SOUTHMOD

Exercises

Ecuador
ECUAMOD v1.3

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Note: The exercises presented below are applicable to ECUAMOD model v1.3.

Exercise 1: Execution of ECUAMOD and production of descriptive statistics

Task:

1. Run EUROMOD for Ecuador (systems: 2012 and 2013);
2. Use the Statistics Presenter tool to generate income distribution information in these years;
3. Compare statistics of income distribution and decomposition of net income in these years and interpret the results.

Description:

The Statistics Presenter tool, which is part of the EUROMOD software, allows us to calculate a range of indicators and statistics commonly used to analyze the output database of EUROMOD. Among others, it calculates basic poverty and inequality indexes for the population in general and for selected groups; distribution of household income, taxes and bonuses by income groups; and household demographic information by income group. The calculations use the output database of EUROMOD, which contains variables of net income and its components (labor income, bonds and transfers, taxes and contributions to social security).

Purpose of the exercise:

The objective of this exercise is to learn how to run the ECUAMOD model and use the Descriptive Statistics tool of the model. The exercise also introduces basic options such as hiding systems, expanding and collapsing policies and functions, Conditional formatting, etc.

Exercise 2: Increase of the Human Development Bonus

Task:

1. Create a new system in Ecuador based on the year 2014 and name it EC_2014_E2;
2. Increase the bonus amount from USD 50 per month to USD 75 per month;
3. Run EUROMOD to produce the output database for EC_2014 and EC_2014_E2 systems;
4. Analyze the results.

Description:

Since 2013, the amount of the Human Development Bonus (BDH) has been maintained at USD 50 per month. The objective of this exercise is to analyze the effect of a BDH increase to USD 75 per month in 2014.

Purpose of the exercise:

The goal of this exercise is to learn how to create a new system and use the Elig and ArithOp functions. The exercise also introduces basic options such as renaming and deleting systems, searching and replacing, queries, etc.

Exercise 3: Increase in the contribution rate to the IESS for pensions

Task:

1. Create a new system based on the year 2015 and name it EC_2015_E3;
2. Increase the personal contribution rate of employees for pensions;
3. Run EUROMOD to produce the output database for EC_2015 and EC_2015_E3 systems;
4. Analyze the impacts of the reform.

Description:

The objective of this exercise is to increase the personal contribution rate to the IESS for pensions in 2015. In this year, the personal contribution rates for disability, old-age and death insurance for dependent workers are: (i) 6.64% for workers in the private sector; (ii) 8.64% for bank employees; (iii) 8.64% for public servants.

The task is to increase the contribution rate for disability, old age and death insurance to 10% for these three categories of workers using the BenCalc function.

Purpose of the exercise:

The objective of this exercise is to learn how to use the BenCalc function.

Exercise 4: Modification of the lower and upper band of income tax

Task:

1. Create a new system based on the year 2017 and name it EC_2017_e4;
2. Increase the value of the lower band and reduce the value of the upper band of the income tax of natural persons;
3. Run EUROMOD to produce the output database for EC_2017 and EC_2017_E4 systems;

4. Analyze the impacts of the reform.

Description:

The objective of this exercise is to modify the lower band and the upper band of the income tax of individuals in 2017, in order to increase the number of low-paid people exempt from the payment of income tax and increase the number of taxpayers who would be subject to the higher rate of tax. In 2017, the lower band was set at USD 11,290 per year and the upper band was set at USD 115,140 per year.

The task is to increase the value of the band lower than 12,000 USD per year and decrease the value of the band above 90,000 USD per year, using the SchedCalc function.

For your information, the values of the bands of the income tax of natural persons are defined as constants in the policy ConstDef_ec.

Purpose of the exercise:

The goal of this exercise is to learn how to use the SchedCalc function.

Exercise 5: Introduction of the bond for the children of Ireland in Ecuador

Task:

1. Create a new system based on the year 2016 and name it EC_2017_e5;
2. Introduce a new bond for children in Ecuador, following the structure of the bond for children in Ireland
3. Run EUROMOD and produce the output database for systems EC_2017 and EC_2017_e5;
4. Analyze the results.

Description:

Despite progress in the fight against poverty in Ecuador, there are groups of the population such as children and adolescents for whom the level of poverty is higher than the national average. In its publication Social Panorama of Latin America 2013 (ECLAC 2013), the Economic Commission for Latin America and the Caribbean shows that the incidence of child poverty in Ecuador is 40.7% in 2011. With the aim of protecting children and adolescents against poverty, most European countries have implemented bonds for children that could serve as an example for the design of such programs in Latin America.

The objective of this exercise is to implement in Ecuador a bond for children based on the design of the universal bond for children that exists in Ireland and to evaluate the impact of such a program at the level of poverty and inequality.

Additional Information:

- EUROMOD allows directly copying policies from other countries in the Ecuadorian model. However, the implementation of other countries' policies should be done with caution and taking into account the specificities of each country.
- The tax unit (or family unit) used in Ireland for the child bond (tu_bch_fa_ie) must be replaced by a family unit with the same definition for Ecuador (tu_bch_fa_ec);
- In Ireland the amount of the childhood bonus in 2016 is equal to 140 EUR per month. In Ecuador, we want to implement a bonus of USD 40 per month for the first and second child (per each) of the family unit; $ 30 for the third child; and of 20 USD for each boy or girl from the third son or daughter of the family unit.
- Remember to include the new bonus within the corresponding entry list.

Purpose of the exercise:

The objective of this exercise is to learn how to implement an exchange of policies.