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## Macroeconomics, Winterterm 2012/2013

### Task Assignment Group 1

This assignment requires you to (i) hand in an Excel file to the teaching assistant where you provide all numerical results and graphs on separate spreadsheets *before* the presentation in class (dates noted on course schedule provided on the syllabus on the website [www.marcelbluhm.com](http://www.marcelbluhm.com)), and, (ii), to set up a presentation (preferably in .ppt format) for class. The International Monetary Fund's World Economic Outlook Database (<http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/index.aspx>) as well as the Penn World Tables (<http://pwt.econ.upenn.edu/>) are valuable data sources.

1. Collect data on nominal GDP, the GDP deflator, and real GDP per capita for the UK, China, and South Africa over the period from 1980-2011.
2. Use the GDP deflator to compute real GDP for each country.
3. Plot nominal GDP as well as real GDP for each country individually. Explain why both time series develop differently over time.
4. Compute the annual growth rates of real GDP as well as per capita real GDP and plot both time series on one figure individually for the three countries. Outline potential reasons for differences in the distance between the two lines for each country.
5. Calculate the variance of each country's real per capita GDP growth rate and give possible explanations why China has higher output growth variability than the U.K.
6. Prepare presentation slides for class (for a presentation of 10 minutes) in which you outline your assignment, the concepts you use as well as your interpretation results from exercises 1-5 above. Make sure to also give the data sources you use.