Estimação VAR

date	spread	selic	pib_mensal	inad	igp	ihh
2011-03-01	3.266523	2.452728	12.76020	1.483875	7.5721057	1357
2011-04-01	3.296207	2.463002	12.76356	1.515127	6.1119791	1357
2011-05-01	3.289893	2.478218	12.81151	1.551809	0.0814203	1357
2011-06-01	3.285412	2.493206	12.82408	1.549688	-1.5638596	1361
2011-07-01	3.292498	2.505526	12.83023	1.587192	-0.6081691	1361
2011-08-01	3.276390	2.519308	12.84002	1.601406	7.6095352	1361

```
##
## VAR Estimation Results:
## =========================
## Endogenous variables: spread, selic, inad, ihh
## Deterministic variables: trend
## Sample size: 81
## Log Likelihood: 256.096
## Roots of the characteristic polynomial:
## 1.018 1.018 0.8184 0.8184
## Call:
## VAR(y = series %>% dplyr::select(spread, selic, inad, ihh), type = "trend",
##     exogen = series %>% dplyr::select(igp, pib_mensal), lag.max = 5,
##     ic = "SC")
##
##
## Estimation results for equation spread:
## =======================================
## spread = spread.l1 + selic.l1 + inad.l1 + ihh.l1 + trend + igp + pib_mensal
##
##              Estimate Std. Error t value Pr(>|t|)
## spread.l1   0.8149995  0.0549644  14.828  < 2e-16 ***
## selic.l1    0.1363603  0.0310372   4.393 3.66e-05 ***
## inad.l1     0.1535342  0.0722775   2.124   0.0370 *
## ihh.l1      0.0003362  0.0001564   2.150   0.0348 *
## trend      -0.0010754  0.0008402  -1.280   0.2046
## igp         0.0005151  0.0004981   1.034   0.3044
## pib_mensal -0.0332479  0.0204364  -1.627   0.1080
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Residual standard error: 0.0281 on 74 degrees of freedom
## Multiple R-Squared: 0.9999,  Adjusted R-squared: 0.9999
## F-statistic: 1.658e+05 on 7 and 74 DF,  p-value: < 2.2e-16
##
##
## Estimation results for equation selic:
## ======================================
## selic = spread.l1 + selic.l1 + inad.l1 + ihh.l1 + trend + igp + pib_mensal
##
##              Estimate Std. Error t value Pr(>|t|)
```

```
## spread.l1  -0.2015421  0.0449414  -4.485 2.62e-05 ***
## selic.l1    1.1088853  0.0253775  43.696  < 2e-16 ***
## inad.l1     0.0300951  0.0590974   0.509    0.612
## ihh.l1      0.0002089  0.0001279   1.633    0.107
## trend      -0.0005176  0.0006870  -0.753    0.454
## igp         0.0003281  0.0004072   0.806    0.423
## pib_mensal  0.0042434  0.0167098   0.254    0.800
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Residual standard error: 0.02297 on 74 degrees of freedom
## Multiple R-Squared: 0.9999,  Adjusted R-squared: 0.9999
## F-statistic: 1.242e+05 on 7 and 74 DF,  p-value: < 2.2e-16
##
##
## Estimation results for equation inad:
## =====================================
## inad = spread.l1 + selic.l1 + inad.l1 + ihh.l1 + trend + igp + pib_mensal
##
##              Estimate Std. Error t value Pr(>|t|)
## spread.l1   1.909e-02  3.998e-02   0.477   0.6344
## selic.l1    4.999e-02  2.258e-02   2.214   0.0299 *
## inad.l1     9.484e-01  5.258e-02  18.039   <2e-16 ***
## ihh.l1     -7.675e-05  1.138e-04  -0.675   0.5021
## trend       9.003e-06  6.112e-04   0.015   0.9883
## igp        -3.072e-04  3.623e-04  -0.848   0.3992
## pib_mensal  1.815e-03  1.487e-02   0.122   0.9032
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Residual standard error: 0.02044 on 74 degrees of freedom
## Multiple R-Squared: 0.9999,  Adjusted R-squared: 0.9998
## F-statistic: 7.334e+04 on 7 and 74 DF,  p-value: < 2.2e-16
##
##
## Estimation results for equation ihh:
## ====================================
## ihh = spread.l1 + selic.l1 + inad.l1 + ihh.l1 + trend + igp + pib_mensal
##
##             Estimate Std. Error t value Pr(>|t|)
## spread.l1  -46.80109   31.74645  -1.474   0.1447
## selic.l1    20.12420   17.92655   1.123   0.2652
## inad.l1     29.90258   41.74618   0.716   0.4761
## ihh.l1       0.77602    0.09034   8.590 9.92e-13 ***
## trend        1.26319    0.48526   2.603   0.0112 *
## igp         -0.08723    0.28768  -0.303   0.7626
## pib_mensal  27.82254   11.80372   2.357   0.0211 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Residual standard error: 16.23 on 74 degrees of freedom
```

```
## Multiple R-Squared: 0.9999,  Adjusted R-squared: 0.9999
## F-statistic: 1.089e+05 on 7 and 74 DF,  p-value: < 2.2e-16
##
##
##
## Covariance matrix of residuals:
##            spread     selic       inad       ihh
## spread  7.894e-04 3.484e-06  2.497e-04  -0.11256
## selic   3.484e-06 5.278e-04  6.579e-06   0.08697
## inad    2.497e-04 6.579e-06  4.177e-04  -0.11355
## ihh    -1.126e-01 8.697e-02 -1.135e-01 263.35820
##
## Correlation matrix of residuals:
##           spread    selic     inad     ihh
## spread  1.000000 0.005398  0.43482 -0.2469
## selic   0.005398 1.000000  0.01401  0.2333
## inad    0.434824 0.014011  1.00000 -0.3423
## ihh    -0.246860 0.233276 -0.34233  1.0000
```

```
## [1] 1.018479 1.018479 0.818413 0.818413
```