NUMBER OF INDIVIDUALS WHO MOVED UP 2 OR MORE DECILES IN THE INCOME DISTRIBUTION WAS HIGHER THAN THOSE WHO MOVED DOWN IN 96% OF THE MUNICIPALITIES

Between 2018 and 2020, the municipality of Odemira (16.9%) recorded the highest proportion of taxable persons who moved up two or more deciles in the gross reported income less personal income tax paid distribution and, the municipality of Bragança (8.5%) observed the lowest value among municipalities in the country.

The municipal analysis of the proportion of taxable persons who moved down two or more deciles in the income distribution, between 2018 and 2020, highlights the municipality of Albufeira with the highest value (16.9%) and, the municipality of Montalegre (6.9%) with the lowest value.

The joint analysis of the two previous indicators, at the municipal level, reveals that in 96% of the municipalities (out of 297 municipalities with available information), upward mobility in the income distribution between 2018 and 2020 was more expressive than downward mobility and also indicates a strong positive association between the intensity of upward and downward mobility in the income distribution.

Introductory Note

Using the information from the Settlement note of Personal Income Tax (IRS – Modelo 3) structured for *Income statistics at the local level*, this analysis presents the mobility of taxable person in the distribution of income, focusing on the municipality level.

This press release focus on the longitudinal analysis of the evolution of income over the period 2018 and 2020, considering people's transitions between deciles of gross reported income less personal income tax, in a period marked by the beginning of the COVID-19 pandemic crisis in March 2020. In particular, we consider the indicators i) proportion of taxable persons who moved up two or more deciles in the income distribution and ii) proportion of taxable persons who moved down two or more deciles, to assess the intensity of the trajectories of relative change in income. The deciles correspond to the income values that divide into 10 equal parts the ordered set of income data, considering the distribution in each municipality.

This initiative, within the scope of *StatsLab - Statistics in Development*, is part of the broader development framework of the *IAssLocal - Asymmetry Indicators at local and interregional level* project, co-financed by the Technical Assistance Operational Programme (POAT/PT2020), with the aim of providing new indicators to characterise the socio-economic diversity of the territories, taking advantage of the potential of the information available in Statistics Portugal *National Data Infrastructure - IND*.
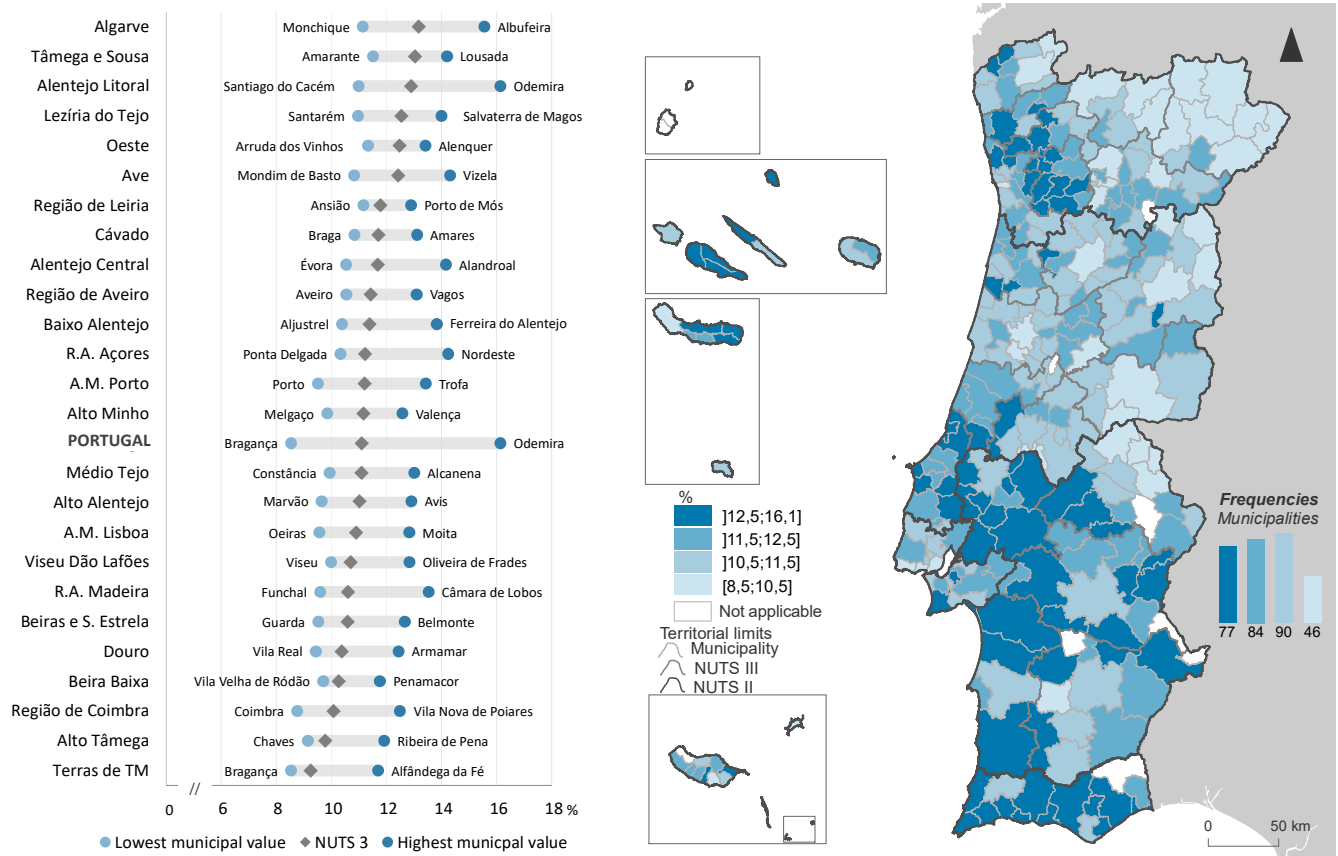
Figure 1. Mobility matrix between gross reported income less personal income tax paid deciles, Portugal, 2018-2020

2018 \ 2020	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Value (€)
Decile 1	56.8	14.7	8.4	6.7	5.1	3.3	2.2	1.5	0.9	0.4	4 098
Decile 2	16.0	52.4	11.6	7.4	5.3	3.5	1.9	1.2	0.6	0.2	5 685
Decile 3	8.3	15.4	45.9	11.7	7.5	5.2	3.2	1.7	0.8	0.3	7 157
Decile 4	6.3	6.4	17.5	40.0	14.7	7.2	4.3	2.3	0.9	0.3	8 341
Decile 5	4.5	4.5	6.8	20.3	38.6	13.9	6.6	3.3	1.3	0.3	9 427
Decile 6	3.2	3.0	4.7	7.0	19.3	39.2	14.8	6.1	2.2	0.5	10 939
Decile 7	2.1	1.8	2.8	4.0	5.8	20.2	42.8	14.9	4.6	1.0	12 968
Decile 8	1.4	1.0	1.4	1.9	2.5	5.2	19.3	50.0	14.6	2.7	16 114
Decile 9	0.8	0.6	0.7	0.8	0.9	1.8	3.8	16.8	61.5	12.4	22 050
Decile 10	0.5	0.3	0.4	0.3	0.4	0.5	1.0	2.2	12.6	81.8	

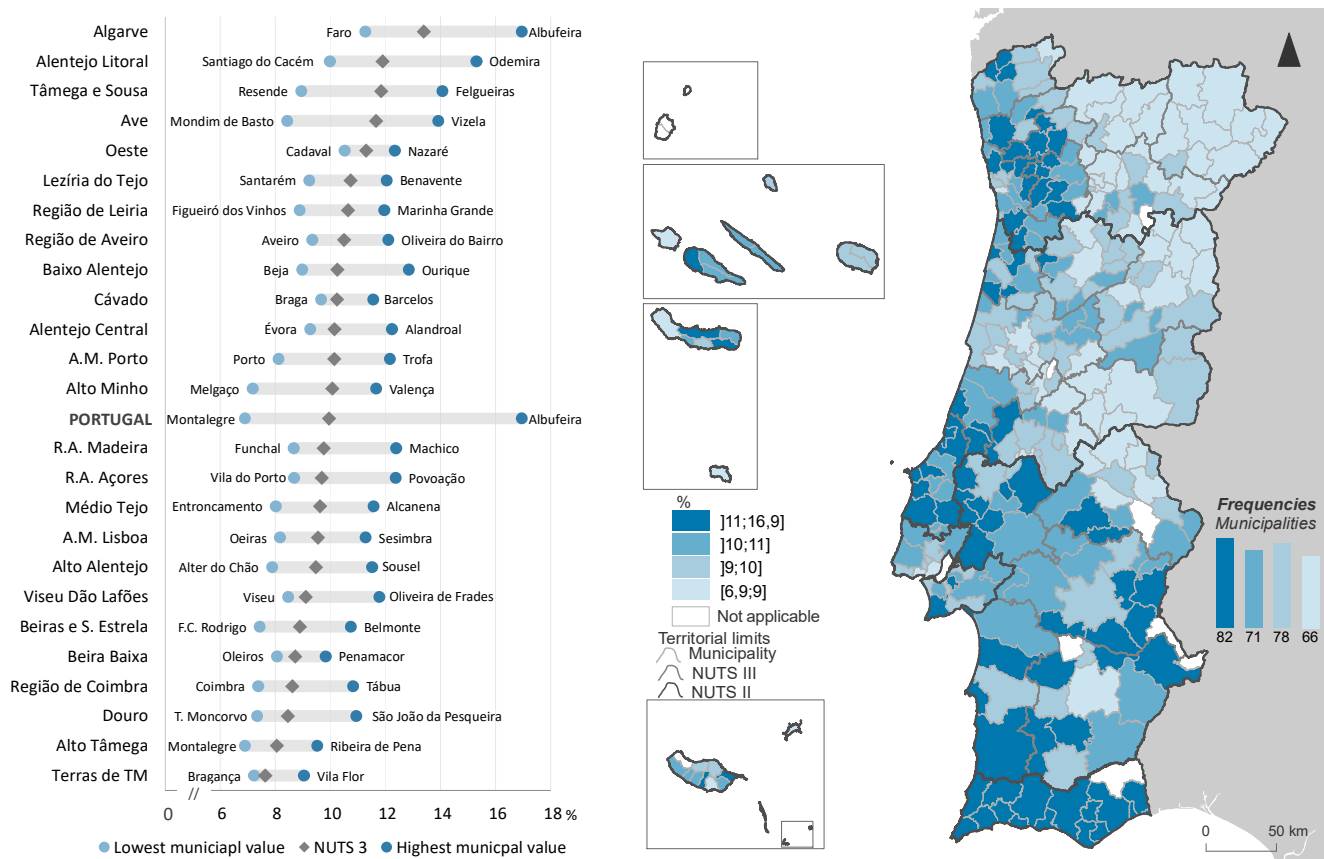|	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9
Value (€)	4 456	6 138	7 685	8 976	10 081	11 626	13 733	17 031	23 148
Rate of change 2018-2020 (%)	8.0	7.4	6.9	7.1	6.5	5.9	5.6	5.4	4.7

Note: The data presented in the matrix refers to the proportion of taxable persons in the respective decile in 2018. The values of the gross reported income less personal income tax paid by taxable person do not correspond to the value published within the Income Statistics at the local level as in this exercise the universe of common taxable persons in the two years under analysis is considered: 93% and 91% of the total universe of taxable persons in 2018 and 2020.

Figure 2. Proportion of taxable persons who moved up two or more deciles in the income distribution, NUTS 3 and municipality, 2018-2020
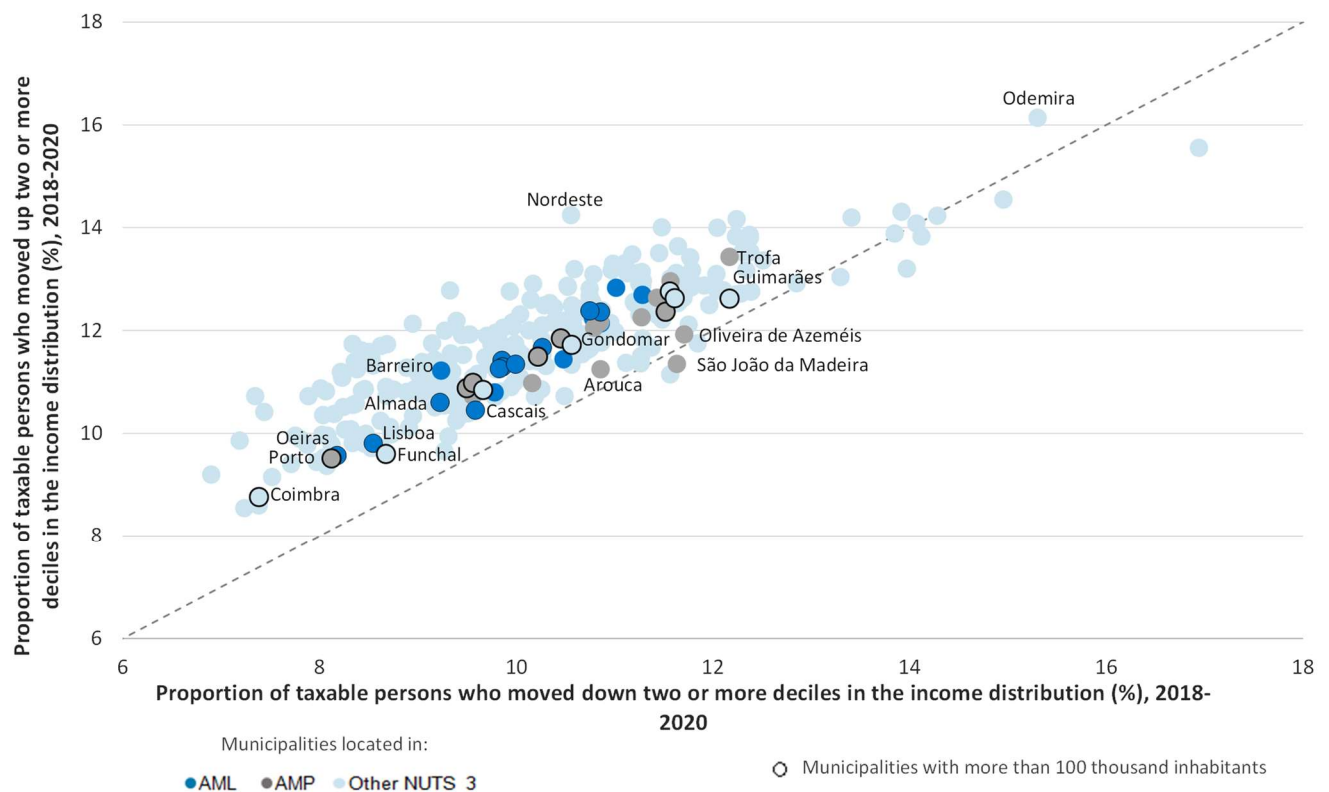

Note: Results are presented for municipalities with 2 000 or more taxable persons.

INCOME MOBILITY AT LOCAL LEVEL – 2018-2020

Figure 3. Proportion of taxable persons who moved down two or more deciles in the income distribution, NUTS 3 and municipality, 2018-2020
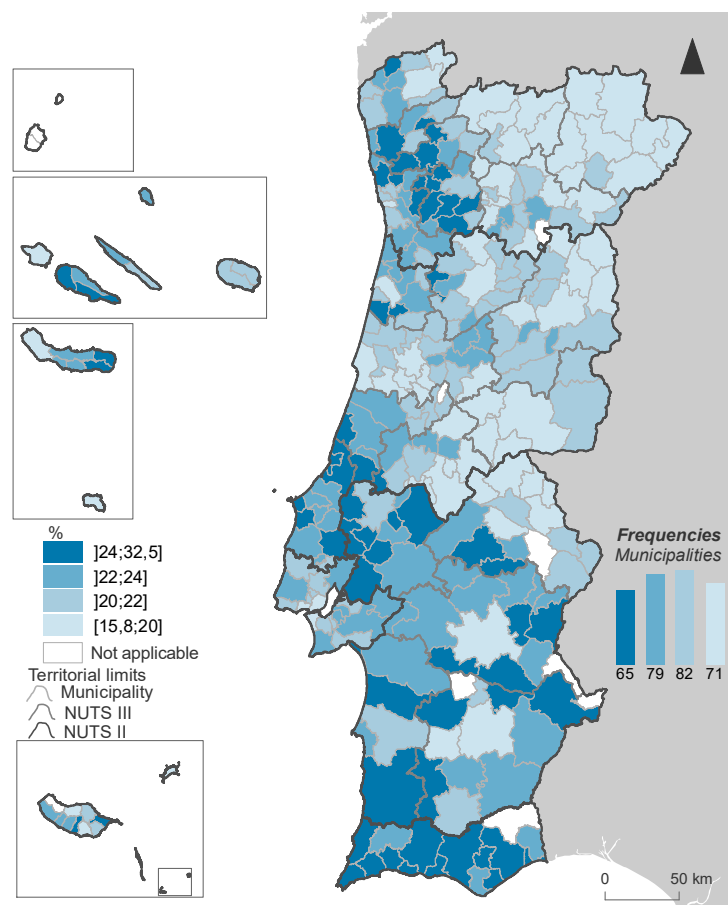

Note: Results are presented for municipalities with 2 000 or more taxable persons.

Figure 4. Proportion of taxable persons who moved up two or more deciles in the income distribution and Proportion of taxable persons who moved down two or more deciles in the income distribution, municipality, 2018-2020

Note: Results are presented for municipalities with 2 000 or more taxable persons.

Figure 5. Proportion of taxable persons who moved two or more deciles in the income distribution, municipality, 2018-2020

Note: Results are presented for municipalities with 2 000 or more taxable persons.

TECHNICAL NOTE

The results presented in this press release result from the use of the information already structured for the 'Income Statistics at the local Level' based on the Settlement note of Personal Income Tax (IRS – Modelo 3).

The indicators presented here are based on the values of the derived variable 'Gross reported income less personal income paid tax' by taxable person:

- Gross Reported Income - Income that corresponds to: 1) the value of the income not exempt, before any specific deduction for categories A (Dependent labor) and H (Pensions); 2) the value of the net income, i.e. the value of the income after the respective deductions for the other categories;

- Personnal Income Tax Paid - Amount of tax corresponding to the tax due, i.e. the amount of tax levying net of the specific deductions foreseen in Personnal Income Tax and tax benefits, before deductions are made regarding payments on account of withholding taxes.

Since the Settlement note of Personal Income Tax (IRS – Modelo 3) does not allow a distinction between the income of taxable person A and B, it was assumed a uniform distribution of the income of the tax households in the presentation of results per taxable person. This option took into account the article 69 of the Personal Income Tax Code - Family Quotient, which states that, for taxable persons who are married and not legally separated from persons and goods or who are "de facto" united, as long as they opt for joint taxation, the rates corresponding to the taxable income divided by two are applied (see Technical note, pages 674 to 678, of the Income Statistics at the local level publication).

In order to implement the indicators related to mobility in income distribution, we considered the taxable persons that are simultaneously included in the universe retained in the 'Income Statistics at the local level' for the years 2018 and 2020. Thus, 6 699 986 taxable persons were considered, which corresponds to around 93% and 91% of the total universe of taxable persons for 2018 and 2020, respectively. For the calculation of the deciles and the indicators, the municipality of tax residence of the taxable person in 2020 was considered.

For the presentation of the results at the municipality level, we have kept to the option adopted in the 'Income Statistics at the local level' to release the results for the municipalities with 2 000 or more taxable persons, and, therefore, 11 municipalities were excluded: Corvo, Lajes das Flores, Barrancos, Porto Moniz, Alvito, Santa Cruz das Flores, Mourão, Penedono, Alcoutim, Monforte and Castanheira de Pera (see Technical note, pages 674 to 678, of the Income Statistics at the local level publication).

CONCEPTS RELATED TO INCOME STATISTICS AT THE LOCAL LEVEL

Tax household - Household consisting of: a) spouses not legally separated from persons and property, or unmarried partners, and their dependents; b) each spouse or former spouse, respectively, in cases of property and legal separation or nullity declaration, annulment or dissolution of marriage, and dependents in charge; (c) single parent and dependents; d) single adopter and dependents. Note: Dependents include : a) Children, adoptees and stepchildren, minors not emancipated, as well as minors under guardianship; b) The adopted children and stepchildren, above legal age of majority, as well as those who until the age of majority were subject to the guardianship of any of the subjects to whom the household is responsible and are not more than 25 years old and do not receive annual income higher than the value of minimum monthly guaranteed salary; c) above legal age children, adoptees, stepchildren and those subject to guardianship, who are unfit for work and to ear raise their own means of subsistence; d) The civil godchildren.

Personnal Income Tax - Tax on the annual value of the income of residents in Portugal, regardless of where they were obtained, as well as on income obtained in Portugal by non-residents.

Personnal Income Tax Paid - Amount of tax corresponding to the tax due, i.e, the amount of tax levying net of the specific deductions foreseen in Personnal Income Tax and tax benefits before deductions are made regarding payments on account of withholding taxes.

Gross Reported Income - Income that corresponds to: 1) the value of the income not exempt, before any specific deduction for categories A (Dependent labor) and H (Pensions); 2) the value of the net income, i.e. the value of the income after the respective deductions for the other categories.

Taxable Income - Income that, for the purpose of Personnal Income Tax, corresponds to the total income received in the year, after deductions and allowed exemptions.

Taxable Person - Person living in Portugal as well as the one that, although not living in the country, obtains income there.