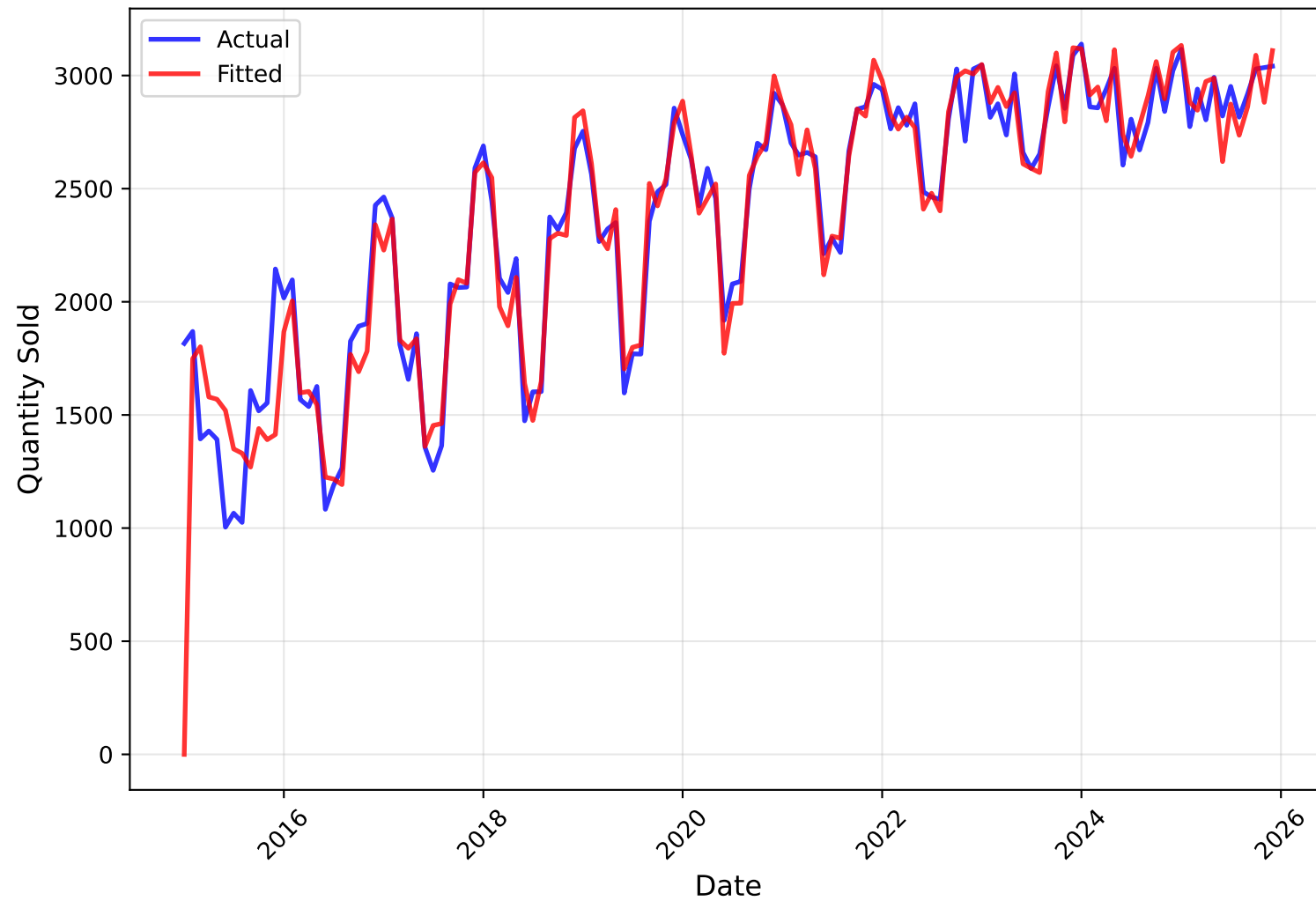
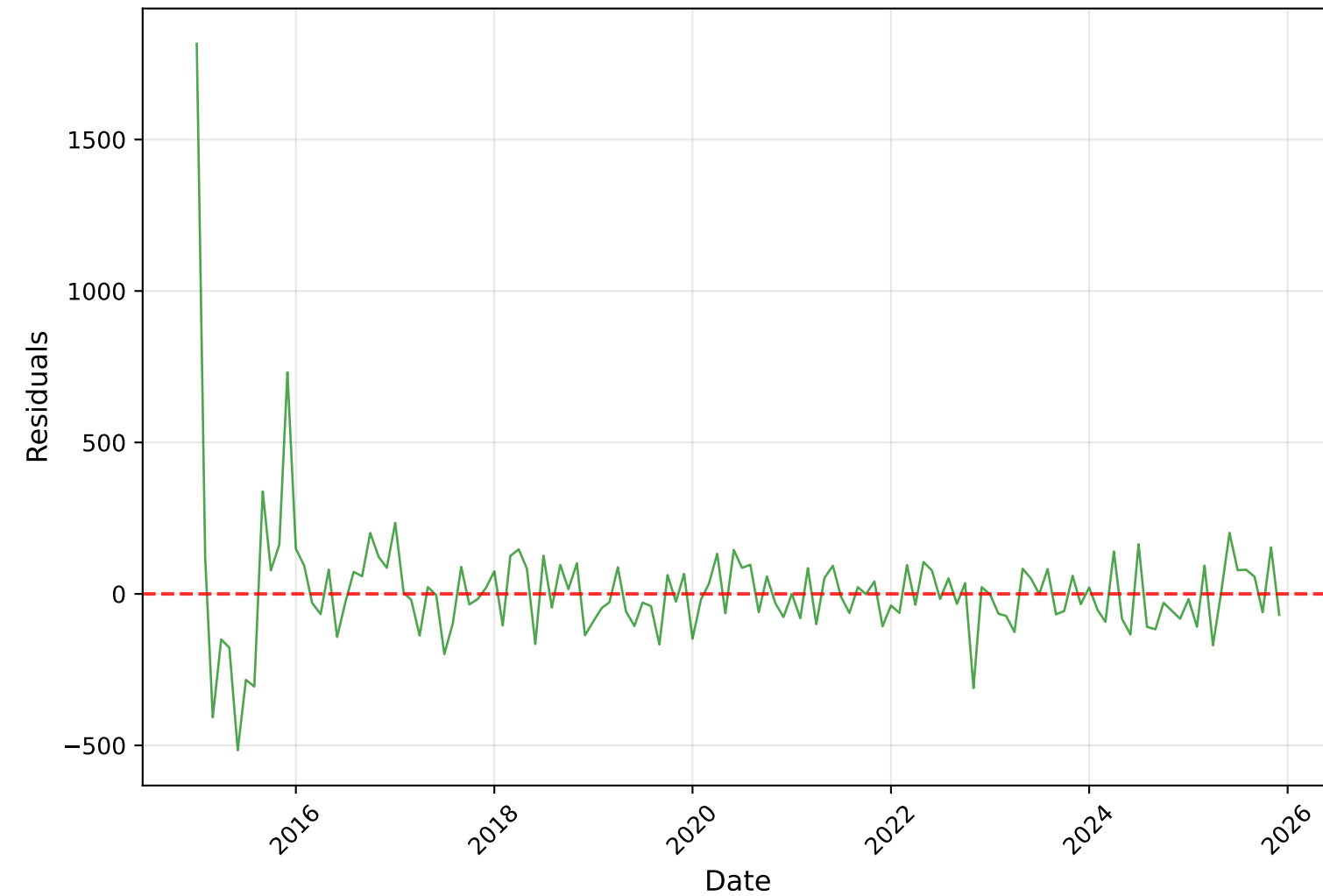


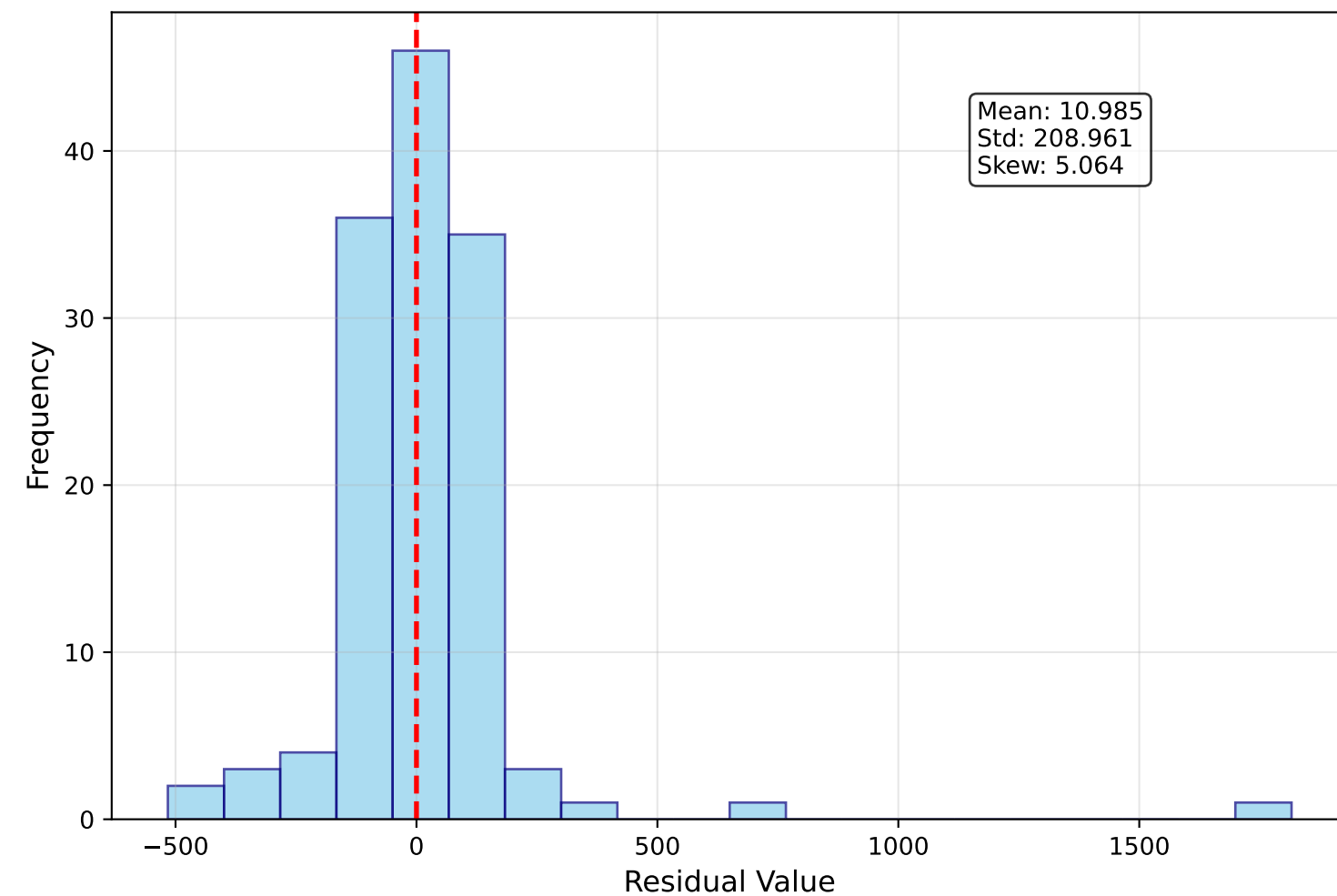
STEP 4.1: Model Fit Comparison Actual vs Fitted Values



STEP 4.2: Residuals Analysis Model Errors Over Time



STEP 4.4: Residuals Distribution Should be Normal with Mean ≈ 0



STEP 4.3: Evaluation Metrics

Model Performance Metrics:

RMSE (Root Mean Square Error): 208.458

- Measures average prediction error
- Penalizes larger errors more
- Same units as original data

MAE (Mean Absolute Error): 109.711

- Measures average absolute error
- Less sensitive to outliers
- Easy to interpret

MAPE (Mean Absolute Percentage Error): 5.69%

- Measures relative error as percentage
- Allows comparison across scales
- Lower is better

Model Quality Assessment:

- AIC: 1603.551
- BIC: 1615.051
- Good Performance (MAPE: 5.7%)