

Geopolitical Risk and Firm-Level Stock Performance: An Event Study of Larsen & Toubro

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Abstract

This study examines the stock-market response of Larsen & Toubro (L&T) to major geopolitical events associated with the Israel–Iran conflict in the Middle East during the period from June 2025 to July 2026. Given L&T’s significant international operations and exposure to the Middle East, the study evaluates changes in its stock performance during the selected event period. An event-study methodology is employed using daily stock-price data for L&T, the NIFTY 50, and the NIFTY Infrastructure Index. The analysis uses Abnormal Return (AR), Cumulative Abnormal Return (CAR), and beta to examine L&T’s stock performance and market sensitivity. Historical market-model parameters are estimated using a ten-year period and compared with the event-period results. The findings show that L&T experienced periods of increased daily return volatility, particularly during February–March 2026. Relative to the NIFTY 50, L&T recorded a final CAR of +5.43%, while the final CAR relative to the NIFTY Infrastructure Index was –1.55%; both CAR results were statistically insignificant. L&T’s beta increased from 1.1062 to 1.3899 against the NIFTY 50, with the increase being statistically significant, while beta against the NIFTY Infrastructure Index increased from 1.1109 to 1.2757 without statistical significance. The study therefore evaluates the stock-price response, abnormal performance, and changes in market sensitivity of L&T during the selected geopolitical event period.

Keywords: *Geopolitical Risk; Event Study; Abnormal Return; NIFTY Index; Stock Market Performance; Israel–Iran Conflict.*

Introduction

Larsen & Toubro (L&T) is among India's largest and most diversified engineering, procurement, and construction (EPC) conglomerates as a significant exposure to international markets, particularly in the Middle East (Larsen & Toubro Limited, 2026). As of March 2026, L&T reported an order book of nearly ₹3 trillion from the Middle East, highlighting the strategic importance of the region to its operations (Larsen & Toubro Limited, 2026). This regional concentration exposes the company to geopolitical risk in a manner that is distinct from purely domestically focused peers (Yilmazkuday, 2024)

Between June 2025 and July 2026, the Middle East experienced a sustained period of instability arising from the Israel–Iran conflict, including a direct military exchange involving the United States, a temporary ceasefire, and a subsequent escalation in early 2026 (Reuters, 2025). These developments coincided with periods of heightened volatility in L&T's share price (Hoffmann et al., 2025; Pandey et al., 2023) and prompted management commentary linking project execution delays, higher logistics and input costs, delayed payments, and revised revenue guidance to the regional disruption (Larsen & Toubro Limited, 2026)

Need for the Study

Most of the discussion about L&T's Middle East exposure has been based on news reports and the stock price movement on particular days. However, looking only at these daily movements does not give a complete picture of how the stock actually reacted to the geopolitical events. Therefore, this study uses an event study approach to measure the abnormal performance of L&T during the event period (MacKinlay, 1997). The use of daily stock returns is consistent with established event-study procedures for analysing security price reactions around specific events (Brown & Warner, 1985). The study compares L&T with both NIFTY 50 and NIFTY Infrastructure. This helps to understand whether the movement in L&T's share price was mainly part of the overall market movement, related to the infrastructure sector, or whether L&T showed a different abnormal performance during the events (Huynh & Khoa, 2026).

Scope of the Study

The study covers the period from 1 June 2025 to 21 July 2026, using daily closing price data for L&T (ticker: LT.NS), the NIFTY 50 Index (^NSEI), and the NIFTY Infrastructure Index (^CNXINFRA), all sourced via the Yahoo Finance API (Yahoo Finance, n.d.).

Objectives of the Study

To analyse the impact of major Middle East geopolitical events on L&T's share price.

To compare the performance of L&T with the NIFTY 50 and NIFTY Infrastructure Index during the event period.

To understand how investors reacted to these events by analysing L&T's stock price movements and abnormal returns.

To estimate L&T's market sensitivity (beta) during the event period relative to its long-run historical beta.

Research Questions

Larsen & Toubro has a strong presence in the Middle East, with a substantial share of its international business linked to the region. This exposure means that major geopolitical events in the Middle East can create uncertainty for the company and its investors (Larsen & Toubro Limited, 2026). During the Israel–Iran conflict, there were noticeable changes in L&T's share price as investors reacted to developments in the region (Reuters, 2026). However, a fall in the share price on a few days alone does not show whether the events had a real impact on the stock after considering the normal movement of the market. An event study helps to separate the actual stock movement from the return that would normally be expected based on the market (MacKinlay, 1997) .

Therefore, this study focuses on two main questions. First, did L&T show abnormal returns during the event period when compared with NIFTY 50 and NIFTY Infrastructure? Second, did L&T's beta change during the event period compared with its historical level? These questions help the study understand whether the geopolitical events mainly created short-term volatility or whether they also resulted in a meaningful change in L&T's overall abnormal performance and market sensitivity.

Methodology Overview

This study uses secondary data to analyse how L&T's stock reacted to major geopolitical events in the Middle East. The data was collected from sources such as NSE, Yahoo Finance, L&T disclosures, Reuters, Economic Times and Moneycontrol. Python was used to collect and analyse the stock price data. The main analysis is based on three things: Abnormal Return (AR), Cumulative Abnormal Return (CAR), and Beta. AR is used to see whether L&T gave a return different from what was expected based on the benchmark (MacKinlay, 1997). CAR is then used to see the overall abnormal return during the event period (MacKinlay, 1997). Beta is calculated using covariance to check whether L&T became more or less sensitive to the market during the events (Brown & Warner, 1985). These calculations are done by comparing L&T with NIFTY 50 and NIFTY Infrastructure.

Literature Review

Geopolitical Risk and Aggregate Stock Market Performance

Geopolitical risk has become an important source of uncertainty for financial markets because wars, military tensions and international conflicts can influence investor expectations and asset prices. The effect of global geopolitical risk on stock prices across 29 economies has been examined using monthly data and local-projection methods (Yilmazkuday, 2024). The study finds that increases in geopolitical risk generally reduce stock prices, although the magnitude of the response differs across countries. The findings also indicate that the geographical location and countries involved in a geopolitical event influence the strength of the market response.

From an asset-pricing perspective, war-related risk has been examined to determine whether it is reflected in expected stock returns (Hirshleifer et al., 2025). Using a war-related factor constructed from extensive media data, the study finds that war risk helps explain differences in expected returns across assets. This suggests that geopolitical conditions can influence not only overall market performance but also the valuation of individual securities.

Extending the analysis to firm-level international evidence, the relationship between geopolitical-risk exposure and the cross-section of stock returns has also been examined (Chen et al., 2026). Their findings indicate that exposure to local and global geopolitical risk is reflected in expected returns and that the effect differs across markets and firm characteristics. This provides evidence that investors incorporate geopolitical exposure when valuing individual firms.

Evidence from another emerging market is provided by a study of listed firms in Vietnam (Huynh & Khoa, 2026). Their results indicate a negative relationship between geopolitical risk and stock returns and suggest that firms with greater sensitivity to geopolitical risk require higher expected returns as compensation for bearing that risk. Together, these studies establish that geopolitical risk can affect both market-wide stock prices and firm-level returns, providing a basis for examining the response of an internationally exposed Indian company such as L&T.

Geopolitical Events, Event-Study Methodology and Abnormal Returns

While geopolitical-risk studies examine changes in uncertainty over time, event-study research provides a framework for measuring how financial markets respond to a specific and identifiable event. Event-study methodology is established as an important approach for examining the effect of an event on security prices (MacKinlay, 1997). The central principle is to compare the return actually observed around an event with the return that would have been expected in the absence of that event, thereby identifying the abnormal return (AR) attributable to the event.

The use of daily stock returns in event studies is examined by established event-study procedures (Brown & Warner, 1985). Their findings indicate that standard event-study procedures perform well with daily return data, while also considering issues such as autocorrelation, changes in return variance and cross-sectional dependence. This methodological evidence is particularly relevant to the present study because the response of L&T to geopolitical events is examined using daily stock returns.

Direct evidence connecting geopolitical events with abnormal stock-market returns is provided by (Hoffmann et al., 2025). The authors examine 17 modern invasions between 2001 and 2022 using an event-study framework and calculate cumulative abnormal returns (CAR). Their findings show that invasions generally have a negative effect on stock markets, with emerging markets experiencing more negative reactions than advanced markets. The study also demonstrates that geographical and economic characteristics can influence the magnitude of market reactions.

Similarly, market reactions to geopolitical and other VUCA events are examined using event-study methodology and a non-parametric bootstrap procedure (Lakkol & Rao, 2026). Their findings indicate that the magnitude and persistence of market reactions vary across events and periods. The study therefore suggests that the impact of a geopolitical shock may extend beyond the immediate event date and that examining a wider event window can provide a more complete picture of market reaction.

A further methodological application of cumulative abnormal returns is provided by (Schnabel et al., 2026). Importantly, this study does not examine geopolitical events. Instead, it investigates stock-market reactions to voluntary corporate carbon-goal announcements using an event-study framework and CAR. The study is therefore relevant to the present research primarily as methodological evidence that CAR can be used to measure the accumulated stock-market response to a clearly identifiable information event, rather than as direct evidence on geopolitical risk.

Taken together, these studies provide both the methodological foundation and empirical support for examining stock-market reactions to identifiable events. Event-study analysis provides the foundation for the study (MacKinlay, 1997), daily returns are supported by established event-study procedures (Brown & Warner, 1985), while (Hoffmann et al., 2025) and (Lakkol & Rao, 2026) demonstrate the application of event-study methods to geopolitical shocks. (Schnabel et al., 2026) further illustrates the use of CAR in an event-based setting, although outside the geopolitical context. This literature therefore provides the basis for examining daily returns, abnormal returns (AR) and cumulative abnormal returns (CAR) around selected Middle East geopolitical events affecting L&T.

International Exposure and Firm-Level Transmission

The effect of a geopolitical event may differ across firms depending on their international exposure. Firms can be affected through trade relationships, overseas operations, supply chains and other economic linkages, meaning that the financial consequences of a conflict may extend beyond the countries directly involved.

The Russia–Ukraine war provides evidence of this mechanism. Using an event study around the Russian invasion of Ukraine, firms with significant trade activity with Russia experienced substantial reductions in cumulative returns (Biermann & Leromain, 2025). The effect was particularly strong for firms dependent on Russian commodities. Their findings demonstrate that international trade linkages can transmit the stock-market effects of geopolitical conflicts to firms outside the conflict region.

Firm-level evidence is also provided by research examining firms affected by the Russia–Ukraine conflict and the stock-market consequences of their strategic responses (Tosun et al., 2024). The study reports differences in investor reactions across countries and demonstrates that firms' geopolitical positions and international activities can influence their market valuation.

These findings are particularly relevant to L&T because its international operations provide a potential channel through which Middle East geopolitical developments can influence investor expectations. Thus, the literature suggests that the market reaction to a geopolitical event should not necessarily be interpreted only at the aggregate-market level; firm-specific international exposure can also influence the magnitude of the response.

Indian Market and Firm-Level Evidence

Evidence from India provides a more specific context for understanding how geopolitical developments affect domestic firms and sectors. The impact of the Russia–Ukraine invasion on 1,422 NSE-listed stocks has been examined using an event-study methodology (Pandey et al., 2023). They find significant negative abnormal returns before and around the invasion, followed by generally positive abnormal returns during much of the post-event period. Their cross-sectional analysis further shows that firm characteristics influence differences in cumulative abnormal returns.

The study is particularly relevant because it demonstrates that the same geopolitical event does not produce an identical response across Indian companies. However, its focus is the Russia–Ukraine conflict rather than geopolitical developments in the Middle East and it does not specifically examine an internationally exposed infrastructure company.

Using a different methodological approach, the effects of global geopolitical risk and economic policy uncertainty on Indian firms have been examined (Mitra et al., 2025). Their analysis indicates that global uncertainty adversely affects firm performance and financing conditions. Unlike, the study does not use an event-study framework; therefore, it provides broader evidence of the consequences of geopolitical uncertainty for Indian firms rather than evidence based on AR and CAR.

At the sectoral level, global and country-specific geopolitical-risk shocks have been examined across 28 broad and sectoral NSE indices (SenGupta & Debnath, 2026). Their findings show that Indian sectors respond differently to geopolitical shocks, indicating that the Indian market is not homogeneous in its response to international uncertainty. This sectoral heterogeneity is particularly relevant to the present study because L&T's performance is evaluated against the NIFTY Infrastructure index.

Henceforth, Indian evidence demonstrates that geopolitical developments can affect Indian firms, sectors and stock markets, but the magnitude and direction of the response can vary across firms and sectors.

Research Gap

The literature establishes that geopolitical risk can influence stock prices and expected returns. Evidence that geopolitical exposure is reflected in financial-market performance is provided by several studies (Chen et al., 2026; Hirshleifer et al., 2025; Huynh & Khoa, 2026; Yilmazkuday, 2024).

The event-study literature further demonstrates that specific geopolitical events can generate abnormal stock-market reactions. The methodological foundation for event studies using stock returns is provided by established research (Brown & Warner, 1985; MacKinlay, 1997) while direct evidence that geopolitical events can produce abnormal and cumulative abnormal returns is provided by several studies (Hoffmann et al., 2025; Huynh & Khoa, 2026; Lakkol & Rao, 2026). The application of CAR to identifiable information events is additionally demonstrated in research on corporate carbon-goal announcements, although its focus is not geopolitical events (Schnabel et al., 2026).

The firm-level literature shows that international exposure can influence the transmission of geopolitical shocks. The importance of trade linkages and the influence of multinational firms' geopolitical exposure and strategic responses on investor reactions are demonstrated in previous research (Biermann & Leromain, 2025; Tosun et al., 2024).

Indian studies further demonstrate heterogeneous responses. Significant abnormal returns around the Russia–Ukraine invasion across Indian stocks have been identified, while broader effects of global uncertainty on Indian firms have also been reported (Mitra et al., 2025; Pandey et al., 2023). Different responses across Indian market sectors to geopolitical shocks have also been identified (SenGupta & Debnath, 2026). However, limited evidence is available on the firm-level stock-market response of an internationally exposed Indian infrastructure company during Middle East geopolitical tensions, particularly the Israel–Iran conflict. Existing studies also provide limited evidence on whether such events affect both abnormal stock performance and the firm's market sensitivity relative to its historical level.

Therefore, this study addresses this gap by examining Larsen & Toubro, an Indian infrastructure and EPC company with substantial Middle East exposure, using both the NIFTY 50 and NIFTY Infrastructure Index as benchmarks. The study further combines AR, CAR, and beta analysis to distinguish between abnormal stock performance and changes in market sensitivity during the geopolitical event period.

Research Methodology

This research is an empirical study that follows an event study design. The main purpose is to check how L&T's stock reacted around the selected geopolitical events. Event study methodology is widely used to examine whether a particular event leads to returns that differ from those expected under normal market conditions (Brown & Warner, 1985; MacKinlay, 1997). For this, the actual return of L&T is compared with the return expected from its relationship with the selected market benchmark. The difference between the actual and expected return is used to identify the abnormal return during the event period.

Study Period

The study covers the period from 1 June 2025 to 21 July 2026 for analysing the events. During this period, there were 284 trading-day observations for L&T, while the number of matched observations with the two benchmarks was around 277–279, after aligning the dates.

For comparison, a historical period from 1 June 2015 to 31 May 2025 was also used. This period contains around 2,451–2,462 trading-day observations and was used to calculate L&T's normal or historical beta against the two benchmarks. The historical beta was then compared with the beta during the event period.

Data Sources and Tools

The study uses only secondary data. Daily market data for L&T (LT.NS), NIFTY 50 (^NSEI), and NIFTY Infrastructure (^CNXINFRA) was obtained from Yahoo Finance using the yfinance Python library (Ran Aroussi, 2026). NIFTY 50 was used as the broad-market benchmark, while NIFTY Infrastructure was used as the sector-specific benchmark for L&T (NSE Indices, n.d.). The dataset includes daily Open, High, Low, Close and Volume values.

Python 3 through Anaconda Navigator was used for data collection, cleaning, processing and analysis. The yfinance.download() function was used to retrieve the market data, while Pandas and NumPy were used to organize the data and calculate returns. Matplotlib was used to generate charts and graphs, and Statsmodels was used for the statistical analysis. Beta, abnormal returns (AR), and cumulative abnormal returns (CAR) were calculated using the processed return data. Information relating to the selected geopolitical events was collected separately from L&T's public disclosures, NSE/BSE announcements, and reliable news sources such as Reuters, Economic Times and Moneycontrol. No manual entry was used for the market price data.

Sampling Design

Since the study uses daily stock market data, there was no survey or respondent-based sampling. The study uses the available trading observations within the 1 June 2025 to 21 July 2026 (event period) for L&T and the two benchmark indices. Before carrying out the analysis, observations with missing values were removed. The first return observation was also excluded because a previous day's price is required to calculate the return.

3.4. Variables and Measures

Variable	Definition / Formula
Daily Return (R _t)	$(P_t - P_{t-1}) / P_{t-1}$, where P_t is the closing price on day t
Expected Return (Market Model)	$\alpha + \beta \times R_{m,t}$, where $R_{m,t}$ is the benchmark index return and α, β are estimated via OLS
Abnormal Return (AR)	Actual Return (L&T) – Expected Return (Market Model)
Cumulative Abnormal Return (CAR)	Running cumulative sum of daily Abnormal Returns over the event window

Data analysis & Results

This section presents the event study analysis carried out using Python. The analysis starts with data collection and basic checks, followed by stock price trends and event mapping. It then looks at L&T's

returns and compares its performance with the NIFTY Infrastructure Index and NIFTY 50. The results are presented through charts, tables and regression outputs, with an interpretation given after each result to explain what the findings show.

4.1. Data Collection and Exploratory Data Analysis

Daily historical price data for L&T (ticker: LT.NS) was downloaded using the (Yahoo Finance, n.d.) library for the period 1 June 2025 to 21 July 2026. The dataset contains 284 daily observations.

Table 1: Descriptive Overview of the L&T Daily Price Dataset

Fields	DETAILS
Ticker	LT.NS (NSE-listed)
Study Period	2025-06-02 to 2026-07-20
Observations	284 daily records
Missing Values	None (284 non-null across all fields)

Source: Computed by the Author using Python (Yahoo Finance)

The daily closing price of L&T was plotted over the study period to examine the stock's overall price movement and to identify changes around the selected geopolitical events. The major geopolitical events were subsequently mapped onto the stock-price series to visually examine the timing of market movements relative to the events.

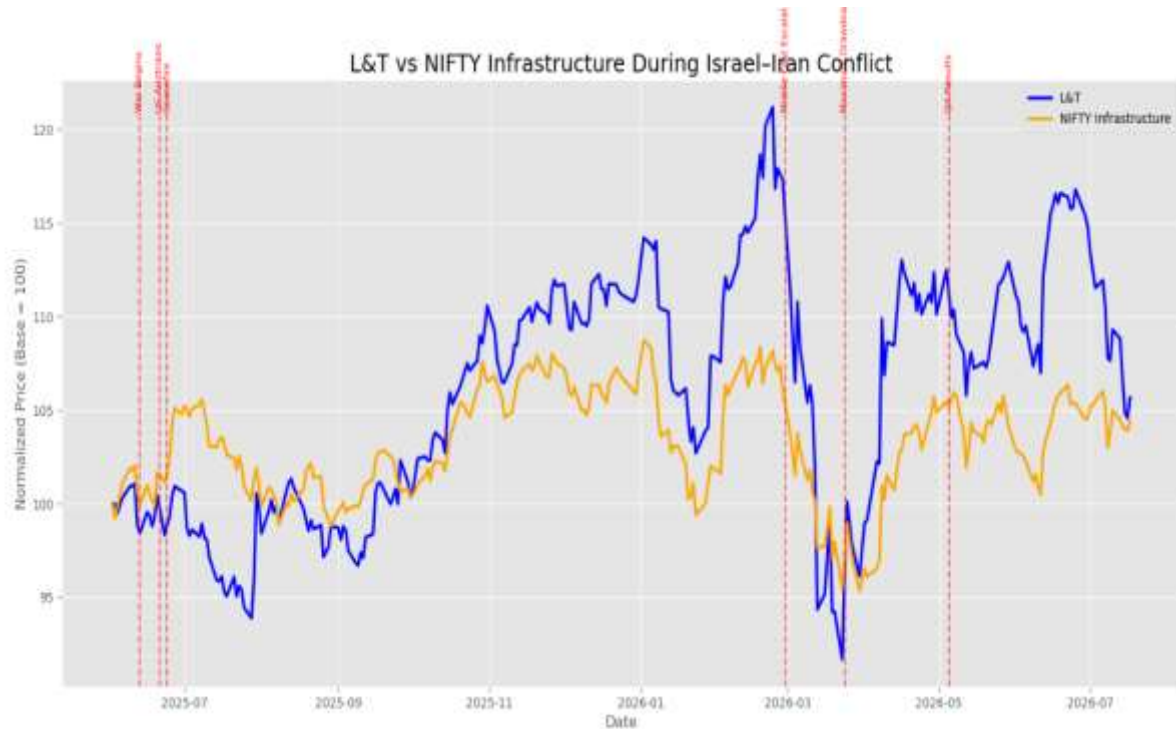
L&T and NIFTY Infrastructure Analysis

The stock-price series shows relatively moderate movements around the initial June 2025 events, while a substantially larger decline occurred during the February–March 2026 period. L&T reached a study-period peak shortly before the February 2026 escalation, followed by a sharp decline in the subsequent weeks. This visual pattern suggests that the later geopolitical episode coincided with a stronger movement in L&T's stock price than the earlier June 2025 events. However, the price movement alone does not establish a causal effect, which is examined through abnormal returns and cumulative abnormal returns in the subsequent analysis.

Comparison with NIFTY Infrastructure Index

Historical prices of the NIFTY Infrastructure Index (^CNXINFRA) were downloaded for the same study period, and a comparison DataFrame combining L&T and the index closing prices was constructed. Both price series were normalized to a common base of 100 using their respective initial closing prices to facilitate comparison of relative performance. Daily returns were calculated separately from the closing-price series for the subsequent return and event-study analysis.

Figure 1: L&T vs NIFTY Infrastructure with Events Mapped



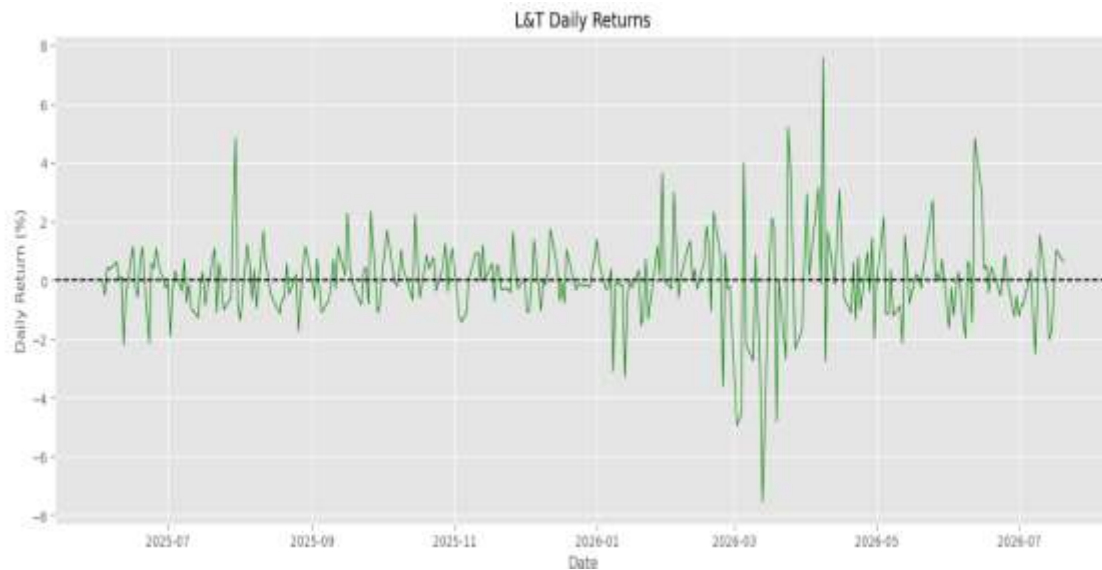
Source: Computed by the Author using Python (Yahoo Finance)

The normalized series presents the movements of L&T and the NIFTY Infrastructure Index on a common base of 100 over the study period. The figure also marks the selected geopolitical event dates, allowing the movements of both series to be viewed around these dates. The two series show periods of movement in the same direction as well as periods of divergence, with larger movements visible during February–March 2026. The relative performance of L&T is examined further using daily returns, abnormal returns, and cumulative abnormal returns relative to the NIFTY Infrastructure Index.

Daily Return Analysis

Daily percentage returns were calculated as $\text{Return} = (P_t - P_{t-1}) / P_{t-1} \times 100$, and plotted to observe the distribution of positive and negative return days and to identify clusters of elevated volatility.

Figure 2: L&T Daily Returns



Source: Computed by the Author using Python (Yahoo Finance)

The daily return series shows positive and negative movements around zero throughout the study period. Most of the observations are located within approximately $\pm 2\%$, while larger movements are visible during February–March 2026, including observations of approximately -7% and $+7\%$. The daily return series is used to examine the pattern of L&T's return movements before proceeding to the abnormal-return analysis.

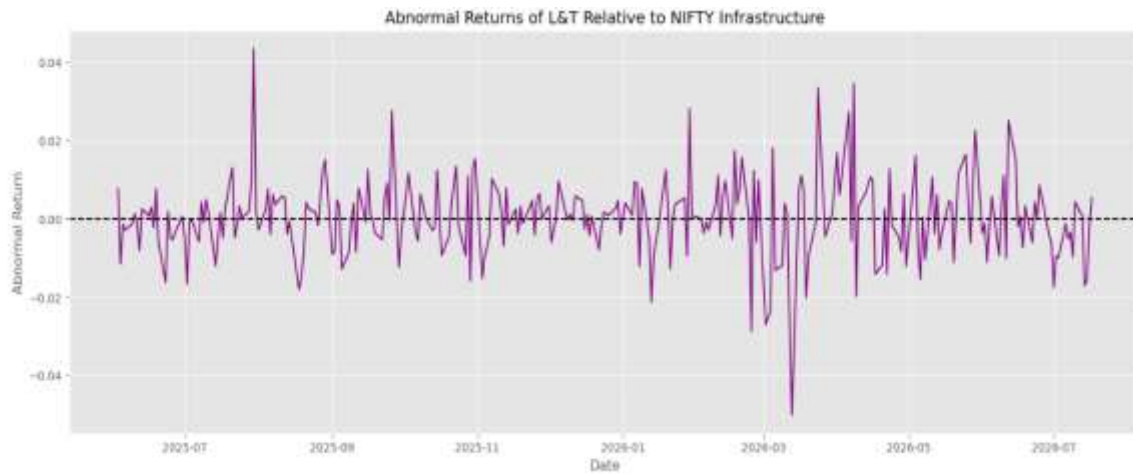
Abnormal Return and Cumulative Abnormal Return vs. NIFTY Infrastructure

Using the 10-year historical market-model parameters estimated against the NIFTY Infrastructure Index (Alpha = 0.000084 and Beta = 1.11), the expected daily return was calculated for each day of the event period as:

$$\text{Expected Return} = 0.000084 + 1.11 \times \text{NIFTY Infrastructure Return}$$

The Abnormal Return (AR) was then calculated as the difference between L&T's actual daily return and its expected return.

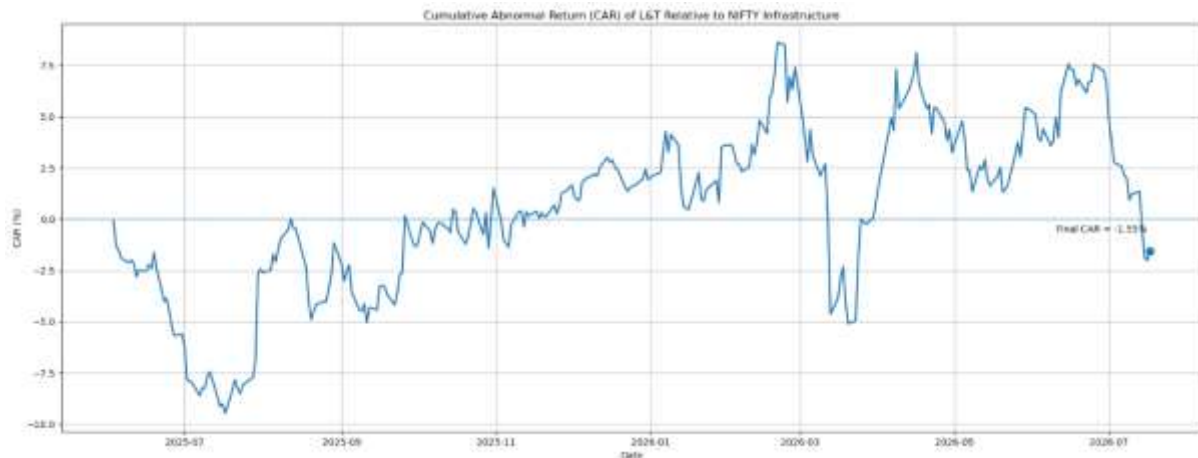
Figure 3: Abnormal Returns of L&T Relative to NIFTY Infrastructure



Source: Computed by the Author using Python (Yahoo Finance)

The abnormal returns fluctuate around zero throughout most of the study period. Some larger positive and negative movements are visible during February–March 2026, with the fluctuations appearing wider than during several earlier periods. The statistical significance and extent of these abnormal returns are examined in the subsequent analysis.

Figure 4: Cumulative Abnormal Return (CAR) of L&T Relative to NIFTY Infrastructure



Source: Computed by the Author using Python (Yahoo Finance)

Measure	Result
Alpha	0.000084
Historical Beta	1.11
Beta	1.27
Final CAR	-0.015483
Final CAR%	-1.55%

t-statistic	-0.0861
p-value	0.931390
CAR Significance	Not significance

The results show that L&T had a historical beta of 1.11, while its beta during the event period increased to 1.27. This indicates that L&T became more sensitive to movements in the NIFTY Infrastructure index during the event period compared with its historical level. The final CAR was -1.55%, indicating a negative cumulative abnormal performance relative to the NIFTY Infrastructure index during the event period.

However, the t-statistic of -0.0861 and p-value of 0.931390 show that the CAR is not statistically significant. Since the p-value is much greater than the 5% significance level (0.05), there is insufficient statistical evidence to conclude that the -1.55% CAR represents a significant abnormal performance relative to the NIFTY Infrastructure index.

In simple terms, L&T showed a negative cumulative abnormal performance of 1.55% compared with the infrastructure sector, but the t-test indicates that this negative performance was not statistically significant. Therefore, the result does not provide strong evidence that the geopolitical events produced a significant abnormal performance in L&T relative to the NIFTY Infrastructure index.

The beta increase from 1.11 to 1.27 indicates higher market sensitivity during the event period, but this table does not establish whether that increase is statistically significant. That conclusion should be made using your beta bootstrap test and its 95% confidence interval.

Beta Bootstrap Test

95% CI	(-0.0379, 0.3535)
Beta bootstrap test result	Not significance

The beta bootstrap test indicates that L&T's beta increased during the event period, but the increase was not statistically significant. The 95% confidence interval of (-0.0379, 0.3535) includes zero, meaning that a zero change in beta remains possible. Therefore, there is insufficient evidence to conclude that L&T's sensitivity to the NIFTY Infrastructure index changed significantly during the event period.

Benchmark Data and Comparative Trend

The same comparison procedure was applied using the NIFTY 50 Index (NSE Indices, n.d.) as the broad-market benchmark. L&T's normalized price series was compared with the NIFTY 50 over the same study period, followed by an analysis of daily returns, abnormal returns, and cumulative abnormal returns.

Figure 5: L&T vs NIFTY 50 with Events Mapped



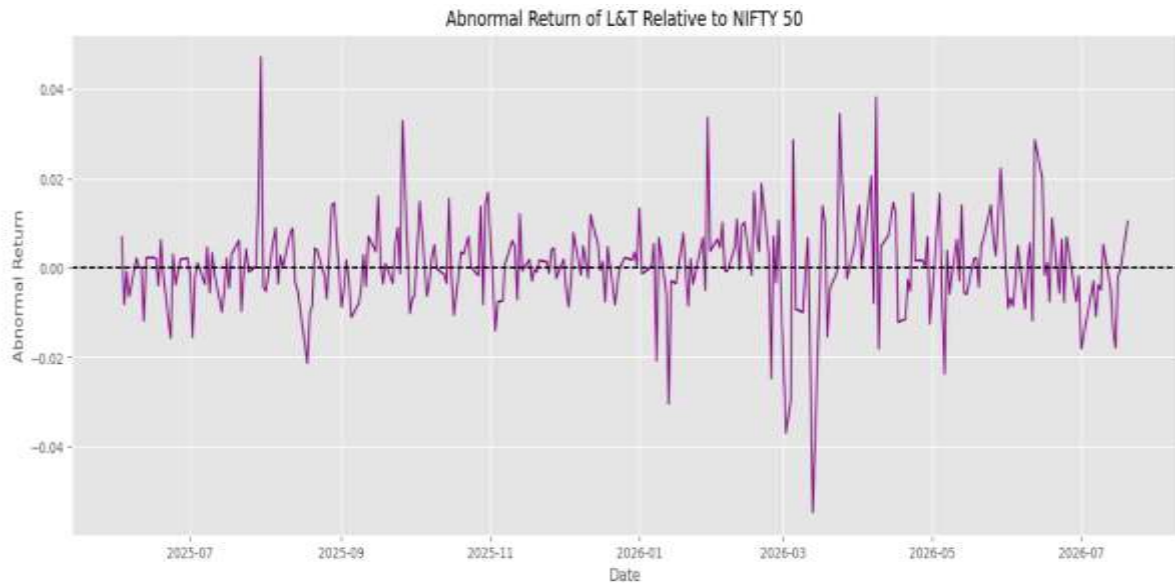
Source: Computed by the Author using Python (Yahoo Finance)

The closing prices of L&T and the NIFTY 50 Index were compared over the same study period and normalized to a common base of 100. The selected geopolitical event dates were mapped onto the combined series to show the movement of L&T and the broad-market benchmark around the event periods. The figure provides a visual comparison of the two-price series, while daily returns, abnormal returns, and cumulative abnormal returns are used in the subsequent analysis to examine their relative performance.

4.3.1. Abnormal Return and Cumulative Abnormal Return vs. NIFTY Infrastructure

Using the 10-year historical market-model parameters estimated against the NIFTY 50 (Alpha = 0.000078, Beta = 1.10), the expected daily return was computed as Expected Return = $0.000078 + 1.10 \times \text{NIFTY 50 Return}$, and the Abnormal Return was calculated as the difference between L&T's actual return and the expected return.

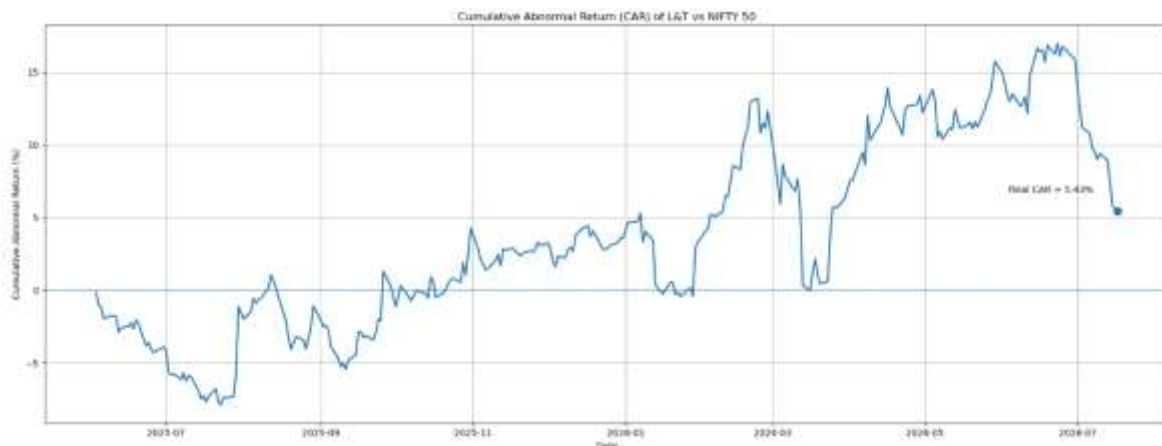
Figure 6: Abnormal Return of L&T Relative to NIFTY 50



Source: Computed by the Author using Python (Yahoo Finance)

L&T's abnormal returns relative to the NIFTY 50 fluctuate on both sides of the zero line throughout the study period. The figure shows several positive and negative spikes, with some of the more pronounced movements appearing during February–March 2026. The abnormal returns move both above and below the zero line during this period, indicating differences between L&T's actual and benchmark-based expected returns. The figure alone does not establish the cause or statistical significance of these movements.

Figure 7: Cumulative Abnormal Return (CAR) of L&T Relative to NIFTY 50



Source: Computed by the Author using Python (Yahoo Finance)

Measure	Result
Alpha	0.000078
Historical Beta	1.10

Measure	Result
Beta	1.38
Final CAR	0.054.05
Final CAR%	5.43%
t-statistic	0.2592
p-value	0.795521
CAR Significance	Not significance

The results show that L&T had a historical beta of 1.10, while its beta during the event period increased to 1.38. This indicates that L&T was more sensitive to movements in the NIFTY 50 during the event period compared with its historical relationship with the market. The final CAR was 5.43%, indicating that L&T generated a positive cumulative abnormal performance relative to the NIFTY 50 over the event period.

However, the t-statistic of 0.2592 and p-value of 0.795521 show that the CAR is not statistically significant. Since the p-value is greater than the commonly used 5% significance level (0.05), there is insufficient statistical evidence to conclude that the observed 5.43% positive CAR represents a significant abnormal performance relative to the NIFTY 50.

In simple terms, L&T performed positively relative to the NIFTY 50 during the event period, but the t-test shows that this positive abnormal performance was not statistically significant. Therefore, the result does not provide strong evidence that L&T experienced a statistically significant abnormal return compared with the broader market.

The beta result should be interpreted separately. The increase from 1.10 to 1.38 suggests greater market sensitivity during the event period, but this table alone does not tell us whether that beta increase is statistically significant. The beta bootstrap test and its confidence interval are required to make that conclusion.

Beta Bootstrap Test

95% CI	(0.0412, 0.5139)
Beta bootstrap test result	Significant

The beta bootstrap test indicates that L&T's beta increased from 1.10 during the historical period to 1.38 during the event period, showing that L&T became more sensitive to movements in the NIFTY 50. The 95% confidence interval of (0.0412, 0.5139) does not include zero, indicating that the increase in beta is statistically significant. Therefore, there is sufficient evidence to conclude that L&T's sensitivity to the broader market increased during the event period. This suggests that L&T may have experienced greater market-related fluctuations during the period of geopolitical uncertainty. However, this beta result should be considered separately from the CAR result, as the 5.43% CAR was

not statistically significant. Thus, L&T's market sensitivity increased significantly, while its overall abnormal return remained statistically insignificant relative to the NIFTY 50.

Major Findings

The major finding of the study is that the impact of the selected geopolitical events on L&T was more clearly reflected in changes in market sensitivity rather than in statistically significant abnormal returns. When L&T was compared with the NIFTY 50, its beta increased from 1.10 in the historical period to 1.38 during the event period, representing a beta increase of 0.2838. The 95% confidence interval for the beta difference, (0.0412, 0.5139), does not include zero, indicating that this increase in market sensitivity was statistically significant. This suggests that L&T became more responsive to broader market movements during the geopolitical event period, which may indicate higher market-related volatility or sensitivity. However, despite this increase in beta, L&T recorded a positive CAR of 5.43%, but the CAR was not statistically significant ($p = 0.795521$). Therefore, the higher sensitivity to the broader market did not translate into a statistically significant abnormal performance.

When L&T was evaluated against the NIFTY Infrastructure index, the results were comparatively stable. L&T's beta increased from 1.11 to 1.27, giving a difference of 0.1648, but the 95% confidence interval of (-0.0379, 0.3535) includes zero. Hence, the increase in beta was not statistically significant. The CAR was also negative at -1.55% and was not statistically significant ($p = 0.931390$). This indicates that L&T did not exhibit a statistically significant change in either its sensitivity to the infrastructure sector or its cumulative abnormal performance relative to that benchmark. The absence of a significant beta change may partly reflect L&T's inclusion in the NIFTY Infrastructure index, as its stock movements are already closely connected with the infrastructure sector.

Thus, the findings show a clear distinction between volatility or market sensitivity and abnormal performance. L&T became significantly more sensitive to the broader market during the event period, but its abnormal returns were not statistically different from expected performance. Against the infrastructure benchmark, both the beta change and CAR were insignificant. Thus, the study does not provide sufficient evidence of a statistically significant abnormal-return effect of the geopolitical events on L&T. Instead, the stronger evidence is that the event period was associated with increased market sensitivity relative to the broader NIFTY 50, while L&T's abnormal-return variation remained relatively limited and its relationship with the infrastructure sector remained comparatively stable.

The findings suggest that the geopolitical event period may have been associated with increased market sensitivity in L&T, particularly relative to the NIFTY 50, as reflected in the significant increase in beta. However, this increase in sensitivity did not translate into a statistically significant change in cumulative abnormal returns. Thus, L&T may have experienced greater fluctuations in response to broader market movements during the event period, while its overall abnormal return remained statistically unchanged.

Discussion

. L&T's Response Relative to the Broader Market

The results show that L&T's response during the geopolitical event period was more evident in its market sensitivity than in its abnormal returns. Relative to the NIFTY 50, L&T's beta increased from 1.10 to 1.38, with a beta difference of 0.2838. The 95% confidence interval of (0.0412, 0.5139) does not include zero, indicating that the increase was statistically significant. This suggests that L&T became more sensitive to broader market movements during the event period. This finding is consistent with the literature showing that geopolitical conditions can influence financial-market

behaviour and that the response can vary across firms and markets (Chen et al., 2026; Yilmazkuday, 2024). However, L&T's +5.43% CAR was not statistically significant ($p = 0.795521$). Therefore, although L&T became more sensitive to the broader market, the results do not provide sufficient evidence of a statistically significant abnormal-return effect.

L&T's Response Relative to the Infrastructure Sector

The results are different when L&T is compared with the NIFTY Infrastructure index. L&T's beta increased from 1.11 to 1.27, but the beta difference of 0.1648 was not statistically significant because the 95% confidence interval ($-0.0379, 0.3535$) includes zero. The -1.55% CAR was also statistically insignificant ($p = 0.931390$). This suggests that L&T's market sensitivity and abnormal performance did not change significantly relative to the infrastructure sector during the event period. The finding is relevant to the evidence that Indian sectors can respond differently to geopolitical shocks (SenGupta & Debnath, 2026). In L&T's case, its response appears to have remained relatively close to that of the infrastructure-sector benchmark.

Market Sensitivity versus Abnormal Performance

An important finding from the study is that higher market sensitivity did not necessarily result in higher abnormal returns. L&T's beta increased significantly relative to the NIFTY 50, indicating greater responsiveness to market movements, while its 5.43% CAR remained statistically insignificant. This distinction is important because beta measures the relationship between L&T's returns and market movements, whereas CAR measures the cumulative abnormal performance relative to the expected return. The finding therefore suggests that the geopolitical event period may have been associated with greater fluctuations in L&T in relation to the broader market, without producing a statistically significant change in its overall abnormal performance. This differs somewhat from studies that report significant negative abnormal returns around major geopolitical events (Hoffmann et al., 2025; Pandey et al., 2023).

. Role of L&T's International and Sector Exposure

The findings can also be considered in the context of L&T's international and sector exposure. Previous research suggests that international trade relationships, overseas activities and geopolitical exposure can influence how firms respond to geopolitical shocks (Biermann & Leromain, 2025; Tosun et al., 2024). L&T's substantial international presence, particularly in the Middle East, provides a potential channel through which geopolitical developments could affect investor expectations. However, the insignificant CAR results indicate that this exposure did not translate into a statistically significant cumulative abnormal performance in the present analysis. At the same time, the significant increase in beta relative to the NIFTY 50 suggests that the event period may have influenced L&T's sensitivity to broader market movements.

. Comparison of the Two Benchmarks

The comparison between the two benchmarks provides one of the main findings of the study. L&T showed a significant increase in beta relative to the NIFTY 50, but the increase was not significant relative to NIFTY Infrastructure. This may partly be explained by L&T's close relationship with the infrastructure sector and its inclusion in the infrastructure benchmark. Its movements may therefore already be closely aligned with the sector, making a significant change in relative sensitivity less evident. This result also supports the broader evidence that geopolitical shocks can produce different responses across firms and sectors (Pandey et al., 2023; SenGupta & Debnath, 2026)

Conclusion

This study set out to examine how Larsen & Toubro's share price responded to a sustained period of Middle East geopolitical tension between June 2025 and July 2026, using a structured event-study

methodology benchmarked against both the NIFTY 50 and the NIFTY Infrastructure Index. The analysis indicates that L&T's market sensitivity increased during the event period, particularly relative to the broader market. Against the NIFTY 50, L&T's beta increased from 1.10 to 1.38, with the increase being statistically significant. However, the +5.43% CAR was not statistically significant ($p = 0.795521$), indicating that the higher market sensitivity did not translate into a statistically significant abnormal return.

Against the NIFTY Infrastructure Index, L&T's beta increased from 1.11 to 1.27, but the change was not statistically significant, with the 95% confidence interval $(-0.0379, 0.3535)$ including zero. The -1.55% CAR was also statistically insignificant ($p = 0.931390$). Overall, the findings suggest that the geopolitical event period may have been associated with greater market sensitivity in L&T relative to the broader market, while its abnormal-return variation remained statistically limited against both benchmarks. The difference between the two benchmarks also suggests that L&T's relationship with the infrastructure sector remained comparatively stable during the event period.

Limitations of the Study

The study relies on daily closing prices only; intraday price discovery and volume-weighted effects are not separately modelled.

Abnormal returns attribute all residual movement to the event(s) under study, but concurrent, unrelated company- or sector-specific news occurring within the same window cannot be fully disentangled using this method alone.

The historical 10-year beta is used as a proxy for L&T's 'normal' relationship with each benchmark; structural changes in the company's business mix over that decade may affect the comparability of the two periods.

The study is confined to publicly available secondary data and does not incorporate internal management risk assessments or non-public project-level information.

Scope for Future Work

Extend the event-study window to capture the eventual full resolution (or further escalation) of the Middle East situation and its longer-run effect on L&T's beta.

Incorporate additional control variables such as crude oil prices and USD/INR exchange rate movements, both of which are plausible channels linking Middle East developments to Indian EPC valuations.

Extend the comparative analysis to other Indian EPC and infrastructure companies with varying degrees of Middle East exposure, to test whether the beta shift documented here is specific to L&T or characteristic of the sector as a whole.

Incorporate primary data (e.g., analyst or investor surveys) to complement the purely price-based abnormal-return evidence presented in this report.

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