

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Jáchym Janů
Advisor:	RNDr. Michal Červinka, Ph.D.
Title of the thesis:	The Impact of Domestic Political News on Prague Stock Exchange in the Years 2022 and 2023: A Study on Market Activity and Price Dynamics

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Short summary

Jachym's bachelor thesis investigates the impact of domestic political news on the PSE stock prices over the period from 2021 to 2024, focusing on the Prime Market segment, which includes the most significant and actively traded stocks on the exchange. The study is motivated by the hypothesis that political events can introduce substantial volatility into financial markets.

The author gathered valuable data about news events from CTK and stock prices from Fio and PSE. Assumptions of the utilized models are thoroughly tested before the analysis. The research employs panel data and dynamic panel data models to analyze the effects of political news on stock price movements. The thesis distinguishes between the impacts during trading hours (using intraday returns) and non-trading hours (using overnight returns).

The findings reveal that political news significantly drives price changes during trading hours, indicating that PSE market participants react to new political information. Conversely, during non-trading hours, the effects are less pronounced. The author also documents the effect of several specific control variables, particularly past returns, or days of the week.

Contribution

This research is important for understanding the behavior of investors after they receive political news, especially in the context of a smaller market, and provides insights that could be valuable also for policymakers. Jachym also provides valuable insight by examining the effects during trading hours and off trading hours.

The study's findings may have practical implications for market participants who seek to navigate the volatility induced by political news. However, this is limited by the participants' ability to predict the timing of political news.

I would like to hear more arguments in favor of the author's hypothesis that political news will be more important than other news for PSE prices. I can clearly see why sports news might be irrelevant, but it's not clear to me why economic/business news should be deemed less important for the markets than politics.

Another point which I'd say would deserve to be discussed in the thesis is that the Czech Republic is the majority shareholder of one of the stocks - CEZ. Consequently, some of the political news analyzed will be directly linked to this stock. Hence, it seems that CEZ would deserve a special treatment in the analysis, as it's likely one of the main drivers of the impacts of political news on PSE stock prices.

Methods

The dataset is reasonably well suited for the study's objectives, but the author acknowledges potential limitations related to its size and I agree. It would be interested to expand the both the stock prices and news data to cover the history before 2021. Increasing the amount of stocks by looking into other segments of PSE would be a nice addition, too. The data is, however, well described and the descriptive statistics, correlations, etc. are extensively documented.

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Jáchym Janů
Advisor:	RNDr. Michal Červinka, Ph.D.
Title of the thesis:	The Impact of Domestic Political News on Prague Stock Exchange in the Years 2022 and 2023: A Study on Market Activity and Price Dynamics

The methodological approach of the thesis is appropriate for the research questions posed and also to the author's level of studies. The (dynamic) panel data methods are introduced in an understandable manner. The same holds for the statistical tests as well. The author clearly demonstrates his capability to handle the econometric techniques he employs in the analysis also by including an in-depth analysis of which regression assumptions are valid and which are violated. In the regressions, apart from using the explanatory variables of interest (news), Jachym controls for days of the week and also for the past returns.

While, in general, I'm satisfied with the methodological part of Jachym's thesis, I suggest some potential issues/improvements below.

From the beginning of the analysis, Jachym has split all days into the trading and non-trading parts. While that is insightful, what I'm missing is the results of his analysis performed for the simplest case, using daily close-to-close returns (and the other variables in a corresponding manner).

Related to this, let me note that the opening prices are notoriously "unstable" because of the relatively low volumes traded when the markets open. Imagine the scenario where, because of the small volumes, a larger buyer pushes the price above in the opening phase of the market and during the trading hours, the price declines until it finds a new equilibrium. The overnight return is then very large and the intraday return very small. Because the signs of the returns are neglected in Jachym's analysis, what then is the case is that the "previous absolute overnight return" variable becomes a good predictor of the "current absolute intraday return" (and also dramatically increasing the R-squared for the regression) just by capturing this phenomena. I don't mean to invalidate the results that include the past price information, after all, this point might not be valid for this particular sample at all, but I think it should have been addressed/commented upon.

Because the dataset isn't particularly large, I'm also missing some checks for the robustness of the results. Couldn't stock prices for the other PSE listings be used, or maybe FX rates? What about alternative specifications of volatility, etc.?

Literature

The literature review presented in the thesis is well-structured, comprehensive and demonstrates a good command of the theoretical and empirical research relevant to the topic. The review covers key studies that have examined the effects of various types of news on market behavior, and draws connections to the specific context of the Prague Stock Exchange. It integrates new research articles very well with the older studies.

Manuscript form

The thesis is well-organized and follows the academic standards expected for a bachelor's thesis. The structure is logical, with each section building upon the previous one to guide the reader through the research process. The tables and figures illustrate key points of Jachym's research. The bibliography is complete and correctly formatted.

What I found a little confusing was the author's frequent referencing of tables, figures and statements that were not yet presented in the text. Perhaps slight changes in the organization/structure of the thesis could be made to avoid some of these references and the "flow" of the thesis would be more natural.

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Jáchym Janů
Advisor:	RNDr. Michal Červinka, Ph.D.
Title of the thesis:	The Impact of Domestic Political News on Prague Stock Exchange in the Years 2022 and 2023: A Study on Market Activity and Price Dynamics

Moreover, some sentences seem to be very general and not carrying much informational value, e.g. *“Additionally, while there is some correlation between various markets, the PSE is more likely to be influenced by domestic events and global developments”*.

And e.g. this sentence contains a contradiction or a typo: *“From 2009 to 2012, the Czech market showed stronger correlations with Poland, Hungary, and Germany, although still lower than correlations among developed markets like the UK and Germany.”*

I am not sure how does the paragraph preceding the sentence *“This underscores the potential importance of local news for the Czech market, as its smaller size suggests that local events may significantly impact market dynamics, particularly in intraday trade.”* suggest that the size of the market impacts the importance of local news.

Because of the small issues like these, or a complicated wording, I had to re-read a whole paragraph many times to understand the message. Overall, while the thesis was structured well, it was a bit harder to read.

Overall evaluation and suggested questions for the discussion during the defense

The results of the Turnitin analysis do not indicate significant text similarity with other available sources. The thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University. Hence, I recommend the thesis for the defense and suggest a grade B.

Apart from the points outlined in the previous sections, I add a couple more questions for discussion during the defense below.

After inspecting the descriptive statistics for PSE stocks' intraday and overnight returns, what is Jáchym's intuition about the variance being much smaller for overnight returns while the minimum and maximum values don't change in the same proportion (see, e.g., the data for KB).

Were there other reasons for the author choosing to examine the absolute returns instead of standard volatilities except for the linearity? The “non-linear” nature of volatility doesn't seem to me like a big issue for the analysis, except for a more cumbersome interpretation of the results.

It would be great to see the results of the analysis performed on a larger time span. The reason is that during 2021-2024, there's been a lot of news and rumours about the windfall tax, CEZ restructuring, etc. Perhaps it is just my personal feeling, but as a trader, I view this time period as one with increased intensity of the government's involvement into the affected businesses, namely concerning CEZ and the stocks in the banking sector. Was there a lack of data prior to (and including) 2021? If so, was it the stock price or the news data?

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Jáchym Janů
Advisor:	RNDr. Michal Červinka, Ph.D.
Title of the thesis:	The Impact of Domestic Political News on Prague Stock Exchange in the Years 2022 and 2023: A Study on Market Activity and Price Dynamics

SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	24
<i>Methods</i> (max. 30 points)	24
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	16
TOTAL POINTS (max. 100 points)	84
GRADE (A – B – C – D – E – F)	B

NAME OF THE REFEREE: *Lukas Petrasek*

DATE OF EVALUATION: 27.8.2024

*Digitally signed by
Lukas Petrasek
(27.8.2024)*

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F