

# Introduction to econometrics

Boyko Amarov

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# Chapter 1

## Introduction

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## Chapter 2

# Sample covariance and sample correlation

### 2.1 Time series analysis class 2

Let us denote the realisations of a time series process with

$$y : y_1, y_2, \dots, y_T$$

where  $y_1$  is the first value of the series and  $y_T$  is the last value of the series.

The first lag of the series is defined as

$$y_{t-1} : \text{first lag}$$

### 2.2 Purely random process (white noise)

Let  $u_t$  be an uncorrelated, normally distributed zero mean process with constant variance  $\sigma^2$ .

$$u_t \sim N(0, \sigma^2), \quad t = 1, \dots, T$$