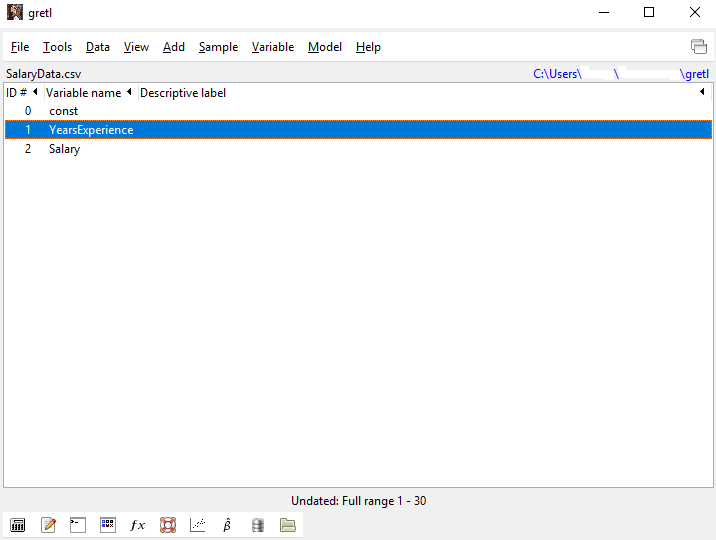
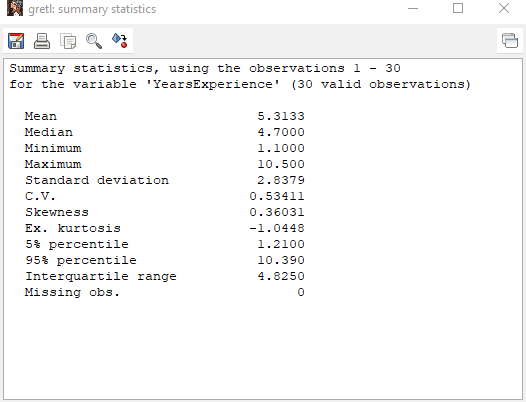
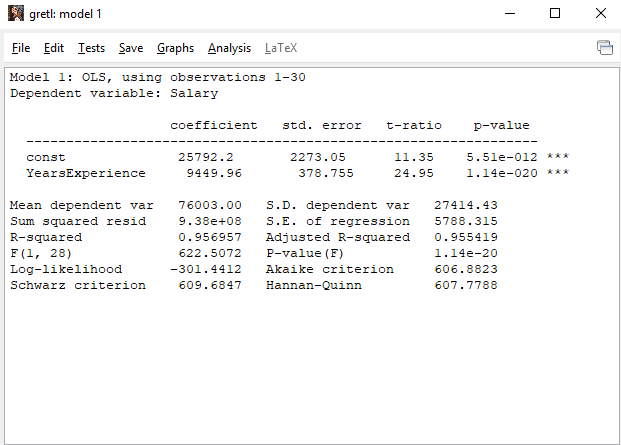
Data set loaded in Gretl



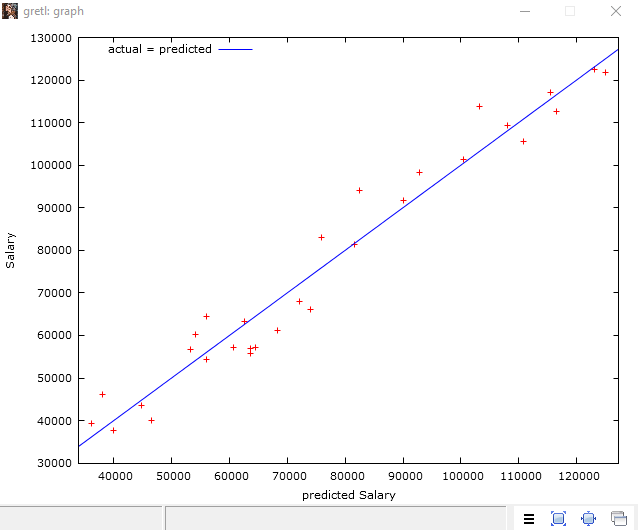
Summary of Data set



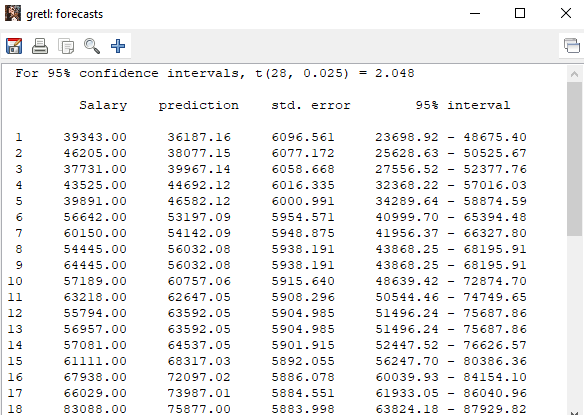
OLS Model

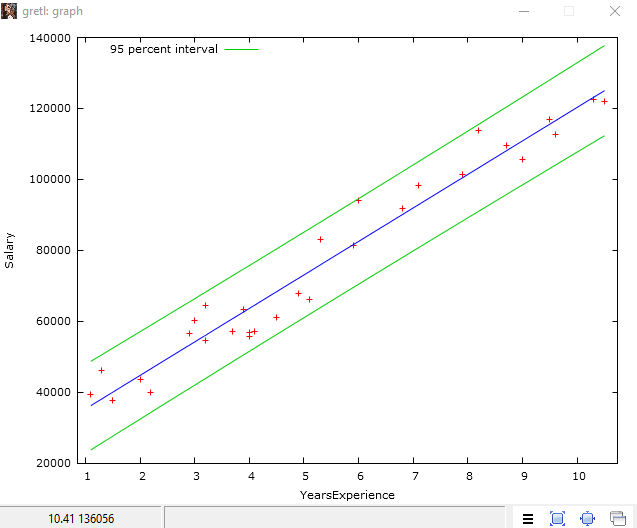


Graphical Regression Model

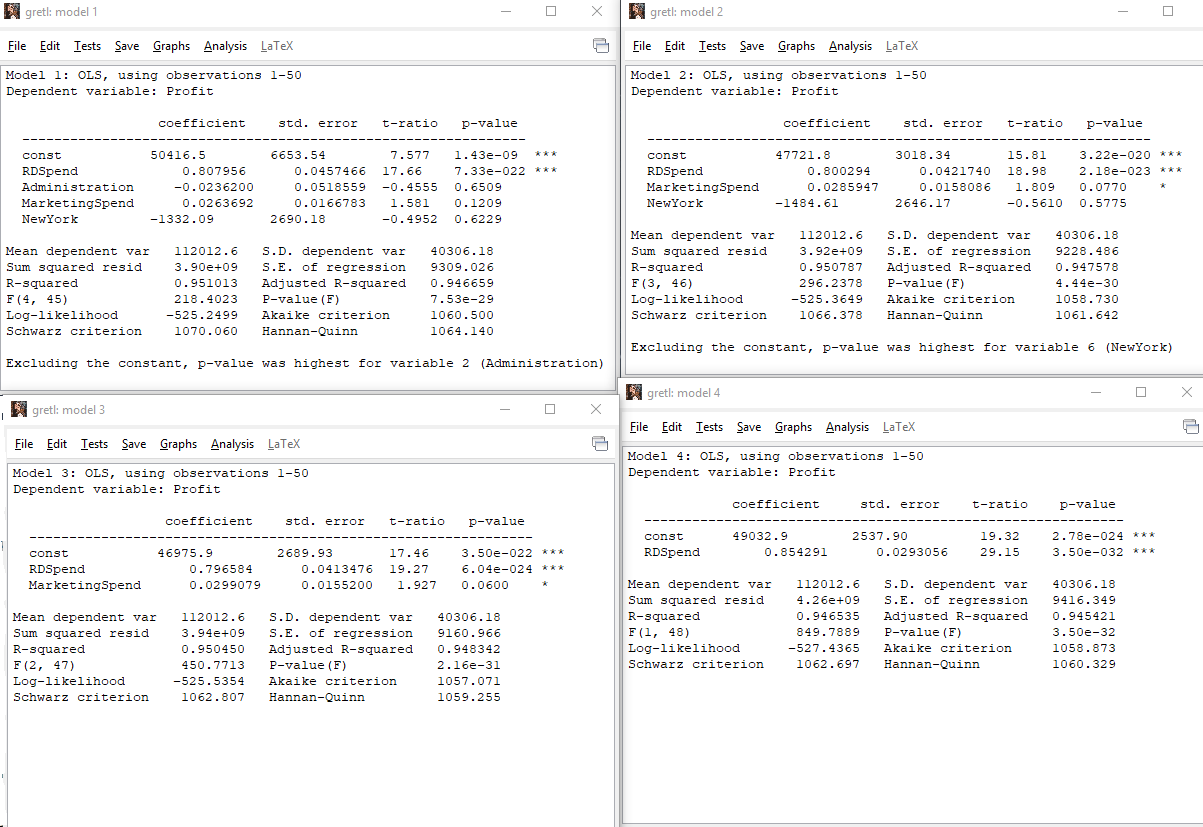


Forecasting





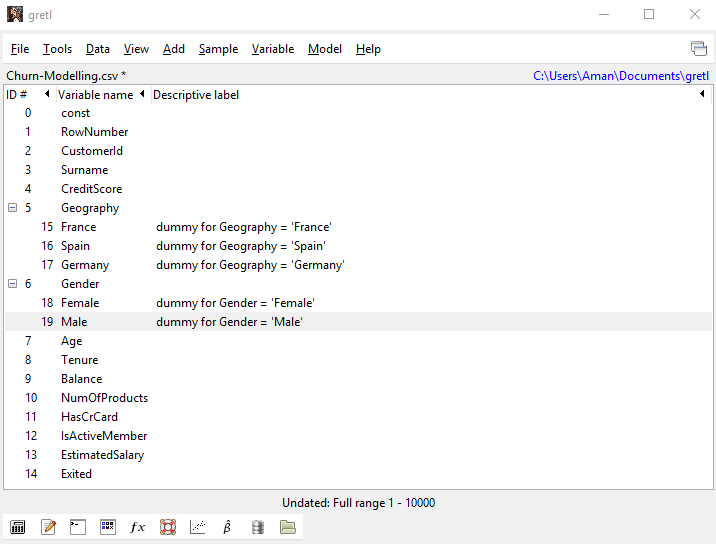
Multiple linear regression model using backward elimination



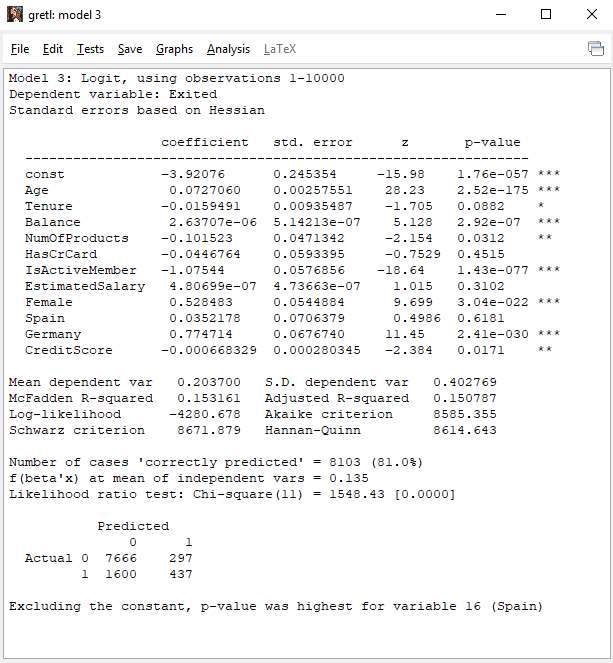
Best fitted model is model 3. From the above model 3, we can say that every $1 spent in R&D will give rise to 0.796 per unit increase in profit. It better to spend in R&D than Marketing because marketing coefficient is less then R&D.

Logistic Regression

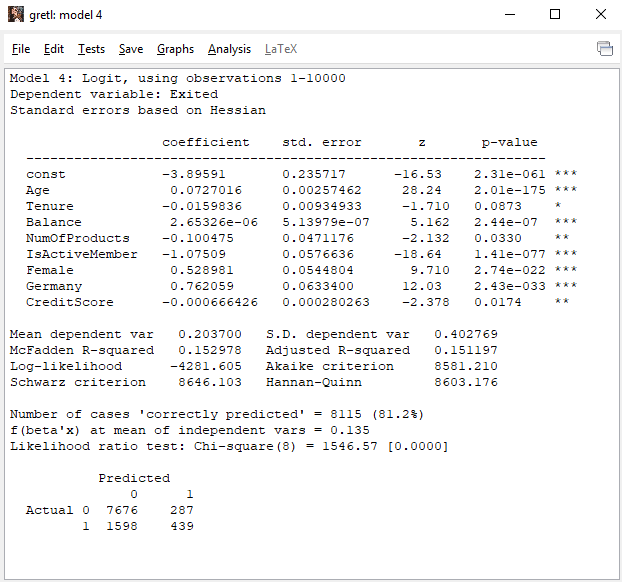
Creating dummy variables



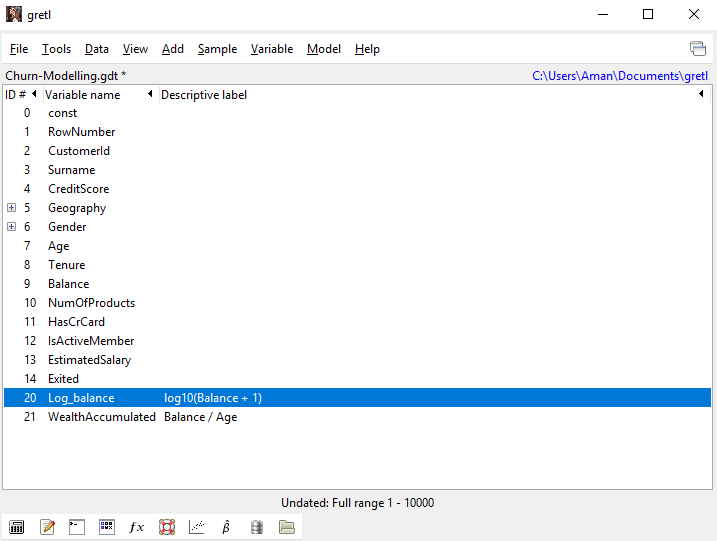
Running Logit test against data set



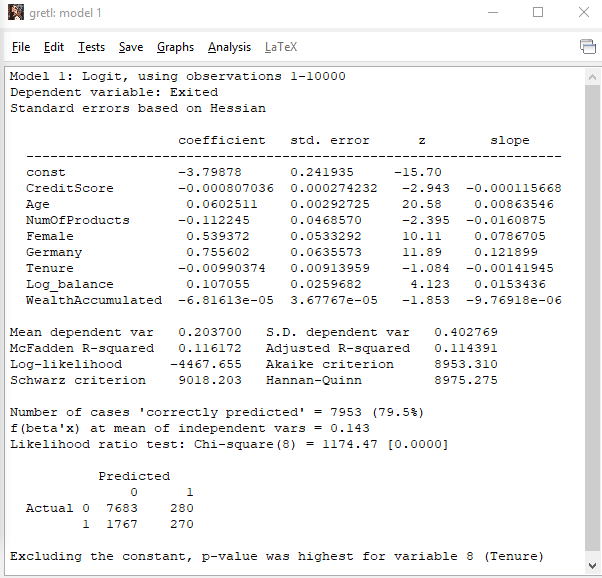
Step by step backward elimination



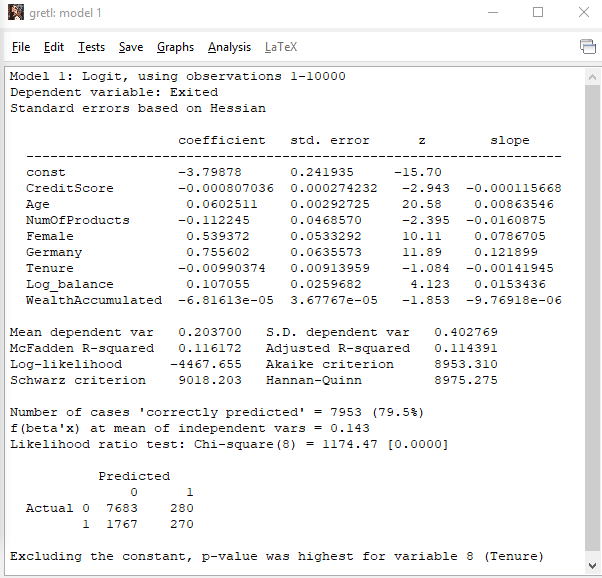
Creating Derived Variables

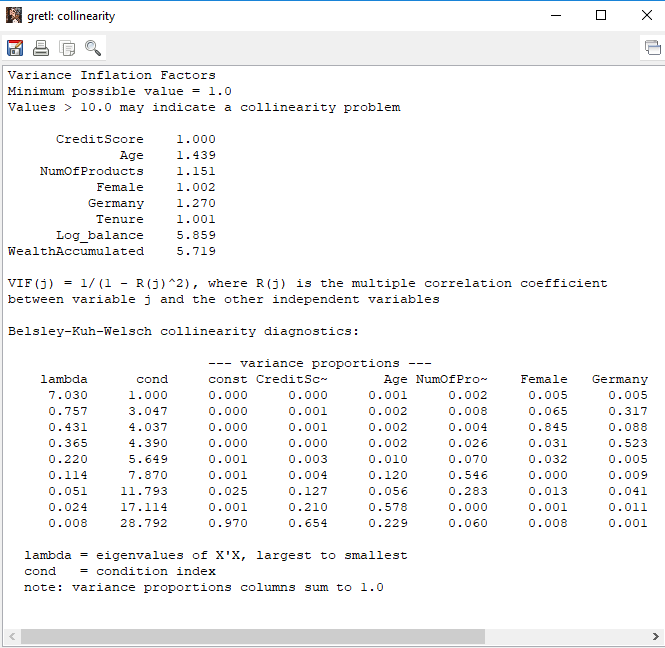


Run the Logit test again

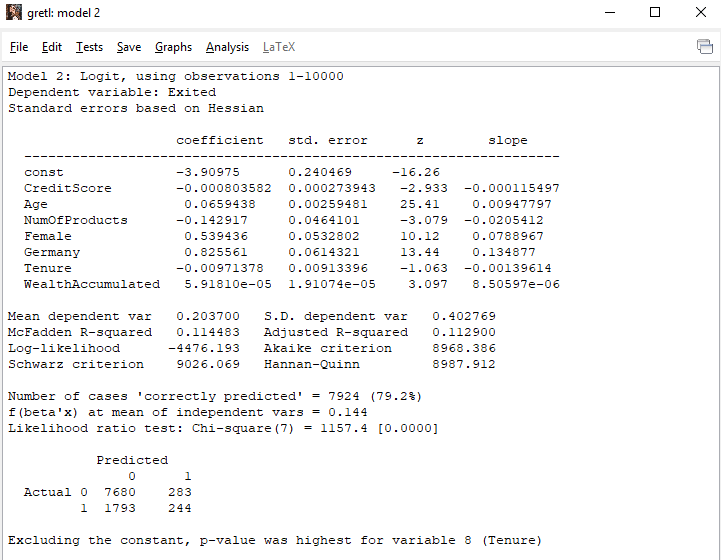


Multicollinearity



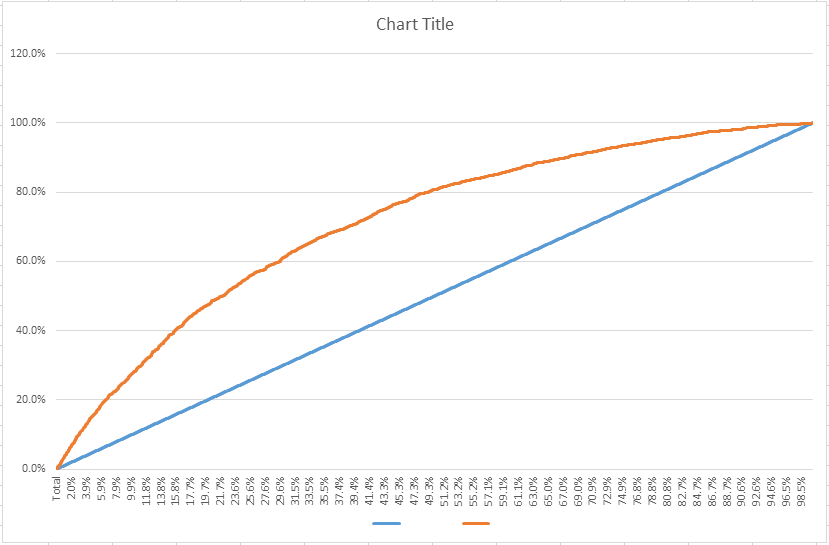


Log Balance and Wealth Accumulated values are less than 10 but they are related because WealthAccumulted=Balance/Age. So remove balance from the model.

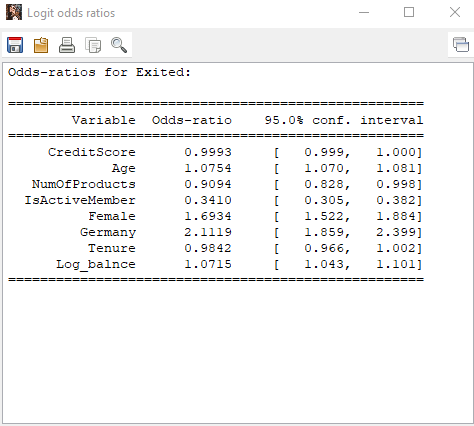


Now value of wealth changes from –ve to +ve.

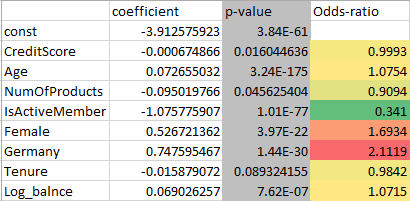
Cumulative Accuracy Profile (CAP) Curve to check how best our model is performing using EXCEL



Calculating Odds in order to compare the coefficient with independent variables for logistic regression



Final Findings in EXCEL



From the above table we can say that there is some problem with Females in Germany for leaving the bank. Either there is some other competitor who is pulling them or might be some other reason. ‘IsActiveMember’ is in green which means it is very less likely that active members of the bank would churn.