

To be handed by email (jcrespo@wu.ac.at) by July 2, 2023.

Exercise Sheet Topics in Macroeconomic Theory and Policy

1. Using the data from the Penn World Table 10.1, available at <http://www.rug.nl/ggdc/productivity/pwt/>,

- Perform an unconditional β -convergence analysis for the period 1960-1990 and another one for the period 1990-2019 for all countries of the world for which data are available. How has the global income convergence pattern across countries changed over time?
- Perform an conditional β -convergence analysis for both periods, controlling for differences in population growth rates and investment shares (average over the period, both of these variables are available in the Penn World Table dataset). How does the interpretation of your results differ from that of the previous question?

1. In their seminal paper *A Contribution to the Empirics of Economic Growth*, Mankiw, Romer and Weil include human capital in the Solow model and present empirical evidence about the role that education plays as a determinant of economic growth. You can find the data used in the paper here: <https://github.com/HariharanJayashankar/mrw1992>.

- Making use of the data used in the paper, replicate Table VI (page 429 of the original paper, that can be found here: https://scholar.harvard.edu/sites/scholar.harvard.edu/files/mankiw/files/contribution_to_the_empirics.pdf).
- Is the effect of human capital on economic growth different in African countries as compared to the rest of the world? Test this hypothesis making use of the model which is presented in Table VI.
- Is the speed of conditional income convergence implied by this model different in African countries as compared to the rest of the world?