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ECONOMIC POLICY UNCERTAINTY AND PERFORMANCE OF THE BRAZILIAN STOCK MARKET

INCERTEZA DA POLÍTICA ECONÔMICA E DESEMPENHO DO MERCADO DE AÇÕES BRASILEIRO

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Abstract

The objective of this research was to analyze the relationship between economic policy uncertainty and the Brazilian stock market. The research adopted a quantitative, descriptive and econometric approach. The operationalization of the study involved collecting data from the Economic Policy Uncertainty Index and Ibovespa between January 2006 and December 2022. Data analysis was carried out using autoregressive vector models. The results showed a bidirectional relationship between the variables. An increase in uncertainty resulted in a reduction in market performance, while an increase in market performance led to a decrease in uncertainty levels.
Keywords: Economic Policy Uncertainty. Ibovespa. VAR.

Resumo

O objetivo desta pesquisa foi analisar a relação entre a incerteza da política econômica e o mercado acionário brasileiro. A pesquisa adotou uma abordagem quantitativa, descritiva e econométrica. A operacionalização do estudo envolveu a coleta de dados do *Economic Policy Uncertainty Index* e do Ibovespa entre janeiro de 2006 a dezembro de 2022. A análise dos dados foi realizada por meio de modelos vetoriais autorregressivos. Os resultados apontaram uma relação bidirecional entre as variáveis. Um aumento na incerteza resultou em uma redução no desempenho do mercado, enquanto um aumento no desempenho do mercado levou a uma diminuição nos níveis de incerteza.
Palavras-chave: Incerteza da Política Econômica. Ibovespa. VAR.

Introduction

Since the 2014 presidential elections, Brazil has confronted extended periods of instability. However, this scenario extends beyond the confines of the Brazilian economy; numerous nations have encountered turbulent times characterized by unforeseen changes and unpredictable consequences. Notably, Brazil has undergone a consistent sequence of unprecedented uncertainty levels post-2014, significantly impacting investment dynamics and playing a pivotal role in the country's economy (Zilberman & Barbosa, 2018).

Knight (1921) defines uncertainty as the broad spectrum of potential outcomes in future economic developments (risk) and/or the lack of knowledge regarding the probability distribution from which these developments stem (ambiguity). In simpler terms, uncertainty may arise from result unpredictability or insufficient information about associated probabilities. Franco (2022) posits that uncertainty manifests as a set of situations in which, for a given course of action, the probability of specific outcomes remains unknown. This means that, in an environment of uncertainty, companies and investors are faced with a considerable degree of lack of knowledge about possible results, making investment decisions and business strategies particularly challenging.

The presence of uncertainty yields several consequences for economic entities. According to Bernanke (1983), in an uncertain environment, companies tend to defer investment decisions in pursuit of higher returns, achievable by waiting for more information. Julio and Yook (2012) emphasize that, faced with uncertainty, companies adopt a cautious approach, leading to diminished investments and workforce expansions until uncertainty diminishes. Additionally, uncertainty influences interest rates and inflation (Pastor & Veronesi, 2013), thereby impacting final products and the financial sector. Fluctuations in interest rates, prompted by uncertainty, induce financial institutions to exercise caution in extending credit, imposing more stringent financial constraints on companies, ultimately resulting in the deferral or scaling down of investment projects (Oliveira & Costa, 2013; Tran, 2014; Zhang, 2019).

While numerous studies have explored the impact of uncertainty shocks on economic variables such as growth, inflation, and employment, limited attention has been directed towards the nexus between economic policy uncertainty and stock markets (Villaverde, Guerrón-Quintana, Kuester & Rubio-Ramírez, 2015). Some studies have investigated the effects of uncertainty in capital markets globally, including Brazil (Nunes & Medeiros, 2016; Nunes, 2017; Formiga, Barros, Cezário & Scherer, 2019; Melo, 2019), China (Lou & Zhang, 2020; Xu, Wang, Chen & Liang, 2021; Yuan, Zhang & Lian, 2022), the United States (U.S.) (Kang & Ratti; Know, 2020), Malaysia (Hoque & Zaidi, 2019), Italy, and Germany (Casal, 2020), as well as in Organization for Economic Co-operation and Development (OECD) countries (Chang, Chen, Gupta & Nguyen, 2015).

Although the Brazilian stock market has been scrutinized in some of these studies, it is crucial to highlight that Brazil contends with one of the highest levels of persistent uncertainty (Gouveia, 2021), necessitating further exploration, especially concerning economic uncertainty and its impact on companies' financial decisions. This underscores the significance of examining the Brazilian scenario.

Considering this context, the objective of this research is to analyze the relationship between economic policy uncertainty and the Brazilian stock market. Data from the Economic Policy Uncertainty Index - the main indicator of uncertainty - and Ibovespa - the main indicator of the Brazilian financial market - were collected from 2006 to 2022 and analyzed using an autoregressive vector model (VAR). The main results obtained by the impulse response functions (IRF) suggest the existence of a bidirectional relationship. In other words, an increase in uncertainty levels translates into a decrease in the performance of the Brazilian stock market and, conversely, an increase in the performance of this market contributes to a reduction in uncertainty levels.

The results documented in this research offer a number of significant contributions. First, they expand

the existing literature by providing a more in-depth understanding of the effects of economic policy uncertainty on the stock market. Furthermore, this study goes beyond previous research by analyzing not only the effects of economic uncertainty on the stock market, but also investigating the reverse response, that is, how market performance can affect levels of uncertainty. This more comprehensive analysis enriches the understanding of the interactions between these variables.

Second, the results of this study have significant practical implications for investors, showing that uncertainty in economic policy affects both the profitability of investments and the availability of credit, affecting the financial health of companies and the performance of the stock market. Furthermore, these findings provide important guidance for regulators and governments, allowing them to adjust interest rates and economic policy based on the prospects for impact on credit supply, avoiding harmful financial restrictions and maintaining stock market stability.

Finally, it is important to highlight that the effects of economic uncertainty are not limited to financial markets and companies. They directly affect the general population, as rising interest rates can have an immediate impact on the prices of products and services. Thus, end consumers are directly impacted by this uncertainty, reflected in their daily spending on essential items, such as food, clothing and transportation. In summary, this research demonstrates that economic uncertainty plays a significant role in various sectors of society and manifests itself in the prices of products and services visible to consumers and investors. This breadth of influence makes the topic relevant and of interest to a wide range of economic agents, especially to decision makers in strategic areas in Brazil.

Literature review

Economic uncertainty refers to the non-zero probability that changes in existing economic policies will alter the behavior of economic agents (Baker, Bloom & Davis, 2016), and can impact the prices of financial assets through several channels. First, it can affect important decisions by companies and other economic agents, such as employment, investment, consumption and savings decisions (Gulen & Ion, 2016; Zhang, 2019). Second, economic uncertainty also maximizes financing and production costs, affecting supply and demand channels, discouraging economic development and contracting. Third, it is necessary to take into account financial market risks, reducing the value of government-provided protections for markets. Finally, uncertainty can affect inflation, interest rates and expected risk premiums (Pastor & Veronesi, 2013).

While plausible factors explain the linkage between economic policy uncertainty and the stock market, this line of research is relatively recent. Employing a VAR model, Kang and Ratti (2013) demonstrated that increased uncertainty led to a reduction in the performance of the American market. Chang et al. (2015) explored the connection between economic uncertainty and stock markets in OECD countries, revealing that policy volatility in the U.S. and United Kingdom (UK) led to declines in stock prices, with U.S. uncertainty also impacting international oil prices.

Nunes and Medeiros (2016) analyzed the impact of political uncertainty on stock markets in the U.S., Canada, UK, Germany, Spain, Italy, France, India and China. The main results revealed a significant increase in levels of political uncertainty from 2008 onwards. Furthermore, it was found that this variable had a direct influence on market volatility, showing that in periods of economic adversity, political uncertainty has a more pronounced impact in stock volatility.

Nunes (2017) analyzed the effects of political uncertainty on the Brazilian stock market. The study showed that the political uncertainty index behaves inversely to the economic situation, demonstrating an upward trend in periods of economic slowdown. Regarding the impact of this index on the Brazilian stock market, evidence of a negative relationship between political uncertainty and stock market returns was observed. In other words, increased political uncertainty tends to result in decreased stock market returns. The study also identified a positive relationship between political uncertainty and market

volatility, indicating that political uncertainty is associated with greater instability and fluctuations in stock prices, which contributes to greater unpredictability and variation in Brazilian stock markets.

Formiga et al. (2019) examined the effect of political uncertainty observed in Brazil in the years 2014 to 2016 on the economic performance and valuation of public companies listed on B3. The results showed that the high level of political uncertainty reached economic activity in the form of a drop in performance and destruction of the market value of Brazilian companies. Hoque and Zaidi (2019) analyzed the impacts of economic policy uncertainty on sectoral returns in the Malaysian stock market. Using regime switching models, the authors confirm the existence of an asymmetric, non-linear, non-monotonic and state-dependent relationship between global economic policy uncertainty and sectoral stock returns in Malaysia.

Melo (2019) estimated the impact of economic uncertainty on the Ibovespa and the flow of foreign capital. Using VAR models with monthly data between January 2005 and January 2018, the author discovered that the Ibovespa is caused by uncertainty and the flow of foreign capital, with a contemporary negative effect for the first and a lagged positive effect for the second.

Lou and Zhang (2020) examined the impact of economic policy uncertainty on the specific risk of a large sample of publicly listed Chinese companies between 2000 and 2017. The researchers found evidence that companies are more likely to experience share price declines when uncertainty increases. A cross-sectional analysis also revealed that the impact of uncertainty on the risk of falling share prices is stronger for companies whose returns are more sensitive to uncertainty. Therefore, young, small, high volatility stocks and growth stocks, which have greater valuation uncertainty, are more sensitive and affected in terms of risk. Furthermore, the authors identified that uncertainty is significantly and positively associated with the aggregate risk of falling stock prices at the market level.

Know (2020) examined the interdependence between oil price shocks and U.S. economic uncertainty and their effects on global stock markets. Using a structural VAR model with data for the last 40 years, the author identified that aggregate demand shocks cause a transitory increase in global real equity returns, while oil demand and U.S. economic uncertainty shocks decrease returns. Especially, oil demand shocks significantly increase U.S. economic uncertainty, indicating that their direct impacts on global stock markets are amplified by their endogenous response.

Casal (2020) verified whether economic policy uncertainty can be used to predict and explain the behavior of the stock markets in Italy and Germany. Applying a VAR model, a weak relationship between the variables was found, contrary to initial expectations. In a similar perspective, Xu et al. (2021) analyzed the predictive performance of the Chinese economic policy uncertainty index in predicting its stock market returns. Using the univariate and bivariate predictive regression model, the authors confirmed that the uncertainty index can significantly and negatively impact next month's stock returns.

Yuan et al. (2022) investigated the impact of economic policy uncertainty on the risk of falling share prices of 32 publicly listed Chinese commercial banks. Using quarterly data from 2007 to 2019, the authors identified that economic policy uncertainty significantly increases the risk of banks' share prices falling.

In summary, these studies show that economic uncertainty has a complex impact on the stock market and business decisions, influencing investments, jobs and consumption. Its influences extend to production costs, consumer confidence, investor sentiment and economic stability. Although there is substantial research on the topic, issues such as this relationship in emerging markets such as Brazil and specific contexts still demand investigation.

Data and method

To conduct the research, two variables were employed. The Economic Policy Uncertainty (EPU) Index by Baker et al. (2016) was utilized to gauge economic policy uncertainty. This index was designed to quantify the occurrence of words associated with economic and political uncertainty in the primary newspapers of the country. It takes into consideration journalistic coverage of economic policy uncertainties, impending future deadlines, and disagreements among economic analysts. In Brazil, texts from the Folha de São Paulo newspaper have been utilized since 1991. On a monthly basis, the count was conducted for articles containing terms such as "uncertain" or "uncertainty," "economic" or "economy," and other words relevant to policies, including but not limited to: deficit, budget, taxes, central bank, dawn, plateau, congress, senate, chamber of deputies, legislation, law, and tariffs (Baker et al., 2016).

For the stock market, the Bovespa Index (Ibovespa), the principal gauge of the average performance of share prices traded on B³, was utilized. Ibovespa is derived from a theoretical portfolio of assets with higher liquidity, formulated according to pre-established criteria (Melo, 2019). Data for this variable were sourced from Yahoo Finance. The data collection period for both variables spans from January 2006 to December 2022 on a monthly basis. Subsequent to collection, these series underwent certain transformations. The EPU underwent a logarithmic transformation, and log-returns (r_t) were computed using the closing prices of the Ibovespa:

$$r_t = \log\left(\frac{p_t}{p_{t-1}}\right) \tag{1}$$

where r_t is the monthly log-return of the index, p_t is the monthly closing price in t and p_{t-1} is the monthly closing price in $t-1$. To investigate the relationship between the variables, various statistical and econometric procedures were employed. In the initial stage, descriptive statistics were computed for each time series to comprehensively examine the data's characteristics. Augmented Dickey-Fuller (ADF) tests (Dickey & Fuller, 1981) and Phillips-Perron (PP) tests (Phillips & Perron, 1988) were also conducted to confirm the stationary stochastic behavior of the variables. Following the completion of these steps, a VAR model was estimated with the objective of scrutinizing the relationship between economic policy uncertainty and the performance of the Brazilian stock market.

The VAR model was proposed by Sims (1980) and is constituted as a multiequational system where each variable is a function of its lagged values, the current and lagged values of the other variables included in the system, and the error term. A VAR model of order (p) can be specified as follows:

$$x_t = \sum_{i=1}^{p} \Phi_i x_{t-1} + \Psi w_t + \varepsilon_t, \qquad t = 1,2,\dots,T, \tag{2}$$

where $x_t = (x_{1t}, x_{2t}, \dots, x_{mt})$ is a $m \times 1$ vector of jointly determined dependent variables, p is the number of lags, w_t is a $q \times 1$ vector of exogenous variables; Φ_i ($m \times m$ vector) e Ψ ($m \times q$) are coefficient matrices. The VAR model requires that all variables in its modeling are stationary (Senna & Souza, 2016). It is also necessary to define a minimum number of lags (p) that guarantees the absence of autocorrelation. For this, an auxiliary VAR is simulated, with an arbitrary number of lags, and tests/criteria were applied to this model to select the best model. According to Vartanian (2012), VAR is sensitive to the ordering of variables, and therefore, they must be included in the model according to their causal power. This can be determined through tests such as Block Exogeneity (VAR Granger Causality/Block Exogeneity Wald Tests). Furthermore, the model included two exogenous variables representing the phases of the Lava Jato ("Car Wash") operation and the COVID-19 pandemic.

After validation and estimation of the model, IRF were generated in order to verify the reaction of a variable in the presence of external disturbances, that is, to verify the positive or negative effects that occur in a variable resulting from changes in the other system variables.

Results and discussions

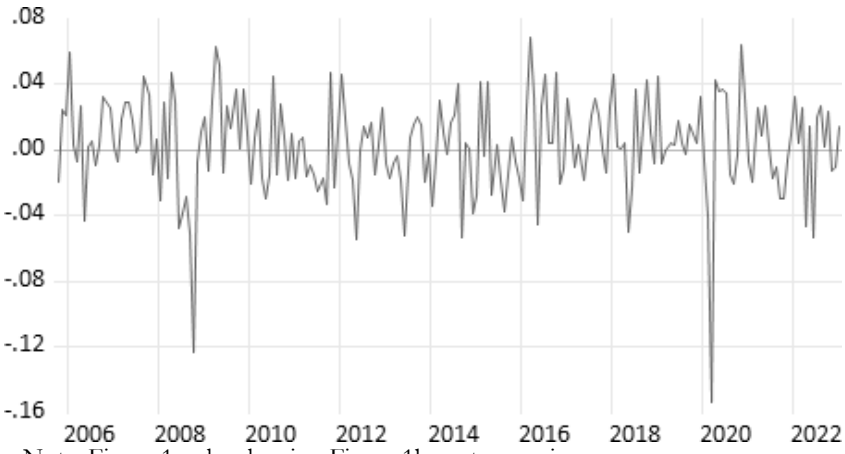
Initially, a visual analysis of the time series was conducted. Figure 1a illustrates the trajectory of the Ibovespa, revealing significant events associated with the behavior of the Brazilian market. In 2008, a pronounced decline is evident, potentially linked to the global financial crisis. According to Formiga et al. (2019), the subprime crisis, originating in the U.S. housing market, disseminated to financial markets worldwide, causing a substantial decrease in stock prices. In Brazil, the Gross Domestic Product (GDP) experienced declines of 4.09% and 1.80% in the last quarter of 2008 and the first quarter of 2009, respectively, leading to a recession scenario. The year 2009 concluded with a contraction of 0.2%.

Another substantial decline in the trajectory of the Ibovespa transpired in 2016, stemming from behaviors initiated in 2014. Factors such as the downgrade of the country's sovereign credit rating and weak economic performance may be associated with the Ibovespa's performance during this period (Formiga et al., 2019). In 2020, a significant drop occurred with the onset of the COVID-19 pandemic. As reported by Valor Econômico (2020), this pandemic impacted the global economy, instigating instability in financial markets. Various elements contributed to the index's downturn during this crisis, encompassing the reduction in oil prices, heightened political instability in 2020, the departure of foreign investors, an increase in interest rates, and, lastly, a decrease in consumption and business activity owing to social distancing measures.

Figure 1b displays the log-returns of the Ibovespa, revealing typical characteristics of financial series, including mean reversion patterns. Moreover, the occurrence of negative returns in 2008 and 2020 aligns with the observations presented in Figure 1a.

Figure 1
Ibovespa (period from January 2006 to December 2022, monthly data).
a)

b)



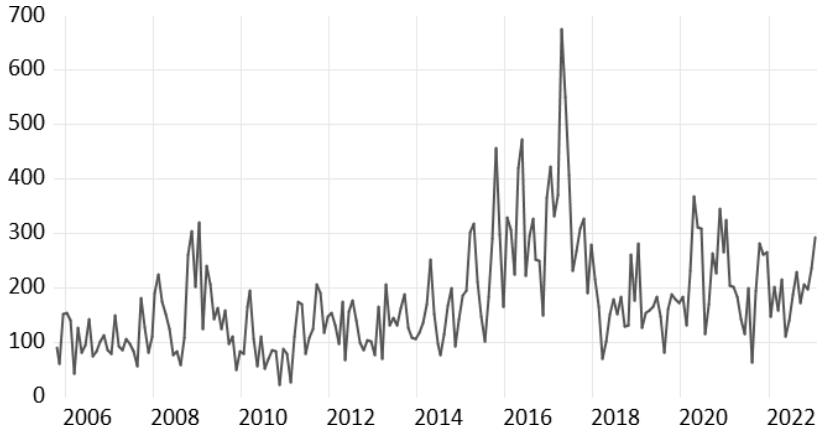
Note: Figure 1a - level series; Figure 1b - return series.
Source: prepared by the authors (2023).

Figure 2a illustrates the trajectory of the economic policy uncertainty index in Brazil. It is noteworthy that, between 2014 and 2016, Brazil experienced a period of substantial fluctuations in uncertainty. As outlined by Formiga et al. (2019), this interval was characterized by the Lava Jato operation and significant instances of corruption involving political figures and both public and private companies, contributing to the deterioration of economic indicators. This led to an increase in interest rates, a decrease in GDP, heightened volatility in exchange rates, and a deterioration of the fiscal situation.

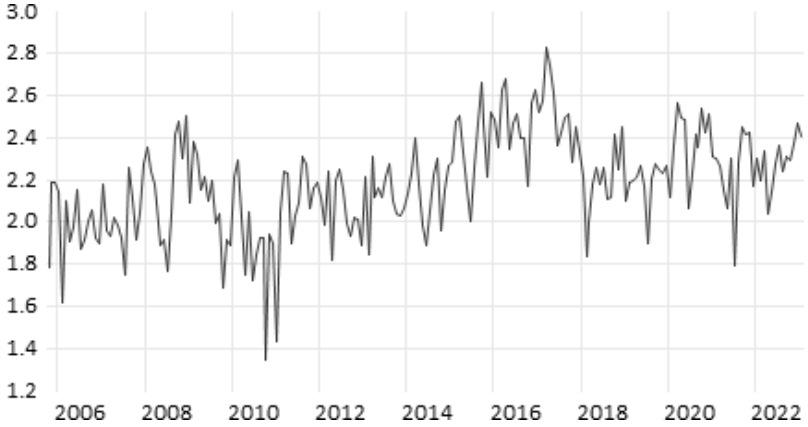
While not reaching the levels observed in the previous crisis, there was an increase in uncertainty in 2020. The crisis that originated in 2016 had a considerably more pronounced impact compared to that of 2020, driven by the pandemic, affecting broad segments of the population and influenced by political and economic factors. In 2020, the uncertainty induced by the pandemic led to swift actions that contributed to stabilizing the economy. Following the logarithmic transformation, as depicted in Figure 2b, it is evident that the series exhibits a reduced amplitude and appears to achieve stationarity.

Figure 2
Economic Policy Uncertainty (period from January 2006 to December 2022, monthly data).

a)



b)



Note: Figure 2a - level series; Figure 2b - series after logarithmic transformation.
Source: prepared by the authors (2023).

After visually inspecting the time series, descriptive statistics for the variables were computed. The average Ibovespa return was positive (0.002), indicating a favorable average performance. However, it is crucial to note the substantial variation, ranging from a minimum value of (-0.154) to a maximum value of (0.068). The median, representing the central value of the distribution, was also positive and close to zero. The standard deviation, measuring the dispersion of the data in relation to the mean, was (0.029). Examining asymmetry, recorded at (-1.067), reveals that the distribution of returns is concentrated to the left of the average, suggesting a tendency towards lower values. Furthermore, kurtosis, with a value of (7.328), indicates a leptokurtic distribution, characterized by heavier tails than those of a normal distribution.

Concerning the variable related to economic uncertainty, a positive average of (2.187) is observed, suggesting a general trend towards higher values. The median, closely aligned with the mean, was recorded at (2.198). Values fluctuated between a positive minimum of (1.348) and a maximum of (2.830), with a standard deviation of (0.234), indicating a certain variability in the data. The analysis of asymmetry (-0.274) and kurtosis (3.518) for the economic uncertainty variable also suggests a distribution concentrated to the left of the average, indicating a propensity for lower values. The slightly leptokurtic kurtosis suggests heavier tails, though to a lesser extent than in the case of the Ibovespa return.

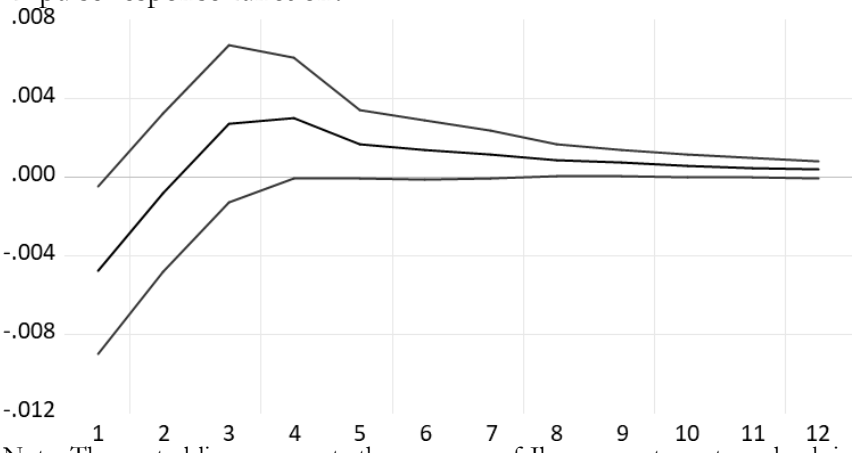
Table 1
Descriptive statistics (period from January 2006 to December 2022, monthly data).

Descriptive statistics		
	r_t	EPU
Mean	0.002	2.187
Median	0.003	2.198
Maximum	0.068	2.830
Minimum	-0.154	1.348
Standard deviation	0.029	0.234
Skewness	-1.067	-0.274
Kurtosis	7.328	3.518
Stationarity and unit root		
ADF *(t-stat)*	-12.492	-12.492
PP *(t-stat)*	-3.598	-6.752

Note: r_t is the return of Ibovespa; EPU is economic policy uncertainty. For the stationarity and unit root tests the appropriate delay length selections in the ADF tests were determined by the Akaike information criterion. To calculate the bandwidths for the PP test, Andrew's procedure was used. The tests are based on 208 observations. The critical values at 5% level are: ADF 5%, t-calc. = -2.875, H_o = *I*(1) non-stationary, H_1 = *I*(0) stationary; PP 5%, t-calc. = -2.874, H_o = *I*(1) non-stationary, H_1 = *I*(0) stationary.
Source: prepared by the authors (2023).

After confirming the stationarity of the time series, we proceeded to the VAR estimation stage. The determination of the number of lags included in the model relied on four information criteria (LR: sequential modified LR test statistic, FPE: Final prediction error, AIC: Akaike information criterion, and HQ: Hannan-Quinn information criterion), all of which indicated the use of two lags ($p = 2$). The ordering of the variables was established through the Block Exogeneity test (VAR Granger Causality/Block Exogeneity Wald Tests), revealing the following ordering in the Cholesky decomposition: EPU ($\chi^2 = 8.043$) and r_t ($\chi^2 = 4.135$). After adjusting the model in accordance with the exogeneity order of the variables, a shock of one standard deviation was applied to the variables using the lag structure of the VAR (2) model (see Appendix A) at various time intervals. The Cholesky decomposition method was employed to conduct the impulse response. In the IRF in Figure 3, it is possible to observe how the Ibovespa reacts to the increase in economic policy uncertainty. After the fifth period, the Brazilian market tried to stabilize, although the external shock had a negative impact in the initial period.

Figure 3
Impulse response function**.**



Note: The central line represents the response of Ibovespa returns to a shock in economic policy uncertainty. The top and bottom lines represent the 95% confidence intervals. When the upper and lower limits have the same sign, the response is statistically significant. In the figure, the "returns" are on the vertical axis and the "horizon" is on the horizontal axis.
Source: prepared by the authors (2023).

This negative impact is similar to that observed by Kang and Ratti (2013), who, using a VAR model, identified that increased uncertainty resulted in a drop in the performance of the U.S. stock market. Chang et al. (2015) investigated the stock market in OECD countries, illustrating that volatility in U.S. and UK economic policies led to decreases in stock prices. This phenomenon is further supported by the research conducted by Nunes and Medeiros (2016), revealing that stock volatility increases with the rise in political uncertainty in markets across various countries, including the U.S., Canada, UK, Germany, Spain, Italy, France, India, and China.

Similar outcomes were identified by Hoque and Zaidi (2019) in the Malaysian stock market, as well as by Formiga et al. (2019) and Melo (2019) in the Brazilian stock market. In the Malaysian context, it has been observed that the impacts of uncertainty on the economy vary in intensity depending on economic conditions, manifesting themselves more sharply or mildly in different circumstances. This observation aligns with the Brazilian stock market, where political uncertainty, coupled with economic fragility, exerts a negative effect on companies listed on the stock exchange, with direct repercussions on the performance of Ibovespa.

Moreover, there is evidence indicating that uncertainty also has an adverse impact on the Chinese market. Lou and Zhang (2020), in their analysis of risks associated with Chinese companies, found that uncertainty in economic policy can heighten the risk of drops in share prices, especially for companies

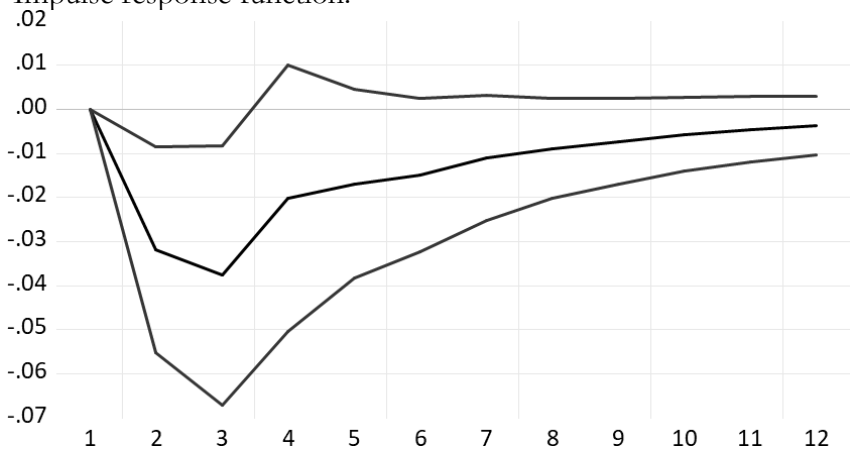
more susceptible to uncertainty and for the market as a whole. Confirmed by Xu et al. (2021), the uncertainty index was shown to have a significant and negative impact on Chinese stock returns during the first month. Yuan et al. (2022) identified that uncertainty reduced the share prices of 32 publicly listed Chinese commercial banks. Other studies establishing a relationship between uncertainty and the stock market include Know's (2020) work regarding global stock markets, as well as Casal's (2020) study of stock markets in Italy and Germany.

The results obtained when analyzing the behavior of Ibovespa in the face of increased uncertainty in economic policy align with a global trend identified in the literature. The empirical evidence presented in this study reflects the sensitivity of equity markets to uncertainty factors, especially those related to significant political and economic events. The stabilization observed in the Brazilian market after the fifth period suggests a certain resilience, albeit initially impacted by external shocks. Understanding these patterns and conducting comparative analyses with other global markets play a fundamental role in developing more robust strategies in volatility scenarios. These observations gain particular relevance in emerging markets, such as Brazil, underscoring the need for meticulous risk management and the establishment of political stability and economic clarity.

In the analysis of Figure 4, it is evident how economic policy uncertainty reacts to the increase in the Ibovespa, displaying a notably negative impact and establishing a trend contrary to the previous relationship demonstrated in Figure 3. This dynamic can be attributed to the fact that a rising market is interpreted as a positive indicator by consumers and investors, signaling a promising future. Thus, financial market performance has the potential to exert a significant impact on various sectors of the economy.

In contrast to an environment of high uncertainty, where companies tend to postpone and reduce investments due to increased external financing costs, in periods of market expansion, banks may feel greater confidence in making credit available. This is because economic conditions, in general, are favorable during market upswings. This creates a conducive environment for companies to engage in more ambitious projects, while encouraging the population to increase their spending (Bernanke, 1983; Julio & Yook, 2012; Zhang, 2019).

Figure 4
Impulse response function.



Note: The central line represents the response of economic policy uncertainty to a shock in the Ibovespa return. The top and bottom lines represent the 95% confidence intervals. When the upper and lower limits have the same sign, the response is statistically significant. In the figure, "uncertainty" is on the vertical axis and "horizon" is on the horizontal axis.
Source: prepared by the authors (2023).

These circumstances suggest that the performance of the stock market, coupled with the resulting optimism among investors and consumers regarding the future of the economy, plays a crucial role in mitigating economic policy uncertainty. In clearer terms, the stock market can wield significant influence in reducing economic uncertainty by serving as an indicator of stability and investment opportunities. This effect is particularly pronounced in emerging markets such as Brazil, where confidence in economic stability emerges as a determining factor for growth. Understanding this dynamic is fundamental for adopting a more holistic approach to economic policies, taking into account the interconnection between credit injections, market optimism, and the mitigation of political uncertainty. This integrated approach can contribute to strengthening the resilience and sustainable development of these growing economies.

Final remarks

This study aimed to analyze the relationship between economic policy uncertainty and the Brazilian stock market, utilizing data from the Economic Policy Uncertainty Index and Ibovespa over the period from 2006 to 2022. The methodology employed was based on the application of a vector autoregressive model, and the results, elucidated by impulse response functions, revealed a bidirectional relationship between the variables. It was observed that an increase in uncertainty levels coincides with a decrease in the performance of the Brazilian stock market, while an improvement in market performance contributes to the reduction of uncertainty. This evidence provides valuable insights for investors, analysts, and policymakers. It suggests practical implications and strategies that can be adopted to effectively manage market swings in response to economic uncertainty.

The conclusions drawn from this research offer substantial contributions by deepening the understanding of the interaction between economic policy uncertainty and the Brazilian market. The study not only expands the current understanding of the effects of economic uncertainty on the stock market but also initiates an in-depth investigation into the dynamic interdependence between market performance and uncertainty. In this context, there is an imperative need to foster an environment that inspires trust among economic agents. The imperative is not only to mitigate the adverse effects of uncertainty but also to encourage consistent investments that promote sustainable development, particularly in strategic sectors for Brazil, such as health, infrastructure, mining, and agribusiness. The urgency of this strategy is evident, aiming not only at economic stability but also at creating a scenario conducive to long-term prosperity.

The significance of the discoveries outlined in this study goes beyond the academic realm, carrying practical implications that resonate with a diverse audience, including investors, regulators, governmental bodies, and the broader population, particularly in Brazil and other emerging markets. Investors can utilize these insights as strategic guidance, and regulators and government bodies can adjust policies more promptly. This knowledge holds particular value in emerging markets, like Brazil, offering a foundation for decisions that foster resilience and sustainable growth. For the general population, a more stable economy implies more consistent employment opportunities and predictable living costs, contributing to a more optimistic outlook. Thus, the practical implications of this study extend beyond academia, directly impacting various sectors of society.

It is noteworthy that the results presented here are limited to the data period and the scope of the methodology adopted. For future research, it is suggested to include other variables, such as trust indicators, and explore non-linear models to identify possible asymmetries in this relationship. This approach aims to uncover potential asymmetries within the examined relationship, providing a more comprehensive understanding for informed decision-making in these dynamic and evolving markets.

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Appendix A - VAR (2) Model.

	LEPU	r_t
EPU(-1)	0.409	0.001
	(0.068)	(0.011)
	[5.989]	[0.106]
EPU(-2)	0.178	0.018
	(0.068)	(0.011)
	[2.585]	[1.661]
r_t (-1)	-1.004	0.128
	(0.433)	(0.071)
	[-2.316]	[1.801]
r_t (-2)	-0.582	-0.066
	(0.430)	(0.070)
	[-1.353]	[-0.941]
C	0.877	-0.041
	(0.141)	(0.023)
	[6.200]	[-1.765]
LAVAJATO	0.087	0.001
	(0.031)	(0.005)
	[2.782]	[0.262]
COVID	0.056	-0.004
	(0.033)	(0.005)
	[1.715]	[-0.903]
R-squared	0.443	0.051
Adj. R-squared	0.426	0.021
Sum sq. resids	6.016	0.163
S.E. equation	0.175	0.028
F-statistic	25.868	1.751
Log likelihood	68.265	432.663
Akaike AIC	-0.606	-4.214
Schwarz SC	-0.491	-4.099

Note. Standard errors in ( ) and t statistics in [ ].
Source: prepared by the authors (2023).