UBL – ML-Based Financial KPI Forecast
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History used for model training: 2014-12-31 to 2020-12-31.
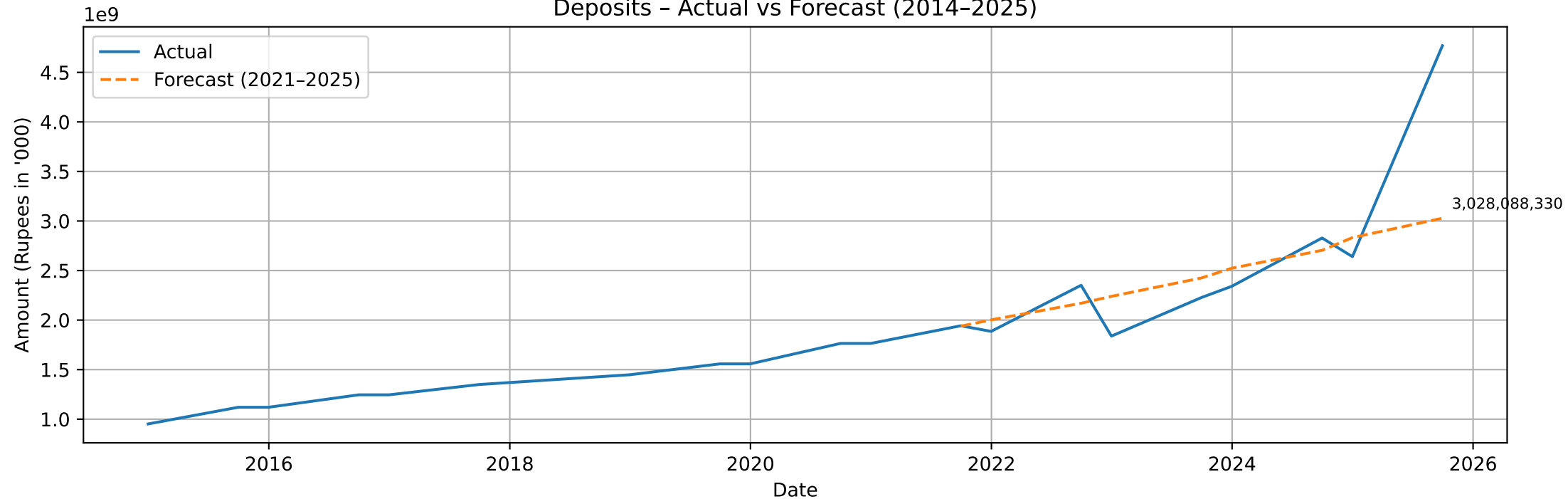Validation (backtest) period: 2021-01-01 to 2025-09-30.

Models used per KPI:
  • Naive random-walk benchmark
  • SARIMAX (ARIMA with quarterly seasonality)
  • Ridge regression on KPI lags
Best model is selected by lowest MAPE on 2021–2025 backtest.
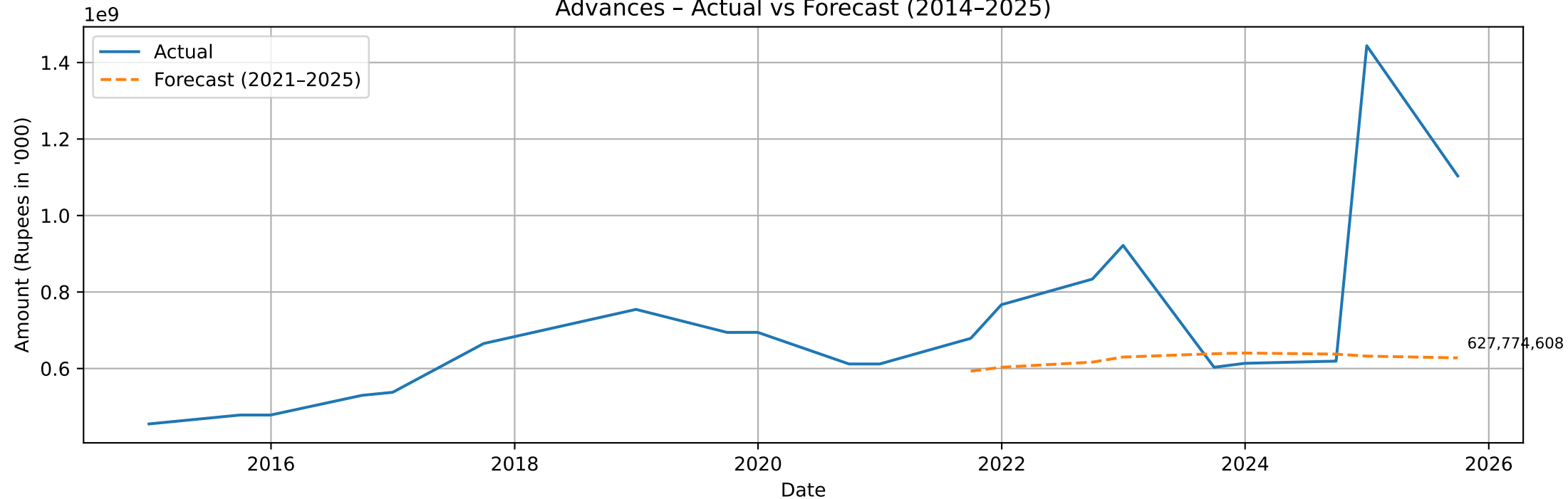
Key messages (based on last available test quarter per KPI):
  • Deposits: last test point 2025-09-30 – actual 4,768,789,701, model 3,028,088,330 (abs error 36.5%, best model: Ridge).
  • Advances: last test point 2025-09-30 – actual 1,103,393,866, model 627,774,608 (abs error 43.1%, best model: Ridge).
  • Investments: last test point 2025-09-30 – actual 8,818,315,414, model 1,167,803,012 (abs error 86.8%, best model: Naive).
  • Borrowings: last test point 2025-09-30 – actual 5,724,114,144, model 257,515,223 (abs error 95.5%, best model: Ridge).
  • Total_Assets: last test point 2025-09-30 – actual 11,274,140,632, model 2,506,148,053 (abs error 77.8%, best model: SARIMAX).
  • Total_Equity: last test point 2025-09-30 – actual 444,309,556, model 366,540,971 (abs error 17.5%, best model: Ridge).
  • Unappropriated_Profit: last test point 2025-09-30 – actual 156,606,442, model 101,942,821 (abs error 34.9%, best model: Ridge).
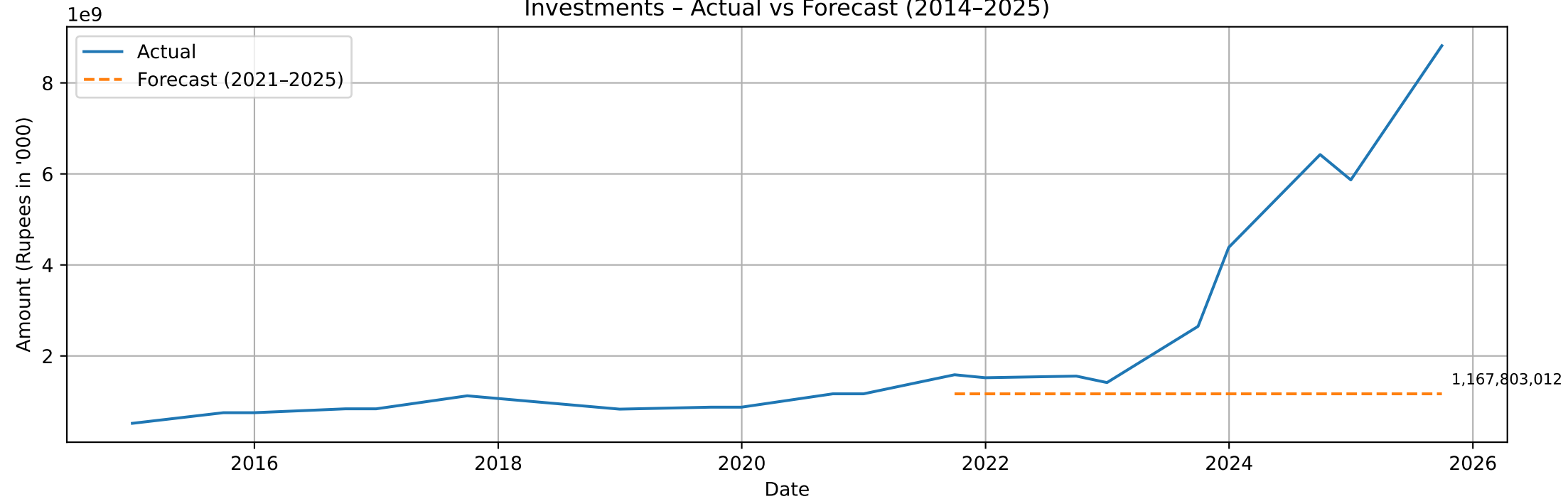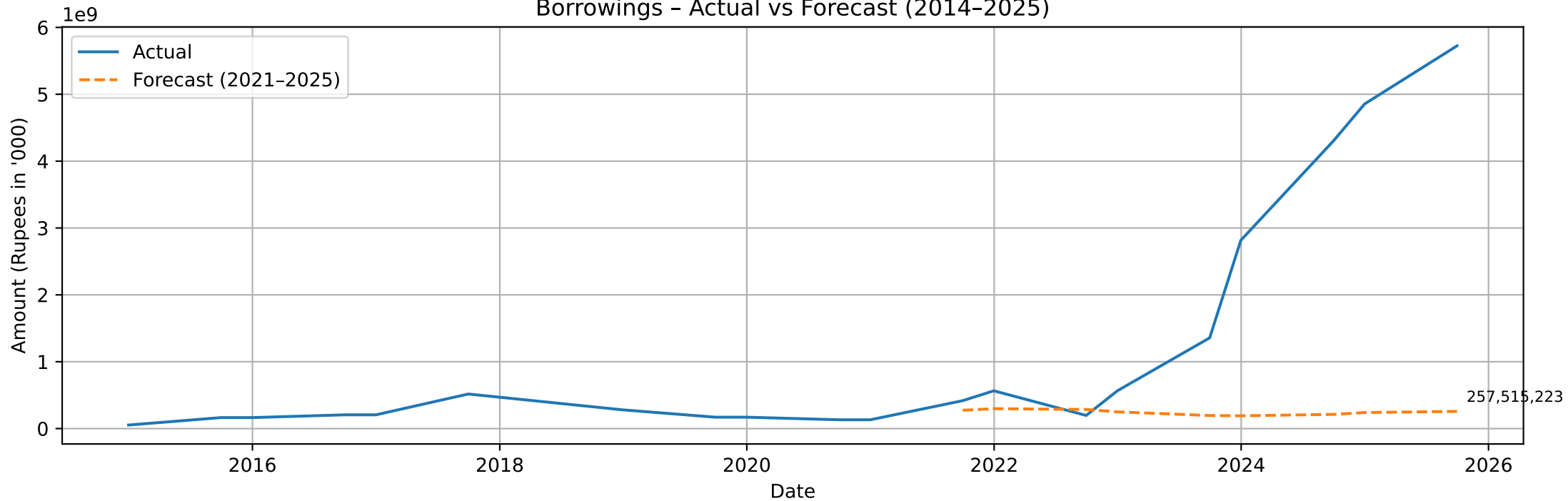
Deposits – Actual vs Forecast (2014–2025)

3,028,088,330
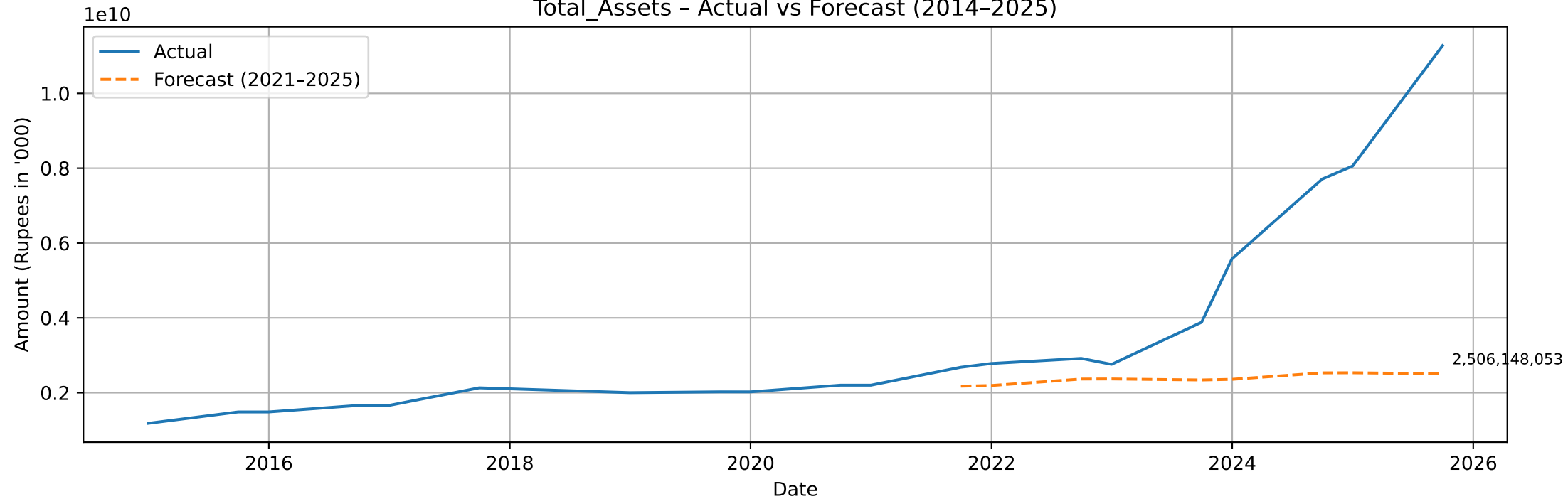
Advances – Actual vs Forecast (2014–2025)

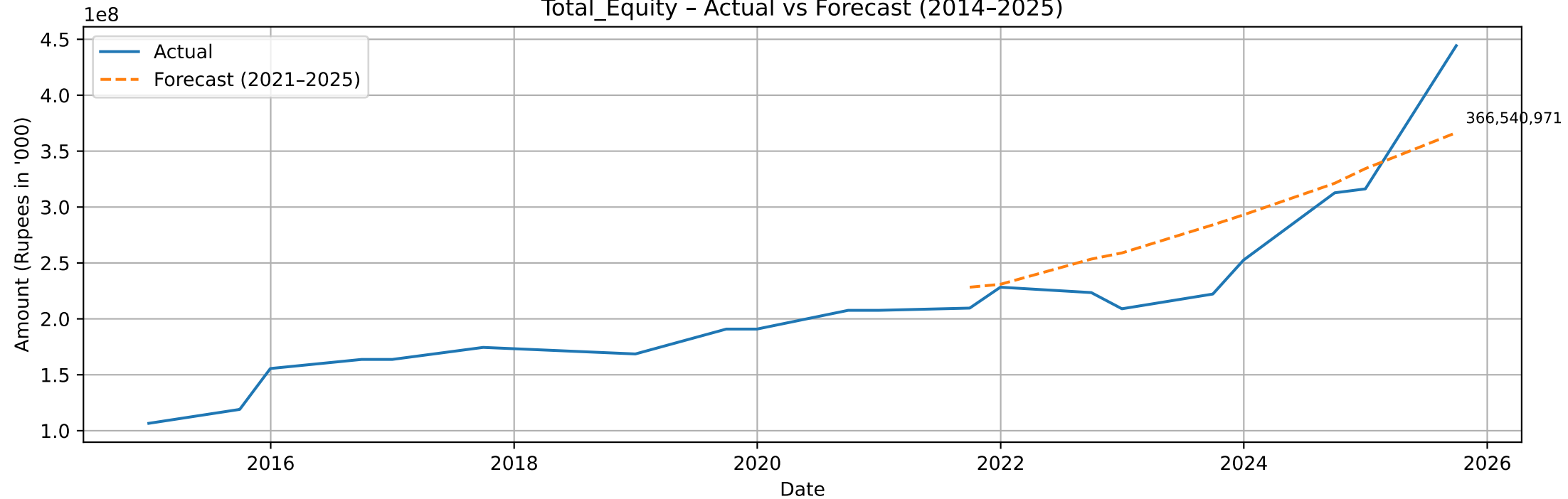Investments – Actual vs Forecast (2014–2025)

1,167,803,012

Borrowings – Actual vs Forecast (2014–2025)

Total_Assets – Actual vs Forecast (2014–2025)

2,506,148,053

Total_Equity – Actual vs Forecast (2014–2025)

366,540,971

Unappropriated_Profit – Actual vs Forecast (2014–2025)