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# Illiberal turn and stock markets in Hungary and Poland

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**Abstract**. This paper investigates the impact of news releases concerning decisions of populist politicians on stock markets in Hungary and Poland. The results of the empirical analysis provide solid evidence regarding the impact of populist decisions and manifestos on the attitudes of investors on financial markets. It has been demonstrated that the reaction of financial markets to democratic backsliding is not always negative. The impact of news releases on stock market returns varies across countries and over time. The strongest reactions from the stock markets in Budapest and Warsaw were recorded in response to the negative news releases on funding cuts and conflicts between these countries and the European Union institutions. Furthermore, the negative performance of the Hungarian and Polish stock market shorts after the Russian invasion of Ukraine confirmed the important role of geopolitical risk.

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## 1. INTRODUCTION

Democratic backsliding is a term commonly used to describe the recent changes in politics in Central and Eastern Europe (e.g., Dawson & Hanley, 2016). The phenomenon is related to the emergence and electoral success of populist political actors in this region (Havlik, 2019). Hungary and Poland have been the most visible examples of illiberal turns in recent years.

Through numerous studies devoted to the concept of populism, a consensus on its core elements has emerged. Thus, there are three widely recognised characteristics of populism (Hawkins, 2009):

- perception of the people and the elites as two homogenous groups (people-centrism),
- construction of an antagonistic and essentially moralistic (Manichean) divide between the two groups,
- a view of the people as a moral sovereign and the need to restore the allegedly stolen sovereignty of the people.

The political events observed in Hungary after 2010 and in Poland after 2015 can be perceived as an illiberal turn and electoral success of populist politicians and parties. The phenomenon of populism and the success of populist politicians in Central and Eastern Europe have attracted significant attention from the academic community and numerous studies have been devoted to this subject. The "Fourth Republic" project pursued by Jarosław Kaczyński and the Law and Justice Party in Poland, as well as the vision of illiberal democracy prompted by Viktor Orban and his Fidesz in Hungary, have raised concerns about the quality of democracy in both countries (Enyedi, 2016; Markowski, 2019). However, there is a paucity of studies devoted to the impact of populism and decisions of populist politicians on stock markets in the countries of the Central and Eastern Europe. This study fills the existing gap by examining the impact of the news releases on decisions of populist politicians on the stock markets in Hungary and Poland. The empirical analysis is focused on the content of the political news releases (from the *Financial Times* newspaper) and their impact on the performance of stock markets in Hungary and Poland following the democratic backsliding in these countries. Thus, this paper elucidates the impact of populist decisions and manifestos on the attitudes of investors on stock markets.

This paper has the following structure. In the second section, the discussion concerning the electoral success of populist political actors in Hungary and Poland is provided. Moreover, the roles of political news releases and geopolitical risks in shaping the prices of financial instruments are discussed. In Section 3, data are described, and the methodology is presented. Results are presented and discussed in the fourth section. The last section concludes.

## 2. LITERATURE REVIEW

### 2.1. Democratic backsliding in Hungary and Poland

In 2010, Viktor Orbán and his Fidesz (Hungarian Civic Alliance) came back to power. Fidesz won in coalition with the Christian Democrats (KDNP), a minor political party. Although Viktor Orbán was a participant in the 1989 roundtable talks, he abandoned liberal democracy, which he framed as a failure of the Hungarian people (Sata & Karolewski, 2020). Fidesz claimed that correcting the failed transition requires an urgent transformation of liberal democracy to give the power back to "the people". Using a populist discourse, Fidesz has embarked on a conservative-national project. Using nationalistic discourse attracted the attention of citizens, since nationalism – rooted in the trauma of losing large parts of territories after the First World War – has a long tradition in Hungary (Enyedi, 2016).

The most significant decision of the Fidesz government was the amendment of the constitution. Gyula Teller, Viktor Orban's adviser, prepared the grounds for the new post-2010 "illiberal state". Teller pointed out the dangers of a rights-based constitution, free markets, and the dominance of liberal norms, emphasizing that direct dependence on the materialistic masses is an obstacle to solving long-term societal problems. According to the Teller's view, the old constitution made it too easy to change the government. As a result, society was too weak to defend itself against forces that captured the government, since the electoral pressures cut short all major attempts to move the country away from financial dependency on the West. The new constitution, narrowing the field of the political game, aimed to prescribe a particular set of values and create institutions that advance national community interests (Buzogany & Varga, 2023).

When Jarosław Kaczyński and his PIS (Law and Justice) were in opposition to the PO-PSL government from 2007 to 2015, they framed liberal democracy as a failure of the Polish people. The PIS claimed that correcting the failures of the transition phase requires an urgent transformation of liberal democracy and giving the power back to "the people". In 2015, PIS won the parliamentary elections, and a government led by PIS politicians began to rule (Matczak, 2020). Many of the changes that took place in Poland after 2015

can be attributed to Orban-inspired influences. In public administration, personnel from state-owned enterprises and state-owned banks have been replaced.

Following the 2015 parliamentary elections, a significant shift occurred in Polish constitutional politics. PIS initiated a series of profound legal and political changes, transforming the constitutional order in several key aspects (Matczak, 2020). The Polish transformation after 2015 was characterized as anti-constitutional populist backsliding (Karolewski, 2021). It was "anti-constitutional", since it proceeded through outright breaches of the Constitution. It was also "populist" because the ruling elite was concerned with fomenting societal support and mobilization. The term "backsliding" is associated with the activities of the PIS against the baseline of high democratic standards achieved in recent years. Shortly after the election, the PIS regime conferred upon the Constitutional Tribunal. This Tribunal has become a constraint on the opposition and a helper of the PIS government, rather than acting as a constraint on the government. The institutional changes discussed can be viewed as part of a broader populist syndrome, characterized by a significant decline in the norms of civil discourse and an accompanying loss of social trust.

Though patronal politics has been introduced in Poland and Hungary, there is an essential difference between these two countries. In Poland, the personal rule of Jarosław Kaczyński is confronted with several competing networks, while in Hungary, Viktor Orbán is an uncontested patron. Therefore, Polish patronal politics appears to be a competing pyramid system, rather than a single pyramid system, as observed in Hungary (Sata & Karolewski, 2020).

### 2.2. Impact of politics and geopolitical risk on financial markets

Apart from the literature review devoted to the problem of the illiberal turn in Hungary and Poland, literature on the topic of the impact of populism and the illiberal turn, as well as the effects of geopolitical risk, should also be reviewed. This is because, during the analyzed period, the issue of an illiberal turn was observed in the Hungarian and Polish economies. Moreover, the Russian invasion of Ukraine has made the issue of geopolitical risk particularly significant. Since Hungary and Poland share a border with Ukraine, the war could have impacted the attitude of international investors towards the entire region. Although this paper focuses on stock markets in Hungary and Poland, the strong linkages between stocks and other financial market segments (bonds, currency) make an analysis of the literature on the impact of populism and geopolitical risk on general financial markets crucial.

According to Howell and Chaddick (1994), political risk is defined as the possibility that political events, decisions, or conditions within a country will impact the business environment and result in a reduced profit margin for investors. There is no doubt that political risk is one of the most vital risks to countries, as the damage it creates can be costly, affecting both the country's micro- and macroeconomic systems. Political risks can take the form of a coup, an election, a new piece of legislation, or a change in the country's regime.

The reaction of stock markets is obvious during election times. Gemmill (1992) found inefficiency in stock prices around the time of elections. The work of Nordhaus (1975) was the first attempt to create the political business cycle. In this pioneering research, various issues, including political decisions related to current or future welfare, were deliberated. Empirical studies by Schwert (1989) and Bittlingmayer (1998) have documented that political confusion or uncertainty affects the stock market. As McQueen and Roley (1993) argue, news announcements affect either discount rates or expectations about future dividends (shaping stock prices), so they have an impact on stock prices. When new information arrives, investors adjust their expectations about market conditions (Tan & Gannon, 2002). As a result, news announcements leading to an upward revision of investors' expectations should increase equity prices and vice versa. Moreover, events significantly impact stock markets, as they are informational announcements that often occur unexpectedly. The adjustment of stock market prices to new information depends on the content of

the news. However, as Mitchell and Mulherin (1994) argue, the interpretation of the news, as well as the extent to which investors are taken by surprise, is also essential.

Numerous authors have analyzed the critical role of news releases in shaping stock prices in different countries. For example, Kaminsky and Schmukler (1999) identified a significant impact of the Asian crises' political news on stock markets in some Asian countries. Beaulieu et al. (2006) investigated the short-term effect of the Quebec referendum on the stock returns of Quebec firms. The obtained results show that the uncertainty surrounding the referendum outcome affected the stock returns of Quebec companies, and the effect of the referendum varied with the political risk exposure (i.e., the structure of assets and the degree of foreign involvement). Diamonte et al. (1996) argued that political risk has a greater impact on stock markets in developing economies than developed ones. Lei and Wisniewski (2024) examined the relation between the level of stock index returns. The research sample covered 74 countries. The results of the empirical study showed that lower returns and higher volatility levels are characteristic of autocratic states in comparison with democracies.

The role of geopolitical risk has been primarily studied in the context of bond markets. Geopolitical conflicts can increase sovereign risk by discouraging foreign investments or hindering a country's ability to access international financial markets. A significant rise in sovereign risk due to a country's exposure to external shocks, such as geopolitical events, was highlighted by Catalan (2023). Results obtained by Caldara et al. (2022) have shown that high geopolitical risk significantly decreases investment and has a substantial impact on enterprises, particularly in highly vulnerable industries. Results obtained by Afonso et al. (2024) indicate that geopolitical tensions and global uncertainty in border countries contribute to a significant increase in a country's sovereign risk measured by 5- and 10-year Credit Default Swaps and bond returns.

The impact of geopolitical risk on stock markets stems from the strong linkage between bond and stock markets, particularly during crisis periods (Goyenko & Ukhov, 2009). Since geopolitical risk affects trade flows (Gupta et al., 2019), it may have a significant impact on the performance of companies and their financial indicators, potentially negatively affecting the rates of return on equities. However, the indirect effect of geopolitical risk on stock market returns has also been widely studied in economic literature. Agoraki et al. (2022) examined the impact of geopolitical risk and monetary policy uncertainty on stock returns. Using an unbalanced panel dataset of monthly observations for 22 countries spanning the period 1985-2020 and controlling for a set of macroeconomic and market structure variables, they have shown that a one-unit standard deviation increase in geopolitical risk decreases stock returns by 10.53-42.14% of the sample mean.

Despite the growing number of empirical studies on the impact of political news releases on stock markets, a significant contribution to existing literature remains possible. The study evaluates the effects of political news releases associated with populist controversial decisions on stock market returns in Hungary and Poland. The paper provides solid evidence about the impact of populist controversial decisions and manifestos on the attitudes of investors in financial markets. Different topics of news releases are analyzed. The proposed methodology enables the analysis of all news releases separately. Specific news releases may affect the stock market in one country but not in another. It is also possible that a news release related to a particular topic affects the stock market in a specific period but does not affect it in another one. The use of such an approach helps in understanding the behavioral aspects of investing in stock markets of countries with a low democracy index during different phases of democratic backsliding.

## 3. METHODOLOGY

I conduct this research for the stock markets in Hungary and Poland. To address the potential problem of autocorrelation and heteroscedasticity, I consider dynamic specification and GARCH methodology. The

starting point of the empirical research is the following ARMAX-GJR-GARCH model (see Horvath and Petroski, 2013):

$$r_t = \lambda_1 r_t^{main} + \lambda_2 r_t^{FX} + \lambda_3 r_t^{GOLD} + \lambda_4 r_t^{OIL} + \lambda_5\left(\Delta I_t - \Delta \mathrm{I}_t^{main}\right) + \varepsilon_t, \quad (1.a)$$

$$\left(1 - \sum_{j=1}^{p} \varphi^j L^j\right)\varepsilon_t = \left(1 + \sum_{k=1}^{q} \theta^k L^k\right)\xi_t, \quad (1.b)$$

$$\xi_t = \sigma_t \eta_t, \qquad \eta_t \sim i.i.d.(0,1), \quad (1.c)$$

$$\sigma_t^2 = \alpha_0 + \sum_{l=1}^{s}\left(\alpha_l \xi_{t-l}^2 + \gamma_l \xi_{t-l}^2 I\{\xi_{t-l} < 0\}\right) + \sum_{m=1}^{u} \beta_m \sigma_{t-m}^2 \quad (1.d)$$

where $r_t$ denotes the rate of return on the stock market (in Hungary or Poland), $r_t^{main}$ is the rate of return on main market (in the case of Hungary and Poland, the German stock market is treated as the main market, and rate of return on DAX is used as an explanatory variable), $r_t^{GOLD}$ and $r_t^{OIL}$ denote rates of return on gold and oil prices respectively. In equation (1.a), $\Delta I_t$ and $\Delta \mathrm{I}_t^{main}$ denote changes in 10-year sovereign bond yields in an analyzed country (Hungary or Poland) and Germany, respectively.

After the estimation of the model (1.a)-(1.d), I calculate so-called standardized abnormal returns and cumulative standardized abnormal returns based on the following formulas:

$$SAR_t = \frac{\hat{r}_t - r_t}{\hat{\sigma}_t}, \quad (2)$$

$$CSAR_t^w = \frac{\sum_{j=0}^{w}(\hat{r}_{t+j} - r_{t+j})}{\hat{\sigma}\left(\sum_{j=0}^{w}(\hat{r}_{t+j} - r_{t+j})\right)}. \quad (3)$$

According to the event study approach (MacKinley, 1997), I focus on the impact of the news release on the day of the release and a specified number of days afterward. Immediate reactions, as well as the effects of news releases on rates of return in 3-day and 5-day windows, will be considered. To evaluate how stock markets in Budapest and Warsaw react to specific types of news releases, I define these news releases. To define news release variables, I consider the perspective of international investors. Therefore, I assume that international investors observe events described in the international press. I analyze press releases from the *Financial Times* newspaper. The most significant events in Hungarian politics after 2010, as well as the most important events in Polish politics after 2015, are considered. The data frame spans the period from July 2010 to September 2023 for Hungary and from October 2015 to September 2023 for Poland. After a thorough analysis of the content of news releases, I assign them to groups. Table 1 consists of a description of the types of news releases considered.

Apart from estimating the parameters of univariate GARCH models for two countries, I propose estimating the parameters of a panel model that explains the impact of news releases on cumulative standardized abnormal returns using monthly data. I consider the following dynamic panel model:

$$CSAR_{is}^m = \theta CSAR_{is-1}^m + \boldsymbol{n}_{is}\boldsymbol{\kappa} + \varepsilon_{is}. \quad (4)$$

In the model (4) $CSAR_{is}$ denotes cumulative standardized abnormal returns in month s in country *i*, the vector $\boldsymbol{n}_{is}$ consists of variables defining the frequency of different types of news releases within a month, $\boldsymbol{\kappa}$ is the vector of estimated parameters, and the error term $\varepsilon_{is}$ is assumed to be i.i.d. Due to the potential problem of autocorrelation, I consider the estimation of a dynamic panel model using the Blundell-Bond systemic GMM estimator (Blundell and Bond, 1998). Due to the potential problem of heteroscedasticity, I use standard errors clustered by country as weights.

Table 1 lists the news releases considered in empirical research. Some topics could be related to more than one category. Most news releases related to the conflict between Poland and the European Union institutions mentioned problems associated with the rule of law and the destruction of institutions. Therefore, the impact of news releases related to the conflict between Poland and the European Union institutions, as well as the issues surrounding the destruction of democratic institutions and the rule of law, is considered jointly.

Table 1

List of news releases considered in empirical research

| Type of news | Name of variable | Countries |
|---|---|---|
| Constitution change | *CONSTIT* | Only HU |
| Negative news releases related to the controversial judicial reform that was implemented in Poland. | *JUD_REFORM* | Only PL |
| News release about the Russian aggression against Ukraine from February 24, 2022 | *INVASION* | HU, PL |
| Positive attitude of the country against Ukraine during the Russian invasion, mainly accepting refugees. | *UKRAINE_POS* | Only PL |
| Negative news releases regarding the country's attitude towards Ukraine during the war[1]. In the case of Hungary, news releases indicating a negative attitude towards NATO extension by Ukraine are also considered in this group. | *UKRAINE_NEG* | HU, PL |
| Negative news releases related to the cut development funding and suspension of payments under the Recovery Funds | *FUNDINGCUT* | HU, PL |
| News releases related to the problem of growing populism in Hungary and Poland | *POPULISM* | HU, PL |
| Negative news related to political interference at the top of the business | *BUS_INTERFER* | HU, PL |
| Negative news releases related to the conflict between the country and the EU | *EU_CONFLICT* | HU, PL |
| Negative news releases related to the performance of the banking sector | *BANKING_NEG* | HU, PL |
| Positive news releases related to the performance of the banking sector | *BANKING_POS* | HU, PL |
| Negative news releases related to the performance of the real economy | *REAL_NEG* | HU, PL |
| Positive news releases related to the performance of the real economy | *REAL_POS* | HU, PL |
| News releases concerning civic protests within countries | *PROTESTS* | HU, PL |
| Positive news releases about the quality and performance of the pro-European opposition. News releases related to attendance successes of manifestations organized by pro-European politicians are also included in this category. | *OPPOSITION_POS* | HU, PL |
| Negative news releases related to the problem of corruption within the country | *CORRUPT* | HU, PL |

*Source*: Own elaboration on the basis of the *Financial Times* newspaper

## 4. EMPIRICAL RESULTS AND DISCUSSION

The Russian invasion of Ukraine was a significant event that could have impacted investors' decisions and confidence in financial markets in Central and Eastern Europe. Since Ukraine has borders with Hungary and Poland, investors could expect that in the future, Russian aggression against other countries of Central and Eastern Europe was possible. Moreover, the proximity of the war area could pose a threat that infrastructure and factories in countries such as Hungary and Poland would be destroyed. Due to the possible very negative impact of geopolitical risk on financial markets (Afonso et al. 2024), it is expected that shortly after aggression, some investors could decide to sell equities of Hungarian and Polish firms, to avoid significant decreases in price levels if military actions were to spread to other parts of Central and Eastern Europe.

[1] Tensions between Poland and Ukraine differed in nature from those between Hungary and Ukraine. In the first case, the issue was related to the import of Ukrainian grain. Poland insisted on the extension of the EU's import curbs on Ukrainian grain. In the case of Hungary, tensions were related to the closer relations between Viktor Orbán and Vladimir Putin, Hungary's negative attitudes towards sanctions, and plans to redefine Hungary's NATO membership.

Table 2

Impact of significant news releases for Hungary (p-values in brackets)

| Event | Date | Immediate reaction | 3-day window | 5-day window |
|---|---|---|---|---|
| Russian invasion of Ukraine | 2022-02-24 | 0.71 (0.478) | -0.61 (0.542) | -2.25** (0.024) |
| Negative attitude towards Ukraine | 2023-04-16 | -1.45 (0.146) | -0.94 (0.347) | -2.63*** (0.009) |
| | 2023-09-18 | -0.19 (0.849) | -1.92* (0.054) | 0.43 (0.667) |
| Constitution changes in Hungary | 2012-01-03 | 0.42 (0.674) | -1.47 (0.142) | -2.07** (0.038) |
| | 2012-01-05 | -2.41** (0.016) | -2.38** (0.017) | -0.63 (0.529) |
| Conflict with EU institutions | 2010-11-16 | -5.11*** (0.000) | -1.52 (0.129) | -1.28 (0.201) |
| | 2011-12-29 | -0.98 (0.327) | -0.69 (0.492) | -2.03** (0.043) |
| | 2017-09-27 | -2.87*** (0.004) | -1.64 (0.100) | -0.78 (0.435) |
| | 2018-09-10 | -0.08 (0.935) | -1.69* (0.091) | -1.58 (0.113) |
| | 2018-09-11 | -0.26 (0.792) | -2.02** (0.044) | -1.48 (0.141) |
| | 2020-12-02 | -2.00** (0.046) | -0.32 (0.749) | -0.22 (0.830) |
| | 2022-02-16 | -0.89 (0.374) | -0.16 (0.876) | -1.90* (0.058) |
| | 2022-04-06 | -1.61 (0.108) | -2.02** (0.044) | -1.37 (0.172) |
| | 2022-05-06 | -0.76 (0.448) | -1.06 (0.288) | -1.65* (0.099) |
| Cut development funding and suspend payments | 2013-08-14 | -0.33 (0.745) | -1.09 (0.277) | -2.23** (0.026) |
| | 2018-04-30 | -1.02 (0.306) | -1.59 (0.111) | -1.69* (0.090) |
| | 2022-09-16 | -0.33 (0.740) | -1.62 (0.106) | -1.70* (0.089) |
| | 2022-09-19 | -1.58 (0.114) | -1.76* (0.079) | -1.35 (0.178) |
| | 2022-12-22 | -0.18 (0.854) | -0.36 (0.720) | -1.72* (0.086) |
| Political interference at the top of business | 2013-09-20 | -2.35** (0.019) | -1.25 (0.211) | 0.11 (0.912) |
| | 2014-12-15 | -0.66 (0.509) | -3.62*** (0.000) | -2.24** (0.025) |
| | 2016-10-17 | 0.77 (0.441) | 1.83* (0.067) | 1.98** (0.048) |
| Negative news releases related to the performance of the banking sector | 2011-01-31 | -4.79*** (0.000) | -2.12** (0.034) | -1.77* (0.077) |
| | 2011-09-12 | -3.45*** (0.001) | -1.82* (0.069) | -1.57 (0.116) |
| | 2011-09-26 | -1.93* (0.054) | -0.79 (0.430) | -0.07 (0.944) |
| | 2015-02-09 | 0.07 (0.944) | 2.24** (0.025) | 1.84* (0.066) |
| Negative news releases concerning performance of the real economy | 2013-01-25 | -1.70* (0.088) | -1.09 (0.273) | -0.25 (0.801) |
| | 2013-02-14 | -1.71* (0.087) | -0.18 (0.859) | -0.69 (0.493) |
| Negative news releases related to problems with corruption | 2010-11-08 | -0.78 (0.437) | -0.38 (0.706) | -3.33*** (0.001) |
| | 2012-04-02 | -0.83 (0.407) | -1.67* (0.095) | -0.91 (0.361) |
| | 2022-04-05 | 0.68 (0.498) | -2.10** (0.035) | -1.10 (0.271) |
| Negative news releases related to populism and non-attractiveness to foreign investors | 2011-08-03 | -1.01 (0.314) | -2.42** (0.016) | -0.82 (0.414) |
| | 2015-09-11 | -2.13** (0.033) | -0.25 (0.806) | -0.28 (0.781) |
| | 2016-06-09 | -1.08 (0.282) | -2.40** (0.017) | -0.59 (0.558) |
| Protests | 2012-01-06 | -2.41** (0.016) | -2.38** (0.017) | -0.63 (0.527) |
| | 2014-10-28 | -2.97*** (0.003) | -2.10** (0.036) | -1.64 (0.102) |
| | 2015-02-02 | 2.19** (0.028) | 1.19 (0.234) | 1.97** (0.048) |
| Positive news releases concerning performance of the real economy | 2013-06-07 | 1.23 (0.217) | 2.29** (0.022) | 1.22 (0.221) |
| | 2013-11-07 | 0.98 (0.327) | 1.80* (0.072) | 0.28 (0.777) |
| | 2014-05-15 | 0.82 (0.410) | 1.46 (0.144) | 2.31*** (0.021) |
| | 2014-08-14 | 1.72* (0.086) | 1.15 (0.252) | 1.44 (0.149) |
| Positive news releases related to the performance of the banking sector | 2011-09-28 | 0.87 (0.384) | 0.86 (0.392) | 1.69* (0.090) |
| | 2014-11-10 | 2.20** (0.028) | 0.88 (0.380) | 0.72 (0.380) |
| Success of the opposition in Hungary | 2018-11-30 | 0.72 (0.472) | 1.46 (0.144) | 1.83* (0.067) |
| | 2019-10-21 | 0.34 (0.734) | 1.25 (0.211) | 1.92* (0.055) |
| | 2021-09-06 | 0.89 (0.373) | 1.26 (0.208) | 1.69* (0.091) |

*Source*: Authors' results. * Indicates significance level at 0.10 level, ** indicates significance level at 0.05 level, *** indicates significance level at 0.01 level. p-values in brackets.

In Table 2, as well as in Table 3, estimates of parameters for statistically significant (at least one variant of window length; at the 0.1 level of significance) news variables are presented. If the estimate of the parameter is negative and the p-value (value in brackets) is below 0.1, it means that an abnormal decrease in the rate of return was recorded due to the given news. In the case of a positive estimate of a parameter with a p-value below 0.1, it indicates an abnormal increase in the rate of return due to a given news.

Table 3

Impact of significant news releases for Poland (p-values in brackets)

| Event | Date | Immediate reaction | 3-day window | 5-day window |
|---|---|---|---|---|
| Russian invasion of Ukraine | 2022-02-24 | -2.49***(0.013) | -0.91 (0.363) | -0.51 (0.610) |
| Positive news releases related to the attitude of Poland after the Russian aggression against Ukraine, and providing help for Ukrainian refugees | 2022-03-01 | 1.67*(0.095) | 1.66*(0.097) | 0.92 (0.358) |
| Negative attitude towards Ukraine | 2023-04-05 | -0.26 (0.797) | -8.56*** (0.000) | -0.08 (0.938) |
| | 2023-04-25 | 0.16 (0.874) | 0.10 (0.921) | -8.15*** (0.000) |
| Controversial judicial reform in Poland | 2018-05-03 | -3.80*** (0.000) | -0.09 (0.926) | -0.10 (0.921) |
| | 2019-05-03 | -3.51*** (0.000) | -0.06 (0.954) | -0.11 (0.911) |
| | 2019-11-04 | 0.20 (0.844) | 0.17 (0.865) | -3.17*** (0.002) |
| | 2019-12-17 | 0.56 (0.573) | 0.36 (0.720) | -6.53*** (0.000) |
| | 2020-11-12 | -8.08*** (0.000) | 0.06 (0.955) | 0.09 (0.925) |
| | 2021-11-04 | 0.71 (0.480) | 0.32 (0.750) | -11.41*** (0.000) |
| | 2021-12-22 | -0.33 (0.742) | -13.76*** (0.000) | -0.05 (0.960) |
| | 2022-01-06 | -21.73*** (0.000) | 0.01 (0.989) | 0.05 (0.960) |
| Conflict with EU institutions | 2017-12-20 | 0.20 (0.843) | -12.46*** (0.000) | -0.04 (0.966) |
| | 2018-11-02 | -13.09*** (0.000) | 0.05 (0.963) | 0.10 (0.923) |
| | 2023-06-08 | -21.63*** (0.000) | -0.02 (0.983) | -0.05 (0.963) |
| | 2023-08-11 | 0.24 (0.807) | -14.17*** (0.000) | -0.04 (0.966) |
| Cut development funding and suspension of payments | 2018-04-30 | -17.29*** (0.000) | -0.98 (0.326) | -0.06 (0.954) |
| | 2018-05-25 | 0.27 (0.785) | 0.26 (0.793) | -7.12*** (0.000) |
| | 2018-05-28 | 0.45 (0.655) | -9.17*** (0.000) | -0.00 (0.999) |
| | 2018-05-31 | -16.34*** (0.000) | -0.02 (0.984) | 0.03 (0.974) |
| | 2021-10-27 | 0.04 (0.972) | -0.17 (0.865) | -12.62*** (0.000) |
| Negative news releases related to populism and non-attractiveness to foreign investors | 2015-12-23 | -5.48*** (0.000) | -0.13 (0.896) | -0.05 (0.960) |
| | 2019-06-20 | -18.01*** (0.000) | -0.04 (0.967) | -0.03 (0.974) |
| | 2021-12-17 | -0.38 (0.706) | 0.02 (0.986) | -10.41*** (0.000) |
| Negative news releases related to the performance of the banking sector | 2022-11-13 | -10.62*** (0.000) | 0.13 (0.897) | 0.10 (0.920) |
| Protests | 2016-03-28 | 3.31*** (0.001) | 3.02*** (0.002) | 2.75*** (0.006) |
| | 2018-03-26 | 0.24 (0.809) | -0.15 (0.883) | -7.06*** (0.000) |
| | 2018-04-03 | 3.52*** (0.000) | 3.29*** (0.001) | 3.24*** (0.001) |
| | 2020-11-09 | 0.75 (0.451) | -3.86*** (0.000) | 0.22 (0.828) |
| Positive news releases related to the good stance of pro-European opposition and the high probability of a liberal turn after the elections | 2023-06-04 | 2.05** (0.040) | 1.00 (0.317) | 0.06 (0.952) |

*Source*: Authors' results. * indicates significance level at 0.10 level, ** indicates significance level at 0.05 level, *** indicates significance level at 0.01 level. p-values in brackets.

Results from tables 2 and 3 indicate that the reactions of the Hungarian and Polish stock markets to the Russian invasion of Ukraine were quite different. The value of WIG dropped significantly on the day of aggression. Analysis of the time series (2) for Hungary indicates that on 25th February 2022 (1 day after the aggression), a significantly negative abnormal return of BUX was recorded. Therefore, as Table 2 indicates, a significant decrease in the rate of return of BUX is recorded only in a 5-day window after the beginning of the war. Positive news releases concerning Poland's acceptance of Ukrainian refugees could have demonstrated Polish solidarity and improved the country's perception among foreign investors. Given the large scale of refugee acceptance from Ukraine in 2022 (Letki et al., 2025), such news releases could have

also informed the public about overcoming the problem of shortages in the Polish labor market and a significant increase in consumption in Poland. As expected, negative news releases related to the attitude of Hungary and Poland towards Ukraine turned out to have an unfavorable impact on stock market indexes in these countries. Controversial signals coming especially from Hungary indicated a lack of European solidarity between European Union countries in the face of the threat of the spread of war. For instance, a news release *stated that Poland and Hungary are defying Brussels to halt Ukraine's grain imports*, as providing financial assistance to Ukraine and reducing Putin's chances of winning the war in a short period is proving difficult. Lamour (2024) argued that Hungary's inconsistent attitude, which differed from the policies of other European countries (Lamour, 2024), may have hurt Ukraine's chances during military operations. Such information could have a very adverse effect on the perception of safety in Central and Eastern Europe. Since investors perceived Poland, Hungary, and other countries in this part of Europe as dangerous, they were aware of the risks associated with, for example, the demolition of a factory. Therefore, they avoided buying shares issued by companies listed on the Hungarian and Polish stock exchanges.

Results from Table 2 indicate that a series of news releases related to the change in the Hungarian constitution at the beginning of 2012 had a negative and statistically significant impact on the performance of the Budapest Stock Exchange. The suggestion that Europe and the US should have condemned the new Hungarian fundamental laws sent a very negative signal to foreign investors. Information about the constitutional change signaled that Hungary would probably drop in democratization rankings. Due to the strong relationship between democratization and stock market returns (Lei & Wisniewski, 2024), it is not surprising that after information about significant changes to the Hungarian constitution, which made it quite different from the constitutions in other EU countries, the reaction of investors was strongly adverse. Although Hungary approved a new constitution in April 2011, the legal acts incorporated into the constitution were not as controversial as those introduced in 2012 (Halmai, 2017). Information about Hungary's determination regarding its constitution in 2013 was also dangerous to Hungarian democracy, but it did not cause much reaction from investors. A weaker reaction may be because, following a significant constitutional change in 2012, further steps that declined the quality of democracy in Hungary were not surprising.

Results from Table 3 indicate that news releases concerning controversial judicial reform had a powerful and negative impact on the rates of return of WIG. Such a reaction might have been because, in the absence of a rule of law, investors are uncertain whether their investments are safe. In some cases, adverse reactions of the main Warsaw stock index were immediate, while in others, they appeared after three or five days. According to specialists in the field of law science (e.g., Matczak, 2020), the proposed reform's legal solutions were deemed unconstitutional and strongly criticized by European Union institutions. The introduction of controversial judicial reform proved to have a profoundly negative impact on Poland's perception as a democratic country. Poland experienced a significant decline in democratization rankings (Petrova, Pospieszna, 2021), and investors chose not to purchase shares of Polish companies. It is not surprising that news releases indicating an increase in the links between the legislative and judicial powers (e.g., *Poland's ruling party proposes two former MPs to the top court*) resulted in significantly negative abnormal returns.

Results from Table 2 indicate that news releases concerning conflicts between the Hungarian government and European Union institutions, problems with the rule of law in Hungary, as well as the cut in development funding and suspension of payments to Hungary under the Recovery Fund, turned out to affect the Hungarian stock exchange the most often. Although significant falls in the values of real economic categories were not observed in Hungary before the Covid-19 pandemic (Toplisek, 2020), a lack of funding negatively affected public spending, which also impacted the private sphere of the economy. It is not surprising that the Budapest Stock Exchange often reacted significantly adversely to negative news releases

concerning the rule of law and funding cuts. Similar reactions of the Polish stock exchange to news releases concerning the conflict between the Polish government and European Union institutions, as well as cuts in development funding and the suspension of payments, were confirmed with empirical data. Such news releases informed about the possibility of the introduction of penalties against Poland, indicated further drops in democratization rankings, and indicated that the macroeconomic environment may be unfavorable for potential investors. News releases related to the problem of the rule of law in Poland turned out to hurt the Warsaw Stock Exchange. Such a reaction may occur because, in the absence of a rule of law, investors are uncertain about the safety of their investments. When the EU commission launched a probe into Polish law seeking to block politicians from public office for alleged pro-Russia activities, the news release had a negative impact on the Warsaw stock exchange. This result is not surprising, as shortly before the 2023 election, the PIS government attempted to introduce a law that would limit and eliminate the opposition in Poland. When Poland's ruling party portrayed the opposition leader as a German stooge, it provided investors with information about the Polish government's unfavorable attitude towards Germany, the country's leading partner in the European Union. Such a news release reflected tensions between Poland and the European Union, which could negatively impact the Polish stock exchange. Deterioration of relationships between Poland and European Union countries could hurt the performance of Polish enterprises, which cooperate with their counterparts in Germany and other countries.

Analysis of news releases in The *Financial Times* indicates that the issue of growing populism in Hungary and Poland was frequently reported. Some negative news releases related to populism had a significantly negative impact on stock markets in Hungary and Poland. The problem of the illiberal turn and populism, along with its negative impact on economic performance, has been frequently mentioned in academic literature (e.g., Csehi, Zgut, 2021). In some cases, rating agencies made decisions about downgrades based on news releases indicating growing populism. Due to the well-documented relationship between credit rating changes and stock returns (e.g., Gao, 2025), significantly negative abnormal returns in windows following the announcement of news about growing populism are not surprising.

In the case of Hungary, certain news releases concerning top-level business interference had a notably negative impact on stock market returns. Signs of estimates are in line with expectations, as political interference at the top of the business means there is less freedom to conduct business activities. When investors read newspapers and are informed about a lower level of freedom to conduct business, they decide to avoid investing in this country. Due to the positive relationship between the level of democratization, economic freedom, and economic growth (e.g., Kabir & Alam, 2021), and the linkages between the stock market and the real economy, the obtained results confirm the expectations. For instance, a news release about Viktor Orban's efforts to nationalize energy utilities had a negative impact on the decisions of active and potential investors, leading to a significant drop in BUX's value.

News releases related to the performance of the banking sector in Hungary had a varied impact on the performance of the Budapest Stock Exchange. However, it is easily noticeable that the impact of news releases from 2011 was the strongest. This result aligns with expectations, as the crisis caused by FX mortgages was particularly severe in Hungary. Therefore, investors could expect information concerning the problem of FX mortgages. As Gagyi (2023) argues, the rollout of FX mortgages was part of the late-stage and crisis of Hungary's neoliberal post-socialist model, and the politicization of the ensuing FX crisis became part of the conservative reorganization of the economy by the post-2010 Fidesz regime. The politicization of FX debt could negatively impact the attitudes of investors holding Hungarian equities. Therefore, controversial decisions concerning the rollout of FX loans could also be treated as democratic backsliding and had a very negative impact on the rates of return of BUX. In the case of Poland, the news release entitled *"The mortgage time bomb ticking beneath Poland's banks"* had the most substantial negative impact on the rate of return of the WIG. This news release could affect the Warsaw Stock Exchange in two ways.

Firstly, due to the presence of FX-denominated mortgages in the portfolios of Polish commercial banks, listed on the Polish stock exchange, the prices of their equities decreased significantly. Secondly, turbulence in the banking sector could provide negative signals to investors about the future of the real economy. Apart from the significant impact of negative news releases, positive news releases also influenced stock markets. For example, in the case of Hungary, positive news concerning the performance of the banking sector from September 2011 and November 2014, as well as positive news related to the performance of the real economy from June 2013, November 2013, May 2014, and August 2014, led to significantly positive abnormal returns.

The impact of news releases related to civic protests turned out to be diverse. In the cases of Hungary and Poland, some news releases related to protests turned out to have positive outcomes, while others had negative ones. This result is not surprising. On the one hand, civic protests inform about tensions within countries. They provide information that citizens do not accept economic policy within the country and that the government is unable to find satisfactory solutions and govern without tensions. Such information is unfavorable from the perspective of potential investors. Therefore, news releases related to civic protests may deter potential investors in the stock market.

On the other hand, civic protests in Hungary and Poland may have reflected the civic attitudes of citizens and their awareness of the need for strong democratic institutions (Karolewski, 2016). These protests could have given hope that a positive liberal turn would have happened shortly. Therefore, neither positive nor negative abnormal returns in windows following information about civic protests are surprising.

During the analyzed periods, some news releases focused on the electoral success of the left-liberal opposition, the favorable stance of the pro-European opposition, and the growing chances of a liberal turn in Hungary or Poland. These news releases had a positive impact on stock market returns in the two Central European countries. Potential investors estimated that the probability of a liberal turn could have been high, expected improved moods on stock markets, and decided to invest in Hungary or Poland. Results from Table 3 indicate that the news release entitled *Polish opposition leads huge pro-democracy protests in Warsaw* turned out to have the most positive impact on the performance of the Polish stock exchange. During this demonstration, they expressed their hope that the pro-European opposition would form a government. Moreover, different parties within the pro-European opposition have demonstrated their readiness to cooperate and form a common government after the elections. Other minor successes of opposition parties had a negligible impact on the Warsaw stock exchange. The success of the pro-European opposition in Budapest in 2019 had a relatively significant and positive impact on the Budapest stock exchange. Citizens believed that a change throughout the country was possible. However, this news release ultimately had limited impact, as international investors and citizens were already aware of the differences in political preferences between Budapest and other parts of the country (Scheppele, 2022).

Apart from analyzing the impact of separate news releases on stock markets in Hungary and Poland, I propose estimating a panel model that explains cumulative standardized abnormal returns using monthly data and variables indicating the intensity of specific topics in news releases within months. Such an approach may serve as a robustness analysis. Moreover, the use of monthly data enables the identification of stock market reactions in a slightly longer time frame. I use the model with clustered errors by country to address the problem of potential heteroscedasticity. Due to the potential problem of autocorrelation, I consider the dynamic specification of the panel model. Table 4 consists of the results of the panel model estimation explaining cumulative standardized abnormal returns.

Table 4

Results of the estimation of the dynamic panel model explaining cumulative standardized abnormal returns

| VARIABLE | ESTIMATE (STD. ERROR) | P-VALUE | VARIABLE | ESTIMATE (STD. ERROR) | P-VALUE |
|---|---|---|---|---|---|
| $CSAR_{S-1}$ | 0.141 (0.041) | 0.001 | *PROTESTS* | 1.431 (0.833) | 0.086 |
| *POPULISM* | -6.439 (0.263) | 0.000 | *BUS_INTERFER* | -0.506 (0.281) | 0.071 |
| *JUDICAL_REFORM* | -1.714 (0.017) | 0.000 | *UKRAINE_POS* | 2.330 (0.090) | 0.000 |
| *FUNDINGCUT* | -2.360 (0.078) | 0.000 | *REAL_POS* | 0.764 (0.066) | 0.000 |
| *CORRUPT* | -2.935 (0.298) | 0.000 | *BANKING_NEG* | -4.724 (2.423) | 0.051 |
| Arellano-Bond test for autocorrelation of order 2 | | | Statistic = -1.068 p-value = 0.285 | | |
| Sargan test of over-identifying restrictions | | | Statistic = 256.4 p-value = 0.210 | | |
| Pesaran test for cross-sectional dependence | | | Statistic = 1.186 p-value = 0.235 | | |
| R-squared | | | 0.648 | | |

*Source*: Authors' results. * Indicates significance level at 0.10 level, ** indicates significance level at 0.05 level, *** indicates significance level at 0.01 level. p-values in brackets.

The obtained results indicate that news releases related to the problem of growing populism in Hungary and Poland had a statistically significant and negative impact on the performance of stock markets in these countries. This result aligns with findings from other studies. Shortly after the CEE-3 countries (Czechia, Hungary, and Poland) joined the European Union, stock market linkages among them increased significantly. The Global Financial Crisis 2007-09 increased these comovements. However, after the illiberal turn in Hungary, a decrease in the integration of the Budapest Stock Exchange with equity markets in Prague, Warsaw, and other European cities was recorded (Bieńkowski et al., 2014). Awareness of the illiberal turn in Hungary could have reduced its investment attractiveness, leading investors to withdraw shares from Hungarian companies and invest in other countries. Probably, they could have reacted similarly after the illiberal turn in Poland in 2015. According to the results presented in Table 4, stock market investors reacted negatively to news releases concerning controversial judicial reform in Poland, the issue of corruption in Hungary and Poland, as well as negative information regarding cut development funding and the suspension of payments. The significant impact of geopolitical risks on investor decisions is confirmed by data from the Hungarian and Polish stock markets (Afonso et al., 2024). Stock markets in Hungary and Poland reacted negatively to news releases indicating problems in their banking sectors. Since the Global Financial Crisis of 2007-09 began with the banking crisis, the 2009 performance of the banking sector in Hungary, Poland, and other countries has had a significant impact on the attitudes and moods of stock market investors.

Political interference at the top of business turned out to hurt the performance of stock markets in the countries analyzed. Such news releases informed investors about the decreasing level of freedom to conduct business activities, which negatively impacted their attitudes and moods. Results from monthly data confirm findings from daily data analyses. Due to the intertwining of positive and negative abnormal returns in the analysis based on daily data, the sign of the estimate of the parameter for the variable *PROTESTS* was a puzzle. It turns out that news releases concerning civic protests were more perceived as an increase in civic awareness and growing chances for a liberal turn than as a threat to the state's functioning.

Not only did negative news releases have a statistically significant impact on the performance of stock markets in Hungary and Poland, but investors also reacted to positive information. For example, releases concerning the positive stance of the economy in Hungary or Poland led to positive abnormal returns, ceteris paribus. This result confirms findings indicating a positive finance-growth nexus in the case of Central and Eastern Europe, as stock markets in Hungary and Poland are still in the early stages of development. Positive news releases concerning Poland's acceptance of Ukrainian refugees could have demonstrated Polish solidarity.

The results obtained indicate that the use of the dynamic panel model was reasonable, since lagged values of the variable *CSAR* significantly affected current ones. However, the problem of autocorrelation of order two did not exist, so the use of one lag was reasonable. Moreover, there were neither problems of over-identifying restrictions nor problems of cross-sectional dependence. The proposed model was characterized by satisfying the goodness of fit.

## 5. CONCLUSION

In this paper, I investigated the impact of positive and negative news releases related to Hungary and Poland on their respective stock markets. This research appears to be particularly significant in the context of the illiberal turn in these countries, which has been observed in recent years. Due to a significant decline in democratization in Hungary and Poland, the perception of the safety of investing in stock markets in these countries was not positive. Therefore, such empirical research could provide academics and practitioners with important conclusions about the behavioral aspects of investing during times of political instability.

The obtained results provide mixed evidence of the impact of political news releases on the performance of stock markets in Hungary and Poland. It turns out that news releases concerning the conflict between Hungary/Poland and institutions of the European Union, mainly associated with rule of law problems, as well as news releases concerning funding cuts and suspension of payments to Hungary and Poland under the Recovery Funds, had the strongest effect on stock markets in both analyzed countries. It means that investors were hesitant to invest in countries with political uncertainty and relatively low levels of democracy. Moreover, information about funding cuts could be perceived as a future decrease in public expenditure and worse performance by the private sector.

Another group of news releases, which turned out to have a statistically significant and negative impact on the performance of the Hungarian stock exchange, concerned the banking sector. In fact, problems associated with FX mortgages in Hungary were very important. The rolling out of FX mortgages was part of the late stage and crisis of Hungary's neoliberal post socialist model, and the politicization of the ensuing FX crisis became part of the conservative reorganization of the economy by the post-2010 Fidesz regime. These news releases could be seen as further signs of democratic backsliding, potentially affecting investors negatively. In the case of the Polish stock market, only news releases that might have caused concerns about the liquidity of the Polish banking sector had a statistically significant impact. News releases concerning problems of individual banks turned out to be irrelevant.

The results of the empirical research indicate that, in some cases, investors became accustomed to the low quality of democracy in Hungary and Poland. As the first news releases concerning constitutional change turned out to have a statistically significant and negative impact on the Budapest Stock Exchange, the reaction of the rates of return of BUX to further news releases was insignificant. It may be since, following the first change of constitution, everyone knew that Hungary should be treated as an illiberal democracy. Next, illiberal decisions and controversial changes of law did not have a strong impact on investors in capital markets.

The asymmetric impact of news releases was also noticed. Although positive political news releases were recorded much less often than negative ones, stock markets in Hungary and Poland showed minimal reaction to positive ones. Only the information about the attendance success of the manifestation on June 4, 2023, could have been treated as a sign of future political success for the former pro-European opposition and encouraged investors to buy Polish equities.

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