## Project Title:

# Economics of Peace:

# Unveiling the Financial Beneficiaries of Middle Eastern Conflicts

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# Basic Information

The Israel-Hamas War has been a focal point of geopolitical tension, with recurrent conflicts affecting the region. These events often lead to humanitarian crises; however, less attention is paid to the economic impacts and the entities that financially gain from such conflicts. This study aims to fill that knowledge gap and contribute to the discussion on conflict economics, specifically in the context of the Middle East

# Project Objectives

To conduct a comprehensive analysis of the financial entities and sectors that have either benefited or demonstrated resilience in the wake of recent events in Gaza, thereby understanding the economic dimensions of the conflict.

# Description of Data Set

## CSV

1. **Financial Market Data**
   1. Yahoo Finance: Offers downloadable CSV files of historical stock prices, financial statements, and market data.
   2. Quandl: Provides financial, economic, and alternative data that can be downloaded in CSV format.
   3. Quiver Quantitative: Scrapes alternative stock data from across the internet and aggregates it in a free, easy-to-use web dashboard.
2. **Defense Industry Data**
   1. Stock Market Indices: Look for defense industry-specific indices that list company stock performance, downloadable from market aggregator websites.
   2. SIPRI (Stockholm International Peace Research Institute): Publishes data on arms industry and military spending that may be available in CSV upon request.
3. **Healthcare Industry Data**
   1. CMS (Centers for Medicare & Medicaid Services): Offers data sets on healthcare services, which may require further analysis to correlate with conflict events.
   2. WHO (World Health Organization): Sometimes provides public access to global health-related data in CSV format.
4. **Construction Industry Data**
   1. Trading Economics: It has a global database of economic indicators, including construction output, which can be exported in CSV format.
   2. Bureau of Economic Analysis: Offers industry economic data that may include construction sector information.
5. **Energy Sector Data**
   1. U.S. Energy Information Administration (EIA): Provides comprehensive data sets about energy production, consumption, prices, and can be downloaded as CSV files.
   2. IEA (International Energy Agency): Publishes detailed global energy statistics, some of which are freely available in CSV format.
6. **Content Analysis Data**
   1. Media Cloud: An open-source platform that allows researchers to analyze media trends; raw data can be exported in CSV.
   2. GDELT Project: Monitors world's broadcast, print, and web news; provides data sets in CSV format.

## JSON

1. Financial Market Data
   1. Alpha Vantage API: Offers free APIs for historical and real-time financial data that can be retrieved in JSON format.
   2. IEX Cloud: Provides financial market data APIs with various endpoints, returning data in JSON.
2. Defense Industry Data
   1. Defense News API: Some defense news outlets offer APIs that return articles and reports in JSON format, which may contain industry data.
3. Conflict and Geopolitical Data
   1. Council on Foreign Relations API: May offer access to reports and studies on conflicts which can be returned in JSON format.
   2. Uppsala Conflict Data Program: Provides detailed datasets on armed conflicts, which may be accessible in JSON via APIs.
4. Humanitarian Data
   1. Humanitarian Data Exchange (HDX): A platform that offers various humanitarian datasets, some of which are available in JSON format.
5. Energy Sector Data
   1. EIA API: The U.S. Energy Information Administration offers an API that provides access to a wide range of energy data in JSON format.
6. Commodity Prices
   1. Quandl API: Access to economic, financial, and commodity pricing data in JSON format (some datasets require a subscription).
7. News and Sentiment Data
   1. GDELT Project: An open data platform that monitors the world's news media and provides access to its datasets in JSON format through its API.
8. Social Media Data
   1. Twitter API: To gather real-time data on public sentiment and discourse related to Middle Eastern conflicts in JSON format.

# Analysis Methodology

We integrate quantitative and qualitative research techniques to dissect the economic ramifications of the Gaza conflict. In the quantitative real, econometric models will parse extensive datasets extracted from financial databases, including stock performance of defense, construction, healthcare, and energy sectors. Time-series analysis will reveal correlations and causations tied to key conflict events, with rigorous checks for spurious relationships using Granger causality tests and vector autoregression models. Complementary to this, a qualitative approach will scrutinize corporate disclosures, press releases, and news articles to perform content analysis, aiming to contextualize financial data with the geopolitical narrative. This mixed-methods approach ensures a multifaceted examination, providing a nuanced understanding of how economic outcomes intertwine with periods of conflict and stability.

1. Data Preparation:
   1. Data Loading: Automated scripts will be used to load JSON datasets into a data processing environment such as Python's pandas or R.
   2. Data Cleaning: This involves the identification and handling of missing values, duplicates, and outliers. Techniques such as imputation and filtering will be applied.
2. Descriptive Data Analysis:
   1. Basic descriptive statistics like mean, median, mode, standard deviation, and percentiles will be computed to summarize the central tendency, dispersion, and shape of the dataset’s distribution.
3. Data Visualization:
   1. Standard plots like histograms, bar charts, line graphs, and scatter plots will be utilized to visualize distributions and trends. For more complex relationships, heatmaps or box plots might be used.
4. Data Manipulation Technique:
   1. Pivot Tables: Creating pivot tables for multi-dimensional data aggregation.
   2. Merging/Joining: Combining multiple datasets to enrich the analysis.
   3. Data Transformation: Applying logarithmic or other transformations to normalize data distributions.
5. Quantitative Analysis:
   1. Time-Series Analysis: If analyzing stock prices or commodity data over time, models like ARIMA (AutoRegressive Integrated Moving Average) could be used.
   2. Regression Analysis: To identify the relationships between conflict events and financial indicators, regression models may be applied.
6. Qualitative Analysis (if applicable):
   1. Content Analysis: This may include coding and thematic analysis of news articles or reports to complement the quantitative data, using natural language processing (NLP) techniques.
7. Advanced Techniques (optional):
   1. Network Analysis: If analyzing the impact on global supply chains or trade networks.

# Project Schedule

1. Project Initialization – 2 days (November 1st – 2nd, 2023)
   * Project scope and resource identification
   * Initial software setup
2. Data Loading – 3 days (November 3rd – 5th, 2023)
   * Acquisition of datasets
   * Initial data loading and integrity check
3. Data Cleaning – 5 days (November 6th – 10th, 2023)
   * Handling missing data, outliers, and anomalies
   * Data type conversion and formatting
4. Descriptive Data Analysis – 5 days (November 11th – 15th, 2023)
   * Running statistical summaries
   * Interpreting data tendencies and patterns
5. Data Visualization – 5 days (November 16th – 20th, 2023)
   * Designing and creating graphs/charts
   * Iteration and improvement of visual aids
6. Data Manipulation Technique – 3 days (November 21st – 23rd, 2023)
   * Implementing an advanced data manipulation technique (e.g., pivoting, merging)
   * Validating results
7. Initial Project Review – 3 days (November 24th – 26th, 2023)
   * Review of analysis and visualizations
   * Revisions and refinements
8. Presentation Preparation – 4 days (November 27th – 30th, 2023)
   * Drafting slide content
   * Incorporating visual elements
9. Presentation Rehearsal – 2 days (December 1st – 2nd, 2023)
   * Practicing delivery
   * Timing and transitions
10. Final Review and Polish – 2 days (December 3rd – 4th, 2023)
    * Final revisions to presentation
    * Preparation for Q&A
11. Final Presentation and Submission – December 5th, 2023
    * Delivery of the final presentation
    * Submission of project material

**Buffer Periods**: Additional buffer days have been included within each phase to account for potential overruns.

**Final Due Date: December 5th, 2023**