

# We need to find a good title guysss

FEM11149 - Introduction to Data Science

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## 1. Introduction

Economic growth is a central concern for governments worldwide, especially when planning to increase public spending that may require external borrowing. Since borrowed funds must eventually be repaid, it is crucial to ensure that the economy grows at a sustainable pace. A commonly used indicator for this purpose is the **Gross Domestic Product (GDP) growth rate**, which provides a measure of how rapidly an economy is expanding over time. In this project, we work as part of a **data science consulting team** for governmental agencies. One of the agencies has tasked us with investigating whether a country's GDP growth can be predicted using a combination of **economic and demographic variables**.

## 1. Regression Model

### 1. 1 Both regressions.

```
## Analysis of Variance Table
##
## Model 1: gdp_growth ~ electricity_access + age_dependency_ratio + family_workers_total +
##   employers_total + internet_users + lfpr_total + own_account_total +
##   pop_15_64_pct + pop_growth + tax_payments_num + urban_population_pct +
##   credit_coverage_private + credit_coverage_public
## Model 2: gdp_growth ~ electricity_access + age_dependency_ratio + family_workers_total +
##   employers_total + internet_users + lfpr_total + own_account_total +
##   pop_15_64_pct + pop_growth + tax_payments_num + urban_population_pct +
##   net_trade + credit_coverage_private + credit_coverage_public
##   Res.Df    RSS Df Sum of Sq    F Pr(>F)
## 1      136 2728.5
## 2      135 2727.5   1    0.9909 0.049 0.8251
```

##	electricity_access	age_dependency_ratio	family_workers_total
##	4.901579	86.327614	1.907792
##	employers_total	internet_users	lfpr_total
##	1.242577	5.705661	1.673416
##	own_account_total	pop_15_64_pct	pop_growth
##	3.200111	76.845774	2.048606
##	tax_payments_num	urban_population_pct	net_trade
##	1.827613	2.615935	1.102113

```
## credit_coverage_private  credit_coverage_public
##                1.841093                1.323436
```

## Data

For this purpose, we rely on the **Global Jobs Indicators Database from the World Bank**, which provides extensive country-level data on employment, trade, demographics, and development indicators. The dataset we use (`a1_data_group_x.csv`) contains **150 observations** (countries) and **74 variables**, including the variable of interest: GDP growth.

## Results.

## Methods.

## Results.

## Conclusion and Discussion.

## Code.

## 3. Having a bibliography file

In case you use references, you can include them in the RMarkdown file in an automatic way. You see on Canvas a file named `references.bib`, and the file is being called on the header of the `*.rmd` document that generated the pdf. If you open the bib file (you can use either a TeX editor or notepad) you will see a single reference, that has a [BibTeX](#) format.

```
@book{ISL,
  title={An introduction to statistical learning},
  author={James, Gareth and Witten, Daniela and Hastie, Trevor and Tibshirani, Robert},
  volume={112},
  year={2013},
  publisher={Springer}
}
```

The first thing that appear after the bracket is the alias that you use to ‘call’ the book in your text. In RMarkdown, you need to use the @ sign, followed by this alias: `[@ISL]` results in `[@ISL]`. When you call a reference, RMarkdown will automatically add it in the very end of the document. So we recommend to end your file with a title format for references (even if not is being displayed in your code, it will appear after knitting the file).

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### **3. Conclusions**

You might need more sections than three.

### **References**