PS16

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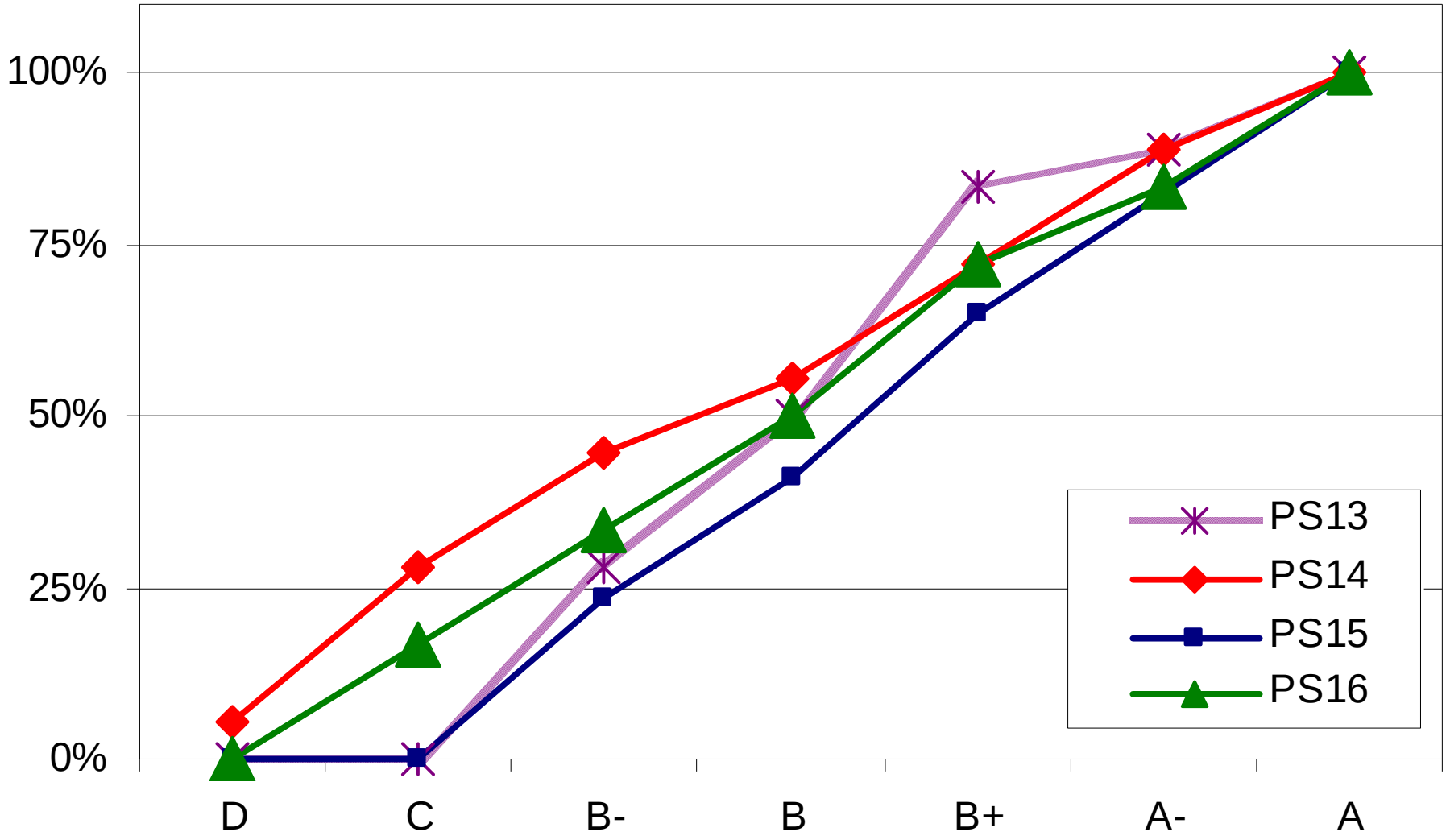
Office hour: Monday, S684, 16.30-17.30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General comments (1/3)

- When you write a time series model, write the time subscripts:

  eg. $Y_t = B_1 + B_2.X_{t-1} + u_t$
- Do not use “E-VIEWS” notations:

  eg. Write X_{t-1} and not X(-1).
- When you use a Durbin-Watson test or a Durbin h test, state clearly that you assume that the disturbance term is an AR(1) process:

  $u_t = \rho.u_{t-1} + \varepsilon_t$

General comments (2/3)

- When you use a Durbin-Watson test or a Durbin h test, you can only state:

  Ho: $\rho=0$ vs H1: $\rho\neq0$

  If you have already defined ρ.
- Even if you have auto-correlation, OLS estimator remains consistent with time series (and unbiased in some particular cases).
- AR(1) model is consistent and should be efficient if the true model is AR(1).

General comments (3/3)

- So comparing the AR(1) and usual OLS estimates you do not expect large difference if the only problem if the OLS method is autocorrelation. Otherwise you may assume that there is an issue of "apparent autocorrelation" and that the initial model is misspecified in some way.

- When you interpret a set of Monte-Carlo simulations, always pay attention to the size of the samples, bias/variance and MSE of the estimators.