7SSPN231 – 2024/25 – Seminar 9

Accessing and using OBR data about UK public finance

Note: I expect some of you will be more expert in working with data and using Excel spreadsheets, others less. If you don't have a lot of experience with this, don't worry and just do the parts of the two exercises that you are able to do. I suggest then practicing with it at home, because it is a very valuable skill set.

1. Public finance data
   From the Data section of the Office for Budget Responsibility website (https://obr.uk/data/), download the latest edition of the "Public finances databank" (it is an Excel file). This is a dataset with all the key indicators measuring the state of UK public finances over time.
      a. Explore the spreadsheet, to understand its structure and the information it contains.
      b. From 'Aggregates (per cent of GDP)', find the following two variables:

      - Primary balance
      - Cyclically adjusted primary balance.
      (If you don't remember the definitions of these two variables, look them up online or from the module materials on Keats.)

      Make a graph with fiscal year on the horizontal axis, and with two lines representing the evolution of the two variables over time. The graph should span the period from 1975-76 to 2023-24.

      Based on the data in the spreadsheet and your graph, identify three historical episodes in which there was a significant difference between the primary balance and the cyclically-adjusted primary balance. Briefly mention the reason for the divergence in each episode.

2. *Policy measures database*
   Again from the Data webpage of OBR (https://obr.uk/data/), download the latest edition of the "Policy measures database". This is an Excel file with information about discretionary fiscal measures. It includes all discretionary tax changes since 1970 and all discretionary spending measures since 2010. The information is organized by fiscal event (ie, in which budget the measure was announced), by fiscal year (ie, the impact on public finance in each subsequent fiscal year) and

by category (what type of tax was raised, or what category of spending increased/decreased).

   a. Explore the spreadsheet, to understand its structure and the information it contains.
   b. Using the 'Borrowing summary' sheet, try to figure out the main features of 2010-2015 austerity policies.

   Focus on the columns representing fiscal years from '2010-11' to '2015-16', and on the rows representing fiscal events from 'Budget 2010 #2' to 'Budget 2015'. Keep in mind that: (1) this only captures the impact of new *discretionary* measures introduced in each budget; (2) following the usual convention, positive numbers indicate improvements in the budget balance (increases in tax revenues and decreases in spending), while negative numbers indicate worsening of the budget balance (decreases in tax revenues or increases in spending).

   Answer the following questions:
   - What fiscal events implemented austerity measures over the 2010-2015 horizon, and what fiscal events partially reversed fiscal consolidation?
   - Make a graph representing the fiscal consolidation measures mandated by the June 2010 Budget (Budget 2010 #2). It should be a graph with stacked bars (in Excel this is done using Chart Design → Column (the image with the bars) → Stacked Column). On the horizontal axis you should have fiscal years from 2010-11 to 2015-16. On the vertical axis, one series represents tax measures, and the other series represents spending measures. It should be a bar chart, where the bars are stacked on top of each other so that the total height of the combined bar is the extent of fiscal consolidation, and you can clearly see the portion due to spending measures and the portion due to tax measures. (It should look similar to the stacked bar charts about tax changes that I have been showing in class, but with spending and taxation instead of the different types of taxes.)