

Results

Linear Regression

Model Fit Measures

| Model | R | R ² | Overall Model Test | | | |
|-------|---------|----------------|--------------------|-----|------|----------|
| | | | F | df1 | df2 | p |
| 1 | 0.20922 | 0.04377 | 18.12769 | 3 | 1188 | < .00001 |

Model Coefficients - log_VOL

| Predictor | Estimate | SE | t | p |
|-----------|----------|---------|-----------|----------|
| Intercept | -1.78785 | 0.04289 | -41.68149 | < .00001 |
| EPS | -0.00280 | 0.00065 | -4.33402 | 0.00002 |
| SPS | -0.00134 | 0.00074 | -1.80281 | 0.07167 |
| GPS | 0.00053 | 0.00057 | 0.93191 | 0.35157 |

Assumption Checks

Durbin–Watson Test for Autocorrelation

| Autocorrelation | DW Statistic | p |
|-----------------|--------------|---------|
| 0.00705 | 1.98432 | 0.78800 |

[3]

Collinearity Statistics

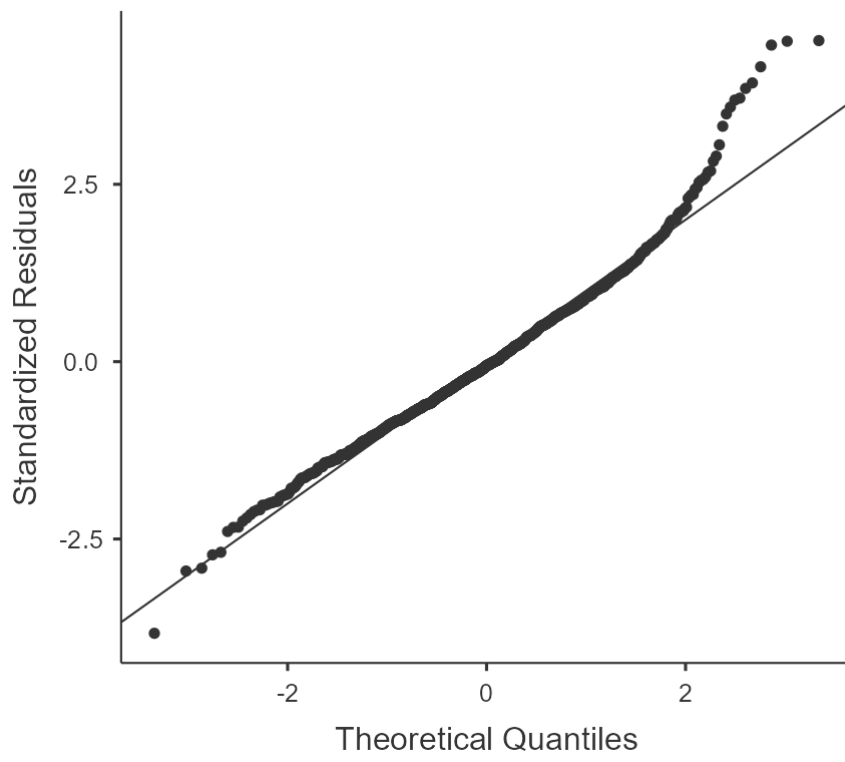
| | VIF | Tolerance |
|-----|---------|-----------|
| EPS | 1.82077 | 0.54922 |
| SPS | 1.84642 | 0.54159 |
| GPS | 1.17387 | 0.85188 |

[3]

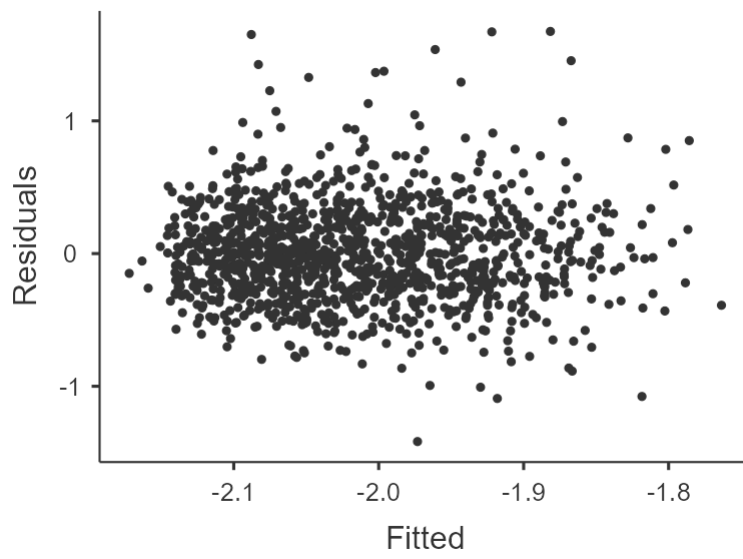
Normality Test (Shapiro-Wilk)

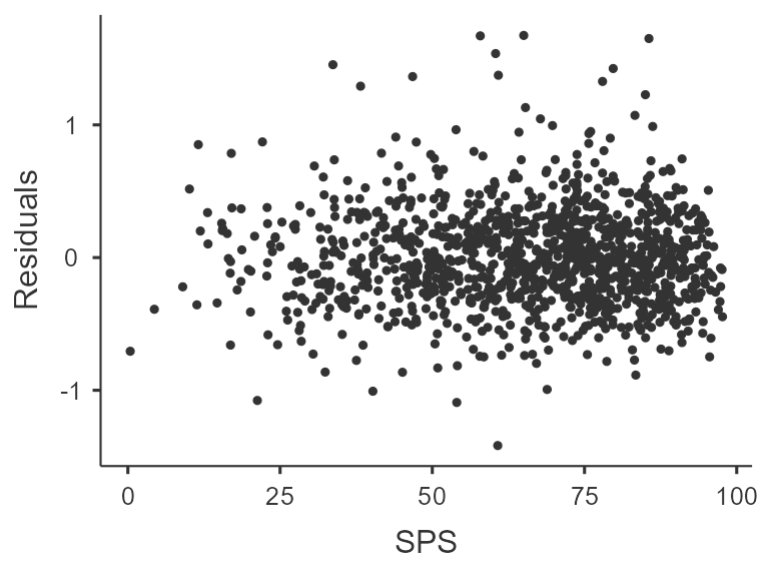
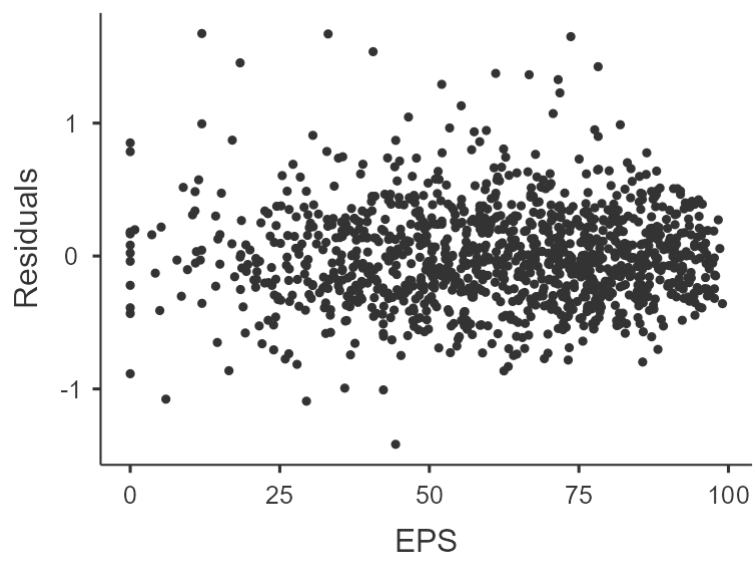
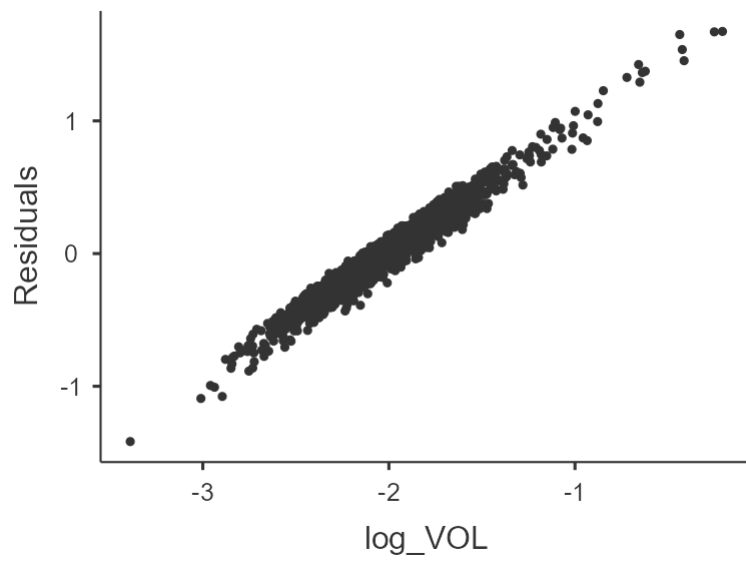
| Statistic | p |
|-----------|----------|
| 0.97658 | < .00001 |

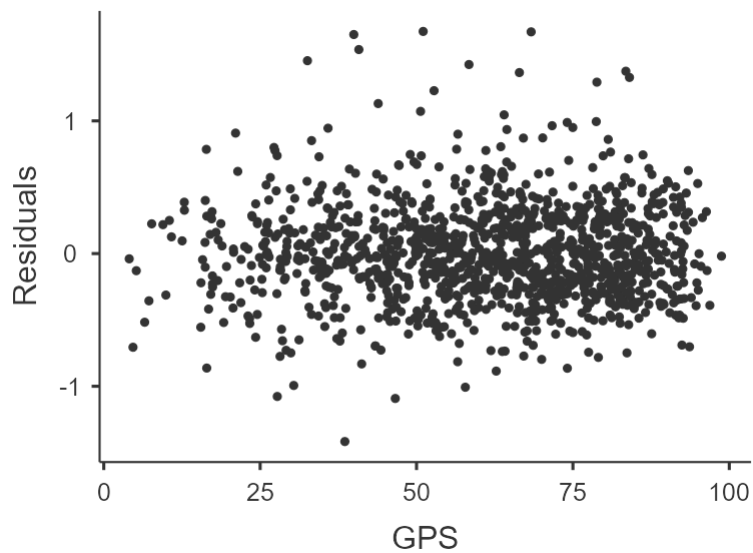
Q-Q Plot



Residuals Plots







References

- [1] The jamovi project (2022). *jamovi*. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- [2] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from MRAN snapshot 2022-01-01).
- [3] Fox, J., & Weisberg, S. (2020). *car: Companion to Applied Regression*. [R package]. Retrieved from <https://cran.r-project.org/package=car>.