Exercise 7: Working with tax units (*DefTU)*

Altering eligibility to child benefit using tax units (*DefTU*)

# Objectives

We will analyse the distributional and budgetary effects of limiting child benefit to families with children up to 13 years of age. We will implement this reform by creating a new tax unit for analysis.

# Directions

* Open UKMOD and access the UK policy descriptions.
* Copy the *UK\_2026* system and call the copy *UK\_2026\_ex7*.
* Create a new assessment unit by copying the definition of *tu\_bu\_uk*
* Modify the new assessment unit to reflect the upper limit of age 13 for dependent children.
* Modify the definition of the child benefit policy to include the new assessment unit.
* Save the model changes.
* Run both *UK\_2026* and *UK\_2026\_ex7*.
* Use the Statistics Presenter’s *Baseline/Reform* template to analyse effects of the reform.

Exercise 7: Working with tax units (*DefTU)*

Step-by-step solutions and further information

# Step 1: Add a new system

*This step is the same as for Exercise 1 – see the notes to that exercise for extended details.*

* Open the UK model, by clicking on the UK country flag.
* To work more easily with the *UK\_2026* system, limit the display by right-clicking on the system name (*UK\_2026*), selecting *move to hidden system box* and then selecting *all systems but selected*.
* Right-click the system heading (*UK\_2026*) and select the option *copy/paste system*, entering the new system name *UK\_2026\_ex7*.
* Access the search and replace tool by pressing Ctrl+F to find the policy *bch\_uk*.

# Step 2: Implement the desired reform

*NOTE: You should analyse the existing description of policy bch\_uk before attempting to alter it.*

* Note that the unit for the child benefit policy *bch\_uk* is *tu\_bu\_uk*.
* Navigate to the top right cell of the EUROMOD display (Ctrl+Home).
* Use the search tool to find the *TUDef\_uk* policy.
* Find the *DefTu* function that defines benefit units in the model (row 9.4).
* Copy and paste this function to provide a useful starting point.
  + Right-click on the *DefTu* to access the copy and paste menu.

Figure 1: Copying and pasting the DefTu function

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* Turn the new *DefTu* function off for all systems other than *UK\_2026\_ex7*.
  + NOTE: The new *DefTu* function should be set to *n/a* for hidden systems by default.
* Enter *tu\_bunew\_uk* in the *Name* parameter of the new *DefTu* function in the *UK\_2026\_ex7* system.
* Alter the *DepChildCond* parameter of the new *DefTu* function in the *UK\_2026\_ex7* system to match our target reform.
* Alter the *Comment* column of the new *DefTu* function to avoid possible confusion.
* Navigate to the *bch\_uk* policy and amend the *BenCalc* function to reference the new tax unit *tu\_bunew\_uk*.
  + You may need to use the scroll-bar on the drop-down menu.

Figure 2: Defining a new tax unit

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Figure 3: Altering the tax unit assumed for policy bch\_uk

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# Step 3: Run the model and analyse the output

*This step is similar to Exercise 2 – see the notes to that exercise for extended details.*

* Save the model.
* Run the model for the two systems of interest (*UK\_2026* and *UK\_2026\_ex7*).
  + Remember to change the Dataset to *training\_data*.
* Start the Statistics Presenter and select the Baseline/Reform template.
* Select output data to assume for the *baseline* and *alternative* scenarios.
* Inspect the results.

Figure 3: Inspect the results

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