

CDS Returns' Volatility and Traders' Reactions

CDS Priminde Yaşanan Oynaklıklar ve Yatırımcıların Tepkisi

Fatih CİNGÖZ¹

¹Department of Finance and Banking, Faculty of Economics and Administrative Sciences, Hitit University, Çorum, Türkiye



Selçuk KENDİRLİ²

²Department of Finance and Banking, Faculty of Economics and Administrative Sciences, Hitit University, Çorum, Türkiye



Semanur COŞKUN³

³Asil Endüstriyel, Çorum, Türkiye



This study is an extended and revised version of the paper, 'The Impact of Significant Changes in CDS Premiums on Investor Behavior,' presented at the 10th ICAFR, held in Çorum, September 14-16, 2023. A summary of this paper was included in the congress abstract book.

Bu makale 14-16 Eylül 2023 tarihleri arasında Çorum'da düzenlenen 10. Uluslararası Muhasebe ve Finans Araştırmaları Kongresi adlı etkinlikte sözlü bildiri olarak sunulmuş ve özeti kongre özet kitabında basılmış "CDS Primlerinde Meydana Gelen Önemli Değişimlerin Yatırımcı Davranışlarına Etkisi." başlıklı bildirinin genişletilmiş ve güncellenmiş halidir.

Geliş Tarihi/Received 26.11.2024
Kabul Tarihi/Accepted 21.10.2025
Yayın Tarihi/Publication Date 01.01.2026

Sorumlu Yazar/Corresponding author:

Fatih CİNGÖZ

E-mail: fatihcingoz@hitit.edu.tr

Cite this article: Cingöz, F., Kendirli, S. & Coşkun S. (2026). Cds Returns' Volatility and Traders' Reactions. *Trends in Business and Economics*, 40(1), 1-10.

ABSTRACT

Credit default swap (CDS) premiums on a country's bonds are significant indicators of its risk profile. A decline in CDS premiums is perceived positively by investors, often triggering expectations of a rise in stock markets, and vice versa. This study examines the effects of significant changes in Türkiye's 5-year CDS premiums on investor behavior, using daily data from 03/03/2008 to 31/10/2024 for the XBANK index, representing the banking sector, and the XU100 index, representing the aggregate market. For examining market reactions, an event study approach was adopted. The days during which changes in daily CDS prices exceeded $\pm 5\%$ were specified as event days, and comparisons were made by evaluating stock returns between opening and closing market prices on indices for those days. The analysis indicates that market participants reacted to changes in the banking sector to a higher extent compared to changes in the aggregate market, as well as to a larger extent to an increase compared to a decrease in CDS prices. Buy-and-sell strategies simulating these reactions showed positive returns.

JEL Codes: C6, H12, C8, D03

Keywords: CDS, BIST, Investment, Portfolio

ÖZ

Bir ülke tahvili üzerine yazılan kredi temerrüt swapları (CDS) primleri ülkenin risk durumunu gösteren önemli ölçütlerden biridir. CDS primlerinde düşüş (yükseliş) yatırımcılar tarafından olumlu (olumsuz) algılanabilmekte ve borsalarda yükseliş (düşüş) beklentisi oluşturabilmektedir. Çalışmada, Türkiye'nin 5 yıllık CDS primleri, bankacılık sektörünü temsilen XBANK ve genel piyasayı temsilen XU100 endekslerine ait 03/03/2008 ile 31/10/2024 arasındaki günlük veriler ve vaka çalışması metodolojisi kullanılarak CDS primlerinde meydana gelen büyük değişimlerin yatırımcılar üzerinde yarattığı etkiler araştırılmıştır. CDS primlerinde meydana gelen günlük $\pm 5\%$ ve üstü değişimlerin yaşandığı günler olay kümesini oluşturmuş ve belirlenen günlerde endekslerdeki açılış ve kapanış fiyatları arasındaki getiriler incelenerek karşılaştırmalı analizi yapılmıştır. Yatırımcıların, bankacılık sektörü üzerinden genel piyasaya kıyasla daha fazla tepki verdiği görülmüştür. Ayrıca, yatırımcıların CDS primindeki artış yönlü değişimlere, azalış yönlü değişimlerden daha fazla tepki verdiği gözlemlenmiştir. Bulgular üzerine yapılan alım ve satım simülasyonlarında, stratejilerin pozitif getiriler sağladığı gözlemlenmiştir.

JEL Kodları: C6, H12, C8, D03

Anahtar Kelimeler: CDS, BİST, Yatırım, Portföy



Content of this journal is licensed under a Creative Commons Attribution 4.0 International License

Introduction

Credit derivatives are imperative risk management instruments or solutions in the current financial markets. Derived from these credit derivatives is the Credit Default Swap (CDS), which is distinctive since it allows for the effective distribution of risk exposures (Tekin & Şenol, 2025). Being special derivatives for shielding against the risk of default of sovereign bodies, the roles of the CDS spread in the markets include more than mere risk management since it is the reaction of investors to abrupt changes in such premiums that influence markets significantly. Unlike credit ratings that are often stagnant, the instrument is a rapid numerical risk indicator that is sensitive to unforeseen markets (Ulusoy & Yılmaz, 2017).

As the risk of sovereign bond CDS is determined by the market through freedom of risk perception, these data have become an important indicator of the financial soundness of any country. Usually, any fall in the sovereign bond CDS spread indicates soundness, often fuelling optimism in the stock market, while any sharp increase often sparks the opposite (Altuntaş & Ersoy, 2020). However, these markets are not only triggered by logical assessments of risk but are also propelled by behavioral forces. Behavioral finance explains that often, risk perception is clouded by emotional influences or 'herd behavior' that often distorts investment choices, making markets overreact or underreact to critical risk indicators. Thus, any steep increase in the CDS spread often sparks risk aversion among investors, often fuelling sell-offs in bonds or the stock market, while any steep fall often triggers 'buying frenzies' by investors who often derive their optimism from better risk perception.

Even though the Efficient Market Hypothesis (EMH) states that security prices incorporate all information (Fama, 1970), some models of behavioral finance propose the opposite by pointing out that markets systematically mistake new information. Data related to the overreaction hypothesis, which initially was developed by De Bondt & Thaler in 1985 to study portfolios with unusually high preceding gains or losses by attributing these to overreaction or underreaction of markets respectively, proposes that the strength of the corrective adjustment is directly proportional to the initial variance of the shock (Doğukanlı & Ergün, 2011).

It is established in previous studies that the effect of CDS spreads is more significant in instances of large trading

volumes (Kliber, 2011) and that in developing markets, products linked with CDS spread quicker (Pollege & Posch, 2013). However, for this research, the Turkish market is selected as a separate case owing to enhanced levels of market variability coupled with their special response patterns to global economic conditions. As a country situated between Europe and Asia, Türkiye is a developing nation with a thriving economy, where fluctuations in CDS often contribute to considerable levels of market movement. It is here that CDS spread is taken into consideration as a significant risk indicator for the country, integrating influences of national economic policies, geopolitical events, as well as global economic trends. Historically, the Borsa Istanbul, more so the banking community that is diligently sensitive to relevant macro-financial risk factors, has displayed considerable responsiveness to fluctuations in the spread of CDS (Altuntaş & Ersoy, 2020; Gürsoy & Kılıç, 2021). Therefore, the significance of comprehensively identifying the influence of CDS spread on investor behavior in the Turkish market is imperative.

There is a strong relationship between the change in CDS spreads and the probabilities of bank failure, which further affects equity prices. A one-standard-deviation increase in CDS spread is shown to significantly enhance the possibility of bank failure, which results in decreased equity prices as investors revalue risk (Avino et al., 2015). This is because banks are more sensitive to the credit risk cycle of the equity markets, unlike other firms, resulting in more extreme reactions triggered by the corresponding fluctuations in the CDS spread (Calice et al., 2009). Consolidating previous findings related to the link between stock prices and CDS spreads, this work focuses on the effect of large daily CDS spread variations on banking equities traded on the BIST, while presenting a contrast between the banking and the total market. Using the XBANK index for banking shares and the XU100 for the total market as a whole, despite the established linkage between stock markets and CDS spreads, previous research still lacks comprehensiveness on the effects of unusually large variations of the latter on shares.

This paper is organized as follows. The second section describes related literature study. In the third section, the data sources or datasets used in this study would be discussed. While in the fourth section, the result of the study would be shown and interpreted. Finally, conclusion would be given in the fifth section.

Literature Review

A number of researchers have given great attention to investigating the determinants of sovereign credit risk with special emphasis on the interactions between global factors and regional economic fundamentals. Research evidence among East European markets between 2008-2010 indicates that the spread of sovereign credit risk among emerging economies is not determined by one unique factor but by a complex combination of risk appetite, economic fundamentals, and global spillovers (Anton, 2011). Institutional factors are also crucial here. According to Benbouzid et al. (2017), sound non-core banking systems with low levels of risk correlation between banks are key in reducing CDS spreads, while macro-instability with highly developed banking systems increases such spreads. All these observations add further evidence that credit risk is driven by factors related to both resilience and global vulnerabilities.

However, the risk rating relationship with equity markets is more variant in developing countries. For instance, the study of the BRICS nations shows that the Chinese equity market is sensitive to various risk factors, while the Brazilian equity market is sensitive to economic factors, whereas Russia and China are sensitive to political instability (Hammoudeh et al., 2011). It is interesting to note that the risk factors related to finance tend to be more significant in causing equity markets to react in contrast to political or economic risk factors, taking into account the risk aversion of developed nations' monetary policies.

Commodity markets, especially oil markets, also exhibit a strong relationship with credit risk. Using asymmetric TVP-VAR analysis, a recent study by Tekin & Şenol (2025) revealed that crude oil is a total shock receiver for the CDS premiums of oil-exporting countries. This indicates a negative value for hedge, indicating the presence of a natural and low-cost hedge between the CDS premiums and crude oil markets. This association is further differentiated by evidence that suggests the CDS premiums of oil-exporting countries are more sensitive to the bond markets of developed economies than equity markets (Naifar et al., 2020).

In relation to the predictive capability of the CDS spread series, Castellano and Scaccia (2014) found that the oscillations in these spread series have often tended to predict stock market movements in the European and American markets. This happened through a rapid, acute effect, such that Pan and Ni (2011) found that a one-

standard-deviation increase in these premiums could reduce the average US stock price by 1.29% in just two days. Moreover, the aftermath of such phenomena is often differentiated between positive or negative shocks. Ural and Demirel (2015) found that positive shocks (risks of perception) are more significant in their influence compared with negative shocks, a situation that is more evident in high-beta markets such as Turkey and Brazil.

Studies on the Case of Türkiye

In the context of the Turkish case, the relationship between country risk factors and market performance has engaged various studies. Using the ARDL approach, it was observed that political risk, financial risk, and economic risk each influence the stock market in the long term, but in the short term, the influence of political risk and financial risk is significant. This implies that risk-sensitivity among investors is not dependent only on risk levels but also on risk type.

The correlation between portfolio flows and risk premiums also shows interesting patterns. Sevil and Ünkaracalar (2020) found a negative correlation between portfolio investment and CDS premiums in the long term, with a causality relationship in the opposite direction in the short term. This means that capital flows are able to predict CDS premiums in the short term, while keeping the opposite correlation in the long term. Volatility spillovers are also important in this regard. Gürsoy and Kılıç (2021) found that there is a strong relationship between the 5-year CDS premium of Türkiye and the banking index, with a bidirectional relationship between volatilities. Similarly, Altuntaş and Ersoy (2020) found a bidirectional causality between the premium of the CDS and the banking index, but a one-directional relationship with the BIST 30, from the index to the premium of the CDS. Previous research works have broadened their research horizon to encompass credit ratings and foreign direct investment (FDI). Their findings revealed that CDS premiums, credit ratings, and the XU100 index correlate with each other in the long run. At the same time, İltter and Gök (2021) found that FDI has a one-way relationship with CDS premiums, whereas the relationship between CDS premiums and portfolio investment is two-way. Not all research works found a direct correlation; Önem (2022) established that there is significant transmission of volatility between CDS premiums and BIST indices but could not establish a direct relationship using opening daily stock values. This study reiterated that daily changes in CDS premiums influence investors' behavior in Borsa Istanbul significantly, emphasizing the need for risk monitoring by stakeholders.

Recently, the negative effect of financial stress indices on the XU100 was emphasized by San and Yiğiter (2024), who argued that such indices could be used as an early warning system for crises. At the micro-level, individual financial indicators influence equity markets; for example, the net profit is determined to influence the stock price of İşbank, while equity profitability is more significant for equity markets of Albaraka Türk (Ahmetoğulları, 2024). Although the preceding research papers provide important insights into the macro relationship between sovereign risk and equity markets, they do, however, encompass some pitfalls. Firstly, the overwhelming majority of research is conducted using data that is either monthly or quarterly, often masking the instantaneous behavioral responses of investors faced with risk shocks. Moreover, despite the pervasive utilization of CDS cross-sections as a risk proxy for a nation, it is observed that there is limited work that focuses on instantaneous daily risk fluctuations, especially for a ticker like TR through which markets such as the Turkish equivalent of the New York Stock Exchange or London Stock Exchange could be represented. Most importantly, very few research works tend to investigate into the asymmetric relationship between risk shocks; that is, the degree to which panic is induced by risk hikes in contrast to risk rebound or rejoicing. This research paper intends to fill the mentioned research lacunae by using an event study approach on a daily timeframe.

Material and Methods

Data Selection and Process

Market risk perception dictates the valuation of Credit Default Swap (CDS) premiums for Turkish bonds, with the 5-year contract serving as the standard benchmark. Given that these instruments see their heaviest trading volume in the London swap market—which commences operations at 10:00 Turkish time—our analysis hinges on daily opening values. To isolate significant market shifts, we applied a filter to identify days where CDS premiums swung by $\pm 5\%$ or more. We then analyzed the corresponding movements in the XU100 and XBANK indices to gauge their sensitivity to these fluctuations. (Detailed justification for this specific filter appears later in the text). All statistical computations were executed within the R programming environment.

The dataset spans the period from March 3, 2008, to October 31, 2024, a timeframe determined by the availability of concurrent data for all variables. We sourced daily figures for Türkiye's 5-year CDS premiums, the XBANK

index, and the XU100 index from investing.com. The XBANK index was specifically targeted under the hypothesis that banking equities are uniquely vulnerable to sovereign risk pricing, while the XU100—comprising the exchange's top 100 equities—serves as a proxy for the broader market to facilitate comparative analysis.

Methodology of Research

The study utilized a case study model, which is a quantitative methodological approach (Chmiliar, 2010). First, daily changes for CDS premiums were calculated using the following formula:

$$R_i = \frac{P_{i,open}}{P_{i-1,open}} - 1, \quad (1)$$

where R_i represents the change in CDS premium on day i ; P_i indicates the CDS premium's opening value on day i ; and P_{i-1} represents the CDS premium's opening value on the previous day. This allows for the quantification of daily CDS premium fluctuations as a percentage, enabling the identification of significant changes in the market.

Daily returns for XU100 and XBANK are calculated using the formula below:

$$R_i = \frac{P_{i,close}}{P_{i-1,close}} - 1, \quad (2)$$

where R_i is the daily returns of the indices on day i ; $P_{i,close}$ is the closing value of the indices on day i ; $P_{i-1,close}$ is the closing value of the indices one day before day i .

Number of Observations and Event Set

The daily returns were calculated using the previously mentioned formula, and the observation counts corresponding to daily CDS premium changes are presented in Table 1. The total number of observations is 4,216, with only two instances of the CDS premium dropping more than 20% daily.

Key observations:

- Days with a decline greater than 5%: 149 days (3.5% of total population)

- Days with an increase greater than 5%: 211 days (5% of total population)

Table 1.

Number of Observations for Different Filters

	<			>		
<i>filter</i>	-20	-10	-5	5	10	20
#	2	26	149	211	40	13
%	0.04	0.6	3.5	5	0.94	0.3

Note Total number of observations is 4216. "Filter" in the first row represents the percentage change in CDS premium greater and less than zero. The # represents the number of observations and the row with % represents the proportion of observations at the respective filter level in the total population.

The filter level was selected as $\pm 5\%$ based on these observations, inspired by the methodology used in Dunis et al. (2006), who also identified threshold values to capture extreme market movements in their event-based analysis. The rationale for this selection includes:

1. Sufficient number of observations to create a consistent model
2. Representation of anomalous sample levels
3. Balanced distribution of significant change events

These criteria ensure a meaningful analysis while capturing notable market fluctuations.

$$Event\ Set = \begin{cases} R_i > f_p, & f_p \in \{0.05\} \\ R_i < f_n, & f_n \in \{-0.05\} \end{cases} \quad (3)$$

In the formula:

R_i , represents the CDS spread return on day i ; f_p denotes the positive filter level; f_n represents the negative filter level, which is the threshold for filtering.

The "Event Set" defines two conditions based on whether the CDS spread return exceeds the positive filter level or falls below the negative filter level.

Two separate event sets were established, encompassing both positive and negative changes as previously described. The analysis proceeded by exclusively examining the changes occurring on the days

constituting these specific sets.

Research Findings

Table 2: Average daily return for the XBANK and XU100 indices, together with the statistical significance test and number of positive versus negative instances. Our filtering process identified 202 trading days marked by a severe surge in risk- those with CDS premiums increasing $>5\%$. Days reflecting ease in risk perceptions- those with CDS premiums falling $>-5\%$ - are fewer, yielding 146 observations.

Against this, in periods of increasing risk-where the CDS premiums jumped over 5% —the banking sector had been much more fragile compared to the general market. More specifically, while the XBANK index declined by an average of 2.7% , losses for the broader XU100 were somehow limited to 2% . What is fascinating in that regard is the persistence of this downward pressure: on 168 out of the 202 threshold days identified, banking stocks ended in the red, which corresponds to an 83% probability of negative returns within these shock events. For the cumulative market, the pattern was practically the same: on 82% of the days when the threshold was breached, losses were recorded. Welch's t-tests confirm these findings as strong, and thus the negative returns are statistically different from zero rather than just noise in the market.

Table 2.

Daily Index Returns on Event Days

	XBANK		XU100	
	$f > 5\%$	$f < -5\%$	$f > 5\%$	$f < -5\%$
Mean	-2,7%	2,37%	-2,0%	1,88%
t-test	$p < .001$	$p < .001$	$p < .001$	$p < .001$
#	168	119	167	125
%	83	81	82	85

When market tensions relaxed—indicated by a CDS drop of over 5% —the XBANK index responded with vigor, posting an average daily return of 2.37% . The broader XU100 index also rallied but with less intensity, limiting its average gain to 1.88% . In terms of consistency, the trend is robust: across the 146 days in this "relief" sample, banking stocks finished in the green 119 times (81%). Interestingly, while the banking sector offered higher returns, the general market (XU100) showed slightly higher consistency, closing up on 125 occasions (85%). Statistical analysis confirms that these returns are

significantly different from zero, validating the positive impact of falling risk premiums.

Comparatively, the data underscores that banking equities are far more sensitive to CDS volatility than the aggregate market. Moreover, an asymmetry in investor behavior emerges: the market's reaction to rising risk (what we might call "bad news") is noticeably more intense than its relief during falling risk. While the XU100 index boasts a higher frequency of positive closes during recovery periods, the magnitude of the price movement is statistically stronger in the banking sector. T-tests and average return comparisons corroborate this, confirming that banking investors reprice assets more aggressively in response to significant shifts in sovereign risk compared to the general market

Simulation

Having gained intuition about the acute reaction of banking equities to big changes in their respective CDS levels, we now turn to the application of this understanding. More concretely, we examine the viability of a trading algorithm targeting precisely such differences. In order to test for the profitability of such a trading strategy, the following core assumptions are made:

Entry and Exit: Trades are made purely on the basis of morning changes in the CDS spread and occur exactly at the time of opening of Borsa Istanbul. Though it is true that various factors influence the opening of markets, for the purposes of this study, CDS is taken as the major determining factor. To remove risk that is exposed overnight, it is ensured that both long and short positions are intraday.

Portfolio Construction: Instead of the stock-picking approach, the technique that is used is the passive indexing method. In portfolio construction, the portfolios are designed to replicate the same composition as the respective indices, namely the XBANK and XU100 indices. Therefore, the trading outcomes would capture the systematic risk of a certain sector of the market or the market as a whole.

Mechanics of Short Selling: It is assumed that the mechanics of the short selling process are frictionless, allowing for replication of the indices on the short side without the need for borrowing costs or margin calls. Although it is easier to test theoretically in this manner, it is recognized that in practice, borrowing costs of stock

would affect the net profit realization of such a strategy. **Transaction Costs:** We assume a normalized commission charge of 0.05% per side, implying a total round-trip commission of 0.1% for entering and exiting each daily portfolio. Because of the lack of data granularity, bid-ask spread effects are not taken into consideration in this cost analysis; therefore, the commission cost is the lone consideration.

Strategy Process

During the specified time period, the number of days when the CDS premium decreased by more than 5% was 146. On these days, investors are assumed to open positions during the opening session and close them during the closing session. The return for each transaction, as well as the cumulative return, will be calculated using the following formula:

$$\begin{aligned} & R_i < f_n, \\ & f_n \in \{-0.05\} \\ & = \begin{cases} R_i = P_{i,close} / P_{i,open} - 1 \\ R_c = (1 + R_1) * (1 + R_2) * \dots * (1 + R_{146}) - 1 \end{cases} \end{aligned} \quad (4)$$

The number of days when the CDS premium increased by more than 5% was 202. On these days, investors are assumed to execute short sales during the opening session and close these positions during the closing session. The return for each transaction, as well as the cumulative return, will be calculated using the following formula:

$$\begin{aligned} & R_i > f_p, \\ & f_p \in \{0.05\} \\ & = \begin{cases} R_i = P_{i,open} / P_{i,close} - 1 \\ R_c = (1 + R_1) * (1 + R_2) * \dots * (1 + R_{202}) - 1 \end{cases} \end{aligned} \quad (5)$$

Results

Having identified that banking equities are more sensitive on event days, we proceed to investigate the economic feasibility of exploiting this message. Summary statistics for the results of simulated buy-sell strategies described previously are provided in Table 3. Consistent with the asymmetry in the behavior documented above, the market's rebound to a rise in CDS spreads is much stronger compared with its exuberance from a decline—a

pattern in both the banking and aggregate gauge. More importantly, even after accounting for transaction costs-in particular, the buy-sell commissions-the short-selling strategy was very profitable. For days when the CDS rose by more than 5%, opening a short position in banking stocks at the beginning and covering this position at the end resulted in an average net gain of close to 1.9%.

Table 3.

Cumulative Returns for The Strategies

	XBANK		XU100	
	<i>f</i> > 5%	<i>f</i> < -5%	<i>f</i> > 5%	<i>f</i> < -5%
Mean	1.9%	1.2%	1.2%	0.9%
t-test	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001
#	146	103	143	108
Cumulative Return	3408%	435%	1033%	264%

As further illustrated in the table, out of the 202 short-sale transactions, 146 yielded positive returns. When this strategy was applied on every day that CDS premiums exceeded the specified threshold, the cumulative return reached an impressive 3408%.

When the same scenario was applied to the XU100 index, the cumulative return was significantly lower. Despite 143 out of 202 transactions yielding positive results, the cumulative return was only 1033%, with an average return per transaction of 1.2%.

On days when CDS premiums decreased by more than 5%, executing a buy transaction at the session opening and closing it by the session end resulted in an average return of 1.2% for the banking index and 0.9% for the portfolio replicating the XU100 index. The results of the buy-sell simulation further indicate that the return outcomes associated with investors' reactions to negative news are higher than those from reactions to positive news. In this scenario, the average returns for both indices were lower. For the portfolio replicating the banking index, the strategy yielded positive returns in 103 out of 146 transactions, corresponding to approximately 71% of the event days. For the portfolio replicating the aggregate market (XU100), this number was 108 out of 146, or about 74% of the observations. Although the XU100 index had a slightly higher number of profitable trades, the cumulative returns were greater for the banking index portfolio. This result indicates that while the aggregate market provided more

frequent—but relatively smaller—positive outcomes, the banking index offered fewer profitable trades with higher average return per trade, ultimately leading to a greater cumulative gain. The finding suggests that investors reacted more strongly to CDS premium changes in banking equities than in the overall market, reflecting the sector's greater sensitivity to sovereign risk and its closer linkage to credit conditions. As a result, the banking index exhibited both higher volatility and greater return potential, especially during periods of sharp risk repricing.

The cumulative return from this strategy was significantly lower compared to the previous strategy, reaching 335%. In both cases, the returns were statistically significant and found to be different from zero.

Conclusion and Recommendations

Our findings confirm that the Banking Index is much more prone to volatility emanating from sovereign risk shocks than the general market. Characteristic of these movements is a distinct asymmetry: the intensity of the market's recoil during the rise of CDS premiums, or so-called negative events, is much greater than its relief during periods of recovery. This behavior is well in line with the concept of "loss aversion" in behavioral finance--as Elmas et al. (2024) note, the fear of loss is usually the leading motive of investor sentiment, easily explaining the strength of the sell-off during the sudden spike in risk perceptions.

The performance gap is quantifiable: on those days when risk premiums jumped above our threshold, the XBANK index declined by an average of 2.7%, outpacing the decline in the XU100 of 2%, while on those days when tensions relaxed—a drop in CDS >5%—banking stocks rose 2.37%, again leading the aggregate market's increase of 1.88%. Such findings are in tune with recent works by Altuntaş and Ersoy (2020) and Önem (2022), further solidifying previous findings that connect pricing of sovereign risk to the sectoral movements in Borsa Istanbul.

Profitability simulations further illustrate this sensitivity. Although portfolio strategies tracking both of the indices generated positive returns on event days, the gains were disproportionately concentrated in "short" strategies executed during high-stress periods. Even after factoring in transaction costs, betting against the market on CDS spikes proved significantly more lucrative than riding the recovery. This observation cements the notion that bad news is always priced in with greater aggressiveness compared to good news.

Comparing the two results in a subtle twist in investor appetite: though the cumulative market had a higher frequency of profitable trades during the recovery phases of the market, banking sector returns were better due to the sheer magnitude of the price swings. This underpins the banking sector's role as a high-beta proxy for investor sentiment regarding Türkiye's creditworthiness.

From a policy point of view, such extremes indicate the necessity of regulatory circuit breakers or even targeted stabilizing measures in periods of erratic CDS movement. From the perspective of the academic community, this research opens a number of avenues. Future research could be enriched by establishing a comparative timeline between predisaster and postdisaster market behavior or by contrasting these findings with data from developed economies to isolate those anomalies that are specific to emerging markets. Every methodological choice is a trade-off. By setting a filtering threshold of $\pm 5\%$ for the daily changes in CDS, we deliberately had to favor extreme market reactions in exchange for statistical clarity. The high-pass filter reduced our sample size while sacrificing moderate fluctuations—such as those between $\pm 3\%$ and $\pm 4.99\%$ —which might still be behaviorally relevant. While effective in capturing shock events, this approach might well overlook the potential cumulative impact of lower-volatility days. Future investigations could reduce this by utilizing dummy variables for several intensity intervals or using regression-based models. Such an approach would therefore serve to allow a more continuous mapping of the impacts of sovereign risk, offering a granular view of the way in which varying degrees of risk perception ripple through financial markets.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir-F.C.; Tasarım-F.C.; Denetleme-S.K.; Kaynaklar-S.C.; Veri Toplanması ve/veya İşlemesi-F.C.; Analiz ve/veya Yorum-F.C.; Literatür Taraması-S.C.; Yazıyı Yazan-F.C.; Eleştirel İnceleme-S.K.

Çıkar Çatışması: Yazarlar, çıkar çatışması olmadığını beyan etmiştir.

Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

Yapay Zeka Kullanımı: Bu makalenin kavramsallaştırılması, veri analizi, bulguların yorumlanması ve bilimsel içeriğin yazımında üretken yapay zekâ araçları kullanılmamıştır. Yapay zekâ tabanlı araçlar yalnızca dil düzenleme ve okunabilirliği artırma amaçlarıyla kullanılmıştır. Makalenin içeriği ve doğruluğuna ilişkin tüm sorumluluk yazar(lar) a aittir.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept –F.C.; Design-F.C.; Supervision-S.K.; Resources-S.C.; Data Collection and/or Processing-F.C.; Analysis and/or Interpretation-F.C.; Literature Search-S.C.; Writing Manuscript-F.C.; Critical Review-S.K.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Use of Artificial Intelligence: Generative artificial intelligence (AI) tools were not used in the conceptualization, data analysis, interpretation, or drafting of the scientific content of this manuscript. AI-based tools were used only for language editing and improving readability. The authors take full responsibility for the content and accuracy of the manuscript.

References

- Ahmetoğulları, K. (2024). Hisse senedi fiyatını etkileyen finansal göstergelerin saptanması: Katılım ve konvansiyonel bankacılık sektörü uygulaması. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 20(1), 265-282. [\[CrossRef\]](#)
- Altuntaş, D., & Ersoy, E. (2020). CDS primi ile BIST 30 endeksi ve BIST bankacılık endeksi arasındaki nedensellik ilişkisi. *Journal of Economics and Financial Researches*, 2(2), 144-155. [\[CrossRef\]](#)
- Anton, S. G. (2011). The local determinants of emerging market sovereign CDS spreads in the context of the debt crisis. An explanatory study. *Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi – Ştiinţa Economică*, 58(1), 41–52.
- Avino, D., Conlon, T., Cotter, J., & Cotter, J. (2015). Credit Default Swaps as Indicators of Bank Financial Distress. *Social Science Research Network*. [\[CrossRef\]](#)
- Avramov, D., Chordia, T., & Goyal, A. (2006). Liquidity and autocorrelations in individual stock returns. *Journal of Finance*, 61, 2365-2394. [\[CrossRef\]](#)
- Benbouzid, N., Mallick, S. K., & Sousa, R. M. (2017). An international forensic perspective of the determinants of bank CDS spreads. *Journal of Financial Stability*, 33, 60–70. [\[CrossRef\]](#)
- Brooks, M., & Alistair, B. (2008). *Behavioral finance: Theories and evidence*. The Research Foundation of CFA Institute, University of Edinburgh. [\[CrossRef\]](#)
- Calice, G., Ioannidis, C., & Williams, J. (2009). Credit Derivatives and the Default Risk of Large Complex Financial Institutions. *Social Science Research Network*. [\[CrossRef\]](#)
- Castellano, R., & Scaccia, L. (2014). Can CDS indexes signal future turmoils in the stock market? A Markov switching perspective. *Central European Journal of Operations Research*, 22, 285–305. [\[CrossRef\]](#)
- Chmiliar, L. (2010). Multiple-case designs. In A. J. Mills, G. Eupapas, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 582-583). USA: SAGE Publications. [\[CrossRef\]](#)
- Collin-Dufresne, P., Goldstein, R. S., & Martin, S. J. (2001). The determinants of credit spread changes. *The Journal of Finance*, 56, 2177-2207. [\[CrossRef\]](#)

- De Bondt, W. F. M., & Thaler, R. (1985). Does stock market overreact? *Journal of Finance*, 40(3), 793-805. [\[CrossRef\]](#)
- Doğukanlı, H., & Ergün, B. (2011). Davranışsal finans etkin piyasalara karşı: Aşırı tepki hipotezinin İMKB'de araştırılması. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 20(1), 32. [\[CrossRef\]](#)
- Dunis, C. L., Laws, J., & Evans, B. (2006). Trading futures spreads: an application of correlation and threshold filters. *Applied Financial Economics*, 16(12), 903-914. [\[CrossRef\]](#)
- Elmas, B., Demir, B., & Aydın, S. (2024). Analysis of behavioral biases affecting investment decisions of individual investors using analytical hierarchy process. *Trends in Business and Economics*, 38(3), 138-146. [\[CrossRef\]](#)
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, 25(2), 383-417. [\[CrossRef\]](#)
- Gürsoy, S., & Kılıç, E. (2021). Küresel ekonomik politik belirsizliğin Türkiye CDS primi ve BİST bankacılık endeksi üzerindeki volatilité etkileşimi: DCC-GARCH modeli uygulaması. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 35(4), 1323-1334. [\[CrossRef\]](#)
- İlter, Ş., & Gök, R. (2021). Kredi temerrüt swaplarının (CDS) doğrudan yabancı ve portföy yatırımları üzerindeki etkisi: Türkiye örneği. *Maliye ve Finans Yazıları* (Özel Sayı 2), 233-252. [\[CrossRef\]](#)
- Hammoudeh, S. M., Sarı, R., Liu, T., & Uzunkaya, M. (2011). *The dynamics of BRICS's country risk ratings and stock markets, U.S. stock market and oil price. SSRN Electronic Journal*. [\[CrossRef\]](#)
- Karslıođlu, İ., & Sevim, U. (2022). Hisse senedi fiyatları ile ülke risk primi (CDS) arasındaki ilişki. *Muhasebe Bilim Dünyası Dergisi*, 24(3), 576-593. [\[CrossRef\]](#)
- Kliber, A. (2011). Sovereign CDS instruments in Central Europe—linkages and interdependence. *Dynamic Econometric Models*, 11, 111-128. [\[CrossRef\]](#)
- Naifar, N., Shahzad, S., & Hammoudeh, S. (2020). Dynamic nonlinear impacts of oil price returns and financial uncertainties on credit risks of oil-exporting countries. *Energy Economics*, 88. [\[CrossRef\]](#)
- Ni, S. X., & Pan, J. (2011). Trading puts and CDS on equities with short sale ban. *MIT Working Paper*. [\[CrossRef\]](#)
- Önem, H. B. (2022). Döviz kurları ve CDS primi oynaklığının BIST endekslerine yayılım etkisi. *Mehmet Akif Ersoy Üniversitesi Uygulamalı Bilimler Dergisi*, 6(2), 274-293. [\[CrossRef\]](#)
- Pollege, S., & Posch, P. N. (2013). Managing and trading sovereign risk using credit derivatives and government markets. *The Journal of Risk Finance*, 14(5), 453-467. [\[CrossRef\]](#)
- Sarı, R., Uzunkaya, M., & Hammoudeh, S. M. (2013). The relationship between disaggregated country risk ratings and stock market movements: An ARDL approach. *Emerging Markets Finance and Trade*, 49(1), 4-16. [\[CrossRef\]](#)
- Sarı, S. S., & Yiğiter, Ş. Y. (2024). S&P 500 - BIST 100 karşılaştırmalı analizi ile finansal stres endeksi ve borsa ilişkisi. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 20(1), 215-227. [\[CrossRef\]](#)
- Sarıtaş, H., Kılıç, E., & Nazlıođlu, E. H. (2021). CDS primleri ve derecelendirme (rating) notları ile BIST 100 endeksi arasındaki ilişkinin incelenmesi: Türkiye örneği. *Maliye ve Finans Yazıları*, (116), 73-92. [\[CrossRef\]](#)
- Sevil, G., & Ünkaracalar, T. (2020). CDS primleri ile portföy yatırımları arasındaki ilişkinin değerlendirilmesi: Türkiye örneği. *Maliye ve Finans Yazıları*, (113), 285-300. [\[CrossRef\]](#)
- Tekin, B. F., & Şenol, Z. (2025). CDS Primleri ile Petrol Arasındaki Bağlantılılık ve Portföy Stratejileri: Asimetrik TVP-VAR Yaklaşımdan Kanıtlar. *Trends in Business and Economics*, 39(2), 231-253. [\[CrossRef\]](#)
- Ulusoy, A., & Yılmaz, H. (2017). Kredi notu eleştirilerini test eden mekanizma: CDS primleri. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 13(1), 61-77. [\[CrossRef\]](#)
- Ural, M., & Demireli, E. (2015). CDS getirilerinin APGARCh modellemesi. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 11(2), 171-182. [\[CrossRef\]](#)
- Welch, B. L. (1947). The generalization of "Student's" problem when several different population variances are involved. *Biometrika*, 34(1-2), 28-35. [\[CrossRef\]](#)

Genişletilmiş Özet

Bu çalışma, olay çalışması modeli ile kredi temerrüt swapı (CDS) primlerindeki ani değişimlerin, özellikle de Borsa İstanbul'da işlem gören banka hisse senetleri üzerindeki etkilerini inceliyor. CDS primleri, bir ülkenin borçlarını ödeyememe riskini gösteren bir finansal araçtır ve bu primlerdeki dalgalanmalar, yatırımcıların piyasalardaki risk algısını önemli ölçüde etkileyebilir. Çalışmanın temel amacı, CDS primlerindeki büyük artış veya düşüşlerin, BIST'teki banka hisse senetleri ve genel piyasa endeksi (XU100) üzerindeki etkilerini belirlemektir. Çalışmada, CDS primlerindeki büyük artışların banka hisse senetlerinde satışlara ve genel piyasada düşüslere yol açacağı, büyük düşüşlerin ise alım faaliyetlerini tetikleyeceği hipotezi test edilmektedir. Çalışmada, Türkiye'nin 5 yıllık tahvilleri için Londra swap piyasasında işlem gören CDS primleri kullanılmıştır. CDS primlerinde günlük %5 ve üzeri değişimlerin yaşandığı günler analiz için seçilmiştir. Bu eşik değeri, önemli fiyat hareketlerini yakalamak için belirlenmiştir. CDS primlerindeki büyük değişimlerin olduğu günlerde, XU100 ve XBANK endekslerindeki hareketler incelenerek, aralarındaki ilişki araştırılmıştır. CDS primlerinin %5'ten fazla yükseldiği günlerde 202, düştüğü günlerde ise 146 gözlem yapılmıştır. CDS primlerinin yükseldiği günlerde XBANK ve XU100 endeksleri negatif getiri göstermiştir. CDS primlerinin düştüğü günlerde ise her iki endeks de pozitif getiri göstermiştir. CDS primlerindeki artışlar (negatif bir olay olarak değerlendirilir), yatırımcıları daha güçlü bir şekilde satış yapmaya yöneltmiştir. Özellikle bankacılık hisselerinde bu durum daha belirgindir. CDS primlerindeki düşüşler (pozitif bir olay olarak değerlendirilir), yatırımcıları alıma yönlendirmiştir. Ancak, bankacılık hisselerinde bu etki, BIST 100 endeksine göre daha güçlü olmuştur. CDS primlerindeki değişimlere bankacılık hisseleri, BIST 100 endeksine göre daha duyarlı tepki vermektedir. Yatırımcılar, kötü haberlere (CDS primlerindeki artış) iyi habere (CDS primlerindeki düşüş) göre daha güçlü tepki vermektedir. CDS primlerindeki büyük değişimlere bağlı olarak bir alım satım stratejisi tasarlanarak karlılığı simülasyon ile test edilmiştir. CDS primi yükseldiğinde açığa satış (short) yaparak; primler düştüğünde ise alım pozisyonuna girilerek stratejilerin kazanç oranları incelenmiştir. Yapılan simülasyon, CDS primlerindeki büyük değişimleri takip ederek alım satım yapan bir stratejinin karlı olabileceğini göstermiştir. Özellikle, CDS primlerindeki yükselişlere karşı açığa satış yaparak daha yüksek getiri elde etmek mümkün olmuştur.