→ avoid parametric models

microeconometrics using

— departures from OLS in a cross-sectional setting / longitudinal setting
                          panel
    ↳ we may find that OLS could not be applied to answer a research question

— not necessarily applied to "micro" type problems only

time series econometrics

— observe <u>a</u> unit over time → special data structure
                      → order of observations matter„

— OLS usually applied but there are a lot of exceptions.

example regression of GDP on time (trend)

t	GDP_t	GDP_{t-1}	$lm(\ GDP \sim t\ )$
1985	✓	*	
1986	—		lagged variable
1987			
⋮	⋮		
2023	✓		

$lm(\ GDP_t \sim GDP_{t-1}\ )$
You can always type this command but we do not know yet what we are going to learn from it.

models are summarized by a finite number of unknown constants.
↓
Parametric
→ — models show up more often
and
distributions are specified

<u>discrete</u> <u>choice</u> modeling → regressand (Y) is categorical
        example. $Y \in \{0, 1\}$
                  not spam   spam

        $Y \in \{0, 1\}$
      do not   → enter labor force
      enter labor force

        $Y \in \{A, B, C, D\}$
                bond ratings.

IPUMS (ipums.org) ⎰ cross-sectional
                    ⎱ not necessarily longitudinal

                empirical
                corporate finance
ECOFMET ⎰
                empirical
                asset pricing
            Philippine setting: household finance.

Refinitiv Eikon

        business math   rate is constant over time

Why bother taking log of returns?
— striking contrast to ECWMETR
✓ multiplication ⟹ addition
✓ $\log(1+x) \approx x$
      for x small enough