

# Introduction to Handling Data

ECON20222 - Lecture 1

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# What is this course unit about?

- Help you implement and interpret the main inference techniques used in Economics
- Focus on:
  - ▶ causal inference
  - ▶ the main pitfalls of time-series analysis

## At the end of this unit ...

You will be able to:

- Do intermediate data work in R
- Confidently apply regression analysis in R
- Apply more advanced causal inference techniques in R
- Find coding help for any new challenges in R
- Identify inference appropriate for the occasion
- Discuss strengths and weaknesses of particular empirical applications
- Interpret empirical results (with due caution!)

# What you need to do

To learn in this unit you need to:



coding, cleaning data, struggling,  
amazement at what you can do

answering real questions, that there  
is not always a clear answer

# Aim for today

## Statistics/Econometrics

- Summary Statistics
- Difference between population and sample
- Hypothesis testing
- Graphical Data Representations
- Simple regression analysis

## R Coding

- Introduce you to R and RStudio
- How do I learn R
- Import data into R
- Perform some basic data manipulation
- Perform hypothesis tests
- Estimate a regression

# Why Data Matter



Average GDP growth rates (High Income countries - 1946 to 2009):

Debts Category	0,30]	(30,60]	(60,90]	(90,Inf]
Avg Growth Rate	4.09%	2.87%	3.40%	-0.02%

# Introduce R/R-Studio

# Write Code Files or the Basic Workflow



# The data

Upload the data and check years and countries

# Scatter plot of the data