|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Yearly: DeepAR (1/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Yearly Micro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Micro** |  |  |  |  |
| 0.934 | 0.828 | - 11.35 | 100 | 50 | 7.0 / 24.5 |
| 0.848 | 0.841 | - 0.83 | 200 | 100 | 27.8 / 97.9 |
| 0.843 | 0.829 | - 1.67 | 400 | 200 | 111.3 / 391.6 |
| **Test set: Yearly Industry** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Industry** |  |  |  |  |
| 1.047 | 0.927 | -11.46 | 100 | 50 | 7.0/43.1 |
| 0.921 | 0.885 | - 3.91 | 200 | 100 | 27.8/172.2 |
| 0.895 | 0.882 | -1.45 | 400 | 200 | 111.3/688.9 |
| 0.907 | 0.927 | 2.21 | 100/620 | 50 | 43.1 |
| **Test set: Yearly Macro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Macro** |  |  |  |  |
| 1.008 | 0.981 | -2.68 | 100 | 50 | 7.0 / 41.0 |
| 0.897 | 0.863 | -3.79 | 200 | 100 | 27.8 / 164.0 |
| 0.851 | 0.839 | -1.41 | 400 | 200 | 111.3 / 655.9 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Yearly: DeepAR (2/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Yearly Finance** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Finance** |  |  |  |  |
| 0.923 | 0.825 | - 10.62 | 100 | 50 | 7.0/24.5 |
| 0.813 | 0.796 | - 2.09 | 200 | 100 | 27.8/98.2 |
| 0.793 | 0.783 | - 1.26 | 400 | 200 | 111.3/392.7 |
| 0.797 |  | 3.51 | 352 | 50 | 24.5 |
| **Test set: Yearly Demographic** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Demographic** |  |  |  |  |
| 1.388 | 0.866 | - 37.61 | 100 | 50 | 7.0 / 147.1 |
| 1.052 | 0.862 | - 18.06 | 200 | 100 | 27.8 / 588.2 |
| 0.905 | 0.867 | - 4.20 | 400 | 200 | 111.3/2352.9 |
| **Test set: Yearly Other** | | | | | |
| **Train set:** | |  |  |  |  |
| **Yearly** | **Yearly Other** |  |  |  |  |
| 0.985 | 0.888 | - 9.85 | 100 | 50 | 7.0/129.4 |
| 0.854 | 0.846 | - 0.94 | 200 | 100 | 27.8/517.8 |
| 0.842 | 0.815 | - 3.21 | 400 | 200 | 111.3/2071.2 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Quarterly: DeepAR (1/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Quarterly Micro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Micro** |  |  |  |  |
| 0.940 | 0.936 | -0.43 | 100 | 50 | 6.7 / 26.6 |
| 0.914 | 0.897 | -1.86 | 200 | 100 | 26.7 / 106.3 |
| 0.892 | 0.885 | -0.78 | 400 | 200 | 106.7 / 425.2 |
| 0.885 | 0.904 | 2.15 | 750/189 | 50 | 100.0 / 100.5 |
| **Test set: Quarterly Industry** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Industry** |  |  |  |  |
| 1.000 | 0.958 | -4.2 | 100 | 50 | 6.7 / 34.5 |
| 0.984 | 0.946 | -3.86 | 200 | 100 | 26.7 / 138.0 |
| 0.940 | 0.907 | -3.51 | 400 | 200 | 106.7 / 552.1 |
| **Test set: Quarterly Macro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Macro** |  |  |  |  |
| 0.974 | 0.977 | 0.31 | 100 | 50 | 6.7 / 30.1 |
| 0.951 | 0.909 | -4.42 | 200 | 100 | 26.7 / 120.4 |
| 0.903 | 0.890 | -1.44 | 400 | 200 | 106.7 / 481.7 |
| 0.912 | 0.910 | -0.22 | 750/167 | 100 | 100.0 / 100.5 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Quarterly: DeepAR (2/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Quarterly Finance** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Finance** |  |  |  |  |
| 0.978 | 0.968 | -1.02 | 100 | 50 | 6.7/30.2 |
| 0.954 | 0.947 | -0.74 | 200 | 100 | 26.7/120.6 |
| 0.918 | 0.894 | -2.61 | 400 | 200 | 106.7/482.6 |
| **Test set: Quarterly Demographic** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Demographic** |  |  |  |  |
| 1.046 | 1.030 | -1.53 | 100 | 50 | 6.7/86.1 |
| 1.065 | 0.999 | -6.20 | 200 | 100 | 26.7/344.5 |
| 0.988 | 0.952 | -3.64 | 400 | 200 | 106.7/1377.8 |
| **Test set: Quarterly Other** | | | | | |
| **Train set:** | |  |  |  |  |
| **Quarterly** | **Quarterly Other** |  |  |  |  |
| 0.942 | 0.892 | -5.31 | 100 | 50 | 6.7/185.0 |
| 0.902 | 0.822 | -8.86 | 200 | 100 | 26.7/739.9 |
| 0.847 | 0.812 | -4.13 | 400 | 200 | 106.7/2959.5 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Monthly: DeepAR (1/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Monthly Industry** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Industry** |  |  |  |  |
| 1.054 | 1.010 | - 4.17 | 100 | 50 | 3.3 / 16.0 |
| 0.999 | 0.986 | -1.30 | 200 | 100 | 13.3 / 63.9 |
| 0.966 | 0.972 | 0.62 | 400 | 200 | 53.3 / 255.6 |
| 1.016 | 0.996 | -1.97 | 750 / 157 | 100 | 50 / 50.2 |
| **Test set: Monthly Macro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Macro** |  |  |  |  |
| 1.042 | 0.963 | -7.58 | 100 | 50 | 3.3 / 16.0 |
| 0.977 | 0.940 | -3.79 | 200 | 100 | 13.3 / 63.9 |
| 0.971 | 0.924 | -5.46 | 400 | 200 | 53.3 / 255.6 |
| 0.976 | 0.933 | -4.4 | 750 / 157 | 100 | 50.0 / 50.2 |
| **Test set: Monthly Finance** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Finance** |  |  |  |  |
| 1.005 | 0.971 | -3.40 | 100 | 50 | 3.3 /14.6 |
| 0.974 | 0.979 | 0.51 | 200 | 100 | 13.3 / 58.3 |
| 0.957 | 0.939 | -1.88 | 400 | 200 | 53.3 / 233.0 |
| 0.967 | 0.984 | 1.76 | 750 / 172 | 100 | 50.0 / 50.1 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| M4 Monthly: DeepAR (2/2) | | | | | |
| **OWA** | | **Change (%)** | **Epochs** | **Batches** | **Passes** |
| **Test set: Monthly Demographic** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Demographic** |  |  |  |  |
| 1.105 | 0.987 | - 10.68 | 100 | 50 | 3.3/27.9 |
| 1.035 | 0.933 | - 8.17 | 200 | 100 | 13.3/111.7 |
| 1.016 | 0.926 | - 8.86 | 400 | 200 | 53.3/446.9 |
| **Test set: Monthly Micro** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Micro** |  |  |  |  |
| 1.026 | 0.975 | - 4.97 | 100 | 50 | 3.3/14.6 |
| 0.947 | 0.955 | 0.84 | 200 | 100 | 13.3/58.3 |
| 0.969 | 0.917 | - 5.37 | 400 | 200 | 53.3/233.3 |
| 0.924 | 0.956 | 3.46 | 750 / 172 | 100 | 50.0/50.2 |
| **Test set: Monthly Other** | | | | | |
| **Train set:** | |  |  |  |  |
| **Monthly** | **Monthly Other** |  |  |  |  |
| 1.061 | 0.976 | -8.01 | 100 | 50 | 3.3/577.6 |
| 0.938 | 0.948 | 1.07 | 200 | 100 | 13.3/2310.5 |
| 0.966 | 0.869 | -10.04 | 400 | 200 | 53.3/9241.9 |
| OWA indicates the median OWA of up to ten trials depending on computational complexity.  Passes are calculated with respect to the training set.  DeepAR is used without time series-specific dummies. | | | | | |

