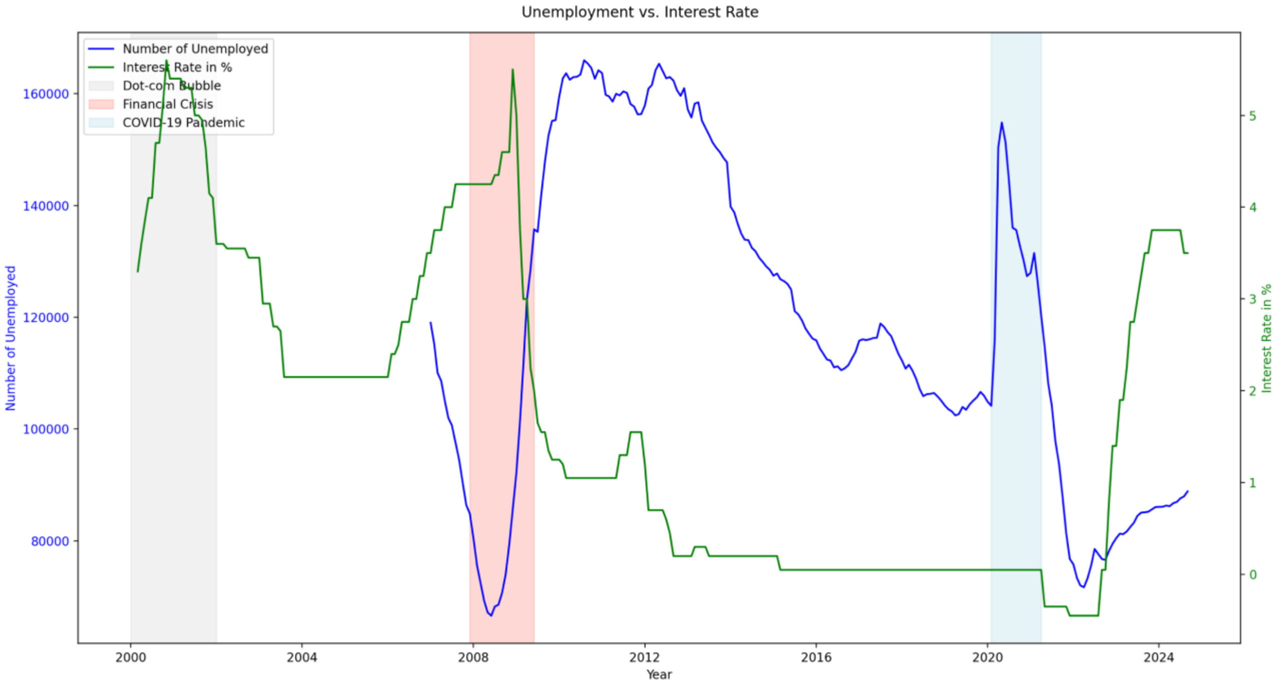
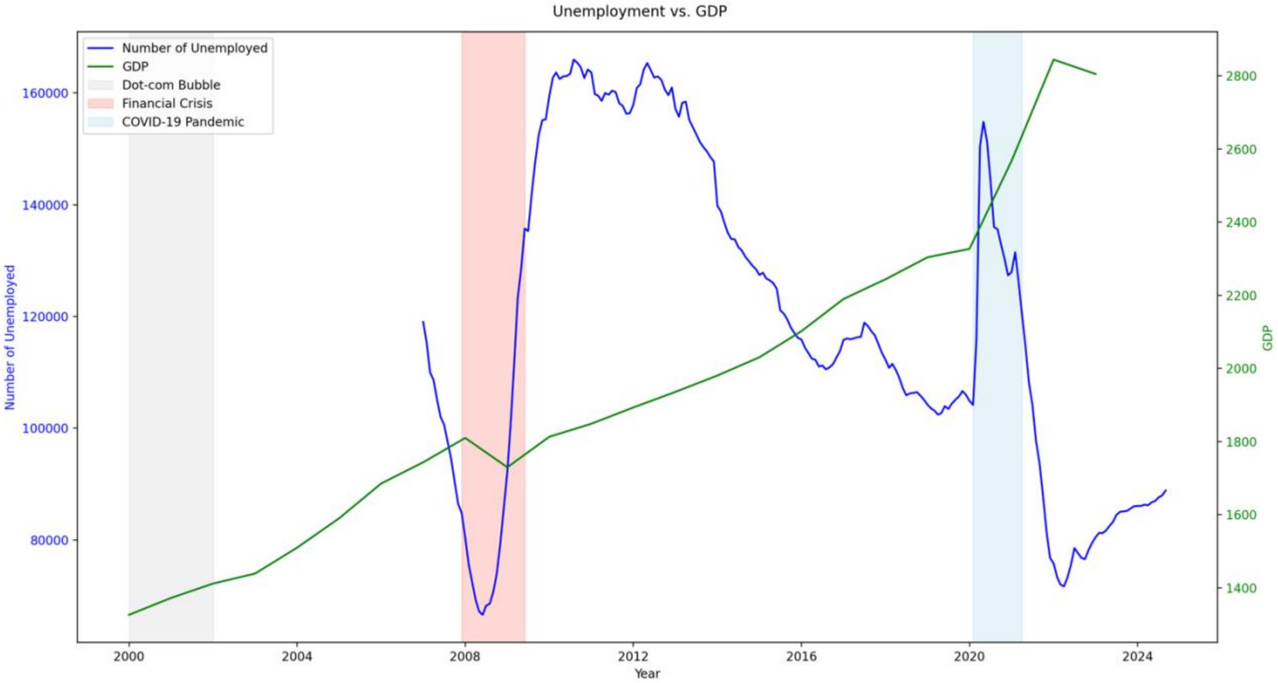


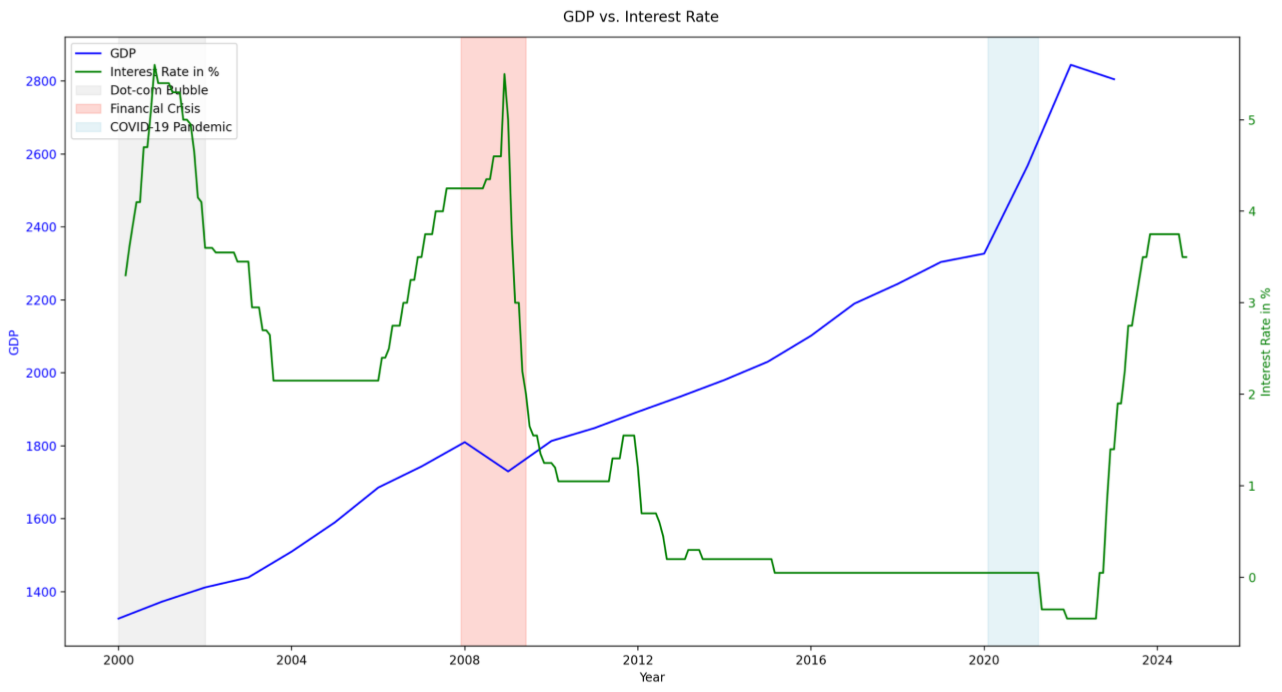
1. Unemployment vs. Interest Rate

- Crisis Response: In both the 2008 Financial Crisis and COVID-19, central banks slashed interest rates to boost spending and counteract rising unemployment. This reflects the typical use of monetary policy to cushion economic shocks.
- Extended Low Rates: The long period of low rates post-2008 helped reduce unemployment, as cheap borrowing encouraged businesses to expand. However, this also created potential risks like asset bubbles.
- Further Analysis: Analyzing how different sectors respond to rate cuts could clarify which industries benefit most from monetary easing during crises.



2. Unemployment vs. GDP

- Inverse Relationship: Generally, GDP growth lowers unemployment, as business expansions require more labor. During the 2008 crisis and COVID-19, GDP drops coincided with rising unemployment.
- Recovery Speeds: The quick rebound in GDP post-COVID shows strong fiscal and monetary support, but unemployment's slower recovery highlights lingering mismatches in the labor market.
- Further Analysis: Examining sector-specific employment trends can show which industries led the recovery and which faced long-term disruptions.



3. GDP vs. Interest Rate

- Rate Hikes During Growth: When GDP growth is strong, central banks raise rates to prevent inflation. The recent post-COVID rate hikes illustrate efforts to cool rising prices, even at the risk of slowing growth.
- Long-Term Low Rates: Prolonged low rates post-2008 may have supported inefficient firms, slowing productivity growth—a phenomenon sometimes called "zombification."
- Further Analysis: Looking at productivity trends in low-rate environments could reveal whether these rates encouraged or stifled economic dynamism.

Additional Areas for Study

- Monetary Policy Effects: Beyond short-term crises, low rates have long-term impacts on industries and labor markets. Understanding this could help shape future policy decisions.
- Sectoral Recovery Differences: Crises impact sectors differently. A deeper dive into sectoral data could show how different industries adapted and recovered after each crisis.
- Fiscal Policy Overlay: Overlaying fiscal policy measures, like stimulus spending, with these trends could reveal how these interventions influenced unemployment and GDP.