# **LAMPIRAN-LAMPIRAN**

**Lampiran 1:**

**Data Sekunder**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Nama Perusahaan | Tahun | y | x1 | x2 | x3 | z |
| BMS | 2015 | 0,66667 | 0,00585 | 466,51527 | 1,06890 | 29,34659 |
| BMS | 2016 | 0,76471 | 0,14980 | 70,63401 | 0,61591 | 29,44507 |
| BMS | 2017 | 0,78431 | 0,16021 | 76,94954 | 1,08207 | 29,58182 |
| BMS | 2018 | 0,76471 | 0,08706 | 297,04143 | 0,77870 | 29,62386 |
| BMS | 2019 | 0,82353 | 0,09175 | 144,20943 | 0,77703 | 29,71142 |
| BMI | 2015 | 0,60784 | 0,06943 | 44,21026 | 2,52132 | 31,67710 |
| BMI | 2016 | 0,68627 | 0,04703 | 42,91611 | 2,61880 | 31,65255 |
| BMI | 2017 | 0,82353 | 0,02644 | 42,40014 | 1,80070 | 31,75326 |
| BMI | 2018 | 0,86275 | 0,04897 | 34,07307 | 2,41093 | 31,67805 |
| BMI | 2019 | 0,88235 | 0,01893 | 41,60318 | 2,44411 | 31,55409 |
| BSM | 2015 | 0,82353 | 0,08293 | 9,37525 | 1,76052 | 31,88478 |
| BSM | 2016 | 0,82353 | 0,08881 | 10,79400 | 1,75720 | 31,99834 |
| BSM | 2017 | 0,82353 | 0,08265 | 13,60655 | 1,84663 | 32,10739 |
| BSM | 2018 | 0,84314 | 0,12661 | 58,76149 | 1,80084 | 32,21946 |
| BSM | 2019 | 0,84314 | 0,24889 | 47,79835 | 2,06064 | 32,35212 |
| BVS | 2015 | 0,47059 | -0,78911 | 33,57569 | 0,68372 | 27,95257 |
| BVS | 2016 | 0,47059 | -0,98681 | 43,77350 | 1,19413 | 28,11664 |
| BVS | 2017 | 0,56863 | 0,11176 | 81,78710 | 0,69619 | 28,32572 |
| BVS | 2018 | 0,60784 | 0,09963 | 77,05806 | 0,95125 | 28,38527 |
| BVS | 2019 | 0,62745 | 0,00649 | 104,18072 | 0,62250 | 28,44747 |
| BCAS | 2015 | 0,64706 | 0,18438 | 134,72714 | 0,37397 | 29,10110 |
| BCAS | 2016 | 0,66667 | 0,22256 | 114,28745 | 0,38172 | 29,23958 |
| BCAS | 2017 | 0,68627 | 0,25665 | 26,77889 | 0,65693 | 29,41629 |
| BCAS | 2018 | 0,68627 | 0,30345 | 12,72493 | 0,61331 | 29,58603 |
| BCAS | 2019 | 0,70588 | 0,22944 | 23,60761 | 0,61163 | 29,78677 |
| BJBS | 2015 | 0,54902 | 0,03560 | 43,08771 | 0,50328 | 29,49354 |
| BJBS | 2016 | 0,60784 | -0,33534 | 122,96854 | 1,07354 | 29,63811 |
| BJBS | 2017 | 0,66667 | -0,90585 | 102,84241 | 1,00361 | 29,67400 |
| BJBS | 2018 | 0,76471 | 0,07617 | 90,87778 | 1,19714 | 29,53930 |
| BJBS | 2019 | 0,72549 | 0,09239 | 43,95982 | 1,47603 | 29,67525 |
| BNIS | 2015 | 0,78431 | 0,16898 | 148,89404 | 1,49413 | 30,76728 |
| BNIS | 2016 | 0,76471 | 0,19574 | 104,06621 | 1,88380 | 30,97438 |
| BNIS | 2017 | 0,78431 | 0,18087 | 172,76808 | 1,73706 | 31,18128 |
| BNIS | 2018 | 0,84314 | 0,20883 | 114,90900 | 2,30717 | 31,34578 |
| BNIS | 2019 | 0,84314 | 0,25879 | 57,73846 | 2,76072 | 31,54265 |
| BRIS | 2015 | 0,60784 | 0,10406 | 85,60669 | 2,74447 | 30,81862 |
| BRIS | 2016 | 0,78431 | 0,13855 | 37,22974 | 3,37226 | 30,95199 |
| BRIS | 2017 | 0,78431 | 0,07874 | 50,25180 | 3,49635 | 31,08238 |
| BRIS | 2018 | 0,80392 | 0,07964 | 85,88562 | 2,15830 | 31,26516 |
| BRIS | 2019 | 0,80392 | 0,05137 | 68,01492 | 2,33490 | 31,39509 |
| BTPNS | 2015 | 0,60784 | 0,18941 | 143,00341 | 0,83726 | 29,27895 |
| BTPNS | 2016 | 0,58824 | 0,28584 | 21,64872 | 0,83877 | 29,62209 |
| BTPNS | 2017 | 0,58824 | 0,35386 | 95,27845 | 0,73352 | 29,84549 |
| BTPNS | 2018 | 0,60784 | 0,42116 | 923,19694 | 0,51276 | 30,11920 |
| BTPNS | 2019 | 0,56863 | 0,22376 | 1086,14293 | 4,53130 | 30,36429 |
| BMBS | 2015 | 0,58824 | -2,81634 | 441,80096 | 0,36503 | 28,18688 |
| BMBS | 2016 | 0,58824 | -1,74392 | 607,66543 | 0,54591 | 27,92721 |
| BMBS | 2017 | 0,58824 | 1,07500 | 615,81663 | 0,69441 | 27,87448 |
| BMBS | 2018 | 0,60784 | -1,39173 | 2020,50265 | 0,24827 | 27,21840 |
| BMBS | 2019 | 0,80392 | 0,23959 | 19,19446 | 5,33627 | 32,76141 |
| BPDS | 2015 | 0,66667 | 0,24898 | 357,68831 | 5,17420 | 29,59593 |
| BPDS | 2016 | 0,72549 | 1,91376 | 243,07867 | 6,37239 | 29,80098 |
| BPDS | 2017 | 0,72549 | -2,87937 | 428,76343 | 30,47119 | 29,78618 |
| BPDS | 2018 | 0,74510 | 0,01456 | 63,89672 | 4,25696 | 29,80248 |
| BPDS | 2019 | 0,72549 | 0,08544 | 59,85976 | 5,57150 | 30,04119 |
| BSB | 2015 | 0,66667 | 0,20065 | 89,38015 | 8,20441 | 29,39355 |
| BSB | 2016 | 0,64706 | -0,21677 | 163,36498 | 9,15047 | 29,56267 |
| BSB | 2017 | 0,62745 | 0,02005 | 168,89657 | 7,13657 | 29,60040 |
| BSB | 2018 | 0,62745 | 0,01247 | 92,89217 | 6,36601 | 29,47608 |
| BSB | 2019 | 0,64706 | 0,01053 | 200,89470 | 6,57996 | 29,53904 |

Keterangan:

|  |  |  |
| --- | --- | --- |
| **No**  | **Kode**  | **Nama Bank Umum Syariah** |
| 1  | BMS | Bank Mega Syariah |
| 2  | BMI | Bank Muamalat Indonesia |
| 3  | BSM  | Bank Syariah Mandiri |
| 4  | BVS | Bank Victoria Syariah |
| 5  | BCAS | Bank Central Asia Syariah |
| 6  | BJBS | Bank Jabar Banten Syariah |
| 7  | BNIS  | Bank Negara Indonesia Syariah |
| 8  | BRIS | Bank Rakyat Indonesia Syariah |
| 9  | BTPNS | Panin Bank Syariah |
| 10  | BMBS  | Maybank Syariah |
| 11  | BPDS  | Bank Panin Dubai Syariah |
| 12 | BSB | Bank Syariah Bukopin |

**Lampiran 2:**

**Uji statistik deskriptif**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | Y | X1 | X2 | X3 | Z |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  Mean |  0.700327 | -0.039179 |  187.0909 |  2.759992 |  30.06808 |
|  Median |  0.686275 |  0.090277 |  85.74616 |  1.747132 |  29.69334 |
|  Maximum |  0.882353 |  1.913756 |  2020.503 |  30.47119 |  32.76141 |
|  Minimum |  0.470588 | -2.879372 |  9.375250 |  0.248271 |  27.21840 |
|  Std. Dev. |  0.102688 |  0.711921 |  319.7125 |  4.217289 |  1.293253 |
|  Skewness | -0.123778 | -2.099887 |  3.870588 |  4.956367 |  0.088026 |
|  Kurtosis |  2.075991 |  10.35371 |  20.35814 |  32.35719 |  2.327246 |
|  |  |  |  |  |  |
|  Jarque-Bera |  2.287689 |  179.2880 |  903.0773 |  2400.267 |  1.208980 |
|  Probability |  0.318592 |  0.000000 |  0.000000 |  0.000000 |  0.546353 |
|  |  |  |  |  |  |
|  Sum |  42.01961 | -2.350725 |  11225.46 |  165.5995 |  1804.085 |
|  Sum Sq. Dev. |  0.622139 |  29.90306 |  6030749. |  1049.346 |  98.67774 |
|  |  |  |  |  |  |
|  Observations |  60 |  60 |  60 |  60 |  60 |

**Lampiran 3:**

**Uji Stasioneritas (*Unit Root Test)***

1. **URT X1 (GPM)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X1 |  |  |  |  |  |  |
| Date: 10/23/20 Time: 17:47 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on SIC: 0 |  |  |
| Newey-West automatic bandwidth selection and Bartlett kernel |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -4.74613 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X1 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -1.16036 |  0.0010 |  0.0061 |  0 |  0 |  0.0 |  4 |
| BMI | -1.05464 |  0.0002 |  9.E-05 |  0 |  0 |  3.0 |  4 |
| BSM |  2.43254 |  0.0005 |  0.0025 |  0 |  0 |  0.0 |  4 |
| BVS | -0.62318 |  0.1764 |  0.0620 |  0 |  0 |  3.0 |  4 |
| BCAS | -0.87322 |  0.0010 |  0.0020 |  0 |  0 |  1.0 |  4 |
| BJBS | -1.11751 |  0.1628 |  0.2720 |  0 |  0 |  1.0 |  4 |
| BNIS |  0.18044 |  0.0005 |  0.0005 |  0 |  0 |  0.0 |  4 |
| BRIS | -0.67379 |  0.0009 |  0.0003 |  0 |  0 |  3.0 |  4 |
| BTPNS | -1.10116 |  0.0054 |  0.0143 |  0 |  0 |  0.0 |  4 |
| BMBS | -1.12478 |  1.3089 |  0.8041 |  0 |  0 |  3.0 |  4 |
| BPDS | -1.43949 |  2.3691 |  1.5254 |  0 |  0 |  3.0 |  4 |
| BSB | -1.53280 |  0.0038 |  0.0183 |  0 |  0 |  3.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -1.05490 | -7.146 |  1.357 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT X2 (CR)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X2 |  |  |  |  |  |  |
| Date: 10/23/20 Time: 17:47 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on SIC: 0 |  |  |
| Newey-West automatic bandwidth selection and Bartlett kernel |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -4.70232 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X2 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -1.27507 |  6248.5 |  50647. |  0 |  0 |  0.0 |  4 |
| BMI | -1.08366 |  12.817 |  8.4516 |  0 |  0 |  3.0 |  4 |
| BSM | -0.51422 |  337.51 |  89.314 |  0 |  0 |  3.0 |  4 |
| BVS | -0.26659 |  234.57 |  38.988 |  0 |  0 |  3.0 |  4 |
| BCAS | -0.44124 |  777.05 |  1326.1 |  0 |  0 |  0.0 |  4 |
| BJBS | -1.33368 |  746.92 |  2282.6 |  0 |  0 |  0.0 |  4 |
| BNIS | -1.26518 |  1624.6 |  811.42 |  0 |  0 |  3.0 |  4 |
| BRIS | -1.22307 |  313.83 |  853.39 |  0 |  0 |  1.0 |  4 |
| BTPNS | -0.12287 |  125433 |  107134 |  0 |  0 |  1.0 |  4 |
| BMBS | -1.66333 |  363016 |  476963 |  0 |  0 |  3.0 |  4 |
| BPDS | -0.93546 |  23008. |  6870.8 |  0 |  0 |  3.0 |  4 |
| BSB | -1.70615 |  850.61 |  1138.8 |  0 |  0 |  3.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -0.95458 | -7.172 |  1.193 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT X3 (DER)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X3 |  |  |  |  |  |  |
| Date: 10/23/20 Time: 17:47 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on SIC: 0 |  |  |
| Newey-West automatic bandwidth selection and Bartlett kernel |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -4.71070 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X3 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -1.71366 |  0.0085 |  0.0219 |  0 |  0 |  3.0 |  4 |
| BMI | -1.32192 |  0.0851 |  0.0602 |  0 |  0 |  3.0 |  4 |
| BSM | -0.57028 |  0.0133 |  0.0055 |  0 |  0 |  3.0 |  4 |
| BVS | -1.85634 |  0.0185 |  0.0471 |  0 |  0 |  3.0 |  4 |
| BCAS | -0.62684 |  0.0093 |  0.0042 |  0 |  0 |  3.0 |  4 |
| BJBS | -0.64105 |  0.0236 |  0.0136 |  0 |  0 |  3.0 |  4 |
| BNIS | -0.02198 |  0.0757 |  0.0221 |  0 |  0 |  3.0 |  4 |
| BRIS | -0.82960 |  0.3502 |  0.4325 |  0 |  0 |  1.0 |  4 |
| BTPNS | -12.5773 |  0.4097 |  3.1992 |  0 |  0 |  0.0 |  4 |
| BMBS | -10.3607 |  1.8743 |  4.1198 |  0 |  0 |  1.0 |  4 |
| BPDS | -1.33292 |  105.16 |  79.076 |  0 |  0 |  3.0 |  4 |
| BSB | -0.51001 |  0.9430 |  0.2848 |  0 |  0 |  3.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -1.17819 | -6.809 |  1.442 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT Y (*ISR*)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: Y |  |  |  |  |  |  |
| Date: 10/23/20 Time: 17:48 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on SIC: 0 |  |  |
| Newey-West automatic bandwidth selection and Bartlett kernel |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -4.92691 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on Y |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -0.81818 |  0.0005 |  0.0016 |  0 |  0 |  1.0 |  4 |
| BMI | -0.31818 |  0.0009 |  0.0020 |  0 |  0 |  0.0 |  4 |
| BSM | -0.33333 |  6.E-05 |  2.E-05 |  0 |  0 |  3.0 |  4 |
| BVS | -0.18421 |  0.0012 |  0.0003 |  0 |  0 |  3.0 |  4 |
| BCAS | -0.27273 |  5.E-05 |  2.E-05 |  0 |  0 |  3.0 |  4 |
| BJBS | -0.42424 |  0.0014 |  0.0013 |  0 |  0 |  2.0 |  4 |
| BNIS | -0.27778 |  0.0008 |  0.0007 |  0 |  0 |  1.0 |  4 |
| BRIS | -0.92424 |  6.E-05 |  0.0046 |  0 |  0 |  1.0 |  4 |
| BTPNS | -2.00000 |  0.0001 |  0.0001 |  0 |  0 |  3.0 |  4 |
| BMBS |  9.66667 |  6.E-05 |  0.0068 |  0 |  0 |  0.0 |  4 |
| BPDS | -0.94444 |  7.E-05 |  0.0006 |  0 |  0 |  1.0 |  4 |
| BSB | -0.81818 |  9.E-05 |  0.0003 |  0 |  0 |  0.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -0.74741 | -5.345 |  3.470 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT Z (*SIZE*)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: Z |  |  |  |  |  |  |
| Date: 10/23/20 Time: 17:50 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on HQC: 0 |  |  |
| Newey-West fixed bandwidth and Bartlett kernel |  |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  |  4.15431 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on Z |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -0.16655 |  0.0008 |  0.0007 |  0 |  0 |  1.0 |  4 |
| BMI | -1.17302 |  0.0050 |  0.0068 |  0 |  0 |  1.0 |  4 |
| BSM |  0.05411 |  4.E-05 |  8.E-05 |  0 |  0 |  1.0 |  4 |
| BVS | -0.30934 |  0.0014 |  0.0047 |  0 |  0 |  1.0 |  4 |
| BCAS |  0.10809 |  0.0001 |  0.0004 |  0 |  0 |  1.0 |  4 |
| BJBS | -1.40370 |  0.0022 |  0.0088 |  0 |  0 |  1.0 |  4 |
| BNIS | -0.04066 |  0.0002 |  0.0002 |  0 |  0 |  1.0 |  4 |
| BRIS |  0.01867 |  0.0005 |  0.0003 |  0 |  0 |  1.0 |  4 |
| BTPNS | -0.09799 |  0.0011 |  0.0011 |  0 |  0 |  1.0 |  4 |
| BMBS | -6.64730 |  0.8686 |  5.4771 |  0 |  0 |  1.0 |  4 |
| BPDS | -0.58077 |  0.0099 |  0.0095 |  0 |  0 |  1.0 |  4 |
| BSB | -1.20166 |  0.0018 |  0.0100 |  0 |  0 |  1.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled |  0.01911 |  0.718 |  1.760 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT X1\*Z (GPM\**SIZE*)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X1\_Z |  |  |  |  |  |
| Date: 10/23/20 Time: 17:52 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on HQC: 0 |  |  |
| Newey-West fixed bandwidth and Bartlett kernel |  |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -3.60273 |  |  0.0002 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X1\_Z |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -1.17277 |  0.0010 |  0.0028 |  0 |  0 |  1.0 |  4 |
| BMI | -1.04605 |  0.0006 |  0.0007 |  0 |  0 |  1.0 |  4 |
| BSM |  2.14429 |  0.0018 |  0.0197 |  0 |  0 |  1.0 |  4 |
| BVS | -0.59324 |  0.7609 |  0.6766 |  0 |  0 |  1.0 |  4 |
| BCAS |  1.45751 |  0.0002 |  0.0014 |  0 |  0 |  1.0 |  4 |
| BJBS | -1.11561 |  0.0324 |  0.0558 |  0 |  0 |  1.0 |  4 |
| BNIS |  0.35935 |  0.0007 |  0.0013 |  0 |  0 |  1.0 |  4 |
| BRIS | -1.78620 |  2.E-05 |  0.0005 |  0 |  0 |  1.0 |  4 |
| BTPNS |  0.08297 |  0.0009 |  0.0008 |  0 |  0 |  1.0 |  4 |
| BMBS | -1.32338 |  6.8967 |  10.540 |  0 |  0 |  1.0 |  4 |
| BPDS | -1.39502 |  0.2292 |  0.2875 |  0 |  0 |  1.0 |  4 |
| BSB | -1.47930 |  0.0010 |  0.0141 |  0 |  0 |  1.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -0.81532 | -4.669 |  2.623 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT X2\*Z (CR\**SIZE*)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X2\_Z |  |  |  |  |  |
| Date: 10/23/20 Time: 17:52 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on HQC: 0 |  |  |
| Newey-West fixed bandwidth and Bartlett kernel |  |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -6.73596 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X2\_Z |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -1.23737 |  0.0090 |  0.1092 |  0 |  0 |  1.0 |  4 |
| BMI | -1.49133 |  0.0008 |  0.0017 |  0 |  0 |  1.0 |  4 |
| BSM | -1.19892 |  0.0050 |  0.0062 |  0 |  0 |  1.0 |  4 |
| BVS | -0.28996 |  0.0054 |  0.0032 |  0 |  0 |  1.0 |  4 |
| BCAS | -1.04064 |  0.0030 |  0.0064 |  0 |  0 |  1.0 |  4 |
| BJBS | -1.22263 |  0.0007 |  0.0049 |  0 |  0 |  1.0 |  4 |
| BNIS | -0.36143 |  0.0214 |  0.0188 |  0 |  0 |  1.0 |  4 |
| BRIS | -1.01900 |  0.0011 |  0.0040 |  0 |  0 |  1.0 |  4 |
| BTPNS | -2.11485 |  0.0554 |  0.0654 |  0 |  0 |  1.0 |  4 |
| BMBS | -1.37524 |  19.595 |  31.882 |  0 |  0 |  1.0 |  4 |
| BPDS | -1.17570 |  0.0078 |  0.0048 |  0 |  0 |  1.0 |  4 |
| BSB | -1.57006 |  0.0020 |  0.0080 |  0 |  0 |  1.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -1.07469 | -9.707 |  1.147 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **URT X3\*Z (DER\**SIZE*)**

|  |  |
| --- | --- |
| Null Hypothesis: Unit root (common unit root process)  |  |
| Series: X3\_Z |  |  |  |  |  |
| Date: 10/23/20 Time: 17:53 |  |  |  |  |
| Sample: 2015 2019 |  |  |  |  |  |
| Exogenous variables: Individual effects |  |  |  |
| Automatic selection of maximum lags |  |  |  |  |
| Automatic lag length selection based on HQC: 0 |  |  |
| Newey-West fixed bandwidth and Bartlett kernel |  |  |
| Total (balanced) observations: 48 |  |  |  |  |
| Cross-sections included: 12 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Method |  |  | Statistic |  | Prob.\*\* |  |
| Levin, Lin & Chu t\* |  | -5.08534 |  |  0.0000 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| \*\* Probabilities are computed assuming asympotic normality |  |
|  |  |  |  |  |  |  |  |
| Intermediate results on X3\_Z |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cross | 2nd Stage | Variance | HAC of  |  | Max | Band- |  |
| section | Coefficient | of Reg | Dep. | Lag | Lag | width | Obs |
| BMS | -0.55737 |  0.0017 |  0.0006 |  0 |  0 |  1.0 |  4 |
| BMI | -1.32088 |  0.0088 |  0.0129 |  0 |  0 |  1.0 |  4 |
| BSM | -2.63436 |  0.0002 |  0.0013 |  0 |  0 |  1.0 |  4 |
| BVS | -1.37051 |  0.0006 |  0.0090 |  0 |  0 |  1.0 |  4 |
| BCAS | -0.01967 |  0.0004 |  0.0001 |  0 |  0 |  1.0 |  4 |
| BJBS | -1.00561 |  0.0005 |  0.0021 |  0 |  0 |  1.0 |  4 |
| BNIS | -0.17124 |  0.0050 |  0.0051 |  0 |  0 |  1.0 |  4 |
| BRIS | -0.79438 |  0.0142 |  0.0160 |  0 |  0 |  1.0 |  4 |
| BTPNS | -0.71013 |  0.0032 |  0.0080 |  0 |  0 |  1.0 |  4 |
| BMBS | -0.46968 |  0.0388 |  0.0222 |  0 |  0 |  1.0 |  4 |
| BPDS | -1.32805 |  0.3196 |  0.4511 |  0 |  0 |  1.0 |  4 |
| BSB | -0.47794 |  0.0042 |  0.0063 |  0 |  0 |  1.0 |  4 |
|  |  |  |  |  |  |  |  |
|  | Coefficient | t-Stat | SE Reg | mu\* | sig\* |  | Obs |
| Pooled | -0.71269 | -6.152 |  1.751 | -0.554 |  0.919 |  |  48 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Lampiran 4:**

**Uji Estimasi Model Data**

1. **Uji CEM**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: Y |  |  |
| Method: Panel Least Squares |  |  |
| Date: 10/23/20 Time: 14:16 |  |  |
| Sample: 2015 2019 |  |  |
| Periods included: 5 |  |  |
| Cross-sections included: 12 |  |  |
| Total panel (balanced) observations: 60 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.696074 | 0.010338 | 67.33445 | 0.0000 |
| X1 | -0.001337 | 0.019325 | -0.069184 | 0.9451 |
| X2 | -0.027499 | 0.014876 | -1.848506 | 0.0702 |
| X3 | -0.004540 | 0.014033 | -0.323487 | 0.7476 |
| Z | 0.063114 | 0.012093 | 5.219103 | 0.0000 |
| X1\_Z | -0.007104 | 0.016356 | -0.434338 | 0.6658 |
| X2\_Z | -0.023558 | 0.008595 | -2.740788 | 0.0084 |
| X3\_Z | -0.037175 | 0.031622 | -1.175595 | 0.2451 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.617432 |     Mean dependent var | 0.700327 |
| Adjusted R-squared | 0.565933 |     S.D. dependent var | 0.102688 |
| S.E. of regression | 0.067654 |     Akaike info criterion | -2.425242 |
| Sum squared resid | 0.238010 |     Schwarz criterion | -2.145996 |
| Log likelihood | 80.75727 |     Hannan-Quinn criter. | -2.316014 |
| F-statistic | 11.98909 |     Durbin-Watson stat | 0.547805 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Uji Lagrange Multiplier**

|  |
| --- |
| Lagrange Multiplier Tests for Random Effects |
| Null hypotheses: No effects |  |
| Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided |
|         (all others) alternatives |  |
|  |  |  |  |
|  |  |  |  |
|  | Test Hypothesis |
|  | Cross-section | Time | Both |
|  |  |  |  |
|  |  |  |  |
| Breusch-Pagan |  8.587523 |  2.930246 |  11.51777 |
|  | (0.0034) | (0.0869) | (0.0007) |
|  |  |  |  |
| Honda |  2.930448 |  1.711796 |  3.282562 |
|  | (0.0017) | (0.0435) | (0.0005) |
|  |  |  |  |
| King-Wu |  2.930448 |  1.711796 |  2.979171 |
|  | (0.0017) | (0.0435) | (0.0014) |
|  |  |  |  |
| Standardized Honda |  3.955523 |  2.187060 |  0.949339 |
|  | (0.0000) | (0.0144) |  |
|  |  |  | (0.1712) |
|  |  |  |  |
| Standardized King-Wu |  3.955523 |  2.187060 |  0.820716 |
|  | (0.0000) | (0.0144) | (0.2059) |
|  |  |  |  |
| Gourierioux, et al.\* | -- | -- |  11.51777 |
|  |  |  | (< 0.01) |
|  |  |  |  |
|  |  |  |  |
| \*Mixed chi-square asymptotic critical values: |
| 1% | 7.289 |  |  |
| 5% | 4.321 |  |  |
| 10% | 2.952 |  |  |
|  |  |  |  |
|  |  |  |  |

1. **Uji FEM**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: Y |  |  |
| Method: Panel Least Squares |  |  |
| Date: 10/23/20 Time: 14:17 |  |  |
| Sample: 2015 2019 |  |  |
| Periods included: 5 |  |  |
| Cross-sections included: 12 |  |  |
| Total panel (balanced) observations: 60 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.702469 | 0.010098 | 69.56634 | 0.0000 |
| X1 | 0.005753 | 0.022756 | 0.252818 | 0.8017 |
| X2 | -0.024016 | 0.015948 | -1.505904 | 0.1398 |
| X3 | -0.020929 | 0.023103 | -0.905932 | 0.3703 |
| Z | 0.077948 | 0.023442 | 3.325133 | 0.0019 |
| X1\_Z | -0.001804 | 0.017196 | -0.104905 | 0.9170 |
| X2\_Z | -0.023329 | 0.010220 | -2.282732 | 0.0277 |
| X3\_Z | -0.137617 | 0.078253 | -1.758607 | 0.0861 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Effects Specification |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section fixed (dummy variables) |  |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.787196 |     Mean dependent var | 0.700327 |
| Adjusted R-squared | 0.693770 |     S.D. dependent var | 0.102688 |
| S.E. of regression | 0.056825 |     Akaike info criterion | -2.645110 |
| Sum squared resid | 0.132394 |     Schwarz criterion | -1.981901 |
| Log likelihood | 98.35329 |     Hannan-Quinn criter. | -2.385692 |
| F-statistic | 8.425863 |     Durbin-Watson stat | 1.013026 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Uji Chow**

|  |  |  |  |
| --- | --- | --- | --- |
| Redundant Fixed Effects Tests |  |  |  |
| Equation: FEM |  |  |  |  |
| Test cross-section fixed effects |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Effects Test | Statistic   | d.f.  | Prob.  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Cross-section F | 2.973418 | (11,41) | 0.0055 |  |
| Cross-section Chi-square | 35.192033 | 11 | 0.0002 |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. **Uji REM**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: Y |  |  |
| Method: Panel EGLS (Cross-section random effects) |
| Date: 10/26/20 Time: 16:25 |  |  |
| Sample (adjusted): 2016 2019 |  |  |
| Periods included: 4 |  |  |
| Cross-sections included: 12 |  |  |
| Total panel (balanced) observations: 48 |  |
| Swamy and Arora estimator of component variances |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.251089 | 0.049395 | 5.083347 | 0.0000 |
| X1 | -0.001619 | 0.009542 | -0.169649 | 0.8662 |
| X2 | -0.021045 | 0.007444 | -2.826947 | 0.0074 |
| X3 | 0.009236 | 0.007027 | 1.314307 | 0.1964 |
| Z | 0.035066 | 0.006996 | 5.011985 | 0.0000 |
| X1\_Z | -0.007383 | 0.008873 | -0.832109 | 0.4104 |
| X2\_Z | -0.010793 | 0.004706 | -2.293681 | 0.0273 |
| X3\_Z | 0.042102 | 0.017755 | 2.371272 | 0.0228 |
| Y(-1) | 0.663234 | 0.071618 | 9.260727 | 0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Effects Specification |  |  |
|  |  |  | S.D.   | Rho   |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 0.000000 | 0.0000 |
| Idiosyncratic random | 0.032041 | 1.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Weighted Statistics |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.874919 |     Mean dependent var | 0.715278 |
| Adjusted R-squared | 0.849262 |     S.D. dependent var | 0.099898 |
| S.E. of regression | 0.038785 |     Sum squared resid | 0.058668 |
| F-statistic | 34.09982 |     Durbin-Watson stat | 1.774259 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Unweighted Statistics |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.874919 |     Mean dependent var | 0.715278 |
| Sum squared resid | 0.058668 |     Durbin-Watson stat | 1.774259 |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Uji Haussman**

|  |  |
| --- | --- |
| Correlated Random Effects - Hausman Test |  |
| Equation: REM |  |  |  |
| Test cross-section random effects |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 2.316364 | 7 | 0.9403 |
|  |  |  |  |  |
|  |  |  |  |  |

|  |
| --- |
| Cross-section random effects test comparisons: |
|  |  |  |  |  |
| Variable | Fixed   | Random  | Var(Diff.)  | Prob.  |
|  |  |  |  |  |
|  |  |  |  |  |
| X1 | 0.005753 | 0.001880 | 0.000110 | 0.7120 |
| X2 | -0.024016 | -0.022438 | 0.000028 | 0.7660 |
| X3 | -0.020929 | -0.007448 | 0.000249 | 0.3929 |
| Z | 0.077948 | 0.064402 | 0.000302 | 0.4360 |
| X1\_Z | -0.001804 | -0.004165 | 0.000041 | 0.7111 |
| X2\_Z | -0.023329 | -0.019851 | 0.000029 | 0.5160 |
| X3\_Z | -0.137617 | -0.059058 | 0.004328 | 0.2324 |
|  |  |  |  |  |
|  |  |  |  |  |

**Lampiran 5:**

**Uji Asumsi Klasik**

1. **Uji Normalitas**



1. **Uji Multikolinearitas**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | X1 | X2 | X3 | X1\_Z | X2\_Z | X3\_Z |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| X1 |  1.000000 | -0.287722 | -0.350200 | -0.783376 |  0.275515 | -0.081872 |
| X2 | -0.287722 |  1.000000 |  0.039450 |  0.408474 | -0.749526 |  0.312305 |
| X3 | -0.350200 |  0.039450 |  1.000000 | -0.032524 |  0.083680 | -0.607102 |
| X1\_Z | -0.783376 |  0.408474 | -0.032524 |  1.000000 | -0.485037 |  0.352272 |
| X2\_Z |  0.275515 | -0.749526 |  0.083680 | -0.485037 |  1.000000 | -0.369083 |
| X3\_Z | -0.081872 |  0.312305 | -0.607102 |  0.352272 | -0.369083 |  1.000000 |

1. **Uji Heteroskedastisitas**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: RES\_SQ |  |  |
| Method: Panel Least Squares |  |  |
| Date: 10/23/20 Time: 17:53 |  |  |
| Sample (adjusted): 2016 2019 |  |  |
| Periods included: 4 |  |  |
| Cross-sections included: 12 |  |  |
| Total panel (balanced) observations: 48 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.005664 | 0.002990 | 1.894424 | 0.0656 |
| X1 | 0.000171 | 0.000578 | 0.296577 | 0.7684 |
| X2 | -0.000378 | 0.000451 | -0.838596 | 0.4068 |
| X3 | -0.000278 | 0.000425 | -0.654745 | 0.5165 |
| Z | 0.000101 | 0.000424 | 0.238350 | 0.8129 |
| X1\_Z | -7.58E-05 | 0.000537 | -0.141168 | 0.8885 |
| X2\_Z | -0.000176 | 0.000285 | -0.617719 | 0.5404 |
| X3\_Z | -0.000973 | 0.001075 | -0.905644 | 0.3707 |
| Y(-1) | -0.006445 | 0.004335 | -1.486758 | 0.1451 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.095117 |     Mean dependent var | 0.001222 |
| Adjusted R-squared | -0.090501 |     S.D. dependent var | 0.001857 |
| S.E. of regression | 0.001940 |     Akaike info criterion | -9.485385 |
| Sum squared resid | 0.000147 |     Schwarz criterion | -9.134535 |
| Log likelihood | 236.6492 |     Hannan-Quinn criter. | -9.352798 |
| F-statistic | 0.512434 |     Durbin-Watson stat | 1.685719 |
| Prob(F-statistic) | 0.839643 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Uji Autokorelasi**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: RESID01 |  |  |
| Method: Panel Least Squares |  |  |
| Date: 10/23/20 Time: 14:25 |  |  |
| Sample (adjusted): 2017 2019 |  |  |
| Periods included: 3 |  |  |
| Cross-sections included: 12 |  |  |
| Total panel (balanced) observations: 36 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| RESID01(-1) | 0.023643 | 0.140702 | 0.168034 | 0.8675 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.000691 |     Mean dependent var | 0.000328 |
| Adjusted R-squared | 0.000691 |     S.D. dependent var | 0.031074 |
| S.E. of regression | 0.031064 |     Akaike info criterion | -4.078170 |
| Sum squared resid | 0.033773 |     Schwarz criterion | -4.034183 |
| Log likelihood | 74.40706 |     Hannan-Quinn criter. | -4.062817 |
| Durbin-Watson stat | 1.934448 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |