



School	Business
Department	Economics, Business & Finance
Type of Submission	Assignment []
	Exam []
	Homework []
Submitted By:	
Name:	
Student ID:	
Date:	
Instructor:	
Name:	
Grade:	
Part A	
Part B	
Part C	
Total	

Eco 2104209 Econometrics for Economics

Instructions for the Coursework (To be assessed by a 10 points)

Topic: Determinants of Economic Growth in Cross-Sectional Data

Objective:

Students should analyze cross-sectional data to investigate the factors influencing economic growth across countries in a single year. The assignment will focus on using regression techniques to derive insights and assess model assumptions.

Instructions:

1. Dataset Preparation:

Use cross-sectional data for a single year (e.g., 2020) from a reliable source such as the World Bank or IMF. Include data on at least 30 countries. Key variables may include:

- Dependent Variable: GDP
- Independent Variables:
 - Investment (e.g., Gross Fixed Capital Formation as a percentage of GDP)
 - Trade Openness (exports + imports as a percentage of GDP)
 - Inflation Rate (CPI or GDP deflator)

2. Tasks:

a. Data Exploration:

- Summarize the dataset using descriptive statistics.
- Generate visualizations (scatterplots, histograms) to examine the relationships between GDP per capita and the independent variables.

b. Model Estimation:

- Estimate an Ordinary Least Squares (OLS) regression model.

c. Model Interpretation:

- Report and interpret the estimated coefficients.
- Discuss the statistical significance and economic implications of each variable.

d. Robustness Checks:

- Re-estimate the model by excluding one independent variable at a time to assess robustness.
- Compare adjusted R-squared values and the Akaike Information Criterion (AIC).

3. Submission Requirements:

- A written report (5–7 pages) including:
 - Data description and summary
 - Regression results and diagnostics
 - Interpretation of findings
 - Policy implications based on the results