10.2 Time Series Basics

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$\{X_t : t = 1, 2, \ldots\}$

Time series data is a random sequential process

observe one outcome at a point in time

1) Past can impact the future
2) Outcomes are random, but obs not independent

Static Time series model

$Y_t = B_0 + B_1 X_t + u_t$

$\frac{rev}{exp}_t = B_0 + B_1 rgdpc_t + u_t$ ⟶ $rGDPC = gdp / gdpdcf \cdot pop$

↑
revenue/expenditure

exp_t: depend on what we want income↑, more depends on available revenue

rev_t: avg tax rate · tax base t
↑
income