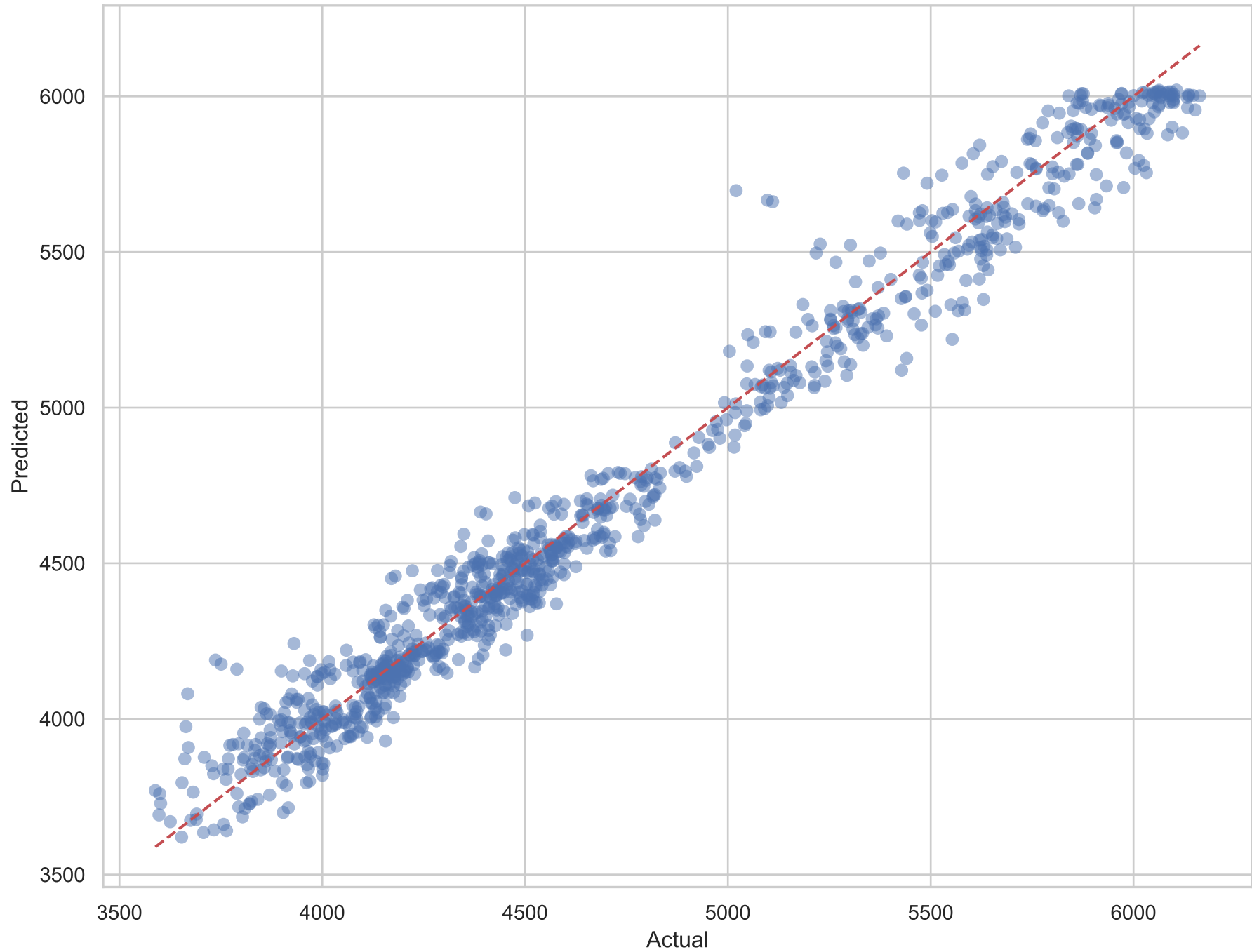


# **E-Mini S&P 500 (ES=F) Model Report**

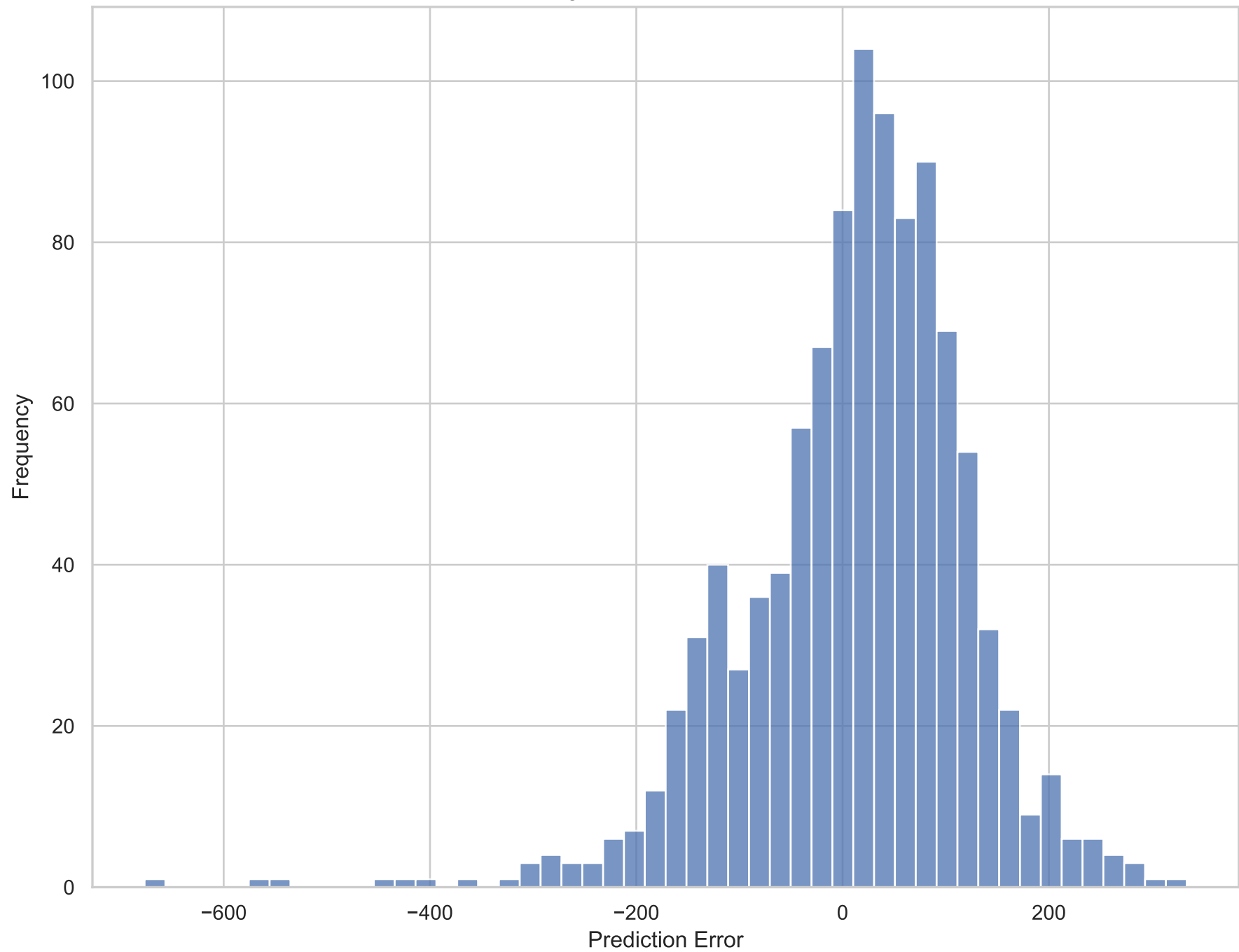
Model: Ridge

Generated on 2025-06-01 10:50:58

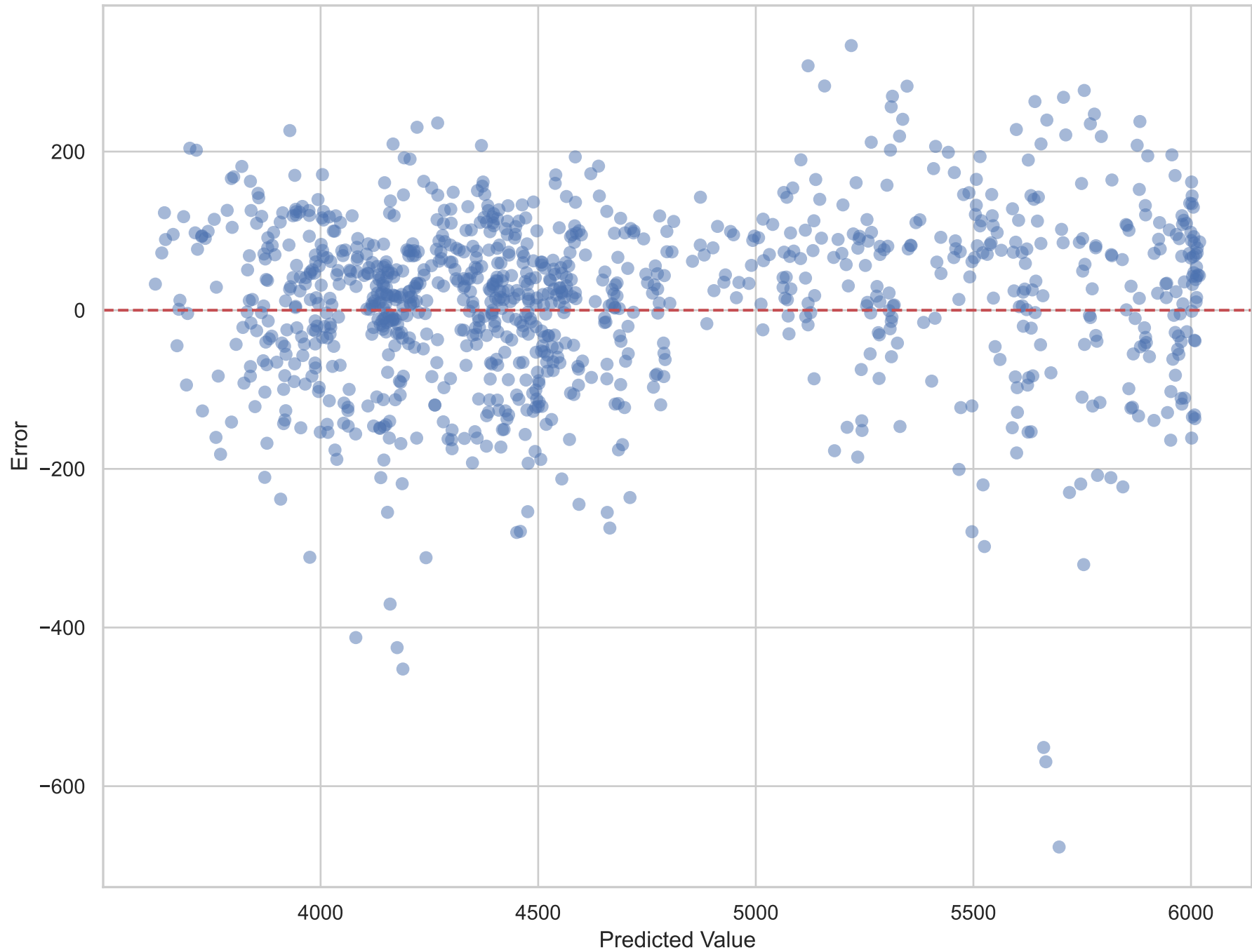
Actual vs Predicted Values



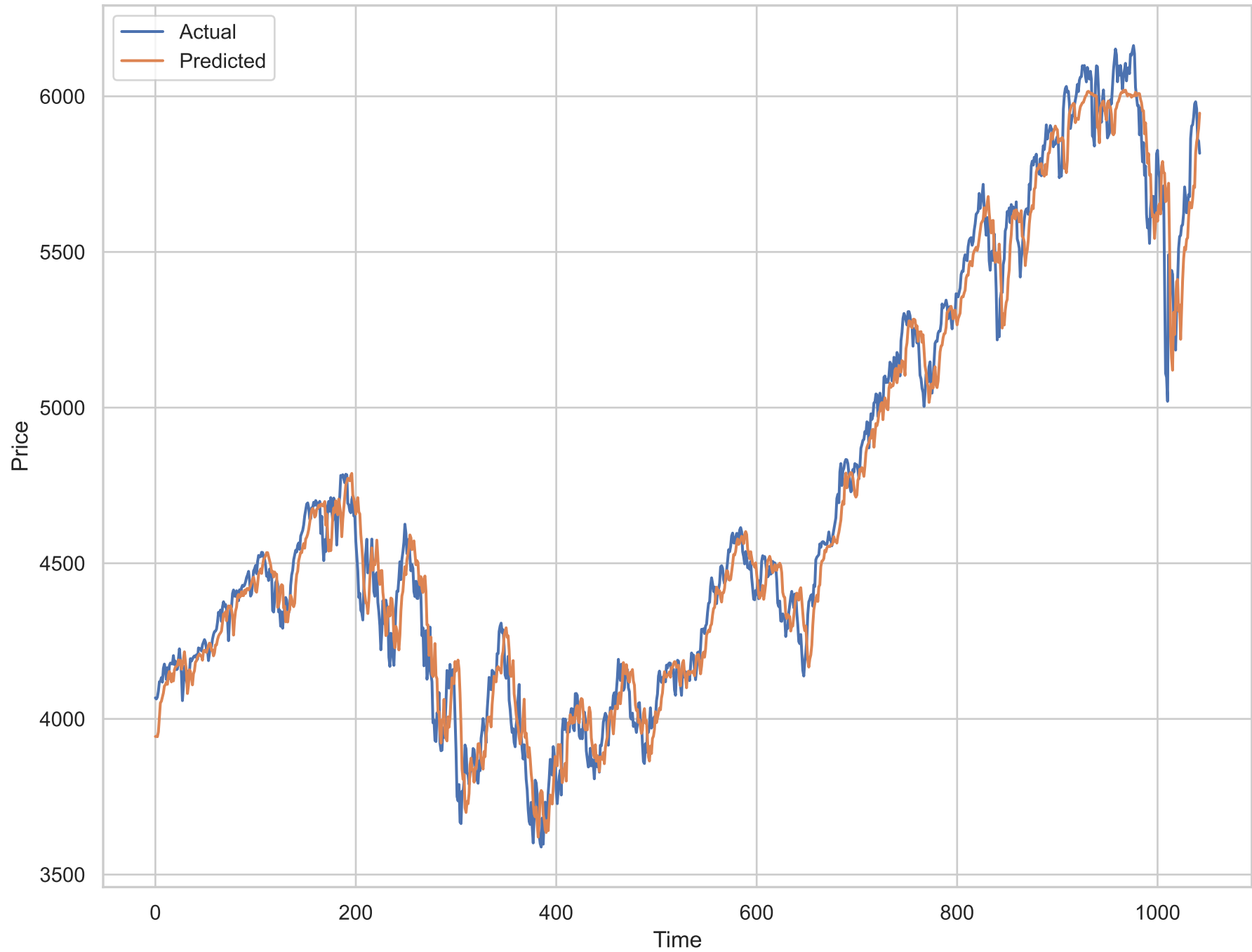
Histogram of Prediction Errors



Error vs Predicted Value



Actual vs Predicted Values Over Time



## Model Evaluation Metrics

RMSE : 109.1395

MAE : 83.0722

R2 : 0.9747

### Metrics Explanation:

RMSE: Root Mean Squared Error - Measures the average magnitude of errors in prediction

MAE: Mean Absolute Error - Average absolute difference between predicted and actual values

R2: R-squared - Proportion of variance in the dependent variable predictable from the independent variables

### Metric Selection Justification:

RMSE was chosen as the primary metric for model selection because:

1. It penalizes large errors more heavily than MAE, which is important in financial forecasting
2. It's in the same units as the target variable, making it interpretable
3. It's widely used in time series forecasting and financial applications