Lab Session 10

Outline of lab session:

- extra review of residuals and correlation (10L−12/15/16/17/19),
- Minitab review for linear regression and correlation:[1]
  - scatterplots: `Graph-Scatterplot`,
  - correlation: `Stat-Basic Stats-Correlation`
  - regression analysis: `Stat-Regression-Fitted Line Plot` (nice plots, but limited statistics) or `-Regression-Fit Regression Model`,
  - prediction: *intervals*: `Stat-Regression-Regression-Predict` after fitted model; *bands*: "Options" in `Fitted Line Plot` menu.
- suggest to postpone summary worksheets to next week,
- individual work on the exercises, and time for questions. . . : 2:11,48; 10:38,39; 2:12,27,28,60,2; 10:7,**17**,12,**33**; x:20,**21**; final2016:2; **final2006:3**; 10:27 (2:57,59; 10:18,26,40; x:22) — recommended order,

Notes and questions for specific exercises:

- 2.48, 10.38: analyze also without one extreme obs., and compare,
- 10.7: explore also the impact of observation no. 7,
- 10.12, 10.40: hand calculation (computer of limited use),
- x.20, final2016.2: practice for critique of journal articles,
- x.22: Minitab menu to compute ranks: `Data-Rank`.[2]

[1] Stata for linear regression (for R methods, see R programs):

– scatterplots in `Graphics-Twoway` menu, create scatter plot (basic) and fitted line (fit plots, linear prediction),

– regression analysis: `Stat-Linear-Linear Regression`,

– prediction ("forecast" in Stata): `Stat-Postestimation-Predict`.

[2] Stata: `egen rank` command; R: `rank` function.