2nd Banca d'Italia Workshop on Microsimulation Modelling
Tax and Benefit Microsimulation in an Inflationary Environment

Discussion of the paper:
"Indexing Wages To Inflation In The EU: Fiscal Drag And Benefit Erosion Effects"
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SARA RISCADO | ROME, 16 JUNE 2023
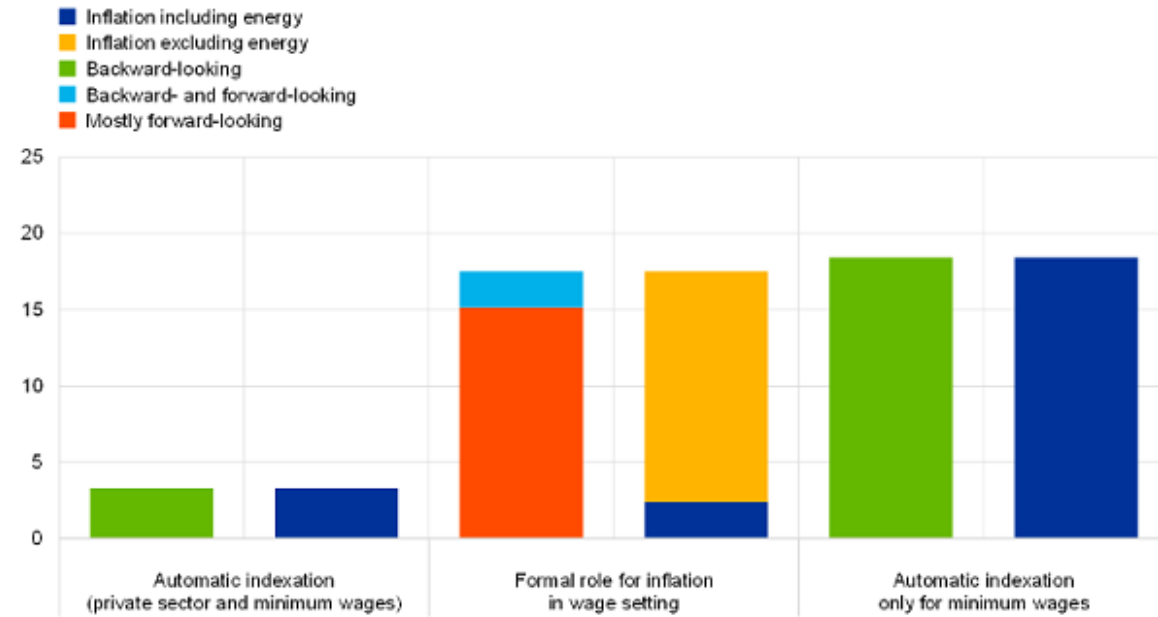
BANCO DE PORTUGAL
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WAGE INDEXATION IN THE EURO AREA
(ECB ECONOMIC BULLETIN, ISSUE 7/2021)

Chart A

Prevalence of wage indexation to inflation in the euro area

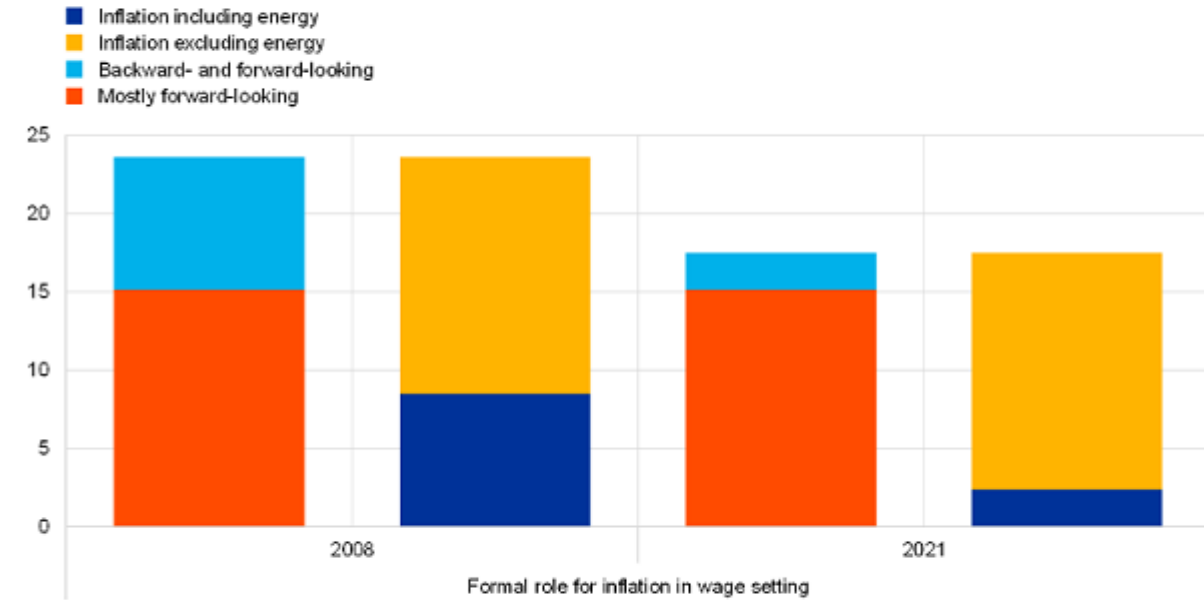(share of total private sector employees in the euro area in percentages; 2021)

- Inflation including energy
- Inflation excluding energy
- Backward-looking
- Backward- and forward-looking
- Mostly forward-looking

Automatic indexation (private sector and minimum wages)

Formal role for inflation in wage setting

Automatic indexation only for minimum wages

Sources: Eurosystem and ECB staff calculations.

Chart B

Prevalence of wage indexation in the euro area in 2008 compared with 2021

(share of total private sector employees in the euro area in percentages; 2021)

- Inflation including energy
- Inflation excluding energy
- Backward- and forward-looking
- Mostly forward-looking

2008

2021

Formal role for inflation in wage setting

Sources: Eurosystem and ECB staff calculations.

Note: Only regimes with a formal role for inflation in wage setting are shown in this chart, as there were no significant changes to the other regimes shown in Chart A.

This paper investigates on how exposed are tax and benefit systems to fiscal drag and benefit erosion, in a context of high inflation, where wage indexation regains a relevant role on the policy debate

- Very timely and relevant information for policy makers, given the inflation surge "episode"

- Cross-country results

- "What if" scenarios provide benchmarks to which real policies can be compared

1. Relative magnitude of the fiscal drag and benefit erosion independent from the size of the wage indexation for the majority of countries

- Any intuition behind this finding? Does this mean that non-linearities of the tax and benefit system are irrelevant up to a certain level of wage indexation?

Table 3a Magnitude of fiscal drag by country - Scenario 1

	Direct taxes	SIC
Countries where revenue increase is:		
…less than 80% of employment income increase	EL, DK	DK, MT, DE, NL, ES, LU
…80% - 120% of employment income increase	HU, FR, PL, BG, IT, RO, FI, SE	BG, IT, AT, CY, PL, SI, LV, EE, LT, CZ, EL, FI, SE, RO, SK, PT, HU, HR, IE, FR, BE
…more than 120% of employment income increase	LT, PT, LV, BE, LU, IE, EE, DE, SI, ES, AT, CZ, SK, NL, MT, CY, HR	-

Source: Own elaboration using EUROMOD version I4.0+.

Table 3b Magnitude of fiscal drag by country – Scenario 2

	Direct taxes	SIC
Countries where revenue increase is:		
…less than 80% of employment income increase	EL, DK	DK, MT, DE, NL, ES, LU
…80% - 120% of employment income increase	HU, FR, PL, BG, IT, RO, FI, SE	BG, IT, AT, CY, PL, SI, LV, EE, LT, CZ, EL, FI, SE, PT, RO, SK, HU, HR, IE, FR, BE
…more than 120% of employment income increase	PT, LT, LV, BE, LU, IE, EE, DE, SI, ES, AT, CZ, NL, SK, CY, MT, HR	-

Source: Own elaboration using EUROMOD version I4.0+.

Table 4a Magnitude of benefit erosion by country - Scenario 1

	Means-tested benefits (MTB)
Countries where MTB decrease is:	
…less than 40% of employment income increase	HU, BE, AT, PL, ES, IE, DK, RO, IT, BG, MT, EE, LV, FI, SE, NL
…more than 40% of employment income increase	EL, FR, CY, LT, PT, DE, SI, LU, SK, HR, CZ

Source: Own elaboration using EUROMOD version I4.0+.

Table 4b Magnitude of benefit erosion by country – Scenario 2

|	Means-tested benefits (MTB)
Countries where MTB decrease is:	
…less than 40% of employment income increase	HU, BE, AT, PL, ES, IE, DK, RO, IT, MT, EE, LV, FI, BG, SE, NL, EL
…more than 40% of employment income increase	LT, CY, PT, FR, DE, SK, LU, SI, HR, CZ

Source: Own elaboration using EUROMOD version I4.0+.

2. The size of the positive budgetary impact of wage indexation is heterogeneous across EU MS
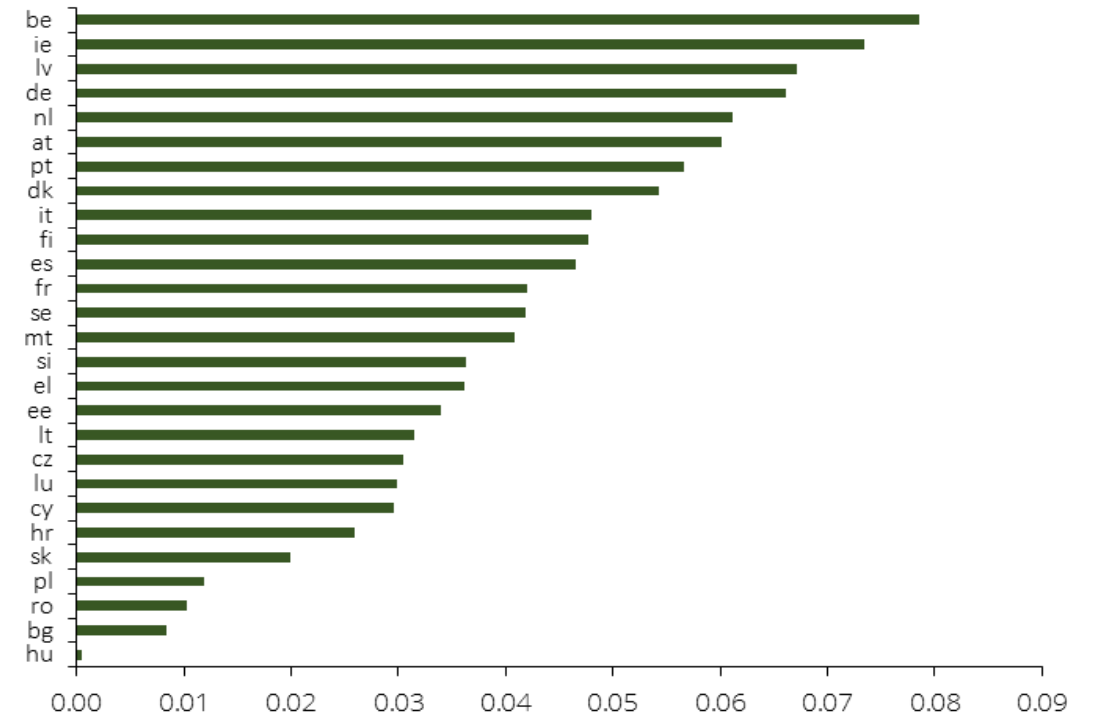
- How is it related with the main characteristics of the PIT systems? And, more generally, with the automatic stabilization power of the tax and benefit systems?

Figure 1 Budgetary impact (% of GDP) – Scenario 1
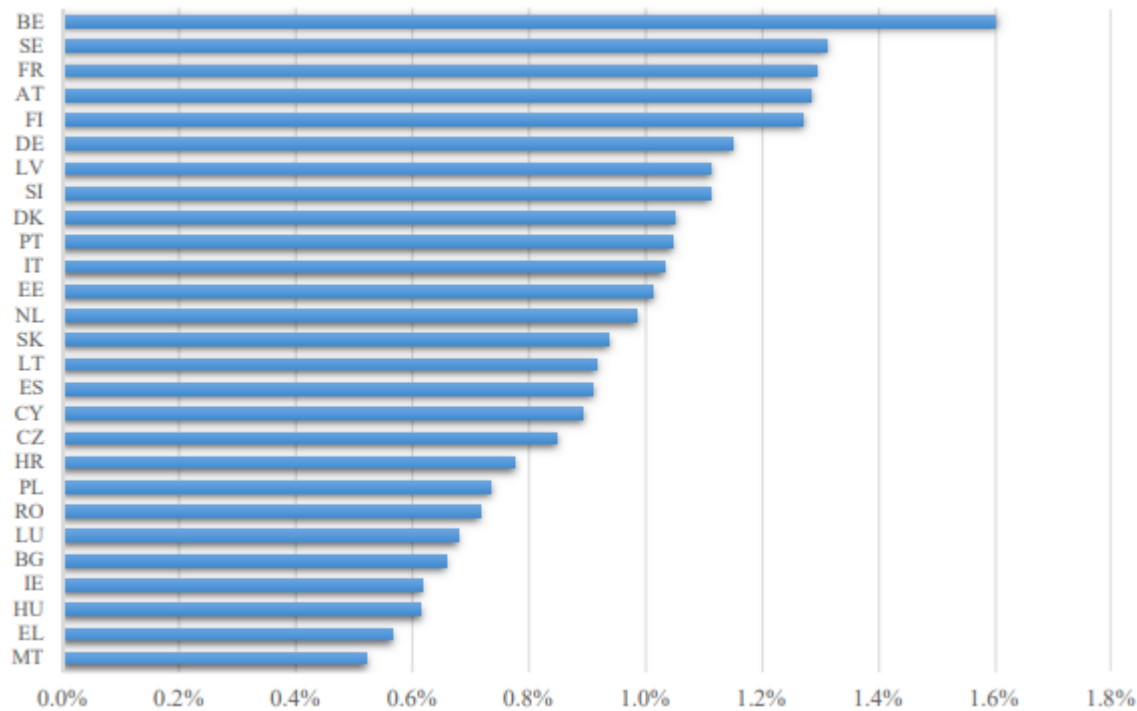
PIT redistributive effect
(Reynolds-Smolensky index)

Source: Author's calculations based on EUROMOD and EU-SILC data (2019 tax and benefit systems)

- A comparison between the impacts on the disposable income of the wage indexation and benefit increase at the bottom and at the top of the distribution would contribute to understand better what is implied by this scenario.
- It would also allow to observe where the wage indexation, fiscal drag and benefit erosion have higher distributional impacts and make policy interactions more explicit.

Figure 6a Changes in Gini (%) – Scenario 3
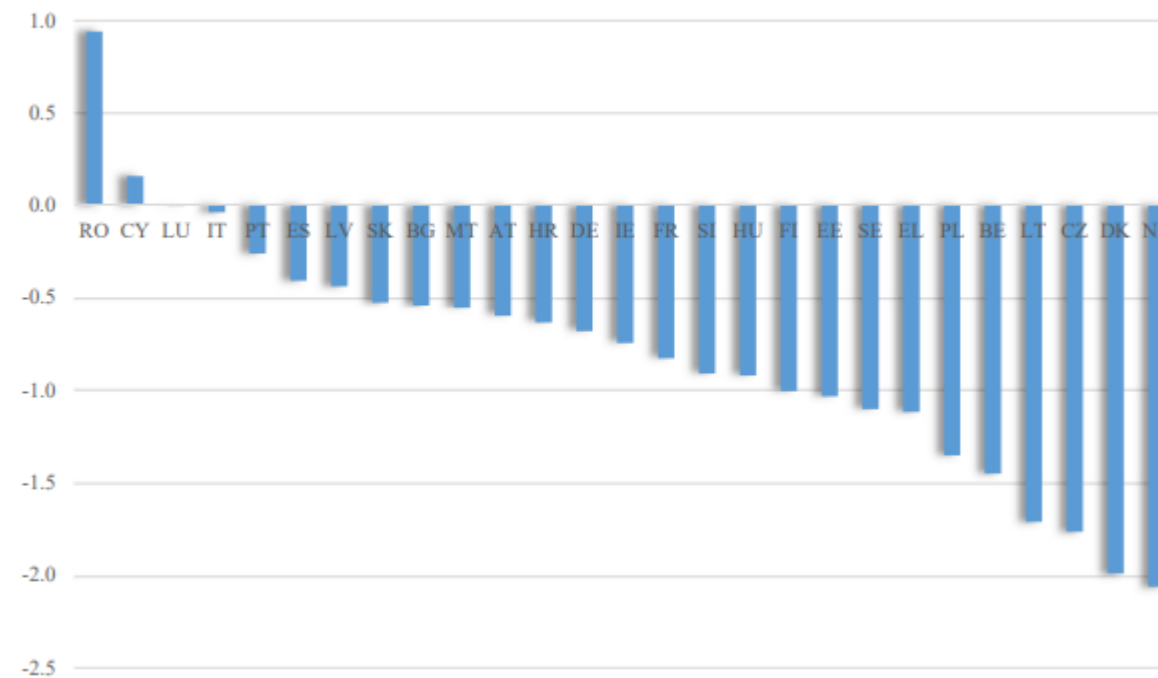
Source: Own elaboration using EUROMOD version I4.0+.

4. Pensions and (other means-tested) benefits are included in Scenario 3

- Pensions can be seen as "postponed" labour income and its indexation maybe closer to the wage one.
- Pensions may have different tax treatments compared with benefits and may interact with cash transfers (i.e. minimum income schemes).
- A disaggregation of the analysis for pensions and other (means-tested) benefits could be convenient and would enrich the analysis.
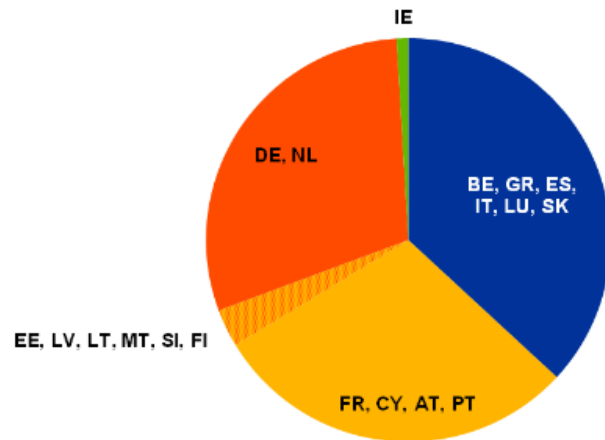
Chart C
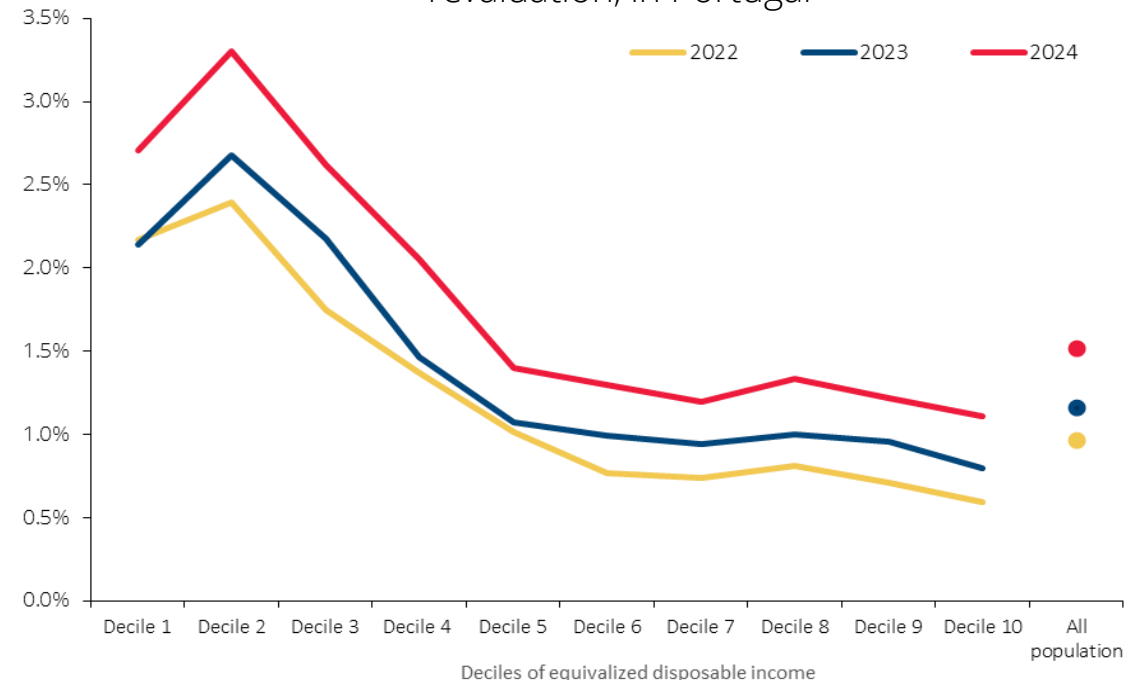**Public pension indexation across euro area countries**

a) Indexation of public pensions by country

(share in 2021 euro area public pension expenditure)

- Fully automatic price indexation
- Partially automatic price indexation
- Automatic wage indexation
- No automatic indexation

Simulations of the disposable income impact of pensions revaluation, in Portugal

Source: WGPF questionnaire, December 2021, Eurosystem staff macroeconomic projections and ECB calculations, in ECB Economic Bulletin, Issue 1/2022.
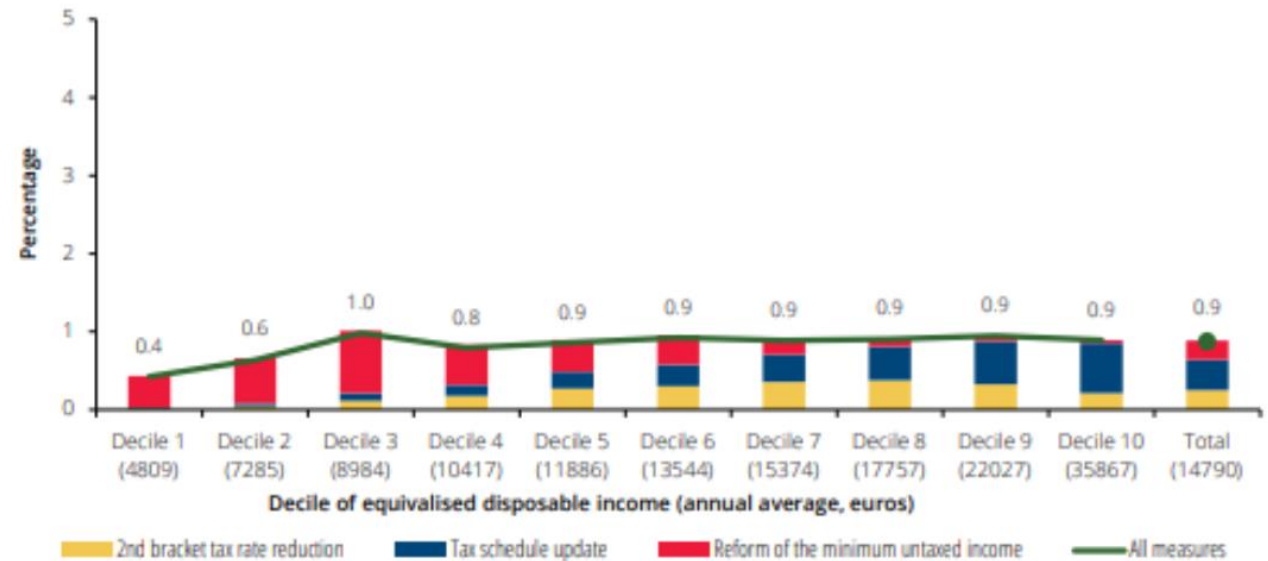
Source: Author's calculations based on EUROMOD, EU-SILC data and Portuguese pensions law.

- Some countries may have implemented measures to compensate the fiscal drag, either by adjusting brackets or by using its positive budgetary impact to finance (more or less targeted) extraordinary measures to mitigate the effects of high inflation.

- Each of these options may have different impacts on distributional terms and on inequality.

- A discussion on the different ways of handling the fiscal drag and its distributional implications could be useful to feed the policy debate

Chart C3.3 • Impact from changes to PIT enacted by the State Budget for 2023 | In percentage of equivalised disposable income

Source: Calculations by Banco de Portugal based on EUROMOD simulations and EU-SILC data. | Notes: Households are distributed by decile according to their disposable equivalised income in the baseline scenario for 2022 (without measures). The equivalised disposable income calculation uses the modified OECD scale, which weights the first adult as 1, additional household members above 14 years weight 0.5 and children up to 14 years 0.3.

THANK YOU!