Comparison of ANN and SUR Models (Python file: "comparing_SUR_ANN.ipynb"):

Since the ANN model is tested on only 7 rows of data (20% of the total dataset), we cannot directly compare its results with the SUR model, which uses the entire dataset (100%). Additionally, the ANN model has approximately 350 parameters due to its network layers and other complexities, while the SUR model has only 24 parameters.

However, we can compare the models based on statistical metrics such as MAPE (Mean Absolute Percentage Error) and RMSE (Root Mean Square Error), as these metrics are calculated using the entire dataset. To evaluate the prediction accuracy of both models, we will compare these metrics and visualize the results using a box plot to depict MAPE and RMSE for each model.

Box Plot of Metrics by Model

