback announcements on the WSE triggered statistically significant positive stock price reactions, with abnormal returns of 0.79% for dividends and 1.3% for buybacks. However, these reactions were delayed by one day compared to Western markets, suggesting lower informational efficiency. Brzeszczyński & Gajdka (2007) demonstrated that portfolios of high dividend-yield stocks outperformed the WIG20 index, challenging the market efficiency hypothesis in Poland. Conversely, Mrzygłód & Nowak (2017) found no asymmetry in reactions to dividend increases and cuts, contrary to signalling theory. Their analysis showed that increases generated cumulative abnormal returns (CAR) of +1.03% one day post-announcement, while cuts led to weaker negative effects. Studies by Orzechowski (2015) and Gnap (2022) further highlighted the complexity of market reactions: the former proposed profitable dividend-based investment strategies, while the latter noted that dividend changes alone do not fully explain price movements. Kaźmierska-Jóźwiak (2019) analysed WSE reactions to dividend changes (2014-2016), finding non-significant abnormal returns (+0.55% for increases, -0.37% for cuts) and no robust link between dividend changes and returns, casting doubt on the signaling power of dividends in Poland. Szomko (2015) examined investor reactions to final dividend payments, finding positive responses to irregular payouts and dividend initiations/increases, but negative reactions to resumptions and decreases. The magnitude of these reactions was notably lower than in the US markets with a three-day positive reaction to dividend initiations of 2.44% compared to 3.7% CAR. Pieloch-Babiarz (2015) specifically investigated dividend initiations on the WSE through an event study of 33 companies, confirming positive market reactions on the third and second days before the announcement, along with sustained profitability and increasing dividend levels in subsequent years.

Regional studies provide valuable comparative context for this research. On the Baltic market, Legenzova et al. (2017) found positive but statistically insignificant abnormal returns following dividend announcements on the NASDAQ OMX Baltic exchange (2010-2015), with prices failing to adjust quickly after announcements – suggesting weak market efficiency. In Croatia, Škrinjaric & Orlovic (2019) documented significant negative market reactions to corporate events involving Agrokor (a major regional conglomerate), while Draganac (2017) identified dividend shock effects on excess returns in the Serbian market. Research from Turkey by Kadioğlu et al. (2015) revealed a significant negative relationship between cash dividends per share and abnormal returns following dividend announcements on the Borsa Istanbul (2003-2015), supporting the tax clientele effect hypothesis and showing declining market inefficiency over time.

Research on dividend behaviour during economic crises – particularly the COVID-19 pandemic – offers valuable context for the decade-long analysis spanning both expansion and downturn periods. In India and Turkey, markets reacted positively to dividend announcements, especially in the service sector, supporting weak-form efficiency and signalling effects in emerging markets (Halife & Karroum, 2023; Prakash & L, 2025). However, the pandemic altered these dynamics as G20 countries experienced significantly negative cumulative abnormal returns (Singh et al., 2024), while in Indonesia markets showed pessimism even toward increased dividends, indicating that crisis periods fundamentally shift the way dividend signals are interpreted (Robiyanto & Yunitaria, 2022).

This study contributes to the debate by offering a decade-long analysis (2015-2024) that examined the applicability of classical theories in the dynamic environment of the WSE, shaped by economic cycles,

regulatory reforms, and the growing presence of institutional investors. Adopting the assumptions of the efficient market hypothesis, which posits that stock prices instantaneously reflect new information, the following hypotheses were formulated:

H1: Dividend increase announcements on the WSE will generate positive abnormal returns on the announcement day.

H2: Dividend cut announcements on the WSE will trigger negative abnormal returns on the announcement day.

### 3. Methodology

The event study in this paper was based on the theoretical framework of MacKinlay (1997) and employed two econometric models to estimate abnormal returns: the Constant Mean Return Model and the Market Model in Sharpe's (1964) formulation. Figure 1 illustrates the timeline of the study, with key points defined as follows:  $T_0 = -120$ ,  $T_1 = -20$ , AD = 0 (announcement day),  $T_2 = +20$ . The estimation window  $[-120; -20)$  was used to calibrate the models, while the event window  $[-20; +20]$  captured market reactions. The choice of a 41-day event window  $[-20; +20]$  was made after reviewing the relevant literature and reflected the balance between capturing short-term market reactions, allowing for potential information leakage and delayed response. For instance, Ghosh and Woolridge (1988) applied a  $\pm 30$ -day window, while MacKinlay (1997), whose methodology served as the foundation for this paper, used a  $\pm 20$ -day window. Shorter windows such as  $[-10; +10]$  are also found in the literature (Eades et al., 1984; Aharony & Swary, 1980), but may overlook gradual adjustments around the announcement. Therefore the  $[-20; +20]$  window was selected as a methodological compromise, consistent with established event study practices, yet acknowledging that a longer event window increases the risk of contamination from unrelated market events. To mitigate this, robustness checks were performed on narrower windows (e.g.  $[-10; +10]$ ) and discussed in the robustness section, which confirmed the consistency of the results.

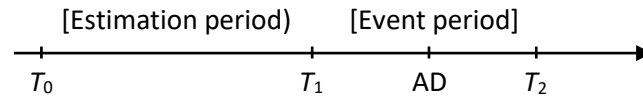


Fig. 1. Timeline of the study

Source: own elaboration based on MacKinlay (1997).

In the Constant Mean Return Model, the expected return for firm  $i$  was calculated as the historical mean return during the estimation period relative to the dividend announcement day:

$$E(R_{it}) = \mu_i = \frac{1}{-(T_0 - T_1)} \sum_{t=T_0}^{T_1-1} R_{it}, \quad (1)$$

where  $\mu_i$  is the average return of firm  $i$  in the estimation window. Despite its simplicity, this approach yields results comparable to more complex models, as demonstrated by Brown & Warner (1980, 1985). The Market Model, rooted in the CAPM framework, relates a firm's returns to market returns:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \quad (2)$$

$$\mu_m = \frac{1}{-(T_0 - T_1)} \sum_{t=T_0}^{T_1-1} R_{mt}, \quad (3)$$

where  $R_{mt}$  is the market portfolio return,  $\mu_m$  is the average market return during the estimation period, and  $\alpha_i$  and  $\beta_i$  were estimated via Ordinary Least Squares (OLS) regression:

$$\beta_i = \frac{\sum_{t=T_0}^{T_1} (R_{it} - \mu_i)(R_{mt} - \mu_m)}{\sum_{t=T_0}^{T_1} (R_{mt} - \mu_m)^2}, \quad (4)$$

$$\alpha_i = \mu_i - \beta_i \mu_m. \quad (5)$$

Then the abnormal return was:

$$AR_{it} = R_{it} - E(R_{it}). \quad (6)$$

For both models, the average abnormal return (AAR) across  $N$  events was computed as

$$AAR_\tau = \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (7)$$

and the cumulative abnormal return (CAR) from  $T_1$  to  $\tau$  (distance of days from AD) was

$$CAR_i(T_1, \tau) = \sum_{t=T_2}^{\tau_1} AR_{it} \quad (8)$$

with the mean CAR as

$$CAAR(T_1, \tau) = \frac{1}{N} \sum_{i=1}^N CAR_i(T_1, \tau). \quad (9)$$

To ensure robustness, statistical significance of AAR and CAAR was tested using a one-tailed  $t$ -test. The application of the  $t$ -test assumed that the abnormal returns were approximately normally distributed. In the context of financial market data and the relatively large sample size in this study ( $n = 627$ ), the central limit theorem suggests that the distribution of sample means tends towards normality. Furthermore, many event studies in financial literature with comparable sample sizes often proceed with the  $t$ -test without extensive formal testing for normality. The sample comprised 627 dividend change announcements (increases and decreases) from companies listed on the Warsaw Stock Exchange between 2015 and 2024, with a market capitalisation exceeding PLN 0.5 billion as of December 28, 2024, the starting date for data collection. The analysis focused exclusively on cash dividends. The type of dividend (ordinary or extraordinary) was not treated as a separate factor, as the study's primary focus was on the market's reaction to the announced change in the cash flow received by investors. Event dates were sourced from issuers' current reports, filtered for completeness and absence of trading suspensions during the analysis period. To address the continuity of dividend payments, the event date was defined as the announcement date of the final dividend for a given fiscal year. In cases where companies announced interim dividends, the announcement of the final dividend was considered the key event for determining the magnitude and direction of the dividend change compared to the previous fiscal year's final dividend. Market data were obtained from the Stooq database.

## 4. Results

Table 1 summarises the characteristics of dividend changes, dividend yield, and payout ratios for 395 dividend increases and 232 decreases on the Warsaw Stock Exchange over the analysed decade. "Dividend change (%)" refers to the year-over-year percentage change in cash dividend per share

declared by the company, with “Dividend yield (%)” calculated as the cash dividend per share divided by the share price on the day before the announcement. “Payout ratio (%)” reflects the proportion of net income paid out as dividends, based on the most recent annual financial statements. Companies increasing dividends reported an average payout growth of 105.84%, with a mean dividend yield of 5.19% and a payout ratio of 59.48%. For dividend cuts, the average reduction was -60.62%, accompanied by a lower dividend yield (2.60%) and payout ratio (43.59%).

Table 1. Dividend changes, yield, and payout ratios by announcement type

	<i>n</i>	Dividend change (%)	Dividend yield (%)	Payout ratio (%)
Dividend increase	395	105.84	5.19	59.48
Dividend decrease	232	-60.62	2.60	43.59

Source: own elaboration.

The findings suggest that Polish companies tended to exhibit a more pronounced increase in dividends when they decided to raise them. The sharp average increase of 105.84%, paired with a moderate payout ratio (59.48%), could indicate that managers may intentionally postpone actions to avoid signaling premature optimism. Dividend adjustments appeared to be more substantial when they occurred, potentially reflecting a stronger conviction about sustained future profitability. While this study did not directly examine factors such as capital investments or market share expansion, the magnitude of dividend increases suggests that when companies decide to raise payouts, they did so with a significant upward adjustment. The results of decreases and increases were similar to those obtained in developing countries, where increases almost doubled the decrease (AlGhazali et al., 2024; Fairchild et al., 2014). As far as the US market is concerned, a study analysing the period 1967 to 1993 showed that the average decrease was 45% and the increase only 30%. For dividend cuts, the drastic average reduction (-60.62%) reflected preemptive measures. Anticipating liquidity risks or future profit declines, managers slashed dividends to preserve capital for contingencies, in line with Myers and Majluf’s (1984) pecking order theory. Compared to developed markets, the steeper reductions on the WSE most likely stemmed from higher macroeconomic volatility and a less entrenched dividend culture. The event study based on the Market Model and Constant Mean Model revealed statistically significant market reactions on the announcement day (AD) for dividend increases and decreases (Table 2). The analysis identified distinct market reactions to dividend changes on the Warsaw Stock Exchange (WSE). For dividend increases, announcement day (AD) triggered strongly positive abnormal returns (AAR = +1.39%,  $t = 8.80^{**}$  under the Market Model; +1.35%,  $t = 7.77^{**}$  for the Constant Mean Model), with cumulative returns (CAAR) reaching 1.36% and 0.91% by AD. Pre-announcement AARs on days -16 (+0.30%,  $t = 2.34^*$ ) and -6 (+0.19%,  $t = 1.79$ ) suggested potential information leaks or market anticipation. Post-announcement, CAAR peaked on days +1 (+1.73%) and +2 (+1.92%) before declining to +0.91% by day +20, probably reflecting macroeconomic corrections. For dividend cuts, immediate negative reactions dominated AD (AAR = -1.23%,  $t = -5.73^{**}$  and -1.14%,  $t = -5.27^{**}$ ), with CAARs of -1.81% and -0.83%. Pre-announcement AARs (e.g. +0.22% on day -18) lacked significance, indicating no early anticipation of negative news. Post-announcement, CAAR worsened to -2.97% (Market Model) by day +16, signalling prolonged pessimism, whilst the Constant Mean Model showed milder declines (-0.97% by day +20).

Dividend increases (Figure 2) led to CAAR rises until AD in both models. Post-AD, the Market Model sustained higher CAAR levels, whereas the Constant Mean Model corrected faster, most likely due to better adjustment to systematic volatility.

The statistical significance in this study is denoted at the 1% and 0.5% levels to reflect the particularly high threshold adopted for considering the results statistically meaningful, underlining the robustness of the findings.

Table 2. Abnormal returns (in %) and *t*-test before and after dividend announcements

Days	Dividend increase						Dividend decrease					
	Market Model			Constant Mean Model			Market Model			Constant Mean Model		
	AAR	<i>t</i>	CAAR	AAR	<i>t</i>	CAAR	AAR	<i>T</i>	CAAR	AAR	<i>T</i>	CAAR
-20	-0.12	-1.18	-0.12	-0.12	-1.14	-0.12	-0.03	-0.15	-0.03	-0.02	-0.08	-0.02
-19	0.03	0.24	-0.09	-0.06	-0.51	-0.18	0.12	0.75	0.09	0.11	0.63	0.10
-18	-0.14	-1.41	-0.24	-0.18	-1.73	-0.37	0.22	1.41	0.31	0.31	1.89	0.40
-17	-0.03	-0.31	-0.27	-0.06	-0.59	-0.43	0.02	0.19	0.34	0.01	0.09	0.42
-16	0.30	2.34*	0.03	0.26	2.00	-0.17	-0.21	-1.59	0.13	-0.20	-1.37	0.21
-15	0.11	0.96	0.14	0.08	0.70	-0.08	0.29	1.71	0.42	0.32	1.66	0.53
-14	0.01	0.06	0.14	-0.11	-0.82	-0.19	-0.07	-0.52	0.35	-0.04	-0.31	0.49
-13	-0.11	-1.10	0.04	-0.11	-1.00	-0.30	-0.21	-1.45	0.14	-0.34	-1.52	0.14
-12	0.05	0.36	0.08	-0.01	-0.04	-0.31	-0.22	-1.54	-0.08	-0.06	-0.37	0.09
-11	-0.05	-0.38	0.04	-0.07	-0.50	-0.38	-0.17	-1.05	-0.25	-0.06	-0.28	0.03
-10	-0.18	-1.44	-0.14	-0.19	-1.41	-0.57	-0.26	-1.84	-0.31	-0.17	-1.07	-0.14
-9	-0.04	-0.32	-0.19	-0.08	-0.56	-0.65	-0.19	-0.96	-0.70	-0.15	-0.71	-0.30
-8	-0.13	-0.91	-0.32	-0.14	-0.87	-0.79	0.02	0.11	-0.69	0.18	1.07	-0.12
-7	0.13	1.04	-0.18	0.19	1.47	-0.60	0.03	0.16	-0.66	0.18	1.13	0.07
-6	0.19	1.79	0.01	0.18	1.56	-0.42	-0.01	-0.06	-0.67	-0.06	-0.36	0.00
-5	-0.12	-1.26	-0.11	-0.18	-1.67	-0.59	-0.06	-0.42	-0.73	-0.09	-0.55	-0.09
-4	0.08	0.75	-0.03	0.08	0.62	-0.52	-0.33	-1.68	-1.07	-0.17	-1.10	-0.26
-3	-0.02	-0.16	-0.05	0.05	0.53	-0.46	0.19	1.12	-0.87	0.35	2.06	0.09
-2	0.05	0.44	0.01	0.02	0.19	-0.44	0.14	0.99	-0.73	0.03	0.19	0.12
-1	-0.03	-0.29	-0.03	0.00	0.00	-0.44	0.15	0.90	-0.58	0.20	1.21	0.32
AD	1.39	8.80**	1.36	1.35	7.77**	0.91	-1.23	-5.73**	-1.81	-1.14	-5.27**	-0.83
1	0.35	2.35*	1.73	0.40	2.55*	1.30	-0.04	-0.25	-1.85	0.00	0.00	-0.83
2	0.20	1.52	1.92	0.25	1.86	1.55	-0.21	-1.22	-2.07	-0.01	-0.06	-0.84
3	-0.06	-0.54	1.85	-0.10	-0.79	1.45	-0.09	-0.55	-2.16	-0.04	-0.27	-0.88
4	-0.24	-2.02	1.61	-0.28	-2.27	1.17	-0.02	-0.12	-2.18	0.04	0.28	-0.83
5	0.14	1.02	1.75	0.18	1.14	1.33	0.09	0.52	-2.09	0.18	1.04	-0.65
6	-0.05	-0.45	1.70	-0.10	-0.82	1.23	0.01	0.09	-2.07	0.13	0.77	-0.52
7	-0.13	-1.17	1.58	-0.10	-0.90	1.13	-0.16	-1.13	-2.24	-0.13	-0.92	-0.65
8	-0.19	-1.77	1.39	-0.17	-1.51	0.96	-0.05	-0.31	-2.29	-0.01	-0.05	-0.65
9	-0.31	-2.56*	1.07	-0.26	-2.10	0.70	-0.05	-0.33	-2.34	-0.03	-0.21	-0.69
10	0.01	0.08	1.08	0.03	0.26	0.73	-0.16	-1.08	-2.50	-0.24	-1.61	-0.93
11	0.10	0.84	1.18	0.06	0.51	0.79	-0.02	-0.14	-2.52	0.05	0.35	-0.88
12	-0.20	-1.69	0.98	-0.21	-1.62	0.59	-0.27	-1.36	-2.79	-0.13	-0.84	-1.01
13	0.14	1.16	1.12	0.14	1.18	0.73	0.12	0.77	-2.66	0.04	0.22	-0.97
14	0.10	0.97	1.22	0.12	1.06	0.85	-0.15	-0.91	-2.81	-0.02	-0.12	-0.99
15	-0.03	-0.25	1.19	-0.04	-0.32	0.81	0.00	-0.02	-2.81	0.00	0.03	-0.99
16	-0.24	-2.22	0.95	-0.25	-2.23	0.56	-0.16	-1.15	-2.97	-0.11	-0.77	-1.10
17	-0.12	-1.18	0.83	-0.07	-0.63	0.49	0.06	0.40	-2.92	0.15	1.03	-0.95
18	-0.09	-0.92	0.74	-0.12	-1.09	0.38	-0.12	-0.83	-3.04	-0.11	-0.76	-1.06
19	-0.01	-0.08	0.73	-0.08	-0.57	0.32	0.13	0.64	-2.92	0.24	1.22	-0.92
20	0.18	1.61	0.91	0.21	1.72	0.53	0.11	0.49	-2.80	0.18	0.96	-0.97

\* Significant at 1% level (one-tailed test)  $p < 0.01$ ; \*\* Significant at 0.5% level (one-tailed test)  $p < 0.005$ 

Source: own elaboration.

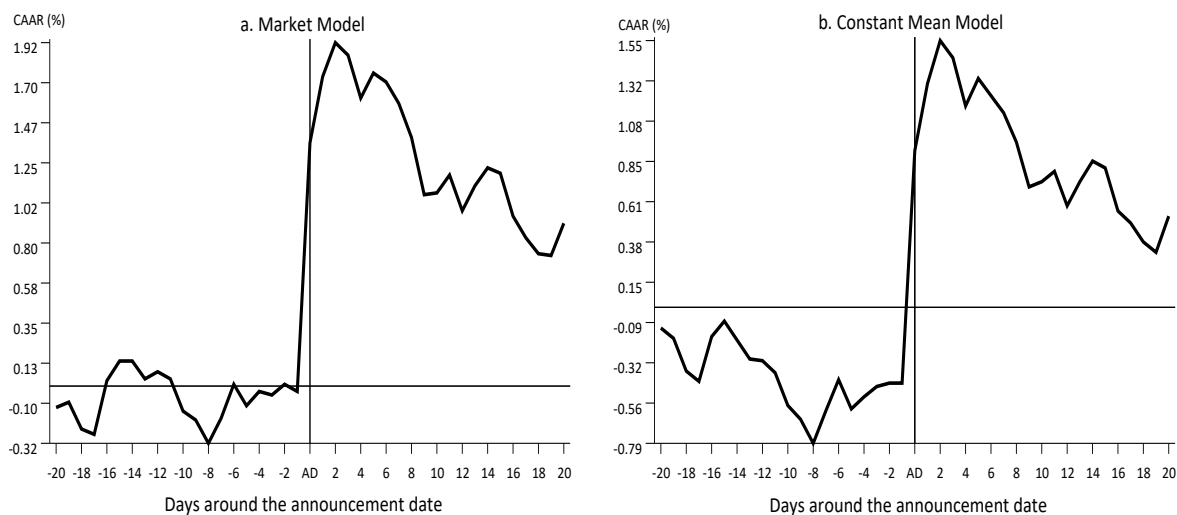


Fig 2. Cumulative average abnormal returns around dividend increase announcements: a two-model comparison

Source: own elaboration.

Dividend cuts (Figure 3) – both models show persistent post-AD declines, but the Market Model's sharper reaction underlines its sensitivity to instability, reinforcing its robustness in turbulent conditions.

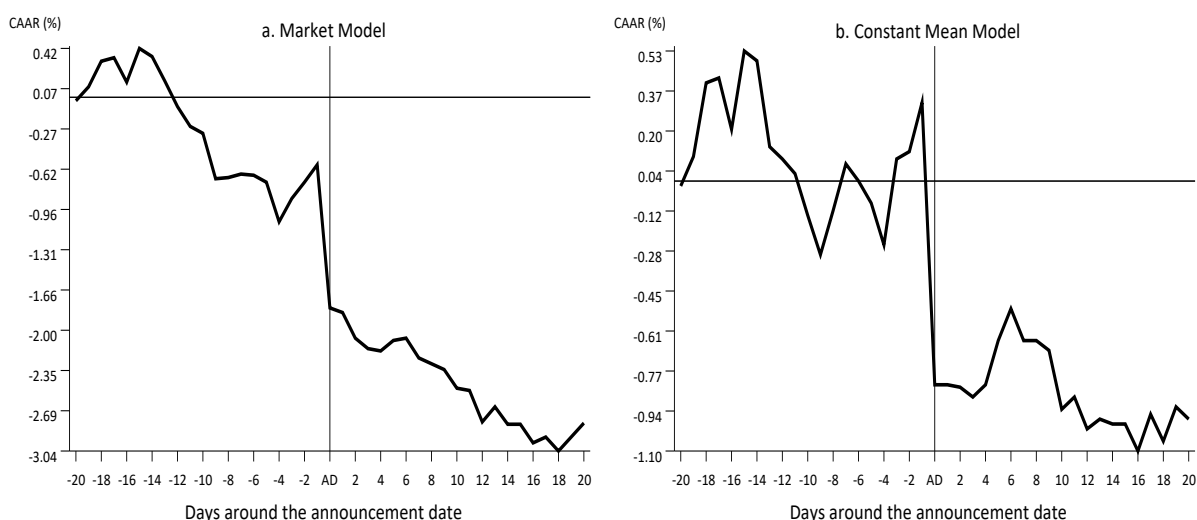


Fig 3. Cumulative average abnormal returns around dividend decrease announcements: a two-model comparison

Source: own elaboration.

These results highlight the WSE's distinct dynamics, where dividend signals carry amplified weight due to institutional and macroeconomic factors absent in mature markets.

## 5. Discussion and Conclusion

The event study conducted on dividend change announcements on the Warsaw Stock Exchange between 2015 and 2024 provides strong empirical support for both proposed hypotheses. H1: Dividend increase announcements on the WSE will generate positive abnormal returns on the



announcement day. This hypothesis was confirmed with a statistically significant positive average abnormal return (AAR) of +1.39% on the announcement day ( $p < 0.005$ ). Furthermore, the positive market reaction persisted beyond the announcement, resulting in a cumulative average abnormal return (CAAR) of +1.92% by day +2. These findings are in line with the predictions of signalling theory (Bhattacharya, 1979), suggesting that dividend increases are perceived by investors as credible signals of positive future prospects. H2: Dividend cut announcements on the WSE will trigger negative abnormal returns on the announcement day. This hypothesis was also strongly supported by the empirical evidence. The announcement of dividend cuts led to a statistically significant negative average abnormal return (AAR) of -1.23% on the announcement day ( $p < 0.005$ ). The negative market reaction was not limited to the announcement day, as the cumulative average abnormal return (CAAR) further declined to -2.97% by day +16, indicating a sustained period of investor concern following dividend reductions. This asymmetry in market reaction to dividend increases and decreases is consistent with the concept of signal asymmetry (Easterbrook, 1984; Jensen, 1986), where negative signals tend to have a more prolonged and pronounced impact on investor sentiment.

The positive market reaction to dividend increases observed in this study (+1.39% AAR on the announcement day) was notably higher than the +0.63% reported for the US market by Eades et al. (1985), potentially reflecting a greater sensitivity to positive signals in the emerging market context of the WSE. The author's findings of a significant positive reaction to dividend increases were also consistent with earlier research on the Polish market. Gurgul & Majdosz (2005) found a positive abnormal return of 0.79% for dividend announcements on the WSE, although they noted a one-day delay in the reaction compared to Western markets. The results of this study indicate a more immediate market response, suggesting a potential increase in market efficiency over time. Conversely, the significant negative reaction to dividend cuts (-1.23% AAR on the announcement day, deepening to -2.97% CAAR by day +16) were in contrast with the findings of Mrzygłód & Nowak (2017), who reported no significant asymmetry in reactions to dividend increases and cuts on the WSE. Their study found a +1.03% CAR one day post-announcement for increases and weaker negative effects for cuts. This discrepancy might be attributed to the different time periods analysed, with this study including more recent data potentially capturing periods of greater economic uncertainty, where dividend cuts are perceived as stronger negative signals. The magnitude of the average dividend cut in the research sample (-60.62%) was also substantial compared to developed markets, further emphasising the potential role of dividends as a tool for liquidity management in the more volatile environment of the WSE. These findings are in line with some regional studies, e.g. Szomko (2015) found negative reactions to dividend decreases on the WSE, although the magnitude was smaller than in the USA.

The findings of this study contribute to the broader understanding of dividend signalling in emerging markets. While traditional signaling theory suggests that dividend increases signal positive future cash flows, this study's results highlight the amplified nature of these signals on the WSE. The strong negative reaction to dividend cuts also underline the heightened sensitivity to negative information in this market. Furthermore, the author's analysis suggests that dividend policy on the WSE may play a dual role: not only signalling future prospects but also acting as a crucial tool for liquidity management, particularly in times of economic uncertainty. This is evidenced by the substantial magnitude of dividend cuts observed, potentially reflecting the limited access to alternative financing options for firms in emerging economies compared to developed markets, where companies might be more inclined to leverage debt to maintain dividend payments (as seen with 'dividend aristocrats' in the USA.), hence signalling theory needs to be adapted to account for these unique characteristics of emerging markets. The significant market reactions observed in this study have important implications for both managers and investors. Managers on the WSE should be mindful of the strong signaling effect of their dividend policies. Abrupt and substantial dividend changes, whether increases or decreases, can lead to significant market reactions. Overly cautious communication or delayed adjustments might result in amplified responses when changes are eventually announced, whilst investors should recognise the informational content of dividend announcements but also be aware of the potential for overreaction, particularly in the case of dividend cuts. While short-term arbitrage opportunities might

arise around announcement dates, the prolonged negative reaction to cuts suggests that a purely event-driven strategy might carry significant risk. The study's limitations include the restriction of the sample to companies with a market capitalisation exceeding PLN 0.5 billion, which might have excluded smaller firms with potentially different dividend policies and market reactions. Additionally, while the study controlled for trading suspensions, it did not explicitly account for the impact of overlapping information events occurring within the event window, as highlighted by Mrzygłód & Nowak (2017). Future research could explore the sensitivity of the results to the exclusion of such overlapping events. Furthermore, the analysis did not incorporate the influence of ownership structure or the interaction between dividend signals and other firm-specific information, such as earnings announcements or management changes. Investigating these factors could provide a more comprehensive understanding of market reactions to dividend policies on the WSE.

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## Reakcje rynku na podwyżki i cięcia dywidend: Analiza zdarzeń na Giełdzie Papierów Wartościowych w Warszawie w ciągu ostatniej dekady

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### Streszczenie

**Cel:** Celem badania jest analiza wpływu podwyżek oraz cięć dywidend na ceny akcji na Giełdzie Papierów Wartościowych w Warszawie (GPW) w okresie dziesięciu lat, weryfikacja hipotezy sygnalizacji oraz ocena efektywności rynku w kontekście gospodarki wschodzącej.

**Metodyka:** Wykorzystano metodologię badania zdarzeniowego, analizując 395 przypadków podwyżek i 232 przypadki obniżek dywidend w latach 2015-2024. Nadzwyczajne stopy zwrotu (AAR, CAAR) obliczono przy użyciu modelu rynkowego i modelu stałej średniej, a istotność statystyczną przetestowano jednostronnymi testami  $t$ .

**Wyniki:** Podwyżki dywidend wywołują natychmiastowe pozytywne reakcje rynku (+1,39% AAR w dniu ogłoszenia,  $p < 0,005$ ), podczas gdy cięcia prowadzą do znaczących spadków (-1,23% AAR,  $p < 0,005$ ). Efekty skumulowane są asymetryczne: CAAR dla cięć utrzymuje się na poziomie -2,97% do 16. dnia po ogłoszeniu, podczas gdy zyski z podwyżek częściowo wygasają. Firmy podnoszące dywidendy charakteryzują się wyższą stopą dywidendy (5,19%) i wskaźnikiem wypłat (59,48%), sygnalizując stabilność.

**Implikacje i rekomendacje:** Praktycy powinni traktować politykę dywidendową jako narzędzie strategicznej komunikacji, zwłaszcza na rynkach wschodzących, gdzie reakcje inwestorów są silniejsze.

**Oryginalność/wartość:** Jest to pierwsze dziesięcioletnie badanie zdarzeniowe na GPW porównujące reakcje na podwyżki i cięcia dywidend, dostarczające nowych wniosków na temat zachowań inwestorów w Europie Środkowo-Wschodniej. Zastosowanie podwójnego modelu zwiększa wiarygodność wyników, które podważają założenia o efektywności rynków wschodzących.

**Słowa kluczowe:** polityka dywidendowa, badanie zdarzeniowe, Giełda Papierów Wartościowych w Warszawie, rynki wschodzące, nadzwyczajne stopy zwrotu

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