

# COMMERCIAL BANKING, CORP

REQUEST FOR PROPOSAL RFP #: IP - F1.H1

TITLE: BANKING INSURANCE PRODUCT - PHASE 1

CLOSING DATE AND TIME: AUGUST 30. 2024 @ 5:00 PM

# Banking Insurance Product – Phase 1: IP – F1.H1

#### Purpose

By responding to this Request for Proposal (RFP), the Proposer agrees that s/he has read and understood all documents within this RFP package.

#### **Submission Details**

Responders to this RFP should supply:

- A business report up to 4 pages (not including cover page, table of contents, or any needed appendix), including any supporting plots and tables.
- The commented code used to produce the results.

The report should address all points described in the "Objective" section below.

The report should be returned in the following way:

• Electronic (submit via Moodle)

## Background

The Commercial Banking Corporation (hereafter the "Bank"), acting by and through its department of *Customer Services and New Products* is seeking proposals for banking services. The Bank ultimately wants to predict which customers will buy a variable rate annuity product.

A variable annuity is a contract between you and an insurance company / bank, under which the insurer agrees to make periodic payments to you, beginning either immediately or at some future date. You purchase a variable annuity contract by making either a single purchase payment or a series of purchase payments.

A variable annuity offers a range of investment options. The value of your investment as a variable annuity owner will vary depending on the performance of the investment options you choose. The investment options for a variable annuity are typically mutual funds that invest in stocks, bonds, money market instruments, or some combination of the three. If you are interested in more information, see: <a href="http://www.sec.gov/investor/pubs/varannty.htm">http://www.sec.gov/investor/pubs/varannty.htm</a>

The project will be broken down into 3 phases:

- Phase 1 Variable Understanding and Assumptions
- Phase 2 Variable Selection and Modeling Building
- Phase 3 Model Assessment and Prediction

# Objective - Phase 1

The scope of services in this phase includes the following:

• For this phase use **only** the training data set.

- Explore the predictor variables **individually** with the target variable of whether the customer bought the insurance product.
  - o Summarize **only the significant variables** in a table ranking from most significant to least significant the Bank currently uses  $\alpha = 0.002$ , but is open to another if you defend your reason.
    - This table should separate out the four possible classes of variables binary, ordinal, nominal, continuous.
    - (HINT: Explore the predictor variables individually for now since you have not yet accounted for missing values.)
    - (HINT: The downside to software sometimes is displaying a full p-value for ranking. That doesn't mean you cannot get them through the right commands.
       As long as you have the same degrees of freedom you can rank on test statistic as well.)
  - In an appendix, include a table with all of the variables ranked by significance.
- Provide a table of odds ratios for only binary predictor variables in relation to the target variable.
  - Rank these odds ratios by magnitude.
  - o Interpret only the highest magnitude odds ratio.
  - Report on any interesting findings.
    - (HINT: This is open-ended and has no correct answer. However, you should get use to keeping an eye out for what you might deem important or interesting when exploring data to report in an executive summary.)
- Provide a summary of results around the linearity assumption of continuous variables.
  - List both which variables meet and do not meet the needed assumption for continuous variables.
  - (HINT: Do not get overly mathematical here. Just report what you find; do not teach.)
- Provide a summary of important data considerations as follows:
  - Visual representation of which variables have the highest (defined by you for now) amount of missing values.
  - List any combinations of variables that you feel have redundant information so the Bank might consider removing them in the future.
    - (HINT: This is open-ended and has no correct answer. For example, presence of a money market account and money market balance.)
  - Report on any interesting findings.
    - (HINT: This is open-ended and has no correct answer. However, you should get use to keeping an eye out for what you might deem important or interesting when exploring data to report in an executive summary. For example, teller visits as well as other variables might represent human contact with the bank as compared to only online contact.)

### Data Provided

The following two sets of data are provided for the proposal:

- The training data set **insurance\_t** contains 8,495 observations and 48 variables.
  - All of these customers have been offered the product in the data set under the variable
     INS, which takes a value of 1 if they bought and 0 if they did not buy.
  - There are 47 variables describing the customer's attributes before they were offered the new insurance product.
- The validation data set **insurance\_v** contains 2,124 observations and 48 variables.
- The table below describes the Roles and Description of the variables found in both data sets.
  - Except for Branch of Bank, consider anything with more than 10 distinct values as continuous.

| ACCTAGE DDA Input Indicator for checking account DDABAL DEP Input Checking account balance DEP Input Checking deposits DEPAMT Input Number of cash back requests CHECKS Input Indicator for direct deposit NSF Input Number of insufficient fund issues NSFAMT Input Number of telephone banking interactions NSFAMT Input Number of telephone banking interactions SAV Input Indicator for savings account SAVBAL Input Savings account balance ATM Input Indicator for ATM interaction Input Number of telephone banking interactions Input Indicator for ATM interaction ATMAMT Input Indicator for ATM interaction Input Number of point of sale interactions POSAMT Input Total ATM withdrawal amount POS Input Number of point of sale interactions CD Input Indicator for retirement account IRA Input Indicator for retirement account IRABAL Input Indicator for retirement account IRABAL Input Indicator for line of credit LOCBAL Input Indicator for investment account INVBAL Input Indicator for investment account Information investment Information investment Information investment Information investment Information investment Information  | Name    | Model Role | Description                                  |
|--|---------|------------|--|
| DDABAL DEP Input Checking deposits DEPAMT Input Total amount deposited CASHBK Input Number of cash back requests Input Number of cash back requests CHECKS Input Number of checks written DIRDEP Input Indicator for direct deposit NSF Input Number of insufficient fund issues NSFAMT Input Number of telephone banking interactions TELLER Input Number of telephone banking interactions SAV Input Indicator for savings account SAVBAL Input Savings account balance ATM Input Indicator for ATM interaction Input Number of point of sale interactions Input Number of point of sale interactions POS Input Number of point of sale interactions Input Total ATM withdrawal amount POS Input Number of point of sale interactions CD Input Indicator for retirement account IRA Input Indicator for retirement account IRA Input Indicator for retirement account IRA Input Indicator for ine of credit LOCBAL Input Indicator for ine of credit INV Input Indicator for inestment account INVBAL Input Indicator for inestment account INVBAL Input Indicator for inestment account INVBAL Input Indicator for investment ILS balance Input Indicator for investment account Infile balance Input Indicator for investment Infile balance Infile balance Input Indicator for investment Infile balance Infile ba | ACCTAGE | Input      | Age of oldest account                        |
| DEP DEPAMT DEP DEPAMT D | DDA     | Input      | Indicator for checking account               |
| DEPAMT         Input         Total amount deposited           CASHBK         Input         Number of cash back requests           CHECKS         Input         Number of checks written           DIRDEP         Input         Number of insufficient fund issues           NSF         Input         Number of telephone banking interactions           NSFAMT         Input         Number of telephone banking interactions           TELLER         Input         Number of telephone banking interactions           SAV         Input         Number of telephone banking interactions           SAVBAL         Input         Number of telephone banking interactions           SAV         Input         Number of telephone banking interactions           SAV         Input         Number of telephone banking interactions           SAV         Input         Indicator for savings account telephone banking interactions           ATMAINT         Input         Indicator for axings account balance           ATM         Input         Indicator for ATM interactions           ATM         Input         Total ATM withdrawal amount         POS           Input         Number of point of sale interactions         POS         Input         Number of point of sale interactions           Input         Indi  | DDABAL  | Input      | Checking account balance                     |
| CASHBK CHECKS Input Number of cash back requests CHECKS Input Number of checks written DIRDEP Input Number of insufficient fund issues NSFAMT Input Number of insufficient fund issues NSFAMT Input Number of telephone banking interactions Input Number of telephone banking interactions Input SAV Input Indicator for axings account SAVBAL Input Input Indicator for ATM interaction Input ATMAMT Input Indicator for investment account IRABAL Input Input Indicator for investment account INV Input Input Indicator for investment account INVBAL Input Input Indicator for investment account INVBAL Input Input Indicator for investment account INVBAL Input Input Indicator for investment account INSBAL Input Indicator for investment account Input Indicator for installment loan ILS balance Input Indicator for installment loan ILS balance Input Indicator for investment account Input Indicator for investment Input Indicator for input Indicator for input Indicator for inpu | DEP     | Input      | Checking deposits                            |
| CHECKS         Input         Number of checks written           DIRDEP         Input         Indicator for direct deposit           NSF         Input         Number of insufficient fund issues           NSFAMT         Input         Number of sufficient fund issues           NSFAMT         Input         Amount of NSF           PHONE         Input         Number of teller visit interactions           SAV         Input         Number of teller visit interactions           SAVBAL         Input         Indicator for savings account           SAVBAL         Input         Indicator for ATM interaction           ATM         Input         Total ATM withdrawal amount           POS         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           CD         Input         Indicator for certificate of deposit account           CDBAL         Input         CD balance           IRA         Input         Indicator for certificate of deposit account           IRABAL         Input         Indicator for retirement account           IRABAL         Input         Indicator for retirement account           INVBAL         Input         Indicator for investment account  | DEPAMT  | Input      | Total amount deposited                       |
| DIRDEP         Input         Indicator for direct deposit           NSF         Input         Number of insufficient fund issues           NSFAMT         Input         Number of telephone banking interactions           PHONE         Input         Number of teller visit interactions           SAV         Input         Number of teller visit interactions           SAVBAL         Input         Indicator for savings account           SAVBAL         Input         Savings account balance           ATM         Input         Indicator for ATM interaction           ATMAMT         Input         Indicator for ATM interaction           ATMAMT         Input         Number of point of sale interactions           POSAMT         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         CD balance           CD         Input         Indicator for retificate of deposit account           IRA         Input <td>CASHBK</td> <td>Input</td> <td>Number of cash back requests</td>  | CASHBK  | Input      | Number of cash back requests                 |
| NSF         Input         Number of insufficient fund issues           NSFAMT         Input         Amount of NSF           PHONE         Input         Number of telephone banking interactions           TELLER         Input         Number of telephone banking interactions           SAV         Input         Number of telephone banking interactions           SAVBAL         Input         Number of telephone banking interactions           SAVBAL         Input         Number of telephone banking interactions           SAVBAL         Input         Savings account balance           ATM         Input         Indicator for ATM interaction           ATMAMT         Input         Indicator ATM withdrawal amount           POS         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           POSAMT         Input         Indicator for retificate of deposit account           CD         Input         Indicator for retificate of deposit account           INDAL         Input         Indicator for input Input           INDAL </td <td>CHECKS</td> <td>Input</td> <td>Number of checks written</td>  | CHECKS  | Input      | Number of checks written                     |
| NSFAMT         Input         Amount of NSF           PHONE         Input         Number of telephone banking interactions           TELLER         Input         Number of teller visit interactions           SAV         Input         Indicator for savings account           SAVBAL         Input         Savings account balance           ATM         Input         Indicator for ATM interaction           ATMAMT         Input         Total ATM withdrawal amount           POS         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           CD         Input         Indicator for certificate of deposit account           CDBAL         Input         Indicator for retirement account           IRA         Input         Indicator for retirement account           IRABAL         Input         Indicator for investment account           INV         Input         Indicator for investment account           INVBAL         Input         Indicator for investment a  | DIRDEP  | Input      | Indicator for direct deposit                 |
| PHONE         Input         Number of telephone banking interactions           TELLER         Input         Number of teller visit interactions           SAV         Input         Savings account           SAVBAL         Input         Savings account balance           ATM         Input         Indicator for savings account           ATMAMT         Input         Indicator for ATM interaction           ATMAMT         Input         Number of point of sale interactions           POS         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           CD         Input         Indicator for certificate of deposit account           CDBAL         Input         Indicator for retirement account           IRA         Input         Indicator for retirement account           IRABAL         Input         Indicator for ine of credit           LOC         Input         Indicator for investment account           INVBAL         Input         Indicator for investment account           INVBAL         Input         Indicator for installment loan           ILS         Input         Indicator for installment loan           ILSBAL         Input         Indicator for money market   | NSF     | Input      | Number of insufficient fund issues           |
| TELLER       Input       Number of teller visit interactions         SAV       Input       Indicator for savings account         SAVBAL       Input       Savings account balance         ATM       Input       Indicator for ATM interaction         ATMAMT       Input       Total ATM withdrawal amount         POS       Input       Number of point of sale interactions         POSAMT       Input       Total amount for point of sale interactions         CD       Input       Indicator for retificate of deposit account         CDBAL       Input       Indicator for retirement account         IRA       Input       Indicator for retirement account         IRABAL       Input       Indicator for line of credit         LOC balance       Inv       Input       Indicator for investment account         INV       Input       Indicator for investment account       Inv         INVBAL       Input       Indicator for investment account       Inv         INVBAL       Input       Indicator for installment loan       ILS balance         ILSBAL       Input       Indicator for money market account       MM balance         MM       Input       Indicator for money market account       MM balance         MMCRED <th< td=""><td>NSFAMT</td><td>Input</td><td>Amount of NSF</td></th<>  | NSFAMT  | Input      | Amount of NSF                                |
| SAV SAVBAL Input Input Savings account balance ATM Input Input Indicator for ATM interaction  ATMAMT Input Input Input Indicator for ATM interaction  ATMAMT Input Input Input Input Indicator of opint of sale interactions  POSAMT Input Input Indicator for certificate of deposit account  CDBAL Input Input Indicator for retirement account IRA Input Input Indicator for ine of credit  LOC Input Input Indicator for investment account  INV Input Input Indicator for investment account INVBAL Input Input Indicator for investment account INVBAL Input Input Indicator for investment account INVBAL Input Indicator for money market account INBAL Input Indicator for money market credits Input Indicator for money market credits Input Indicator for redit card Input Indicator for credit card Input Indicator for oredit card Input Indicator for oredit card purchases Input Indicator for safety deposit box INCOME Input Indicator for home ownership Input Indicator for home ownership Input Input Indicator for home ownership Input Input Indicator for home ownership Input Input Indicator for home ownership  | PHONE   | Input      | Number of telephone banking interactions     |
| SAVBAL       Input       Savings account balance         ATM       Input       Indicator for ATM interaction         ATMAMT       Input       Total ATM withdrawal amount         POS       Input       Number of point of sale interactions         POSAMT       Input       Total amount for point of sale interactions         CD       Input       Indicator for point of sale interactions         CD       Input       Indicator for certificate of deposit account         CDBAL       Input       Indicator for retirement account         IRABAL       Input       Indicator for retirement account         IRABAL       Input       Indicator for line of credit         LOCBAL       Input       Indicator for line of credit         INV       Input       Indicator for investment account         INVBAL       Input       Indicator for investment account         INVBAL       Input       Indicator for installment loan         ILS balance       Input       Indicator for installment loan         ILSBAL       Input       Indicator for money market account         MMBAL       Input       Number of money market credits         MTG       Input       Number of money market credits         MTG       Input       Indicato  | TELLER  | Input      | Number of teller visit interactions          |
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| ATMAMTInputTotal ATM withdrawal amountPOSInputNumber of point of sale interactionsPOSAMTInputTotal amount for point of sale interactionsCDInputIndicator for certificate of deposit accountCDBALInputCD balanceIRAInputIndicator for retirement accountIRABALInputIndicator for line of creditLOCInputIndicator for line of creditLOCBALInputIndicator for investment accountINVInputIndicator for investment accountINVBALInputIndicator for investment accountILSInputIndicator for installment loanILSBALInputIndicator for installment loanILSBALInputIndicator for money market accountMMBALInputIndicator for money market creditsMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputIndicator for credit cardCCInputIndicator for credit cardCCBALInputNumber of credit card purchasesSDBInputNumber of credit card purchasesInputIndicator for safety deposit boxINCOMEInputIndicator for home ownershipLORESInputLength of residence in years  | SAVBAL  | Input      | Savings account balance                      |
| POS         Input         Number of point of sale interactions           POSAMT         Input         Total amount for point of sale interactions           CD         Input         Total amount for point of sale interactions           CD         Input         Indicator for certificate of deposit account           IRA         Input         CD balance           IRA         Input         Indicator for retirement account           IRABAL         Input         Indicator for line of credit           LOC         Input         Indicator for line of credit           LOCBAL         Input         Indicator for line of credit           INV         Input         Indicator for line of credit           INV         Input         Indicator for investment account           INV         Input         Indicator for investment account           INV         Input         Indicator for installment loan           ILS         Input         Indicator for installment loan           ILS         Input         Indicator for money market account           MMBAL         Input         Indicator for money market credits           MMCRED         Input         Number of money market credits           MTG         Input         Indicator for credit card <tr< td=""><td>ATM</td><td>Input</td><td>Indicator for ATM interaction</td></tr<>   | ATM     | Input      | Indicator for ATM interaction                |
| POSAMT   | ATMAMT  | Input      | Total ATM withdrawal amount                  |
| CDInputIndicator for certificate of deposit accountCDBALInputCD balanceIRAInputIndicator for retirement accountIRABALInputIRA balanceLOCInputIndicator for line of creditLOCBALInputLOC balanceINVInputIndicator for investment accountINVBALInputIndicator for investment loanILSInputIndicator for installment loanILSBALInputIndicator for money market accountMMInputIndicator for money market creditsMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputIndicator for credit cardCCPURCInputNumber of credit card purchasesSDBInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIndicator for home ownershipLORESInputLength of residence in years  | POS     | Input      | Number of point of sale interactions         |
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| LOCBAL<br>INVInputLOC balanceINVInputIndicator for investment accountINVBAL<br>ILSInputIndicator for installment loanILSBAL<br>MMInputIndicator for money market accountMMBAL<br>MMCREDInputMM balanceMMCRED<br>MTG<br>MTGBAL<br>CCInputNumber of money market creditsMTG<br>MTGBAL<br>CCInputMTG balanceCC<br>CCBAL<br>CCBAL<br>InputIndicator for credit cardCCBAL<br>CCPURC<br>SDB<br>InputNumber of credit card purchasesSDB<br>INCOME<br>HMOWN<br>LORESInputIndicator for safety deposit boxInput<br>Indicator for home ownershipLORESInputIndicator for home ownershipLORESInputLength of residence in years   | IRABAL  | Input      | IRA balance                                  |
| INVInputIndicator for investment accountINVBALInputINV balanceILSInputIndicator for installment loanILSBALInputILS balanceMMInputIndicator for money market accountMMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | LOC     | Input      | Indicator for line of credit                 |
| INVBALInputINV balanceILSInputIndicator for installment loanILSBALInputILS balanceMMInputIndicator for money market accountMMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | LOCBAL  | Input      | LOC balance                                  |
| ILSInputIndicator for installment loanILSBALInputILS balanceMMInputIndicator for money market accountMMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | INV     | Input      | Indicator for investment account             |
| ILSBALInputILS balanceMMInputIndicator for money market accountMMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | INVBAL  | Input      | INV balance                                  |
| MMInputIndicator for money market accountMMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | ILS     | Input      | Indicator for installment loan               |
| MMBALInputMM balanceMMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years   | ILSBAL  | Input      | ILS balance                                  |
| MMCREDInputNumber of money market creditsMTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years   | MM      | Input      | Indicator for money market account           |
| MTGInputIndicator for mortgageMTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | MMBAL   | Input      | MM balance                                   |
| MTGBALInputMTG balanceCCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | MMCRED  | Input      | Number of money market credits               |
| CCInputIndicator for credit cardCCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | MTG     | Input      | Indicator for mortgage                       |
| CCBALInputCC balanceCCPURCInputNumber of credit card purchasesSDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | MTGBAL  | Input      | MTG balance                                  |
| CCPURC  SDB  Input  Indicator for safety deposit box  INCOME  HMOWN  Input  Indicator for home ownership  LORES  Input  Length of residence in years   | CC      | Input      | Indicator for credit card                    |
| SDBInputIndicator for safety deposit boxINCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | CCBAL   | Input      | CC balance                                   |
| INCOMEInputIncomeHMOWNInputIndicator for home ownershipLORESInputLength of residence in years  | CCPURC  | Input      | Number of credit card purchases              |
| HMOWNInputIndicator for home ownershipLORESInputLength of residence in years   | SDB     | Input      | Indicator for safety deposit box             |
| LORES Input Length of residence in years   | INCOME  | Input      | Income                                       |
| ·  | HMOWN   | Input      | Indicator for home ownership                 |
| HMVAL Input Value of home  | LORES   | Input      | Length of residence in years                 |
|  | HMVAL   | Input      | Value of home                                |

|         | 1      |   |
|---------|--------|---|
| AGE     | Input  | Age   |
| CRSCORE | Input  | Credit score                                |
| MOVED   | Input  | Recent address change                       |
| INAREA  | Input  | Indicator for local address                 |
| INS     | Target | Indicator for purchase of insurance product |
| BRANCH  | Input  | Branch of bank                              |
| RES     | Input  | Area classification                         |
|         |        |   |