ECON3360 - Tutorial 3

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August 15, 2023

Introduction

- Contact: **a.kalay@uq.edu.au**
- Additional materials: **alfurka.github.io/teaching**
- STATA: **UQ Digital Workspace**
- Consultation: **Tuesday 15:00 - 16:00**
  - *Zoom link available on BB*

Linear-Linear Model

$$Y = a + bX$$

- This is the most straightforward type of regression. In this model, both X and Y are measured on a linear scale, so the interpretation is straightforward.
- If X increases by 1 unit, Y is expected to change by b units, holding all else constant.

Log-Log Model

$$\ln(Y) = a + b\ln(X)$$

- This is a logarithmic transformation of both the dependent and independent variables, also known as a log-log model.
- If X increases by 1%, Y is expected to change by b%, holding all else constant.

Log-Linear Model

$$\ln(Y) = a + bX$$

- In this model, the dependent variable Y is logged while the independent variable X is in its original linear form.
- If X increases by 1 unit, Y is expected to change by $(b * 100)\%$ in percentage terms, holding all else constant.

Linear-Log Model

$$Y = a + b\ln(X)$$

- In this model, the independent variable X is logged while the dependent variable Y is in its original linear form.
- If X increases by 1%, Y is expected to change by 0.01b units, holding all else constant.