

LAMPIRAN

TABULASI DATA

| No | Kode | Tahun | Terdaftar BEI | Menerbitkan LK | Data Lengkap | Masuk Sampel |
|----|------|-------|---------------|----------------|--------------|--------------|
| 1 | ADRO | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 2 | AIMS | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 3 | ARII | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 4 | BSSR | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 5 | BUMI | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 6 | BYAN | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 7 | COAL | 2018 | x | x | x | 0 |
| | | 2019 | x | x | x | 0 |
| | | 2020 | x | x | x | 0 |
| | | 2021 | x | x | x | 0 |
| | | 2022 | √ | √ | √ | 0 |
| 7 | DSSA | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |

| | | | | | | |
|----|------|------|---|---|---|---|
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 8 | GEMS | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 9 | GTBO | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 10 | HRUM | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 11 | INDY | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 12 | ITMG | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 13 | KKGJ | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 14 | MBAP | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 15 | PTBA | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |

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|---------------------|------|------|---|---|---|-----------|
| 16 | SMMT | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| 18 | TCPI | 2018 | x | x | x | 0 |
| | | 2019 | √ | √ | √ | 0 |
| | | 2020 | √ | √ | √ | 0 |
| | | 2021 | √ | √ | √ | 0 |
| | | 2022 | √ | √ | √ | 0 |
| 17 | TOBA | 2018 | √ | √ | √ | 1 |
| | | 2019 | √ | √ | √ | 1 |
| | | 2020 | √ | √ | √ | 1 |
| | | 2021 | √ | √ | √ | 1 |
| | | 2022 | √ | √ | √ | 1 |
| Total Sampel | | | | | | 85 |

| Kode | Tahun | Y | X1 | X2 | X3 | X4 |
|-------------|--------------|----------|-----------|-----------|-----------|-----------|
| ADRO | 2018 | 0.13 | 0.52 | 0.39 | 0.06 | 32.22 |
| ADRO | 2019 | 0.22 | 0.39 | 0.45 | 0.06 | 32.28 |
| ADRO | 2020 | 0.18 | 0.73 | 0.38 | -0.14 | 32.13 |
| ADRO | 2021 | 0.24 | 0.38 | 0.41 | 0.20 | 32.32 |
| ADRO | 2022 | 0.38 | 0.37 | 0.39 | 0.57 | 32.76 |
| AIMS | 2018 | 0.00 | 0.00 | 0.18 | 0.16 | 23.59 |
| AIMS | 2019 | 0.00 | 0.00 | 0.22 | 0.00 | 23.59 |
| AIMS | 2020 | 0.00 | 0.00 | 0.39 | 0.19 | 23.76 |
| AIMS | 2021 | 0.04 | 0.00 | 0.35 | 0.13 | 23.88 |
| AIMS | 2022 | 0.06 | 0.50 | 0.47 | 0.24 | 24.10 |
| ARII | 2018 | 0.00 | 0.00 | 0.97 | 0.10 | 29.21 |
| ARII | 2019 | 0.00 | -0.03 | 0.87 | 0.08 | 29.29 |
| ARII | 2020 | 0.00 | 0.00 | 1.10 | -0.19 | 29.08 |
| ARII | 2021 | 0.01 | 0.37 | 0.89 | 0.24 | 29.29 |
| ARII | 2022 | 0.01 | 0.12 | 0.84 | 0.34 | 29.59 |
| BSSR | 2018 | 0.07 | 0.02 | 0.39 | 0.20 | 28.86 |
| BSSR | 2019 | 0.05 | 0.26 | 0.32 | 0.07 | 28.92 |
| BSSR | 2020 | 0.10 | 0.25 | 0.28 | 0.02 | 28.94 |
| BSSR | 2021 | 0.38 | 0.23 | 0.42 | 0.67 | 29.46 |
| BSSR | 2022 | 0.22 | 0.23 | 0.46 | 0.03 | 29.48 |
| BUMI | 2018 | 0.02 | 0.22 | 0.87 | 0.08 | 31.63 |
| BUMI | 2019 | 0.01 | -1.02 | 1.19 | -0.01 | 31.61 |
| BUMI | 2020 | 0.02 | -0.09 | 0.96 | -0.10 | 31.51 |
| BUMI | 2021 | 0.05 | 0.19 | 0.85 | 0.25 | 31.73 |
| BUMI | 2022 | 0.02 | 0.14 | 0.37 | 0.17 | 31.89 |
| BYAN | 2018 | 0.20 | 0.23 | 0.41 | 0.33 | 30.40 |

| | | | | | | |
|------|------|------|-------|------|-------|-------|
| BYAN | 2019 | 0.14 | 0.24 | 0.52 | 0.16 | 30.55 |
| BYAN | 2020 | 0.24 | 0.15 | 0.47 | 0.23 | 30.76 |
| BYAN | 2021 | 0.40 | 0.22 | 0.23 | 0.52 | 31.18 |
| BYAN | 2022 | 0.46 | 0.22 | 0.49 | 0.79 | 31.76 |
| DSSA | 2018 | 0.07 | 2.02 | 0.55 | 0.27 | 31.48 |
| DSSA | 2019 | 0.09 | 0.28 | 0.56 | 0.14 | 31.62 |
| DSSA | 2020 | 0.21 | -9.19 | 0.45 | -0.24 | 31.34 |
| DSSA | 2021 | 0.17 | 0.30 | 0.42 | 0.05 | 31.39 |
| DSSA | 2022 | 0.17 | 0.31 | 0.53 | 1.36 | 32.25 |
| GEMS | 2018 | 0.11 | 0.27 | 0.55 | 0.22 | 29.91 |
| GEMS | 2019 | 0.17 | 0.34 | 0.54 | 0.16 | 30.06 |
| GEMS | 2020 | 0.25 | 0.25 | 0.57 | 0.02 | 30.07 |
| GEMS | 2021 | 0.23 | 0.23 | 0.62 | 0.03 | 30.10 |
| GEMS | 2022 | 0.29 | 0.23 | 0.51 | 0.50 | 30.51 |
| GTBO | 2018 | 0.00 | 0.00 | 0.18 | 0.00 | 27.42 |
| GTBO | 2019 | 0.01 | 0.00 | 0.24 | 0.02 | 27.43 |
| GTBO | 2020 | 0.00 | 0.00 | 0.26 | -0.04 | 27.40 |
| GTBO | 2021 | 0.02 | 0.00 | 0.28 | 0.03 | 27.43 |
| GTBO | 2022 | 0.00 | 0.02 | 0.24 | 0.19 | 27.60 |
| HRUM | 2018 | 0.46 | 0.17 | 0.17 | 0.05 | 29.50 |
| HRUM | 2019 | 0.51 | 0.14 | 0.11 | 0.00 | 29.50 |
| HRUM | 2020 | 0.42 | 0.03 | 0.09 | 0.09 | 29.58 |
| HRUM | 2021 | 0.17 | 0.23 | 0.26 | 0.77 | 30.16 |
| HRUM | 2022 | 0.29 | 0.21 | 0.18 | 0.61 | 30.63 |
| INDY | 2018 | 0.17 | 0.88 | 0.69 | 0.04 | 31.56 |
| INDY | 2019 | 0.16 | 0.20 | 0.71 | 0.03 | 31.59 |
| INDY | 2020 | 0.19 | -0.78 | 0.75 | -0.06 | 31.53 |
| INDY | 2021 | 0.23 | 0.74 | 0.76 | 0.07 | 31.60 |
| INDY | 2022 | 0.03 | 0.56 | 0.63 | 0.07 | 31.67 |
| ITMG | 2018 | 0.26 | 0.29 | 0.33 | 0.09 | 30.63 |
| ITMG | 2019 | 0.13 | 0.41 | 0.27 | -0.13 | 30.49 |
| ITMG | 2020 | 0.20 | 0.33 | 0.27 | -0.07 | 30.42 |
| ITMG | 2021 | 0.41 | 0.23 | 0.28 | 0.47 | 30.81 |
| ITMG | 2022 | 0.54 | 0.22 | 0.26 | 0.73 | 31.36 |
| KKGI | 2018 | 0.03 | 0.07 | 0.26 | 0.15 | 28.12 |
| KKGI | 2019 | 0.07 | 0.37 | 0.26 | 0.12 | 28.24 |
| KKGI | 2020 | 0.05 | -0.03 | 0.22 | -0.16 | 28.06 |
| KKGI | 2021 | 0.21 | 0.31 | 0.25 | 0.24 | 28.27 |
| KKGI | 2022 | 0.26 | 0.32 | 0.28 | 0.41 | 28.62 |
| MBAP | 2018 | 0.31 | 0.21 | 0.28 | 0.11 | 28.51 |
| MBAP | 2019 | 0.15 | 0.18 | 0.24 | 0.16 | 28.66 |
| MBAP | 2020 | 0.25 | 0.17 | 0.24 | -0.08 | 28.57 |
| MBAP | 2021 | 0.25 | 0.20 | 0.22 | 0.43 | 28.93 |
| MBAP | 2022 | 0.33 | 0.22 | 0.18 | 0.30 | 29.20 |
| PTBA | 2018 | 0.26 | 0.25 | 0.33 | 0.10 | 30.82 |
| PTBA | 2019 | 0.18 | 0.23 | 0.29 | 0.08 | 30.89 |

| | | | | | | |
|------|------|------|------|------|-------|-------|
| PTBA | 2020 | 0.18 | 0.19 | 0.30 | -0.08 | 30.81 |
| PTBA | 2021 | 0.12 | 0.23 | 0.33 | 0.50 | 31.22 |
| PTBA | 2022 | 0.15 | 0.20 | 0.36 | 0.26 | 31.45 |
| SMMT | 2018 | 0.05 | 0.00 | 0.38 | 0.16 | 27.53 |
| SMMT | 2019 | 0.09 | 0.00 | 0.33 | -0.03 | 27.49 |
| SMMT | 2020 | 0.07 | 0.00 | 0.36 | 0.01 | 27.51 |
| SMMT | 2021 | 0.18 | 0.03 | 0.22 | 0.19 | 27.68 |
| SMMT | 2022 | 0.07 | 0.13 | 0.14 | 0.12 | 27.80 |
| TOBA | 2018 | 0.11 | 0.28 | 0.57 | 0.48 | 29.57 |
| TOBA | 2019 | 0.00 | 0.06 | 0.58 | 0.32 | 29.85 |
| TOBA | 2020 | 0.03 | 0.09 | 0.62 | 0.18 | 30.02 |
| TOBA | 2021 | 0.08 | 0.12 | 0.59 | 0.12 | 30.14 |
| TOBA | 2022 | 0.12 | 0.21 | 0.53 | 0.16 | 30.28 |

Perhitungan Kas

| NO | Perusahaan | 2018 | 2019 | 2020 | 2021 | 2022 |
|------------------|------------|-------------|-------------|-------------|-------------|-------------|
| 1 | ADRO | 0.13 | 0.22 | 0.18 | 0.24 | 0.38 |
| 2 | AIMS | 0.00 | 0.00 | 0.00 | 0.04 | 0.06 |
| 3 | ARII | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| 4 | BSSR | 0.07 | 0.05 | 0.10 | 0.38 | 0.22 |
| 5 | BUMI | 0.02 | 0.01 | 0.02 | 0.05 | 0.02 |
| 6 | BYAN | 0.20 | 0.14 | 0.24 | 0.40 | 0.46 |
| 7 | DSSA | 0.07 | 0.09 | 0.21 | 0.17 | 0.17 |
| 8 | GEMS | 0.11 | 0.17 | 0.25 | 0.23 | 0.29 |
| 9 | GTBO | 0.00 | 0.01 | 0.00 | 0.02 | 0.00 |
| 10 | HRUM | 0.46 | 0.51 | 0.42 | 0.17 | 0.29 |
| 11 | INDY | 0.17 | 0.16 | 0.19 | 0.23 | 0.03 |
| 12 | ITMG | 0.26 | 0.13 | 0.20 | 0.41 | 0.54 |
| 13 | KKGI | 0.03 | 0.07 | 0.05 | 0.21 | 0.26 |
| 14 | MBAP | 0.31 | 0.15 | 0.25 | 0.25 | 0.33 |
| 15 | PTBA | 0.26 | 0.18 | 0.18 | 0.12 | 0.15 |
| 16 | SMMT | 0.05 | 0.09 | 0.07 | 0.18 | 0.07 |
| 17 | TOBA | 0.11 | 0.00 | 0.03 | 0.08 | 0.12 |
| Rata-Rata | | 0.13 | 0.12 | 0.14 | 0.19 | 0.20 |

Perhitungan Penghindaran Pajak

| NO | Perusahaan | 2018 | 2019 | 2020 | 2021 | 2022 |
|----|------------|------|------|------|------|------|
| 1 | ADRO | 0.52 | 0.39 | 0.73 | 0.38 | 0.37 |
| 2 | AIMS | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 |

| | | | | | | |
|------------------|------|-------------|-------------|--------------|-------------|-------------|
| 3 | ARII | 0.00 | -0.03 | 0.00 | 0.37 | 0.12 |
| 4 | BSSR | 0.02 | 0.26 | 0.25 | 0.23 | 0.23 |
| 5 | BUMI | 0.22 | -1.02 | -0.09 | 0.19 | 0.14 |
| 6 | BYAN | 0.23 | 0.24 | 0.15 | 0.22 | 0.22 |
| 7 | DSSA | 2.02 | 0.28 | -9.19 | 0.30 | 0.31 |
| 8 | GEMS | 0.27 | 0.34 | 0.25 | 0.23 | 0.23 |
| 9 | GTBO | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 10 | HRUM | 0.17 | 0.14 | 0.03 | 0.23 | 0.21 |
| 11 | INDY | 0.88 | 0.20 | -0.78 | 0.74 | 0.56 |
| 12 | ITMG | 0.29 | 0.41 | 0.33 | 0.23 | 0.22 |
| 13 | KKGI | 0.07 | 0.37 | -0.03 | 0.31 | 0.32 |
| 14 | MBAP | 0.21 | 0.18 | 0.17 | 0.20 | 0.22 |
| 15 | PTBA | 0.25 | 0.23 | 0.19 | 0.23 | 0.20 |
| 16 | SMMT | 0.00 | 0.00 | 0.00 | 0.03 | 0.13 |
| 17 | TOBA | 0.28 | 0.06 | 0.09 | 0.12 | 0.21 |
| Rata-Rata | | 0.32 | 0.12 | -0.46 | 0.24 | 0.25 |

Perhitungan Utang

| NO | Perusahaan | 2018 | 2019 | 2020 | 2021 | 2022 |
|----|------------|------|------|------|------|------|
| 1 | ADRO | 0.39 | 0.45 | 0.38 | 0.41 | 0.39 |
| 2 | AIMS | 0.18 | 0.22 | 0.39 | 0.35 | 0.47 |
| 3 | ARII | 0.97 | 0.87 | 1.10 | 0.89 | 0.84 |
| 4 | BSSR | 0.39 | 0.32 | 0.28 | 0.42 | 0.46 |
| 5 | BUMI | 0.87 | 1.19 | 0.96 | 0.85 | 0.37 |
| 6 | BYAN | 0.41 | 0.52 | 0.47 | 0.23 | 0.49 |
| 7 | DSSA | 0.55 | 0.56 | 0.45 | 0.42 | 0.53 |
| 8 | GEMS | 0.55 | 0.54 | 0.57 | 0.62 | 0.51 |
| 9 | GTBO | 0.18 | 0.24 | 0.26 | 0.28 | 0.24 |
| 10 | HRUM | 0.17 | 0.11 | 0.09 | 0.26 | 0.18 |
| 11 | INDY | 0.69 | 0.71 | 0.75 | 0.76 | 0.63 |
| 12 | ITMG | 0.33 | 0.27 | 0.27 | 0.28 | 0.26 |
| 13 | KKGI | 0.26 | 0.26 | 0.22 | 0.25 | 0.28 |
| 14 | MBAP | 0.28 | 0.24 | 0.24 | 0.22 | 0.18 |
| 15 | PTBA | 0.33 | 0.29 | 0.30 | 0.33 | 0.36 |
| 16 | SMMT | 0.38 | 0.33 | 0.36 | 0.22 | 0.14 |

| | | | | | | |
|------------------|------|-------------|-------------|-------------|-------------|-------------|
| 17 | TOBA | 0.57 | 0.58 | 0.62 | 0.59 | 0.53 |
| Rata-Rata | | 0.44 | 0.45 | 0.45 | 0.43 | 0.40 |

Perhitungan Peluang Pertumbuhan

| NO | Perusahaan | 2018 | 2019 | 2020 | 2021 | 2022 |
|------------------|------------|-------------|-------------|--------------|-------------|-------------|
| 1 | ADRO | 0.06 | 0.06 | -0.14 | 0.20 | 0.57 |
| 2 | AIMS | 0.16 | 0.00 | 0.19 | 0.13 | 0.24 |
| 3 | ARII | 0.10 | 0.08 | -0.19 | 0.24 | 0.34 |
| 4 | BSSR | 0.20 | 0.07 | 0.02 | 0.67 | 0.03 |
| 5 | BUMI | 0.08 | -0.01 | -0.10 | 0.25 | 0.17 |
| 6 | BYAN | 0.33 | 0.16 | 0.23 | 0.52 | 0.79 |
| 7 | DSSA | 0.27 | 0.14 | -0.24 | 0.05 | 1.36 |
| 8 | GEMS | 0.22 | 0.16 | 0.02 | 0.03 | 0.50 |
| 9 | GTBO | 0.00 | 0.02 | -0.04 | 0.03 | 0.19 |
| 10 | HRUM | 0.05 | 0.00 | 0.09 | 0.77 | 0.61 |
| 11 | INDY | 0.04 | 0.03 | -0.06 | 0.07 | 0.07 |
| 12 | ITMG | 0.09 | -0.13 | -0.07 | 0.47 | 0.73 |
| 13 | KKGI | 0.15 | 0.12 | -0.16 | 0.24 | 0.41 |
| 14 | MBAP | 0.11 | 0.16 | -0.08 | 0.43 | 0.30 |
| 15 | PTBA | 0.10 | 0.08 | -0.08 | 0.50 | 0.26 |
| 16 | SMMT | 0.16 | -0.03 | 0.01 | 0.19 | 0.12 |
| 17 | TOBA | 0.48 | 0.32 | 0.18 | 0.12 | 0.16 |
| Rata-Rata | | 0.15 | 0.07 | -0.02 | 0.29 | 0.40 |

Ukuran Perusahaan

| NO | Perusahaan | 2018 | 2019 | 2020 | 2021 | 2022 |
|----|------------|-------|-------|-------|-------|-------|
| 1 | ADRO | 32.22 | 32.28 | 32.13 | 32.32 | 32.76 |
| 2 | AIMS | 23.59 | 23.59 | 23.76 | 23.88 | 24.10 |
| 3 | ARII | 29.21 | 29.29 | 29.08 | 29.29 | 29.59 |
| 4 | BSSR | 28.86 | 28.92 | 28.94 | 29.46 | 29.48 |
| 5 | BUMI | 31.63 | 31.61 | 31.51 | 31.73 | 31.89 |
| 6 | BYAN | 30.40 | 30.55 | 30.76 | 31.18 | 31.76 |
| 7 | DSSA | 31.48 | 31.62 | 31.34 | 31.39 | 32.25 |
| 8 | GEMS | 29.91 | 30.06 | 30.07 | 30.10 | 30.51 |
| 9 | GTBO | 27.42 | 27.43 | 27.40 | 27.43 | 27.60 |
| 10 | HRUM | 29.50 | 29.50 | 29.58 | 30.16 | 30.63 |
| 11 | INDY | 31.56 | 31.59 | 31.53 | 31.60 | 31.67 |
| 12 | ITMG | 30.63 | 30.49 | 30.42 | 30.81 | 31.36 |

| | | | | | | |
|------------------|------|--------------|--------------|--------------|--------------|--------------|
| 13 | KKGI | 28.12 | 28.24 | 28.06 | 28.27 | 28.62 |
| 14 | MBAP | 28.51 | 28.66 | 28.57 | 28.93 | 29.20 |
| 15 | PTBA | 30.82 | 30.89 | 30.81 | 31.22 | 31.45 |
| 16 | SMMT | 27.53 | 27.49 | 27.51 | 27.68 | 27.80 |
| 17 | TOBA | 29.57 | 29.85 | 30.02 | 30.14 | 30.28 |
| Rata-Rata | | 29.47 | 29.53 | 29.50 | 29.74 | 30.05 |

A. Statistik Deskriptif

| | Y | X1 | X2 | X3 | X4 |
|--------------|----------|-----------|----------|-----------|-----------|
| Mean | 0.155412 | 0.091765 | 0.437059 | 0.178471 | 29.65941 |
| Median | 0.140000 | 0.210000 | 0.380000 | 0.120000 | 30.06000 |
| Maximum | 0.540000 | 2.020000 | 1.190000 | 1.360000 | 32.76000 |
| Minimum | 0.000000 | -9.190000 | 0.090000 | -0.240000 | 23.59000 |
| Std. Dev. | 0.134912 | 1.066473 | 0.234966 | 0.251252 | 2.067121 |
| Skewness | 0.858291 | -7.828548 | 1.103527 | 1.745272 | -1.190630 |
| Kurtosis | 3.144357 | 69.27357 | 3.792249 | 7.855058 | 4.491519 |
| Jarque-Bera | 10.50988 | 16423.88 | 19.47473 | 126.6340 | 27.96157 |
| Probability | 0.005222 | 0.000000 | 0.000059 | 0.000000 | 0.000001 |
| Sum | 13.21000 | 7.800000 | 37.15000 | 15.17000 | 2521.050 |
| Sum Sq. Dev. | 1.528911 | 95.53864 | 4.637565 | 5.302701 | 358.9311 |
| Observations | 85 | 85 | 85 | 85 | 85 |

B. CEM

Dependent Variable: Y

Method: Panel Least Squares

Date: 02/11/24 Time: 14:16

Sample: 2018 2022

Periods included: 5

Cross-sections included: 17

Total panel (balanced) observations: 85

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|--------|
| C | -0.706862 | 0.167258 | -4.226177 | 0.0001 |
| X1 | -0.007576 | 0.010752 | -0.704579 | 0.4831 |
| X2 | -0.296286 | 0.051355 | -5.769365 | 0.0000 |
| X3 | 0.121240 | 0.047043 | 2.577195 | 0.0118 |
| X4 | 0.032732 | 0.005914 | 5.534899 | 0.0000 |
| R-squared | 0.450972 | Mean dependent var | 0.155412 | |
| Adjusted R-squared | 0.423521 | S.D. dependent var | 0.134912 | |
| S.E. of regression | 0.102434 | Akaike info criterion | -1.662178 | |
| Sum squared resid | 0.839415 | Schwarz criterion | -1.518492 | |
| Log likelihood | 75.64255 | Hannan-Quinn criter. | -1.604383 | |
| F-statistic | 16.42802 | Durbin-Watson stat | 0.838815 | |
| Prob(F-statistic) | 0.000000 | | | |

C FEM

Dependent Variable: Y

Method: Panel EGLS (Cross-section weights)

Date: 02/11/24 Time: 14:18

Sample: 2018 2022

Periods included: 5

Cross-sections included: 17

Total panel (balanced) observations: 85

Linear estimation after one-step weighting matrix

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | -3.447435 | 0.851833 | -4.047080 | 0.0001 |
| X1 | -0.011593 | 0.005462 | -2.122574 | 0.0377 |
| X2 | 0.015082 | 0.034428 | 0.438059 | 0.6628 |
| X3 | -0.005904 | 0.035766 | -0.165079 | 0.8694 |
| X4 | 0.121323 | 0.028986 | 4.185639 | 0.0001 |

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

| | | | |
|--------------------|----------|--------------------|----------|
| R-squared | 0.860938 | Mean dependent var | 0.168116 |
| Adjusted R-squared | 0.817481 | S.D. dependent var | 0.125809 |
| S.E. of regression | 0.078417 | Sum squared resid | 0.393551 |
| F-statistic | 19.81130 | Durbin-Watson stat | 1.908040 |
| Prob(F-statistic) | 0.000000 | | |

Unweighted Statistics

| | | | |
|-------------------|----------|--------------------|----------|
| R-squared | 0.716663 | Mean dependent var | 0.155412 |
| Sum squared resid | 0.433198 | Durbin-Watson stat | 1.434244 |

C. REM

Dependent Variable: Y
 Method: Panel EGLS (Cross-section random effects)
 Date: 02/11/24 Time: 14:19
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 17
 Total panel (balanced) observations: 85
 Swamy and Arora estimator of component variances

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | -0.695563 | 0.206548 | -3.367565 | 0.0012 |
| X1 | -0.012558 | 0.008974 | -1.399290 | 0.1656 |
| X2 | -0.253192 | 0.057436 | -4.408271 | 0.0000 |
| X3 | 0.108088 | 0.039685 | 2.723656 | 0.0079 |
| X4 | 0.031811 | 0.007228 | 4.400986 | 0.0000 |

| Effects Specification | | S.D. | Rho |
|-----------------------|--|----------|--------|
| Cross-section random | | 0.044145 | 0.2260 |
| Idiosyncratic random | | 0.081699 | 0.7740 |

| Weighted Statistics | | | |
|---------------------|----------|--------------------|----------|
| R-squared | 0.330311 | Mean dependent var | 0.099090 |
| Adjusted R-squared | 0.296826 | S.D. dependent var | 0.105487 |
| S.E. of regression | 0.088456 | Sum squared resid | 0.625963 |
| F-statistic | 9.864602 | Durbin-Watson stat | 1.068524 |
| Prob(F-statistic) | 0.000002 | | |

| Unweighted Statistics | | | |
|-----------------------|----------|--------------------|----------|
| R-squared | 0.442608 | Mean dependent var | 0.155412 |
| Sum squared resid | 0.852202 | Durbin-Watson stat | 0.784857 |

D. Uji Chow

Redundant Fixed Effects Tests
 Equation: Untitled
 Test cross-section fixed effects

| Effects Test | Statistic | d.f. | Prob. |
|--------------------------|-----------|---------|--------|
| Cross-section F | 3.860072 | (16,64) | 0.0001 |
| Cross-section Chi-square | 57.417614 | 16 | 0.0000 |

E. Uji Hausman

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 17.781818 | 4 | 0.0014 |

F. Hasil Estimasi Data Panel

Dependent Variable: Y

Method: Panel Least Squares

Date: 02/06/24 Time: 22:46

Sample: 2018 2022

Periods included: 5

Cross-sections included: 17

Total panel (balanced) observations: 85

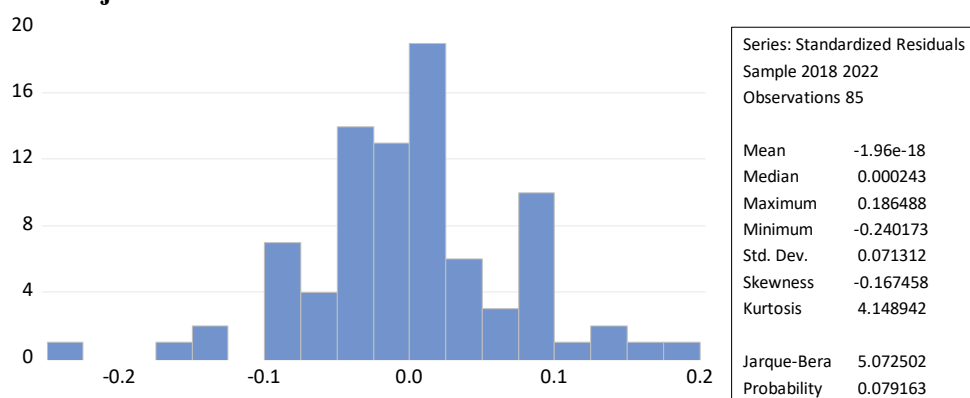
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | -2.878389 | 1.484605 | -1.938825 | 0.0569 |
| X1 | -0.015015 | 0.009366 | -1.603066 | 0.1138 |
| X2 | -0.044605 | 0.101027 | -0.441509 | 0.6603 |
| X3 | 0.034892 | 0.059234 | 0.589052 | 0.5579 |
| X4 | 0.102782 | 0.050267 | 2.044702 | 0.0450 |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.720599 | Mean dependent var | 0.155412 |
| Adjusted R-squared | 0.633286 | S.D. dependent var | 0.134912 |
| S.E. of regression | 0.081699 | Akaike info criterion | -1.961208 |
| Sum squared resid | 0.427179 | Schwarz criterion | -1.357730 |
| Log likelihood | 104.3514 | Hannan-Quinn criter. | -1.718472 |
| F-statistic | 8.253073 | Durbin-Watson stat | 1.446865 |
| Prob(F-statistic) | 0.000000 | | |

G. Uji Normalitas



H. Uji Multikolinearitas

| | Y | X1 | X2 | X3 | X4 |
|----|-----------|-----------|-----------|-----------|-----------|
| Y | 1.000000 | 0.003276 | -0.364073 | 0.352154 | 0.366456 |
| X1 | 0.003276 | 1.000000 | -0.037192 | 0.217821 | -0.010394 |
| X2 | -0.364073 | -0.037192 | 1.000000 | -0.095580 | 0.341558 |
| X3 | 0.352154 | 0.217821 | -0.095580 | 1.000000 | 0.179628 |
| X4 | 0.366456 | -0.010394 | 0.341558 | 0.179628 | 1.000000 |

I. Uji Heterokedastisitas

