### Modelo BB:

```
INAD_TOT =
163438.9384 * DATA-remapped +
     0.0641 * Lag_INAD_TOT-1 +
    -0.0266 * Lag_INAD_TOT-3 +
    -0.0012 * Lag ATIV TOT-1 +
     0.0027 * Lag ATIV TOT-4 +
     0.0037 * Lag_CC_CLASS-4 +
    -0.002 * Lag_CAPT-2 +
     0.0024 * Lag CAPT-3 +
     0.0035 * Lag CAPT-4 +
    -0.0115 * Lag PATR_LIQ-1 +
    -0.0072 * Lag PATR LIQ-2 +
    -0.0167 * Lag PATR LIQ-3 +
    -0.0142 * Lag PATR LIQ-4 +
    -0.0357 * Lag_OPER_CRE_PROV-2 +
     0.001 * Lag PASS TOT-3 +
     0.0027 * Lag_PASS_TOT-4 +
    -0.0702 * Lag_DESP_PESS-1 +
     0.0307 * Lag DESP PESS-2 +
    -0.0282 * Lag_DESP_PESS-4 +
    -0.0679 * Lag_DESP_ADM-1 +
    -0.1321 * Lag_DESP_TRIB-1 +
    -0.2393 * Lag_DESP_TRIB-3 +
    -0.1469 * Lag_DESP_TRIB-4 +
    -0.0024 * Lag_TOT_CAR_PF-1 +
    -0.0025 * Lag TOT CAR PF-4 +
     0.0018 * Lag TOT CAR PJ-4 +
    -0.0028 * Lag_TOT_GER-3 +
     0.003 * Lag_TOT_GER-4 +
    -0.0051 * Lag RISCO AA-1 +
     0.0046 * Lag RISCO A-2 +
    -0.0046 * Lag_RISCO_A-3 +
     0.0063 * Lag RISCO_A-4 +
    -0.0144 * Lag RISCO B-3 +
     0.0133 * Lag RISCO C-1 +
     0.0093 * Lag_RISCO_C-3 +
    -0.0179 * Lag RISCO D-1 +
     0.1165 * Lag_RISCO_D-3 +
     0.0439 * Lag_RISCO_E-1 +
     0.0285 * Lag RISCO E-2 +
     0.0938 * Lag_RISCO_E-3 +
     0.0393 * Lag_RISCO_F-1 +
    -0.0445 * Lag_RISCO_F-2 +
     0.3818 * Lag RISCO F-4 +
     0.0797 * Lag RISCO G-1 +
     0.0582 * Lag_RISCO_G-2 +
    -0.0589 * Lag_RISCO_G-3 +
     0.0848 * Lag RISCO G-4 +
    -0.0764 * Lag_RISCO_H-1 +
     0.1175 * Lag_RISCO_H-2 +
    -0.0533 * Lag_RISCO_H-4 +
     0.0054 * Lag TOT EXT-1 +
     0.0077 * Lag TOT_EXT-2 +
    -0.0123 * Lag TOT EXT-3 +
  4010.4718 * DATA-remapped^2 +
   121.8956 * DATA-remapped^3 +
    -0.001 * DATA-remapped*Lag INAD TOT-3 +
    -0.0015 * DATA-remapped*Lag INAD TOT-4 +
    -0.0001 * DATA-remapped*Lag_PATR_LIQ-1 +
    -0.0001 * DATA-remapped*Lag_PATR_LIQ-2 +
    -0.0001 * DATA-remapped*Lag PATR LIQ-3 +
    -0.0002 * DATA-remapped*Lag_PATR_LIQ-4 +
     0.0004 * DATA-remapped*Lag_OPER_CRE_PROV-4 +
```

```
0.0015 * DATA-remapped*Lag DESP PESS-3 +
    -0.0014 * DATA-remapped*Lag DESP PESS-4 +
    -0.0016 * DATA-remapped*Lag DESP ADM-2 +
     0.0014 * DATA-remapped*Lag DESP ADM-3 +
     0.0049 * DATA-remapped*Lag DESP TRIB-1 +
    -0.0053 * DATA-remapped*Lag_DESP_TRIB-4 +
    -0.0001 * DATA-remapped*Lag TOT CAR PJ-4 +
    -0.0001 * DATA-remapped*Lag_RISCO_AA-1 +
    -0.0001 * DATA-remapped*Lag_RISCO_AA-4 +
    -0.0002 * DATA-remapped*Lag_RISCO_A-1 +
     0.0002 * DATA-remapped*Lag RISCO A-2 +
    -0.0004 * DATA-remapped*Lag RISCO A-3 +
     0.0004 * DATA-remapped*Lag_RISCO_A-4 +
    -0.0001 * DATA-remapped*Lag RISCO B-3 +
    -0.0001 * DATA-remapped*Lag_RISCO_B-4 +
     0.0002 * DATA-remapped*Lag_RISCO_C-1 +
    -0.0002 * DATA-remapped*Lag RISCO C-4 +
    -0.0012 * DATA-remapped*Lag RISCO D-1 +
    -0.0009 * DATA-remapped*Lag_RISCO_D-2 +
     0.0023 * DATA-remapped*Lag_RISCO_D-3 +
     0.0011 * DATA-remapped*Lag RISCO E-1 +
    -0.0011 * DATA-remapped*Lag RISCO E-4 +
    -0.004 * DATA-remapped*Lag RISCO G-3 +
    -0.0006 * DATA-remapped*Lag RISCO H-1 +
    -0.0011 * DATA-remapped*Lag RISCO H-4 +
    -0.0013 * DATA-remapped*Lag TOT EXT-3 +
    -0.001 * DATA-remapped*Lag_TOT_EXT-4 +
-2692566.4343
```

#### **Modelo BNDES:**

INAD TOT =

```
44911.5611 * DATA-remapped +
  -0.0719 * Lag INAD_TOT-1 +
  -0.053 * Lag INAD TOT-2 +
  -0.1019 * Lag INAD TOT-3 +
   0.0008 * Lag ATIV TOT-3 +
   0.002 * Lag_ATIV_TOT-4 +
   0.0013 * Lag CC CLASS-2 +
   0.0012 * Lag_CC_CLASS-4 +
   0.0006 * Lag CAPT-4 +
   -0.0023 * Lag PATR LIQ-2 +
   0.0088 * Lag_OPER_CRE_PROV-2 +
   0.0008 * Lag_PASS_TOT-3 +
   0.002 * Lag_PASS_TOT-4 +
   -0.2192 * Lag DESP PESS-1 +
  -0.277 * Lag DESP TRIB-2 +
  -0.6374 * Lag DESP TRIB-4 +
 137.7199 * Lag TOT CAR PF-1 +
-211.8367 * Lag TOT CAR PF-2 +
 126.9095 * Lag_TOT_CAR_PF-3 +
   0.0013 * Lag_TOT_CAR_PJ-2 +
   0.0012 * Lag TOT CAR PJ-4 +
   0.0013 * Lag_TOT_GER-2 +
   0.0012 * Lag_TOT_GER-4 +
   0.0025 * Lag RISCO AA-1 +
   0.0033 * Lag RISCO AA-2 +
   -0.0016 * Lag_RISCO_AA-3 +
   -0.0039 * Lag_RISCO_A-1 +
   0.0039 * Lag RISCO A-3 +
   -0.0021 * Lag RISCO A-4 +
   0.0034 * Lag_RISCO_B-1 +
   0.0015 * Lag RISCO B-2 +
   -0.0018 * Lag_RISCO_B-3 +
   0.0038 * Lag_RISCO_B-4 +
```

```
-0.0067 * Lag RISCO C-1 +
    -0.0191 * Lag RISCO D-4 +
    -0.0108 * Lag_RISCO_E-2 +
     -0.0671 * Lag RISCO F-1 +
     0.1069 * Lag_RISCO_F-2 +
     0.0852 * Lag_RISCO_F-4 +
     -0.0506 * Lag RISCO G-2 +
     0.069 * Lag_RISCO_G-3 +
    -0.0112 * Lag_RISCO_H-2 +
    -0.0105 * Lag_RISCO_H-3 +
   1128.9096 * DATA-remapped^2 +
     35.6158 * DATA-remapped^3 +
    -0.0051 * DATA-remapped*Lag_INAD_TOT-2 +
    -0.0001 * DATA-remapped*Lag PATR LIQ-2 +
     0.0004 * DATA-remapped*Lag_OPER_CRE_PROV-2 +
    -0.0384 * DATA-remapped*Lag_DESP_TRIB-3 +
    -0.0339 * DATA-remapped*Lag_DESP_TRIB-4 +
      4.6783 * DATA-remapped*Lag TOT CAR PF-1 +
   -12.5207 * DATA-remapped*Lag_TOT_CAR_PF-2 +
     8.1972 * DATA-remapped*Lag_TOT_CAR_PF-3 +
     0.0009 * DATA-remapped*Lag RISCO AA-1 +
    -0.0004 * DATA-remapped*Lag RISCO AA-2 +
     0.0006 * DATA-remapped*Lag RISCO AA-3 +
    -0.0001 * DATA-remapped*Lag_RISCO_A-1 +
     -0.0001 * DATA-remapped*Lag RISCO A-2
     0.0003 * DATA-remapped*Lag RISCO A-3
     -0.0001 * DATA-remapped*Lag_RISCO_A-4
     0.0001 * DATA-remapped*Lag RISCO B-1 +
     0.0001 * DATA-remapped*Lag RISCO B-4 +
    -0.0002 * DATA-remapped*Lag_RISCO_C-1 +
    -0.0002 * DATA-remapped*Lag_RISCO_C-2 +
     0.0002 * DATA-remapped*Lag RISCO C-3 +
     -0.0006 * DATA-remapped*Lag RISCO E-2 +
     0.008 * DATA-remapped*Lag_RISCO_F-2 +
      0.0064 * DATA-remapped*Lag RISCO F-4 +
     0.0034 * DATA-remapped*Lag_RISCO_G-1 +
     -0.0004 * DATA-remapped*Lag_RISCO_H-1 +
     -0.0005 * DATA-remapped*Lag RISCO H-2 +
     -0.0004 * DATA-remapped*Lag RISCO H-3 +
-9229562.9573
```

# **Modelo Bradesco:**

```
INAD TOT =
138329.2846 * DATA-remapped +
     0.1695 * Lag INAD TOT-1 +
     0.0686 * Lag_INAD_TOT-2 +
    -0.0518 * Lag_INAD_TOT-4 +
    -0.0011 * Lag_ATIV_TOT-4 +
    -0.005 * Lag CC CLASS-3 +
    -0.0015 * Lag_CAPT-2 +
    -0.0029 * Lag_CAPT-3 +
    -0.0025 * Lag CAPT-4 +
    -0.0011 * Lag PASS TOT-4 +
    -0.175 * Lag_DESP_TRIB-3 +
    -0.2091 * Lag DESP TRIB-4 +
    -0.007 * Lag TOT CAR PJ-2 +
     0.0164 * Lag_TOT_CAR_PJ-4 +
    -0.0035 * Lag_TOT_GER-2 +
     0.0053 * Lag TOT GER-4 +
    -0.0033 * Lag_RISCO_AA-4 +
    -0.0169 * Lag_RISCO_A-2 +
    -0.0199 * Lag RISCO A-3 +
     0.0087 * Lag_RISCO_B-4 +
    -0.0316 * Lag_RISCO_C-1 +
```

```
0.0291 * Lag RISCO C-3 +
     0.0232 * Lag RISCO C-4 +
     0.0953 * Lag_RISCO_D-1 +
    0.0643 * Lag_RISCO_D-2 + -0.108 * Lag_RISCO_D-4 +
     0.2028 * Lag_RISCO_E-1 +
     -0.102 * Lag RISCO E-3 +
     0.1361 * Lag_RISCO_F-3 +
     -0.1313 * Lag_RISCO_F-4 +
     0.1915 * Lag_RISCO_G-1 +
     0.0445 * Lag RISCO H-1 +
     -0.0353 * Lag_RISCO_H-3 +
    -0.0387 * Lag_RISCO_H-4 +
    -0.0139 * Lag TOT EXT-1 +
    -0.0133 * Lag_TOT_EXT-2 +
     0.0254 * Lag_TOT_EXT-4 +
  3396.6178 * DATA-remapped^2 +
   105.1974 * DATA-remapped^3 +
     -0.0001 * DATA-remapped*Lag PATR LIQ-1 +
     0.0023 * DATA-remapped*Lag_DESP_PESS-4 +
     0.0023 * DATA-remapped*Lag DESP ADM-2 +
     0.0018 * DATA-remapped*Lag DESP ADM-4 +
    -0.0001 * DATA-remapped*Lag TOT CAR PJ-1 +
    -0.0001 * DATA-remapped*Lag_RISCO_A-1 +
     0.0014 * DATA-remapped*Lag RISCO B-4
     -0.0005 * DATA-remapped*Lag RISCO C-1 +
    -0.0027 * DATA-remapped*Lag_RISCO_D-4 +
    -0.0043 * DATA-remapped*Lag RISCO F-1 +
    -0.0011 * DATA-remapped*Lag RISCO H-3 +
     -0.0008 * DATA-remapped*Lag_RISCO_H-4 +
     -0.0002 * DATA-remapped*Lag_TOT_EXT-1 +
      0.0003 * DATA-remapped*Lag TOT EXT-4 +
16531492.7021
```

## **Modelo CEF:**

```
INAD TOT =
 59576.3553 * DATA-remapped +
     0.0677 * Lag INAD TOT-1 +
     0.035 * Lag_INAD_TOT-2 +
     0.0432 * Lag_INAD_TOT-3 +
    -0.0004 * Lag ATIV TOT-1 +
     0.001 * Lag_ATIV_TOT-2 +
    -0.0004 * Lag_ATIV_TOT-3 +
    -0.0007 * Lag_ATIV_TOT-4 +
    -0.0016 * Lag_CC_CLASS-2 +
    -0.0008 * Lag_CC_CLASS-3 +
     0.0005 * Lag_CAPT-1 +
     0.0031 * Lag CAPT-2 +
    -0.0008 * Lag CAPT-3 +
    -0.0013 * Lag_CAPT-4 +
    -0.0029 * Lag_PATR_LIQ-1 +
     0.007 * Lag_PATR_LIQ-4 +
    -0.0451 * Lag OPER CRE PROV-1 +
     0.0309 * Lag OPER CRE_PROV-2 +
     0.0261 * Lag OPER CRE PROV-4 +
    -0.0004 * Lag_PASS_TOT-1 +
     0.001 * Lag PASS TOT-2 +
    -0.0004 * Lag_PASS_TOT-3 +
    -0.0007 * Lag PASS TOT-4 +
     0.0301 * Lag DESP PESS-1 +
     0.0285 * Lag_DESP_PESS-3 +
    -0.0359 * Lag DESP ADM-2 +
     0.0277 * Lag_DESP_ADM-3 +
     0.1173 * Lag_DESP_TRIB-1 +
```

```
-0.132 * Lag DESP TRIB-2 +
  0.0599 * Lag_DESP_TRIB-3 +
  0.1343 * Lag_DESP_TRIB-4 +
  -0.0008 * Lag_TOT_CAR_PF-1 +
  -0.0012 * Lag_TOT_CAR_PF-2 +
  -0.0006 * Lag_TOT_CAR_PF-3 +
   0.0041 * Lag TOT CAR PJ-1 +
   0.003 * Lag_TOT_CAR_PJ-2 +
   0.0012 * Lag_TOT_CAR_PJ-3 +
  -0.0017 * Lag_TOT_CAR_PJ-4 +
  -0.0006 * Lag_TOT_GER-2 +
  -0.0037 * Lag RISCO AA-1 +
  -0.0034 * Lag_RISCO_AA-4 +
  0.0014 * Lag_RISCO_A-1 +
   0.0029 * Lag_RISCO_A-4 +
  0.0164 * Lag_RISCO_B-1 +
  0.0022 * Lag_RISCO_B-2 +
  -0.0032 * Lag RISCO B-3 +
  0.0033 * Lag RISCO B-4 +
  0.0116 * Lag RISCO_C-1 +
  -0.014 * Lag_RISCO_C-2 +
  -0.0113 * Lag_RISCO_C-3 +
   0.054 * Lag RISCO C-4 +
   0.0271 * Lag_RISCO_D-1 +
   0.0655 * Lag_RISCO D-3 +
  0.0156 * Lag_RISCO_D-4 +
  -0.2113 * Lag_RISCO_E-1 +
  0.0245 * Lag RISCO E-3 +
   0.0345 * Lag RISCO E-4 +
   0.0408 * Lag_RISCO_F-1 +
  0.0258 * Lag_RISCO_F-2 +
  -0.0292 * Lag RISCO F-3 +
   0.0544 * Lag_RISCO_F-4 +
   0.0547 * Lag_RISCO_G-1 +
   0.331 * Lag_RISCO_G-2 +
  0.493 * Lag_RISCO_G-3 +
  -0.2513 * Lag_RISCO_G-4 +
  0.1151 * Lag_RISCO_H-1 +
  -0.1329 * Lag RISCO H-2 +
  -0.0113 * Lag RISCO H-3 +
 -0.2357 * Lag_RISCO_H-4 +
1489.1967 * DATA-remapped^2 +
  48.4826 * DATA-remapped^3 +
  0.0007 * DATA-remapped*Lag_INAD_TOT-1 +
 -0.0008 * DATA-remapped*Lag_INAD_TOT-2 +
  -0.0005 * DATA-remapped*Lag INAD TOT-3 +
 -0.0013 * DATA-remapped*Lag_INAD_TOT-4 +
 -0.0001 * DATA-remapped*Lag_PATR_LIQ-1 +
  -0.0001 * DATA-remapped*Lag PATR LIQ-3 +
   0.0004 * DATA-remapped*Lag OPER CRE PROV-2 +
   0.0003 * DATA-remapped*Lag_OPER_CRE_PROV-3 +
   0.0003 * DATA-remapped*Lag_OPER_CRE_PROV-4 +
   0.0018 * DATA-remapped*Lag DESP PESS-2 +
   0.0017 * DATA-remapped*Lag_DESP_PESS-4 +
  -0.0012 * DATA-remapped*Lag_DESP_ADM-1 +
  0.003 * DATA-remapped*Lag_DESP_ADM-2 +
   0.0036 * DATA-remapped*Lag_DESP_ADM-4 +
  0.006 * DATA-remapped*Lag_DESP_TRIB-2 +
  -0.0016 * DATA-remapped*Lag_DESP_TRIB-3 +
  0.0123 * DATA-remapped*Lag DESP TRIB-4 +
  -0.0001 * DATA-remapped*Lag_TOT_CAR_PJ-2 +
 -0.0001 * DATA-remapped*Lag_TOT_CAR_PJ-3 +
 -0.0001 * DATA-remapped*Lag_TOT_CAR_PJ-4 +
  0.0001 * DATA-remapped*Lag RISCO A-1 +
  -0.0001 * DATA-remapped*Lag RISCO A-2 +
  -0.0002 * DATA-remapped*Lag_RISCO_A-3 +
   0.0007 * DATA-remapped*Lag RISCO A-4 +
```

```
-0.0001 * DATA-remapped*Lag RISCO B-2 +
    -0.0001 * DATA-remapped*Lag RISCO B-3 +
    -0.0001 * DATA-remapped*Lag RISCO B-4 +
    -0.0001 * DATA-remapped*Lag RISCO C-1 +
    -0.0001 * DATA-remapped*Lag RISCO C-2 +
    -0.0002 * DATA-remapped*Lag_RISCO_C-3 +
    -0.0002 * DATA-remapped*Lag RISCO D-1 +
    -0.0005 * DATA-remapped*Lag_RISCO_D-2 +
     0.0001 * DATA-remapped*Lag_RISCO_D-3 +
    -0.0001 * DATA-remapped*Lag_RISCO_D-4
    -0.0024 * DATA-remapped*Lag RISCO E-1 +
    -0.0009 * DATA-remapped*Lag RISCO E-2 +
    -0.0017 * DATA-remapped*Lag_RISCO_E-4 +
     0.0005 * DATA-remapped*Lag RISCO F-1 +
     0.0002 * DATA-remapped*Lag_RISCO_F-2 +
    -0.001 * DATA-remapped*Lag_RISCO_F-3 +
     0.001 * DATA-remapped*Lag RISCO F-4 +
     0.0028 * DATA-remapped*Lag RISCO G-1 +
     0.0017 * DATA-remapped*Lag_RISCO_G-2 +
     0.003 * DATA-remapped*Lag_RISCO_G-3 +
    -0.0075 * DATA-remapped*Lag RISCO G-4 +
    -0.0002 * DATA-remapped*Lag RISCO H-1 +
    -0.0014 * DATA-remapped*Lag_RISCO_H-2 +
    -0.0008 * DATA-remapped*Lag RISCO H-3 +
    -0.0012 * DATA-remapped*Lag RISCO H-4 +
20635511.2127
```

### **Modelo Banco CSF:**

```
INAD TOT =
 16178.6308 * DATA-remapped +
     0.1145 * Lag INAD TOT-1 +
     0.0644 * Lag INAD TOT-2 +
     0.0506 * Lag_INAD_TOT-3 +
     0.0529 * Lag_INAD_TOT-4 +
    -0.0033 * Lag ATIV TOT-1 +
    -0.0048 * Lag_ATIV_TOT-3 +
     0.0043 * Lag_CC_CLASS-1 +
     0.0053 * Lag CC CLASS-2 +
    -0.0214 * Lag_CAPT-1 +
    -0.0461 * Lag_CAPT-2 +
    -0.0601 * Lag CAPT-3 +
    -0.0591 * Lag_PATR_LIQ-1 +
    -0.0405 * Lag_PATR_LIQ-2 +
    -0.0279 * Lag_PATR_LIQ-3 +
    -0.0334 * Lag PATR LIQ-4 +
    -0.094 * Lag_OPER_CRE_PROV-1 +
     0.1804 * Lag_OPER_CRE_PROV-3 +
     0.105 * Lag OPER CRE PROV-4 +
    -0.0033 * Lag PASS TOT-1 +
    -0.0048 * Lag_PASS_TOT-3 +
     0.6898 * Lag_DESP_PESS-1 +
     0.498 * Lag DESP PESS-2 +
     0.3945 * Lag DESP PESS-3 +
     0.8204 * Lag_DESP_PESS-4 +
     0.1462 * Lag DESP ADM-1 +
     0.0739 * Lag_DESP_ADM-2 +
    -0.1894 * Lag_DESP_TRIB-1 +
    -0.2069 * Lag_DESP_TRIB-3 +
     0.0043 * Lag TOT CAR PF-1 +
     0.0053 * Lag_TOT_CAR_PF-2 +
     0.0043 * Lag TOT GER-1 +
     0.0053 * Lag TOT GER-2 +
     0.0048 * Lag_RISCO_A-1 +
     0.0068 * Lag_RISCO_A-2 +
```

```
0.1669 * Lag RISCO B-1 +
     0.4068 * Lag RISCO B-2 +
    1.0491 * Lag_RISCO_B-3 +
     0.8945 * Lag RISCO C-1 +
     0.6773 * Lag RISCO C-2 +
     0.4304 * Lag RISCO_C-3 +
     0.4195 * Lag RISCO C-4 +
     0.2815 * Lag_RISCO_D-1 +
    0.3453 * Lag_RISCO_D-4 +
    -0.2367 * Lag_RISCO_E-1 +
    -0.1819 * Lag RISCO E-2 +
    -0.3203 * Lag RISCO E-3 +
   -0.3517 * Lag_RISCO_E-4 +
   -0.2899 * Lag_RISCO_F-2 +
   -0.3142 * Lag_RISCO_F-3 +
    0.7617 * Lag_RISCO_G-3 +
    0.0831 * Lag_RISCO_H-1 +
   441.4021 * DATA-remapped^2 +
   16.0509 * DATA-remapped^3 +
    0.0001 * DATA-remapped*Lag_CC_CLASS-4 +
   -0.0005 * DATA-remapped*Lag CAPT-2 +
   -0.001 * DATA-remapped*Lag CAPT-3 +
    0.0014 * DATA-remapped*Lag_CAPT-4 +
    -0.0007 * DATA-remapped*Lag_PATR_LIQ-1 +
    -0.0005 * DATA-remapped*Lag PATR LIQ-2 +
    0.0018 * DATA-remapped*Lag OPER CRE PROV-3 +
    0.0209 * DATA-remapped*Lag_DESP_PESS-1 +
     0.0235 * DATA-remapped*Lag DESP PESS-2 +
     0.019 * DATA-remapped*Lag DESP PESS-4 +
     0.0035 * DATA-remapped*Lag_DESP_ADM-1 +
     0.0026 * DATA-remapped*Lag_DESP_ADM-2 +
     0.0101 * DATA-remapped*Lag DESP TRIB-2 +
     0.0001 * DATA-remapped*Lag_TOT_CAR_PF-4 +
     0.0001 * DATA-remapped*Lag_TOT_GER-4 +
     0.0002 * DATA-remapped*Lag RISCO A-4 +
    0.0107 * DATA-remapped*Lag_RISCO_B-3 +
    -0.0033 * DATA-remapped*Lag_RISCO_E-1 +
    0.0019 * DATA-remapped*Lag RISCO H-4 +
389671.3628
```

# Modelo Itaú:

```
INAD TOT =
 62788.0702 * DATA-remapped +
    -0.1025 * Lag_INAD_TOT-2 +
     0.1073 * Lag_INAD_TOT-3 +
     0.0568 * Lag_INAD_TOT-4 +
    -0.0022 * Lag_CC_CLASS-1 +
    -0.0099 * Lag PATR LIQ-3 +
    -0.0079 * Lag PATR LIQ-4 +
    -0.0322 * Lag_OPER_CRE_PROV-2 +
     0.0491 * Lag_DESP_PESS-3 +
     0.0417 * Lag DESP_ADM-4 +
    -0.2394 * Lag_DESP_TRIB-1 +
     0.0899 * Lag_DESP_TRIB-2 +
     0.1233 * Lag DESP TRIB-3 +
    -0.0025 * Lag TOT CAR PJ-1 +
     0.0068 * Lag_TOT_CAR_PJ-3 +
    -0.0018 * Lag_TOT_GER-1 +
     0.0133 * Lag_RISCO_AA-2 +
     0.0098 * Lag RISCO AA-3 +
     0.0242 * Lag RISCO A-4 +
     0.0223 * Lag RISCO B-1 +
     0.0394 * Lag_RISCO_B-2 +
     0.039 * Lag_RISCO_B-3 +
```

```
0.0284 * Lag RISCO B-4 +
     0.057 * Lag_RISCO_C-1 +
     0.0615 * Lag_RISCO_C-2 +
     0.0876 * Lag RISCO C-4 +
     0.1127 * Lag_RISCO_D-2 +
     0.2072 * Lag_RISCO_D-4 +
    -0.1461 * Lag RISCO E-2 +
    -0.1645 * Lag_RISCO_E-4 +
     0.2915 * Lag_RISCO_F-2 +
    -0.2449 * Lag_RISCO_F-3 +
    -0.0866 * Lag RISCO F-4 +
    -0.2512 * Lag_RISCO_G-2 +
    -0.2604 * Lag_RISCO_G-3 +
     0.1207 * Lag_RISCO_H-1 +
    -0.005 * Lag_TOT_EXT-1 +
    -0.0089 * Lag_TOT_EXT-4 +
  1629.5985 * DATA-remapped^2 +
    54.2551 * DATA-remapped^3 +
     0.0013 * DATA-remapped*Lag INAD TOT-4 +
     0.0015 * DATA-remapped*Lag_DESP_PESS-3 +
    -0.0056 * DATA-remapped*Lag DESP TRIB-1 +
     0.0059 * DATA-remapped*Lag DESP TRIB-2 +
     0.005 * DATA-remapped*Lag_DESP_TRIB-3 +
     0.0002 * DATA-remapped*Lag_RISCO_AA-4 +
     0.0001 * DATA-remapped*Lag RISCO A-4 +
     0.0015 * DATA-remapped*Lag_RISCO_B-4 +
     0.0019 * DATA-remapped*Lag_RISCO_D-4 +
    -0.0031 * DATA-remapped*Lag RISCO E-4 +
    -0.0045 * DATA-remapped*Lag RISCO F-1 +
    -0.0037 * DATA-remapped*Lag_RISCO_F-3 +
    -0.0016 * DATA-remapped*Lag RISCO H-3 +
2352670.9942
```

### **Modelo Nubank:**

```
INAD TOT =
 38109.1388 * DATA-remapped +
    -0.0678 * Lag INAD TOT-1 +
    -0.0059 * Lag CC CLASS-1 +
    -0.0047 * Lag_CAPT-1 +
    -0.0601 * Lag_PATR_LIQ-1 +
    -0.0348 * Lag PATR LIQ-4 +
    -0.0143 * Lag_RISCO_A-3 +
    -0.4453 * Lag_RISCO_B-2 +
    -1.8502 * Lag_RISCO_E-4 +
   1879.0636 * DATA-remapped^2 +
   115.9801 * DATA-remapped^3 +
    -0.0027 * DATA-remapped*Lag_INAD_TOT-1 +
    -0.0002 * DATA-remapped*Lag_CC_CLASS-1 +
    -0.0002 * DATA-remapped*Lag CAPT-1 +
     -0.0023 * DATA-remapped*Lag_PATR_LIQ-1 +
      0.0664 * DATA-remapped*Lag DESP TRIB-4 +
235897.2825
```

### **Modelo Banco Pan:**

```
INAD_TOT =

19929.5505 * DATA-remapped +
    -0.0712 * Lag_INAD_TOT-1 +
    0.0568 * Lag_INAD_TOT-3 +
    -0.1075 * Lag_INAD_TOT-4 +
    -0.0078 * Lag_ATIV_TOT-2 +
    0.0157 * Lag_ATIV_TOT-4 +
    -0.0149 * Lag_CC_CLASS-3 +
```

```
0.0081 * Lag CAPT-1 +
   -0.0586 * Lag PATR LIQ-2 +
    -0.0592 * Lag_PATR_LIQ-4 +
     0.0988 * Lag OPER CRE PROV-3 +
    0.0072 * Lag_PASS_TOT-3 +
    0.0157 * Lag_PASS_TOT-4 +
    -0.1565 * Lag DESP PESS-2 +
    0.4582 * Lag_DESP_PESS-3 +
   -0.0747 * Lag_DESP_ADM-1 +
   -0.0582 * Lag_DESP_ADM-4 +
    -0.8985 * Lag DESP TRIB-1 +
    -0.0053 * Lag_TOT_CAR_PF-3 +
   -0.0154 * Lag_TOT_GER-3 +
    -0.0074 * Lag_RISCO_A-3 +
    0.0447 * Lag_RISCO_C-2 +
    0.0417 * Lag_RISCO_C-3 +
    0.1642 * Lag_RISCO_D-3 +
     0.0847 * Lag RISCO D-4 +
    0.1692 * Lag RISCO E-1 +
    0.3058 * Lag RISCO_E-2 +
    0.2852 * Lag_RISCO_F-1 +
    0.1926 * Lag RISCO F-2 +
   -0.7034 * Lag RISCO G-1 +
    1.4687 * Lag_RISCO_G-2 +
   -0.8161 * Lag RISCO G-4 +
   -0.1633 * Lag_RISCO_H-3 +
   499.0451 * DATA-remapped^2 +
   15.5999 * DATA-remapped^3 +
   -0.0018 * DATA-remapped*Lag INAD TOT-1 +
   -0.002 * DATA-remapped*Lag_INAD_TOT-4 +
   -0.0003 * DATA-remapped*Lag_PATR_LIQ-2 +
    0.0141 * DATA-remapped*Lag DESP PESS-3 +
   -0.0015 * DATA-remapped*Lag DESP ADM-1 +
   -0.0026 * DATA-remapped*Lag_DESP_ADM-4 +
    -0.0179 * DATA-remapped*Lag DESP TRIB-1 +
    0.0211 * DATA-remapped*Lag_DESP_TRIB-2 +
    0.0313 * DATA-remapped*Lag_DESP_TRIB-3 +
    -0.0171 * DATA-remapped*Lag_DESP_TRIB-4 +
     0.0016 * DATA-remapped*Lag TOT CAR PJ-1 +
    0.0047 * DATA-remapped*Lag_RISCO_B-4 +
    0.0075 * DATA-remapped*Lag_RISCO_C-3 +
    0.0064 * DATA-remapped*Lag_RISCO_C-4 +
   -0.0053 * DATA-remapped*Lag RISCO D-1 +
    0.0054 * DATA-remapped*Lag RISCO D-3 +
    -0.0093 * DATA-remapped*Lag_RISCO_G-1 +
    0.0065 * DATA-remapped*Lag RISCO G-2 +
    -0.009 * DATA-remapped*Lag_RISCO_G-4 +
216372.7035
```

# **Modelo Santander:**

```
INAD_TOT =

23677.3395 * DATA-remapped +
-0.0365 * Lag_INAD_TOT-2 +
-0.1057 * Lag_INAD_TOT-4 +
0.0005 * Lag_ATIV_TOT-1 +
0.0003 * Lag_ATIV_TOT-2 +
0.0007 * Lag_CC_CLASS-1 +
0.0009 * Lag_CAPT-1 +
0.0009 * Lag_CAPT-2 +
0.0005 * Lag_CAPT-4 +
0.0048 * Lag_PATR_LIQ-2 +
-0.0098 * Lag_PATR_LIQ-4 +
-0.0309 * Lag_OPER_CRE_PROV-1 +
-0.0293 * Lag_OPER_CRE_PROV-2 +
```

```
0.0538 * Lag OPER CRE PROV-3 +
     -0.0261 * Lag OPER CRE PROV-4 +
     0.0005 * Lag_PASS_TOT-1 +
      0.0003 * Lag PASS TOT-2 +
     0.0806 * Lag DESP TRIB-1 +
     0.1957 * Lag DESP TRIB-2 +
     -0.0916 * Lag DESP TRIB-3 +
     0.0025 * Lag_TOT_CAR_PJ-1 +
     0.0063 * Lag_TOT_CAR_PJ-2 +
     -0.0072 * Lag_TOT_CAR_PJ-4 +
      0.0007 * Lag_TOT_GER-1 +
     0.0037 * Lag_RISCO_AA-1 +
     -0.0049 * Lag_RISCO_A-1 +
     0.0053 * Lag_RISCO_A-2 +
     0.0044 * Lag_RISCO_A-4 +
     0.0078 * Lag_RISCO_C-1 +
     -0.009 * Lag_RISCO_C-4 +
     0.0309 * Lag RISCO D-1 +
     0.0527 * Lag RISCO D-3 +
     -0.0249 * Lag RISCO_D-4 +
     0.0566 * Lag RISCO E-1 +
     0.0754 * Lag RISCO E-2 +
    -0.1798 * Lag RISCO E-3 +
     0.0681 * Lag_RISCO_E-4 +
     -0.0974 * Lag RISCO F-1 +
     -0.0509 * Lag_RISCO_F-2 +
    -0.2112 * Lag_RISCO_F-4 +
     -0.3767 * Lag RISCO G-2 +
     0.3063 * Lag RISCO G-3 +
     0.6254 * Lag_RISCO_G-4 +
     0.0576 * Lag_RISCO_H-3 +
      0.01 * Lag TOT EXT-1 +
     0.0054 * Lag_TOT_EXT-2 +
   607.5076 * DATA-remapped^2 +
    18.8 * DATA-remapped^3 +
     -0.0018 * DATA-remapped*Lag_DESP_PESS-2 +
    -0.0021 * DATA-remapped*Lag_DESP_PESS-4 +
    -0.0011 * DATA-remapped*Lag_DESP_ADM-2 +
     0.0011 * DATA-remapped*Lag DESP ADM-3 +
     -0.0011 * DATA-remapped*Lag_DESP_ADM-4 +
     0.0019 * DATA-remapped*Lag_DESP_TRIB-1 +
     0.002 * DATA-remapped*Lag DESP TRIB-2 +
     0.0001 * DATA-remapped*Lag RISCO C-1 +
    -0.0002 * DATA-remapped*Lag_RISCO_C-4 +
     0.0004 * DATA-remapped*Lag_RISCO_D-1 +
      0.0004 * DATA-remapped*Lag RISCO D-3 +
     0.0009 * DATA-remapped*Lag_RISCO_E-2 +
     -0.0007 * DATA-remapped*Lag_RISCO_E-3 +
      0.0004 * DATA-remapped*Lag RISCO H-2 +
      0.0002 * DATA-remapped*Lag TOT EXT-1 +
2509920.3427
```

## **Modelo Banco Votorantim:**

```
0.0046 * Lag CAPT-3 +
   0.0102 * Lag PATR LIQ-1 +
  0.0143 * Lag_PATR_LIQ-3 +
  -0.0765 * Lag_OPER_CRE_PROV-2 +
   0.0819 * Lag_OPER_CRE_PROV-4 +
   0.0028 * Lag_PASS_TOT-2 +
  0.0024 * Lag PASS TOT-3 +
  -0.1284 * Lag_DESP_PESS-2 +
  -0.0749 * Lag_DESP_ADM-4 +
   0.0064 * Lag_TOT_CAR_PF-1 +
   0.0062 * Lag_TOT_CAR_PF-2 +
   0.0069 * Lag_TOT_CAR_PF-3 +
   0.0108 * Lag_TOT_CAR_PF-4 +
   0.0035 * Lag_TOT_GER-1 +
   0.0067 * Lag_TOT_GER-2 +
  0.0033 * Lag_TOT_GER-3 +
  -0.0283 * Lag_RISCO_AA-1 +
  0.0292 * Lag RISCO AA-3 +
  -0.0356 * Lag RISCO AA-4 +
   0.012 * Lag RISCO_A-1 +
   0.0126 * Lag RISCO A-2 +
   0.0054 * Lag RISCO A-4 +
  0.0148 * Lag_RISCO_B-1 +
  -0.0211 * Lag_RISCO_C-1 +
  -0.0358 * Lag_RISCO_C-2 +
  0.0149 * Lag RISCO C-3 +
  0.0278 * Lag_RISCO_C-4 +
  -0.0474 * Lag RISCO D-1 +
 -0.0703 * Lag RISCO D-4 +
 -0.1521 * Lag_RISCO_E-1 +
  0.1948 * Lag_RISCO_E-2 +
  -0.3086 * Lag RISCO E-3 +
  -0.1559 * Lag RISCO E-4 +
  0.4066 * Lag_RISCO_F-2 +
  0.1723 * Lag_RISCO_F-3 +
 -0.1749 * Lag_RISCO_F-4 +
  0.0499 * Lag_RISCO_G-2 +
  -0.1074 * Lag_RISCO_H-1 +
  -0.0834 * Lag RISCO H-2 +
  0.1189 * Lag RISCO H-4 +
  0.0133 * Lag_TOT_EXT-3 +
 -0.0243 * Lag TOT EXT-4 +
-769.5589 * DATA-remapped^2 +
-23.5338 * DATA-remapped^3 +
  0.0025 * DATA-remapped*Lag INAD TOT-2 +
  0.0029 * DATA-remapped*Lag_INAD_TOT-3 +
  -0.007 * DATA-remapped*Lag_INAD_TOT-4 +
  0.0001 * DATA-remapped*Lag_CC_CLASS-3 +
  0.0002 * DATA-remapped*Lag PATR LIQ-3 +
  -0.001 * DATA-remapped*Lag OPER CRE PROV-3 +
  -0.0033 * DATA-remapped*Lag_DESP_PESS-2 +
  -0.003 * DATA-remapped*Lag_DESP_PESS-3 +
  -0.0027 * DATA-remapped*Lag DESP ADM-3 +
  -0.0123 * DATA-remapped*Lag_DESP_TRIB-3 +
  0.0001 * DATA-remapped*Lag_TOT_CAR_PF-3 +
   0.0003 * DATA-remapped*Lag_TOT_CAR_PJ-3 +
  0.0001 * DATA-remapped*Lag_TOT_GER-3 +
  -0.0005 * DATA-remapped*Lag_RISCO_AA-1 +
   0.0004 * DATA-remapped*Lag_RISCO_AA-3 +
   0.0001 * DATA-remapped*Lag RISCO A-3 +
   0.0003 * DATA-remapped*Lag_RISCO_B-3 +
   0.0003 * DATA-remapped*Lag_RISCO_C-3 +
   0.0015 * DATA-remapped*Lag RISCO D-3 +
   0.0048 * DATA-remapped*Lag RISCO F-3 +
   0.0009 * DATA-remapped*Lag RISCO G-2 +
   0.002 * DATA-remapped*Lag_RISCO_G-3 +
   0.0013 * DATA-remapped*Lag RISCO G-4 +
```

```
0.002 * DATA-remapped*Lag_RISCO_H-3 +
-0.0041 * DATA-remapped*Lag_TOT_EXT-1 +
0.0072 * DATA-remapped*Lag_TOT_EXT-3 +
-0.0039 * DATA-remapped*Lag_TOT_EXT-4 +
-3068035.5008
```