

Impact of War on the UK Economy: A Data Mining and Machine Learning Approach

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Introduction

The UK economy underwent dramatic transformations during and after the two World Wars, with significant implications for key economic indicators. This project explores how war-induced policies, production changes, and societal shifts affected long-term economic stability. Using data mining techniques, we aim to uncover hidden patterns and build predictive models to estimate the future economic impact of wartime policies.

Research Focus

The project focuses on analyzing the following economic aspects:

- **GDP Growth:** Examining the correlation between wartime production shifts and post-war economic recovery.
- **Public Debt:** Assessing government borrowing and debt accumulation during wartime and its long-term effects.
- **Labor Market:** Investigating shifts in employment and wage levels due to wartime mobilization and post-war transitions.
- **Inflation:** Analyzing the impact of supply chain disruptions and wartime expenditures on inflation.

Methodology

The project employs the following data mining methods:

- **Time Series Analysis:** To examine economic trends over time and identify cyclical patterns.
- **Anomaly Detection:** To highlight significant disruptions in the economy during the war years.
- **Clustering:** To categorize economic conditions into distinct periods, such as pre-war, wartime, and post-war.
- **Predictive Modeling:** To forecast the long-term effects of wartime economic policies using regression and machine learning models.

Repository

The complete dataset, source code, and additional project materials are available at:

GitHub Repository