

## Income, living conditions and fiscal burden of households Year 2016

The results of Eu-Silc 2016 Italian survey showed on one side a relevant and widespread growth of the 2015 total household income at current and constant prices and on the other side an increase, in 2016, of the economic inequality and of at risk of poverty or social exclusion population.

#### Income indicators

In 2015 household mean net income (excluding imputed rents) was 29,988 euros, about 2,500 euros per month (that is +1.8% at current prices and +1.7% at constant prices compared to 2014).

The income growth was higher in the richest quintile of the population, mostly due to a sharper increase of higher levels of self-employment income, recovering after several years of cyclical sharp decrease. As a consequence, the share of total equivalised income (excluding imputed rent) received by the most affluent fifth of the households was 39.4% against 6.3% of the poorest fifth: it means that the most affluent fifth of households had totally an equivalised income 6.3 times (it was 5.8 in 2014) higher than that one of the poorest fifth of households.

Half of the households residing in Italy received a net income lower than 24,522 euros per year, (about 2,044 euros per month: +1.4% compared to 2014).

In 2015, inequality measured by the Gini index based on the equivalised income (net of imputed rent, fringe benefits other than company car and self-production income) was higher in Italy (33.1, with a slight increase compared to 32.4 in 2014) than the EU<sup>1</sup> mean index (30.7). At sub-national level the highest Gini index was registered in the South and Islands (34.9), while it was lower in the Centre (32.2), in the North-West (31.0) and in the North-East (28.2).

#### Living conditions indicators

In 2016, 30.0% of people residing in Italy were at risk of poverty or social exclusion, showing a worsening of the economic conditions compared to the previous year (28.7%). Moreover, Italy showed a higher share of population at risk of poverty or social exclusion, compared to EU<sup>1</sup> mean (23.5%).

All the components of the at risk of poverty or social exclusion indicator showed an increase: the share of people at risk of poverty (20.6% from 19.9% in 2015), the share of severely deprived people (12.8% from 11.5%) as well as the share of people with low work intensity (12.8%, from 11.7%).

The South and Islands area still represented the geographical area with the higher at risk of poverty or social exclusion rate (46.9%, showing a slight increase compared to 46.4% in 2015).

Households with five or more members showed the highest rate of population at risk of poverty or social exclusion (43.7% as in 2015), while those with one or two members showed a relevant increase of this indicator (that is 34.9% from 31.6% in 2015 for single person households, 25.2% from 22.4% in 2015 for two persons households).

#### Taxation and labour cost indicators

In 2015, the average tax rate at the household level was 19.4%, a slight decrease compared to the previous year (-0.25 percentage points). Due to tax credits for employees, couples with three or more children showed the lowest average tax rate (6.0%). On the other hand, single people under the age of 64 and couples without children were the types of family who bore the greatest tax burden, with an average rate around 20.9%.

For families with only one earner, the lowest level of income reduced the average tax rate by 0.6 percentage points (19.0%) compared to that of families with two or more earners (19.6%). For households with a single earner and main source of employee income, a reduction of average tax rate was registered in the first and second class of income (0-15,000 euros and 15,000-25,000 euros) as a consequence of the complete set-up of the 80-euro payroll bonus for employees.

<sup>1</sup> These estimates are based on 28 EU countries, but for Netherlands, Luxembourg and Bulgaria only provisional data are currently available, while Irish data are not still available.

Due to the lowest average income and the highest number of employees, the tax burden was lower in the South and Islands (16.4% overall; 15.3% and 16.9% respectively for households with a single and two earners), compared to 19.9% of households in the North-East (20% and 19.8% respectively for the above mentioned categories), 20.2% in the Centre (in both cases) and 21% of the North-West (20.5% and 21.2% for the above mentioned categories).

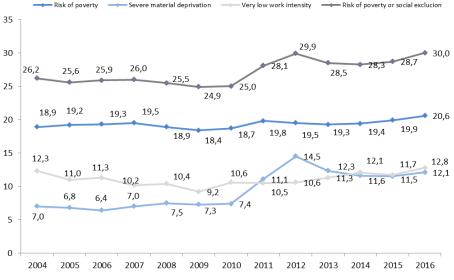
In 2015, the cost of labour for the employee income was equal to 32,000 euros per year. The disposable net income for the workers was on average 17,270 euros (54% of the total labour) and the tax wedge (sum of personal income tax and social security contributions of the employee and the employer) was on average 14,729 euros (46.0% of the labour cost), slightly lower than in previous years (it was 46.2% in 2014 and 46.7% in 2012).

The largest component of the tax wedge was represented by the social security contributions of employers (25.4%), while the remaining 20.6% was paid by the workers (14.0% as direct taxes and 6.6% as social contributions).

All components of labour cost were on average higher in the North-West, with a consequent decline in the share of net income to the worker. Gender differences are noticeable: the tax wedge of female employees was on average equal to 44.1%, while the male tax wedge reached 47.2% of the total labour cost.

The average self-employment income, gross of taxes and social contributions, was 22,952 euros per year. Net income represented 67.0% of the total (15,381 euros) and personal taxes on self-employment income, including the estimation of Regional Tax on Productive Activities (IRAP), were 16.4%, while social security contributions were 16.6%.

#### FIGURE 1. POPULATION AT RISK OF POVERTY OR SOCIAL EXCLUSION (EUROPE 2020) (a). Years 2004-2016, out of 100 persons



(a) The risk of poverty is calculated on 2015 income and the very low work intensity on the number of months worked by all the household members during 2015.

TABLE 1. POPULATION AT RISK OF POVERTY OR SOCIAL EXCLUSION, BY GEOGRAPHICAL AREA AND HOUSEHOLD CHARACTERISTICS (a). Years 2015-2016, for 100 individuals with the same characteristics

		Y	ear 2015			Yea	ir 2016	
	Risk of poverty or social exclusion	Risk of poverty	Severe material deprivation	Very low work intensity	Risk of poverty or social exclusion	Risk of poverty	Severe material deprivation	Very low work intensity
				Geogra	ohical area			
North-west	18.5	11.8	7.0	6.0	21.0	13.7	7.4	8.0
North-east	15.9	9.9	4.8	6.1	17.1	10.5	5.8	6.7
Centre	24.0	16.1	8.4	9.4	25.1	16.8	8.7	8.9
South and Islands	46.4	34	20.4	20.3	46.9	33.8	21.2	21.9
				House	hold size			
One	31.6	23.6	11.7	15.4	34.9	25.1	14.2	18.0
Тwo	22.4	13.8	9.0	17.1	25.2	15.4	10.4	18.2
Three	26.2	16.4	10.1	12.4	26.9	17	11.1	13.6
Four	28.7	20.9	11.6	8.1	29.0	20.8	11.2	8.6
Five or more	43.7	33.8	19.2	12.4	43.7	34.4	17.7	13.4
				Number of i	ncome earners			
One	45.4	36.6	15.7	18.3	46.7	37.1	16.9	19.8
Two	20.6	12.6	8.8	7.9	22.2	13.3	9.4	8.7
Three or more	18.0	6.8	9.4	8.0	17.5	6.8	8.9	8.4
				Main inco	ome source			
Employee	23.5	15.5	11.2	4.9	22.1	14.0	10.5	4.4
Self-employment	30.8	25.8	8.2	4.7	33.7	27.8	8.6	5.0
Pensions and other public transfers	32.9	21.0	12.4	47.1	35.8	22.3	14.4	51.3
Other income	61.0	49.8	12.0	57.6	67.4	59.7	23.7	66.9
					ld typology			
Single person	31.6	23.6	11.7	15.4	34.9	25.1	14.2	18.0
- less than 65 years	33.1	22.7	13.2	15.4	37	26.0	15.3	18.0
- 65 years and over	30.1	24.5	10.2	-	32.6	24.0	13.0	
Couples without children	18.4	11.3	7.3	13.2	21.4	13.1	9.1	13.8
- R.P. (b) less than 65 years	22.8	13.5	8.6	12.7	25	15.5	9.1	13.6
- R.P. (b) 65 years and over	13.8	9.0	6.0	49.3	17.5	10.5	9.0	30.8
Couples with children	29.1	20.5	11.6	8.9	29.7	20.8	11.7	9.9
- one child	23.0	14.0	8.7	10.6	24.7	14.5	10.3	11.8
- two children	28.5	20.5	11.4	7.1	28.9	21.0	11.2	7.7
- three or more children	48.3	38.7	20.2	11.4	46.1	37.7	17.4	12.5
Single parents	40.1	27.4	16.8	22.1	38.8	26.4	15.2	24.0
Other typologies	31.2	20.1	14.8	21.1	34.0	22.8	15.7	19.8
	•=				of minors			
One minor	29.4	22.4	12.3	8.0	30.1	22.5	13.2	8.9
Two minors	30.5	24.0	11.1	6.8	30.8	25.1	11.5	8.1
Three or more minors	51.2	44.1	20.7	13.1	47.3	40.4	15.0	11.1
At least one minor	32.4	25.6	12.8	8.1	32.4	25.7	12.7	8.8
	02.1	20.0	12.0		of elderly	20.1	12.1	0.0
One elderly	28.6	17.8	10.5	26.7	31.6	19.1	12.3	30.5
Two or more elderly	17.1	9.8	6.8	31.7	20.9	10.0	10.3	29.2
At least one elderly	23.7	14.4	8.9	28.0	27.0	15.2	11.5	30.1
	20.1	17.9	0.0		enship	10.2	11.0	50.1
All household members Italian	26.3	18.1	10.2	12.4	ensnip 27.5	18.6	10.7	13.4
At least one household member not Italian	49.5	36.3	22.9	7.7	51.0	37.7	24.0	9.4
Italy	28.7	19.9	11.5	11.7	30.0	20.6	124.0 12.1	9.4 12.8

(a) The risk of poverty is calculated on 2015 income and the very low work intensity on the number of months worked by all the household members during 2015. (b) R.P.: reference person.



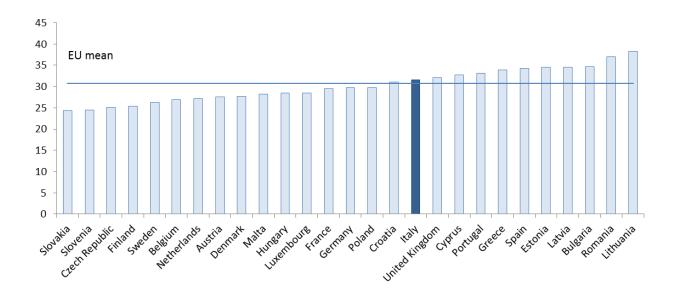


FIGURE 3. HOUSEHOLD NET INCOME AND EQUIVALISED INCOME EXCLUDING AND INCLUDING IMPUTED RENT AT CONSTANT PRICES. Years 2003-2015, mean values (Base 2003=100)

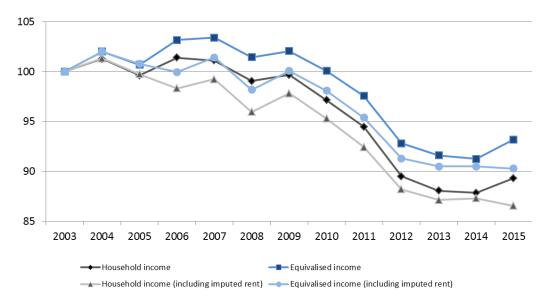




FIGURE 4. HOUSEHOLD NET INCOME INCLUDING IMPUTED RENT AT CONSTANT PRICES BY MAIN INCOME SOURCE. Years 2003-2015, mean values (Base 2003=100)

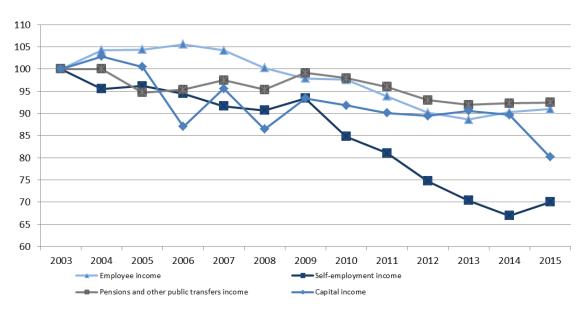


TABLE 2. HOUSEHOLD NET INCOME (excluding imputed rent) BY GEOGRAPHICAL AREA AND HOUSEHOLD CHARACTERISTICS. Year 2015, mean and median values in euros

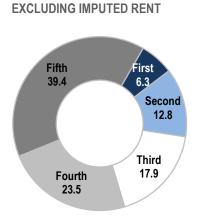
	Mean							Me	dian	
	North- West	North-East	Centre	South and Islands	Italy	North- West	North-East	Centre	South and Islands	Italy
				ŀ	lousehold t	ypology				
Single person	19,500	19,171	18,055	14,093	17,637	17,593	17,801	16,400	12,811	16,115
- less than 65 years	20,684	20,513	18,583	13,555	18,408	19,074	19,691	17,131	12,175	17,445
- 65 years and over	18,021	17,669	17,371	14,581	16,766	15,724	15,964	15,216	13,291	14,868
Couples without children	35,468	35,523	33,502	24,892	32,158	30,987	30,949	27,730	20,799	27,383
- R.P. (a) less than 65 years	38,831	38,528	34,003	25,127	33,986	36,619	34,539	30,445	21,019	30,400
- R.P. (a) 65 years and over	31,959	32,284	33,024	24,643	30,265	26,701	28,197	25,619	20,600	25,098
Couples with children	46,448	47,168	44,149	31,129	40,412	41,521	42,805	39,961	27,050	36,297
- one child	45,985	45,134	41,921	30,228	39,652	40,881	41,531	38,158	26,541	36,375
- two children	46,795	48,676	46,730	32,258	41,442	42,683	45,395	41,562	27,482	36,949
- three or more children	47,385	51,922	44,790	30,234	39,646	44,170	46,365	38,038	27,424	32,648
Single parents	30,729	31,048	27,509	23,409	27,678	27,614	27,930	25,080	20,875	24,864
Other typologies	35,332	41,586	38,032	30,013	35,009	30,062	37,668	36,552	24,035	30,151
					Number of I	minors				
One minor	40,142	41,452	35,158	26,222	34,553	37,058	38,200	32,737	24,582	31,590
Two minors	40,297	41,706	41,449	26,566	36,032	36,080	39,052	36,552	24,379	31,772
Three or more minors	37,073	42,649	35,753	27,751	34,035	29,886	38,691	31,091	23,508	28,479
At least one minor	39,982	41,643	37,483	26,497	35,067	36,313	38,508	33,562	24,379	31,469
					Number of	elderly				
One elderly	25,356	26,078	26,027	21,799	24,478	19,536	20,228	20,047	16,294	18,715
Two or more elderly	35,025	36,419	36,528	28,614	33,652	29,190	30,143	28,610	24,035	27,874
At least one elderly	28,832	29,715	29,764	24,090	27,687	23,490	24,352	23,516	18,860	22,063
					Citizens	hip				
All household members Italian	33,947	35,105	32,504	24,985	30,901	28,184	29,653	26,791	20,919	25,328
At least one household member not Italian	22,867	24,254	20,998	15,530	21,410	20,520	21,628	16,928	12,301	19,173
Total	32,680	33,852	31,147	24,473	29,988	26,786	28,273	25,506	20,557	24,522

(a) R.P.: reference person.

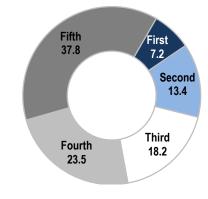
TABLE 3. HOUSEHOLD NET INCOME (excluding imputed rent) BY MAIN EARNER CHARACTERISTICS. Years 2015, mean and median values in euros

			M	ean			Median			
	North- West	North-East	Centre	South and Islands	Italy	North- West	North-East	Centre	South and Islands	Italy
	Sex									
Male	36,749	37,978	34,505	26,152	33,127	31,040	33,133	28,914	22,483	27,782
Female	26,116	26,619	25,959	21,560	24,769	21,067	20,907	20,124	17,060	19,752
					Ag	ge class				
Less than 35 years	28,783	31,358	27,457	19,556	26,078	25,264	28,219	23,765	16,745	22,893
35-44 years	35,335	35,908	30,076	24,092	30,856	31,040	32,787	25,742	22,607	26,591
45-54 years	36,751	39,202	34,671	27,227	33,931	33,850	36,043	30,052	23,471	29,759
55-64 years	40,622	40,435	38,622	29,465	36,504	34,008	33,495	32,179	24,804	30,260
65 years or more	26,013	26,612	26,909	22,135	25,046	21,137	22,017	21,071	17,678	20,002
					Educa	ational level				
Primary education or less	20,448	22,465	20,049	17,010	19,369	17,485	19,512	17,217	15,366	16,904
Lower secondary education	28,991	31,293	26,130	21,028	26,040	25,684	27,009	22,609	19,589	22,944
Upper secondary education	35,158	36,827	32,348	27,459	32,872	30,746	33,053	28,459	24,817	28,668
University degree	45,773	44,929	45,730	41,455	44,499	38,273	39,731	38,518	35,621	37,890
					Profess	sional status	\$			
Employee	37,257	37,648	34,720	30,083	34,786	32,418	34,462	30,394	26,163	30,328
Self-employed	40,978	42,394	35,831	26,621	35,825	34,854	36,242	26,672	20,721	27,310
Unemployed	19,333	20,518	20,164	12,404	16,201	14,392	17,516	14,669	8,475	11,810
Other not employed	21,955	23,685	19,474	16,653	19,085	15,756	16,374	14,205	14,451	14,769
Retired	27,180	28,283	29,252	24,079	26,961	22,569	23,429	23,209	19,305	21,854
					Cit	izenship				
Italian	33,873	35,063	32,543	24,969	30,908	28,073	29,780	26,996	20,919	25,355
Not-Italian	20,939	22,066	18,118	14,358	19,252	19,659	20,158	15,571	11,213	17,309
Total	32,680	33,852	31,147	24,473	29,988	26,786	28,273	25,506	20,557	24,522

FIGURE 5. INDIVIDUAL EQUIVALISED INCOME EXCLUDING AND INCLUDING IMPUTED RENT BY QUINTILE (a). Year 2015, percentage composition



INCLUDING IMPUTED RENT



(a) The share of individual equivalised income by quintile is not comparable with that shown in the previous note (year 2014), which was based on household equivalised income.

TABLE 4. SHARE OF INDIVIDUALS BY EQUIVALISED INCOME QUINTILE AND BY GEOGRAPHICAL AREA AND HOUSEHOLD CHARACTERISTICS (a). Year 2015, for 100 individuals with the same characteristics

		Quintile (ex	cluding im	puted rent)			Quintile (including imputed rent)				
	First	Second	Third	Fourth	Fifth	First	Second	Third	Fourth	Fifth	
				Geograph	nical area						
North-West	13.2	16.5	20.7	23.4	26.2	12.8	16.6	21.0	22.9	26.7	
North-East	10.1	15.6	22.0	25.8	26.6	9.9	15	21.5	26.7	27.0	
Centre	15.8	18.7	20.9	21.8	22.8	15.0	18.5	20.8	22.8	22.9	
South and Islands	33.2	25.9	17.8	13.1	10.0	34.1	26.3	17.9	12.4	9.2	
				Househo	old type						
Single person	24.0	16.9	21.6	20.3	17.3	17.0	18.7	21.4	22.1	20.9	
less than 65 years	24.6	12.3	19.5	22.8	20.8	23.3	14.1	18.2	21.6	22.9	
65 years and over	23.3	22.0	24.0	17.4	13.2	9.8	23.9	25.0	22.6	18.7	
Couples without children	12.6	20.8	21.0	18.4	27.2	10.8	19.2	21.3	20.8	28.0	
R.P. (a) less than 65 years	15.3	16.2	16.3	17.7	34.4	15.3	15.2	16.0	19.5	34.0	
R.P. (a) 65 years and over	9.8	25.6	25.9	19.1	19.5	6.0	23.4	26.8	22.1	21.6	
Couples with children	20.3	20.7	19.3	20.6	19.2	22.5	20.7	19.0	19.9	17.9	
one child	14.3	17.0	20.1	24.5	24.1	15.4	17.9	19.6	24.2	23.0	
two children	20.2	22.4	19.5	20.5	17.4	22.4	22.4	19.5	20.1	15.6	
three or more children	36.5	25.1	16.6	10.0	11.8	42.1	22.8	16.2	7.6	11.3	
Single parents	25.8	19.8	18.4	19.2	16.7	26.7	19.3	18.5	18.3	17.2	
Other typologies	22.3	18.4	23.1	20.2	16.0	22.6	20.5	25.2	15.6	16.0	
				Number c	of minors						
One minor	21.9	19.8	20.5	21.9	15.8	23.9	20.8	19.6	20.7	15.0	
Two minors	24.4	23.7	19.8	17.7	14.4	27.6	22.4	20.0	17.0	13.0	
Three or more minors	39.5	28.2	15.5	8.5	8.3	48.5	23.8	12.5	7.3	8.0	
At least one minor	25.0	22.4	19.6	18.6	14.4	28.3	21.8	18.9	17.6	13.4	
				Number o	of elderly						
One elderly	18.5	19.6	22.2	19.5	20.1	13.2	20.2	22.9	21.8	22.0	
wo or more elderly	9.5	23.8	24.3	21.9	20.4	7.1	22.4	25.7	23.3	21.4	
At least one elderly	14.6	21.5	23.1	20.5	20.2	10.6	21.2	24.1	22.4	21.7	
				Citize	nship						
Il household members Italian	18.1	18.7	20.2	21.3	21.7	17.0	19.1	20.6	21.5	21.8	
At least one household member not Italian	35.9	30.9	18.4	9.3	5.5	45.9	27.6	14.6	7.2	4.7	
Italy	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	

(a) The share of individual equivalised income by quintile is not comparable with that shown in the previous note (year 2014), which was based on household equivalised income. (b) R.P.: reference person.

TABLE 5. SHARE OF INDIVIDUALS BY EQUIVALISED INCOME QUINTILE AND MAIN EARNER CHARACTERISTICS (a). Year 2015, for 100 individuals with the same characteristics

	Quintile (excluding imputed rent)					Quintile (including imputed rent)				
	First	Second	Third	Fourth	Fifth	First	Second	Third	Fourth	Fifth
		Sex								
Male	18.5	20.5	20.0	20.4	20.6	19.5	20.0	19.8	20.5	20.1
Female	23.4	18.9	20.0	19.2	18.6	21.0	20.0	20.4	18.8	19.7
		Age cla	SS							
Less than 35 years	27.8	19.4	19.7	19.5	13.6	31.0	18.8	19.8	18.0	12.4
35-44 years	21.9	22.1	19.3	19.5	17.2	25.7	21.3	18.6	18.3	16.2
45-54 years	21.0	18.4	19.5	21.0	20.1	21.7	19.3	19.4	19.9	19.8
55-64 years	14.5	15.7	17.2	22.4	30.1	14.0	16.3	16.9	23.2	29.5
65 years or more	17.1	23.1	23.3	18.0	18.6	11.6	22.7	24.2	20.6	20.8
		Educationa	l level							
Primary education or less	28.2	29.3	22.0	14.0	6.6	23.3	28.6	24.6	16.1	7.4
Lower secondary education	28.2	24.7	19.6	17.0	10.5	30.1	24.1	19.1	16.6	10.1
Upper secondary education	14.8	16.6	21.4	24.0	23.1	15.4	16.9	21.3	23.4	23.1
University degree	8.2	9.6	16	22.9	43.3	8.1	11.1	14.8	22.9	43.3
		Professional	status							
Employee	13.1	20.3	21.2	24.1	21.3	16.0	20.0	20.9	22.8	20.3
Self-employed	27.6	15.3	16.6	14.8	25.7	27.1	16.0	15.8	15.8	25.3
Unemployed	59.1	16.7	7.9	10.1	6.1	58.9	17.9	8.7	8.6	5.9
Other not employed	38.6	21.9	17.6	11.7	10.3	33.1	24.5	18.4	12.9	11.1
Retired	14.4	22.3	23.3	19.4	20.5	10.5	21.2	23.9	21.7	22.7
		Citizens								
Italian	18.4	19.1	20.2	21.0	21.4	17.3	19.5	20.5	21.2	21.5
Not Italian	39.1	30.6	17.6	8.9	3.9	50.8	26.1	14.3	5.9 (b)	3.0
Italy	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

(a) The share of individual equivalised income by quintile is not comparable with that shown in previous note (year 2014), which was based on household equivalised income. (b) Estimation based on a sample size between 20 and 49 observations.

FIGURE 6. AVERAGE TAX RATE BY NUMBER OF EARNERS, HOUSEHOLD TYPE AND GROSS INCOME BRACKETS. Year 2015, percentage values and in euros

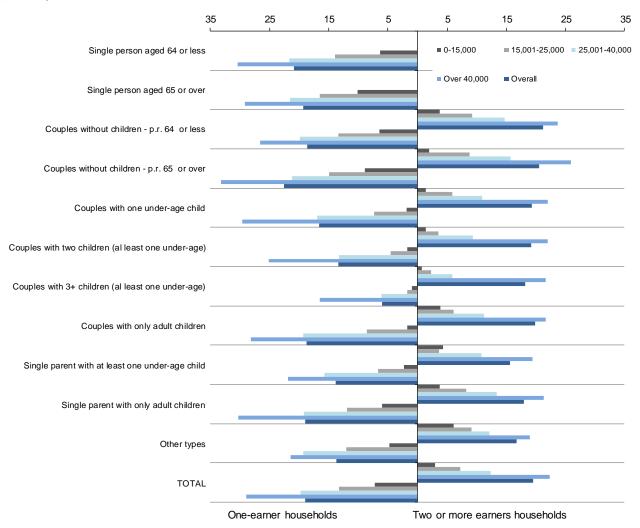


FIGURE 7. AVERAGE TAX RATE BY INCOME STRUCTURE AND GROSS INCOME CLASS. Year 2015, percentage values and in euros

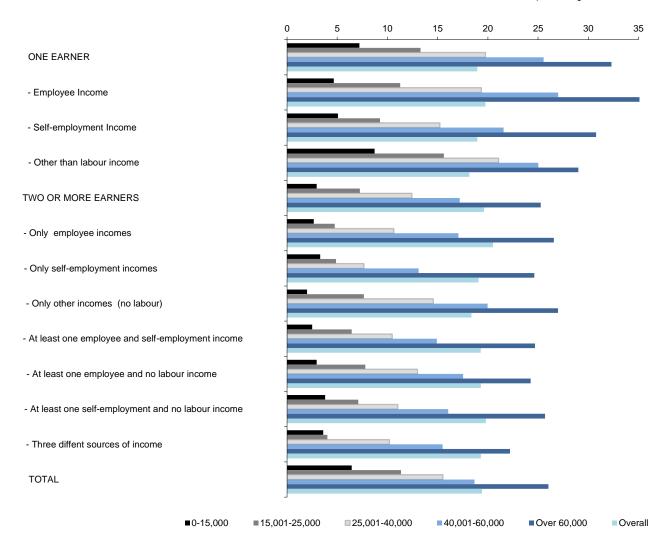


FIGURE 8. AVERAGE TAX RATE BY GEOGRAPHICAL AREAS AND GROSS INCOME CLASS. Year 2015, percentage values and in euros

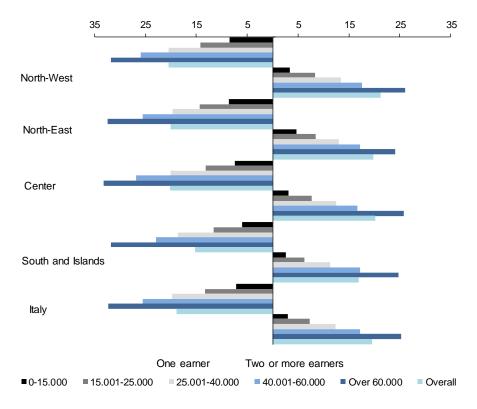
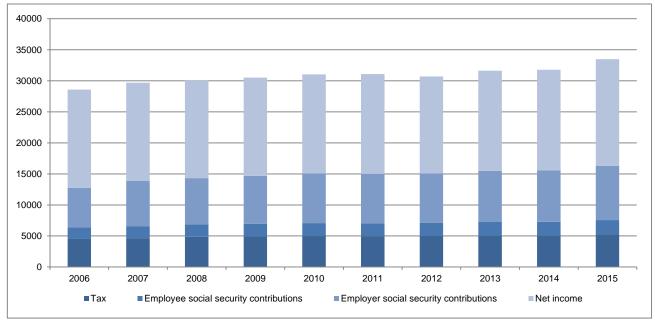


FIGURE 9. LABOUR COST COMPONENTS. Years 2006-2015, average values in euros





### TABLE 6. LABOUR COST COMPONENTS (A) BY SEX AND GEOGRAPHICAL AREAS. Year 2015, average values in euros

	Labour cost	Employer social security contributions	Gross wage	Employee social security contributions	Personal income tax	Net income	Tax wedge
			Sex	(			
Male	36,114	9,206	26,908	2,370	5,483	19,055	17,059
Female	27,012	6,814	20,199	1,821	3,270	15,107	11,905
			Geographi	cal area			
Nord-West	36,119	9,222	26,897	2,384	5,502	19,012	17,108
Nord-Est	34,237	8,743	25,494	2,273	4,798	18,423	15,814
Centre	32,445	8,148	24,297	2,140	4,658	17,499	14,946
South and Islands	26,066	6,596	19,471	1,746	3,143	14,582	11,485
Italy	32,000	8,125	23,875	2,122	4,483	17,270	14,729

(a) Employee income recipients

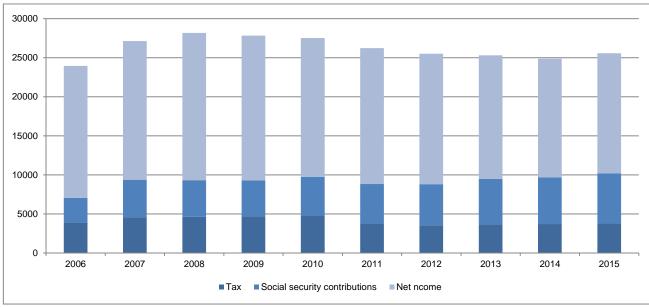
# TABLE 7. INCIDENCE OF THE TAX WEDGE ON THE LABOUR COST FOR WORKER CHARACTERISTICS AND GEOGRAPHICAL AREA (A). Year 2015, percentage values

	NORTH-WEST		NORTH-EAST		CENTRE		SOUTH AND ISLANDS		ITALY
			Se	x					
Male	49.0		47.6		47.3		44.5		47.2
Female	44.7		43.8		44.3		43.2		44.1
			Age c	lass					
Less than 35 years	44.3		43.9		43.4		42.1		43.5
35 - 44 years	47.7		46.1		45.0		43.5		45.8
45 - 54 years	48.2		47.6		47.0		44.0		46.9
55 - 64 years	48.7		46.7		47.9		46.3		47.4
65 years or more	32.3	(b)	23.1	(b)	46.3		42.0	(b)	39.4
			Education	nal lev	el				
Primary education or less	40.7		42.1		41.9		39.3		40.7
Lower secondary education	45.5		44.7		43.0		41.6		44.0
Upper secondary education	47.8		46.3		45.7		44.1		46.1
University degree	49.6		48.3		49.0		47.2		48.6
			Profession	nal stat	us				
Executive	52.7	(b)	54.8	(b)	54.8	(b)	-		53.9
Manager	53.3		51.5		51.6		49.7		51.9
Clerk	47.2		46.7		46.6		45.0		46.4
Workman	46.0		45.1		43.3		42.0		44.4
			Sector o	of work					
Public	47.0		46.2		47.0		45.7		46.4
Private	47.7		46.6		46.0		43.3		46.3
			Type of	f work					
Fixed-term	42.7		42.2		40.5		40.1		41.4
Permanent	48.0		47.0		46.8		45.0		46.8
			Work h	nours					
30 or more	47.9		46.9		46.7		44.7		46.7
Less than 30	39.0		38.1		38.1		37.5		38.2
Total	47.4		46.2		46.1		44.1		46.0

(a) Employee income recipients.

(b) Estimation based on a sample size between 20 and 49 observations.





#### FIGURE 10. GROSS SELF-EMPLOYMENT INCOME (A) COMPONENTS. Years 2006- 2015, average values in euros

(a) Gross of taxes and social contributions.

#### TABLE 8. GROSS SELF-EMPLOYMENT INCOME (A) COMPONENTS BY SEX AND GEOGRAPHICAL AREA. Year 2015, averages in euros and percentage values

	Gross income (a)	Tax (b)	Social contributions	Net income						
		Sex								
Male	26,008	4,461	4,248	17,298						
Female	17,799	2,604	3,046	12,148						
Geographical area										
Nord-West	26,504	4,549	4,384	17,571						
Nord-East	25,861	4,557	4,083	17,221						
Centre	22,871	3,859	3,593	15,419						
South and Islands	17,484	2,386	3,187	11,911						
ITALY	22,952	37,70	3,801	15,381						
		Sex								
Male	100.0	17.2	16.3	66.5						
Female	100.0	14.6	17.1	68.3						
		Geographical a	rea							
Nord-West	100.0	17.2	16.5	66.3						
Nord-East	100.0	17.6	15.8	66.6						
Centre	100.0	16.9	15.7	67.4						
South and Islands	100.0	13.6	18.2	68.1						
ITALY	100	16.4	16.6	67.0						

(a) Gross of taxes and social contributions . (b) Gross of Irap tax



TABLE 8. GROSS SELF-EMPLOYMENT INCOME (A) COMPONENTS BY SEX AND GEOGRAPHICAL AREA. Year 2015, average values in euros and percentage values

	Gross income (a)	Tax (b)	Social contributions	Net income
		Sex		
Male	26,008	4,461	4,248	17,298
Female	17,799	2,604	3,046	12,148
		Geographical a	area	
Nord-West	26,504	4,549	4,384	17,571
Nord-Est	25,861	4,557	4,083	17,221
Centre	22,871	3,859	3,593	15,419
South and Islands	17,484	2,386	3,187	11,911
ITALY	22,952	3,770	3,801	15,381
		Sex		
Male	100.0	17.2	16.3	66.5
Female	100.0	14.6	17.1	68.3
		Geographical a	area	
Nord-West	100.0	17.2	16.5	66.3
Nord-Est	100.0	17.6	15.8	66.6
Centre	100.0	16.9	15.7	67.4
South and Islands	100.0	13.6	18.2	68.1
ITALY	100.0	16.4	16.6	67.0
a) Gross of taxes and social contrib	nutions			

(a) Gross of taxes and social contributions.

(b) Gross of Irap tax.

TABLE 9. TAX INCIDENCE ON SELF-EMPLOYMENT GROSS INCOME FOR WORKER CHARACTERISTICS AND GEOGRAPHICAL AREAS - Year 2015, percentage values

	North-West	North-East	Centre	South and Islands	Italy
	S	ex			
Male	21.5	21.8	20.8	17.2	20.5
Female	18.3	18.7	17.8	15.5	17.7
	Age	class			
Less than 35 years	13.1	15.4	15.2	11.2	13.5
35 - 44 years	18.6	18.7	16.2	11.7	16.6
45 - 54 years	19.2	20.1	17.6	16.1	18.4
55 - 64 years	25.1	22.6	23.1	19.9	23.1
65 years or more	27.6	28.8	30.8	32.2	29.6
	Educatio	onal level			
Primary education or less	21.3	20.8	23.0	19.3	20.9
Lower secondary education	18.3	18.1	16.6	9.7	16.1
Upper secondary education	19.8	20.5	17.8	13.0	18.3
University degree	23.1	25.0	23.8	23.9	23.8
	Self-emp	oloyment			
With employees	23.6	23.8	21.4	20.5	22.5
Without employees	17.4	17.2	15.8	12.4	15.9
	Sector	of work			
Public	28.4	27.3	27.6	28.7	28.1
Private	19.6	20.0	18.6	15.6	18.6
	Work	hours			
30 hours or more	20.4	20.7	19.5	16.6	19.5
Less than 30 hours	12.3	12.0	14.3	13.4	13.0
	Professio	nal status			
Farmer	19.7	17.9	17.6	13.2	17.0
Craftsman	18.7	20.0	17.4	13.5	17.9
Trader	17.5	18.3	18.5	12.7	16.8
Entrepreneur, freelancer, self-employed worker	22.7	22.7	22.4	21.9	22.4
Total	20.6	20.9	20	16.7	19.7

TABLE 10. DISTRIBUTION OF INDIVIDUAL GROSS INCOME (NET OF SOCIAL CONTRIBUTIONS) BY SOURCE AND INCOME CLASS -Year 2015, percentage values

	Employee income	Self-employment income	Pensions	Total income
Less than 10,000	23.6	41.1	29.7	24.4
10,001 - 15,000	12.4	16.3	19.9	14.0
15,001 - 30,000	44.0	26.7	37.4	39.0
30,001 - 70,000	17.9	12.8	11.8	18.5
Over 70,000	2.0	3.2	1.2	2.8
Total	100.0	100.0	100.0	100.0
Less than 10,000	5,047	4,716	6,258	5,118
10,001 - 15,000	12,548	12,483	12,366	12,452
15,001 - 30,000	22,071	21,247	21,258	21,937
30,001 - 70,000	39,693	43,065	39,558	40,915
Over 70,000	101,677	127,053	89,998	108,461
Total	21,644	19,151	18,002	22,111

TABLE 11. TAX INCIDENCE BY GROSS INCOME TYPE AND INCOME CLASS. Year 2015, percentage values and average values in euros

	Employee income	Self-employment		Pensions	Total income
		Gross of Irap	Net of Irap		
		Percentage values			
Less than 10,000	5.3	8.7	8.6	3.7	3.4
10,001 - 15,000	7.1	9.9	9.3	11.4	8.4
15,001 - 30,000	15.7	14.2	13.0	18.3	14.9
30,001 - 70,000	27.8	23.2	21.8	26.4	24.2
Over 70,000	38.0	32.9	30.3	33.4	33.4
Total	20.6	19.7	18.3	18.9	19.5
	1	Average values in eu	ros		
Less than 10,000	527	724	711	710	397
10,001 - 15,000	1,062	1,761	1,668	1,649	1,268
15,001 - 30,000	3,542	3,431	3,132	3,984	3,380
30,001 - 70,000	11,022	10,224	9,591	10,520	9,962
Over 70,000	39,190	41,739	38,532	30,039	36,430
Total	5,216	5,105	4,747	4,451	5,290



## Annex

TABLE A1. HOUSEHOLD NET INCOME (including imputed rent) BY GEOGRAPHICAL AREA AND HOUSEHOLD CHARACTERISTICS. Year 2015, mean and median values in euros

	Mean						Median				
	North- West	North- East	Centre	South and Islands	Italy	North- West	North- East	Centre	South and Islands	Italy	
	Household typology										
Single person	23,950	24,057	22,755	17,633	21,977	21,550	22,343	20,856	16,597	20,238	
- less than 65 years	24,278	24,455	22,275	16,468	21,926	22,115	22,758	20,713	15,245	20,519	
- 65 years and over	23,541	23,611	23,377	18,691	22,035	21,102	21,873	21,176	17,397	20,058	
Couples without children	41,215	41,476	39,489	29,016	37,551	36,758	36,974	34,178	25,011	32,855	
- R.P. (a) less than 65 years	44,004	43,787	39,272	28,856	38,794	42,156	39,402	35,827	25,193	35,474	
- R.P. (a) 65 years and over	38,307	38,985	39,695	29,185	36,265	33,085	34,428	31,979	25,011	30,952	
Couples with children	51,639	52,733	49,681	35,074	45,270	47,540	48,692	45,541	31,008	40,962	
- one child	51,219	50,713	47,613	34,182	44,612	46,614	47,272	44,308	30,465	41,131	
- two children	52,044	54,281	52,338	36,216	46,317	48,232	50,892	47,777	31,083	41,608	
- three or more children	52,080	57,211	48,889	34,108	43,961	48,421	50,838	42,473	31,719	36,282	
Single parents	35,167	36,257	32,684	27,231	32,225	31,680	33,847	30,205	24,155	29,656	
Other typologies	39,653	46,852	42,894	33,611	39,341	32,769	44,419	41,338	27,575	34,350	
				Nu	mber of m	ninors					
One minor	44,606	46,671	40,018	29,749	38,919	40,248	44,105	37,446	27,576	35,860	
Two minors	45,061	46,633	46,507	30,088	40,453	41,006	44,782	40,909	27,185	36,161	
Three or more minors	41,115	47,443	39,824	30,891	37,850	35,582	44,995	36,571	27,327	32,391	
At least one minor	44,535	46,718	42,355	29,985	39,408	40,248	44,414	38,698	27,436	35,657	
	Number of elderly										
One elderly	30,926	32,115	32,182	25,987	29,809	25,312	26,732	26,443	20,337	24,074	
Two or more elderly	41,349	43,186	43,227	33,174	39,602	35,362	37,015	35,574	28,702	33,659	
At least one elderly	34,673	36,008	36,113	28,404	33,235	29,372	30,676	29,721	23,330	27,569	
All household members Italian	39,331	40,976	38,236	29,002	35,994	33,656	35,439	32,633	24,918	30,466	
At least one household member not Italian	24,558	25,976	22,933	16,264	22,998	21,699	23,345	18,276	13,406	20,080	
Italy	37,642	39,243	36,431	28,311	34,743	31,776	33,764	30,743	24,319	29,273	

(a) R.P.: reference person.

TABLE A2. HOUSEHOLD NET INCOME (including imputed rent) BY MAIN EARNER CHARACTERISTICS. Years 2015, mean and median values in euros

_	Mean						Median				
	North- West	North-East	Centre	South and Islands	Italy	North-West	North-East	Centre	South and Islands	Italy	
	Sex										
Male	41,856	43,428	39,835	29,998	37,940	36,325	38,331	34,651	26,067	32,668	
Female	30,843	31,909	31,172	25,386	29,428	25,044	26,612	25,466	20,664	24,148	
					A	ge class					
Less than 35 years	32,023	35,164	30,975	22,440	29,368	27,378	31,801	27,040	19,662	25,107	
35-44 years	39,446	40,056	34,183	27,245	34,676	34,687	36,489	29,530	25,596	30,217	
45-54 years	41,597	44,657	39,932	31,078	38,686	38,107	41,224	35,713	27,473	34,339	
55-64 years	46,136	46,370	44,333	33,699	41,718	39,339	39,961	38,156	29,476	35,939	
65 years or more	31,875	32,930	33,289	26,447	30,596	26,970	28,212	27,530	21,891	25,576	
					Educ	ational level					
Primary education or less	25,442	28,205	25,589	20,828	24,123	22,257	26,081	22,946	19,438	21,532	
Lower secondary education	33,587	36,305	30,660	24,447	30,280	30,648	32,425	27,568	23,012	27,332	
Upper secondary education	40,029	42,157	37,638	31,458	37,707	35,823	38,250	33,817	29,113	33,813	
University degree	51,451	50,647	51,765	46,004	49,983	44,724	46,159	44,669	39,642	43,655	
					Profes	sional status					
Employee	41,530	42,351	39,270	33,653	39,012	37,171	38,772	35,363	29,925	34,714	
Self-employed	46,609	48,270	41,266	30,627	40,972	39,546	42,359	33,702	23,841	32,415	
Unemployed	22,882	23,857	24,702	15,524	19,699	16,128	18,007	17,327	11,395	14,719	
Other not employed	26,968	29,818	25,277	20,502	23,804	21,047	22,536	19,727	18,352	19,570	
Retired	33,053	34,541	35,566	28,462	32,586	28,235	29,746	29,553	23,593	27,544	
	Citizenship										
Italian	39,201	40,859	38,223	28,972	35,961	33,518	35,413	32,674	24,918	30,466	
Not-Italian	22,290	23,529	19,702	14,835	20,523	19,814	21,267	16,585	11,723	18,328	
Total	37,642	39,243	36,431	28,311	34,743	31,776	33,764	30,743	24,319	29,273	

## For more details please refer to the Italian version

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## Glossary

At risk of poverty or social exclusion rate (abbreviated as AROPE): it refers to the situation of people either at risk of poverty, or severely materially deprived or living in a household with a very low work intensity. The AROPE rate, that is the share of the total population at risk of poverty or social exclusion, is the headline indicator to monitor the EU 2020 Strategy poverty target.

**At-risk-of-poverty rate** it is the share of people with an equivalised disposable income (after social transfers) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers. The disposable income does not include imputed rent, non-cash employee income (other than company car) and income from household production of goods for own consumption. In 2016 the at-risk-of-poverty threshold (computed on 2015 incomes) is 9,748 euros per year.

**Capital income:** it is defined as the income received less expenses occurring during the income reference period by the owner of a financial asset or a tangible non-produced asset (property or land) in return for providing funds to, or putting the tangible non-produced asset at the disposal of, another institutional unit. It includes interests (from assets such as bank accounts, certificates of deposit, bonds, etc.). dividends, profits from capital investment in an unincorporated business, income from rental of a property or land, pensions received from individual private plans, with or without imputed rent.

**Cost of labor for the employee income:** sum of gross wages and social contributions payable by the employer.

**Employee income:** it is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the income reference period. It includes also the market value of the company car provided for private use as well, luncheon vouchers and other non-cash fringe-benefits.

**Employer's social contributions:** include the employer's effective contributions and the charge for the provision for severance pay. From 2011 the contributions to be paid by the employers of the parasubordinate workers (coordinated and continuous collaborators and project collaborators) are not included.

**Equivalised disposable income**: it is the total household disposable income (according to the European definition), divided by the number of household members converted into equivalised adults; household members are equivalised or made equivalent by weighting each according to their age, using the so-called modified OECD equivalence scale. This scale gives the following weight to household members: 1.0 to the first adult; 0.5 to the second and each subsequent person aged 14 and over; 0.3 to each child aged under 14.

**Equivalised net income**: it is the total net household income (according to the Italian definition), divided by the number of household members converted into equivalised adults; household members are equivaled or made equivalent by weighting each according to their age, using the so-called modified OECD equivalence scale. This scale gives the following weight to household members: 1.0 to the first adult; 0.5 to the second and each subsequent person aged 14 and over; 0.3 to each child aged under 14.

**Europe 2020 Strategy:** The European Union ten years strategy for growth and jobs launched in 2010 to create the conditions for smart, sustainable and inclusive growth. The EU has agreed on five quantitative targets to be achieved by the end of 2020 concerning employment, research and development, climate and energy, education, social inclusion and poverty reduction.

**Gini coefficient:** it measures the extent to which the distribution of income deviates from a perfectly equal distribution. A coefficient of 0 expresses perfect equality where everyone has the same income, while a coefficient of 100 expresses full inequality where only one person has all the





income. In this note, the Gini coefficient is applied to the individual distribution of the equivalised disposable income, excluding imputed rent, non-cash employee income (other than company car), income from household production of goods for own consumption.

**Gross wage**: the sum of disposable employee income (European definition), personal income tax and social contributions payable by the employee.

**Household disposable income**: according to the European definition, it is computed as the sum for all household members of the individual employee and self-employment incomes, capital incomes, pensions and other public and private transfers received, minus cash transfers to other households net of taxes on income, taxes on wealth and social insurance contributions. According to the European definition, the market value of the company car is included in the employee income, while luncheon vouchers and other non-cash fringe benefits are not included. Furthermore, value of goods produced for own consumption are not included in the household disposable income.

**Household gross income net of social insurance contributions**: sum of disposable household income (European definition) and personal income tax paid by household members.

**Household net income**: according to the Italian definition, it is computed as the sum for all household members of the individual employee and self-employment incomes, capital incomes, pensions and other public and private transfers received. minus cash transfers to other households net of taxes on income, taxes on wealth and social insurance contributions. According to the Italian definition, the market value of the company car, luncheon vouchers and other non-cash fringe benefits are included in the employee income. Moreover, value of goods produced for own consumption are also included in the household net income. This measure of total household income is not directly comparable to the disposable income aggregate of the household sector reported in the System of National Accounts.

**Imputed rent:** it is a non-monetary income component pertaining households living in their main accommodation as owner-occupiers, renters-free or renters at lower price (compared to the market-price rent). It represents the cost (or the additional cost) that shall be paid for a similar dwelling as that occupied if rented at a market-price. Costs for heating, water, electricity, etc. are excluded.

**Individual gross income net of social insurance contributions**: gross income from dependent, self-employed, retirement and from real capital, financial capital and non-pension transfers, such as unemployment benefits, partial unemployment benefits (cig),vocational training allowances, severance and termination payments for employees, corresponds to the sum of net income and personal income tax by type of source.

**Irap**: The regional tax on production activities, established by Legislative Decree dated 15 December 1997

**Other income components:** they include capital incomes, regular inter-household cash transfers received or paid, incomes received by people aged under 16, incomes from household production of goods for own consumption and every other incomes not deriving from work or social transfers.

**Pensions and other public transfers:** Pensions are periodic payments in cash intended to maintain the income of the beneficiary and to provide protection against risks linked to old age, loss of income, inadequate income, lack of independence in carrying out daily tasks, reduced participation in social life, and so on. They include i) old-age benefits that provide a replacement income when the person retires from the labour market or which guarantee a certain income when a person has reached prescribed age or years of contribution; ii) disability benefits and disability pensions to maintain or support the income of someone below the standard retirement age, who suffers from a disability which impairs his or her ability to work beyond a minimum level; iii) survivors' benefits that provide a temporary or permanent income to people below the retirement age who have suffered from the loss of another related household member (for example their spouse). Other public transfers include full and partial unemployment benefits (*"Aspi". "Naspi".*"



"Cassa integrazione guadagni"), mobility and resettlement benefits; severance and termination payments; education related allowances; family and children related allowances; income support schemes for household and individuals at risk of social exclusion (minimum income, Social card).

**Personal income tax:** sum of direct taxes (income tax, regional and municipal tax, substitute tax on financial assets and income tax with separate taxation). For employee income, retirement and unemployment income the personal income tax corresponds to the withholding tax (according to the Eurostat definition of gross income), while for self-employment it corresponds to the net tax, as the advance payments and withholding tax on self-employment, as opposed to the withholding tax on employee income and retirement income, may also differ significantly from the final tax paid. The self-employment tax includes a portion of IRAP: the regional tax on productive activities is estimated by applying the IRAP tax rate to the part of the tax base of the independent taxpayer that corresponds to the taxable income. Being calculated on the taxable income, IRAP is, for this part, similar to a direct tax.

**Self-employment income:** is the income received by individuals, for themselves or in respect of their family members, as a result of their current or former involvement in self-employment jobs. Self-employment jobs are those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). It includes incomes deriving from employer-coordinated freelance work ("*collaborazioni coordinate e continuative – co.co.co*" or "*collaborazioni coordinate a progetto – co.co.pro*.") and royalties earned on writing. inventions.

Severe material deprivation rate: it is an indicator that expresses the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life. It measures the percentage of the population that cannot afford at least four of the following nine items:

- 1. to pay their rent. mortgage or utility bills;
- 2. to keep their home adequately warm;
- 3. to face unexpected expenses;
- 4. to eat meat or proteins regularly;
- 5. to go on a week holiday;
- 6. a television set;
- 7. a washing machine;
- 8. a car;
- 9. a telephone.

**Social contributions:** include actual contributions, i.e. mandatory contributions (and voluntary contributions if provided by collective labor agreements) for the attainment of social security and welfare benefits (sickness, disability, occupational diseases or accidents at work, old age, maternity), charged to the employee, self-employed, the parasubordinate worker and the employer. Figurative contributions are not estimated in the Eu-Silc survey.

**Social contributions of self-employed workers:** include social contributions by self-employed workers and contributions to be paid by parasubordinate workers and their employers.

**Tax wedge:** sum of personal tax on income, social contributions of the employee and contributions to be paid by the employer.

**Very low work intensity:** number of persons living in a household having a work intensity below a threshold set at 0.20. The work intensity of a household is the ratio of the total number of months that all working-age household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period. A working-age person is a person aged 18-59 years. with the exclusion of students in the age group between 18 and 24 years. Households composed only of children. of students aged less than 25 and/or people aged 60 or more are completely excluded from the indicator calculation.





## **Methodological Note**

The EU-SILC (Statistics on Income and Living Conditions. Regulation of the European Parliament. no. 1177/2003) is one of the main sources of data for periodic reports on the social situation of the European Union and the spread of the risk of poverty in member countries. EU-SILC is a multipurpose instrument which focuses mainly on income and social exclusion. with a particular attention on aspects of material deprivation.

In Italy. the EU-SILC data are collected yearly since 2004. Although the EU-SILC Regulation requires national level estimates. the Italian survey allows for reliable estimates at regional level as well.

The survey is conducted through household and personal interviews.

Since 2011. interviews have been carried out by an awarded contractor according to a CAPI (Computer Assisted Personal Interview) technique instead of the PAPI (Paper and Pencil Interview) previously used. Since 2015 a share of the interviews is carried out by CATI (Computer Assisted Telephone Interview) technique, which in 2016 is about 60% of households.

The sample design is based on a two-stages scheme (municipalities and households). where the primary sample units – municipalities – are stratified by population size within each region. Rotational design is used for households; the whole sample is composed of four rotational groups. each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed. replacing the group entered in the sample four years before. while the remaining three fourths are made of households and individuals selected one. two or three years before. interviewed respectively for the second. third or fourth time. The overall sample is statistical representative of the population residing in Italy and. in 2016. it amounts to 21,325 households (48,316 individuals), residing in about 650 municipalities.

The information is collected through an electronic questionnaire. structured in three parts:

- a) General form to collect demographic information related to each household member (sex. date and place of birth. citizenship etc.) and some information for each household member aged less than 16 years (type of school attended. formal and informal childcare etc.)
- b) Household questionnaire to collect information about housing conditions. housing expenses. economic situation. material deprivation. household income components.
- c) Personal questionnaire for each household member aged at least 16 years to collect information on education. health. current or previous labour. income by detailed components (employee. self-employment. pensions and other social transfers. financial and real capital. private transfers)

Income data collected by interviews are integrated with administrative register data. A microsimulation model allows to obtain further gross income values.

As will be explained below, the integrated use of data from administrative sources and the microsimulation model allows to estimate the taxes and social contributions paid by individuals who, added to the net income, constitute gross income. In the absence of information at the individual and household level on gross income and/or taxes paid, the technique commonly used for the conversion of sample income is the micro-simulation model that estimate taxes and social contributions according to the tax regime relating to the income reference period.

For the estimation of the Eu-Silc gross income, Istat has experimented with a more complex methodology by jointly using the SM2 model of the University of Siena and data on the integration of the sampling and administrative sources, through the exact matching techniques, using the







fiscal codes as matching key and criteria for harmonizing the data and reconciling the different values<sup>2</sup>.

The European Commission has adopted the SM2 micro-simulation model as a recommended procedure for the construction of the Eu-Silc gross income variables<sup>3</sup>. The SM2 model was built for the 2003 tax year and tested on data from the Echp (European Community Household Panel) survey. The Istat implementation of the SM2-Eu-Silc model required the transition from the preliminary version applied to the Echp data to that of the Eu-Silc data and the construction of the input and auxiliary variables based on the information gathered from the new survey<sup>4</sup>.

The availability of administrative data, used since the construction of the net income of the survey<sup>5</sup>, has allowed a joint and innovative use of a micro-simulation model and administrative registers. As it is well known, data from tax returns do not contain information on certain income components (exempt income, income with separate taxation or subject to substitute tax) and may have coverage problems compared to individuals present in the sample of the survey. The samples, in turn, may be affected by reticence, under-reporting (sub-declaration) or insufficient representativeness of some types of income or income recipients. The combined use of sample and administrative data enhances the advantages obtainable from the exclusive use of fiscal registers on the one hand and micro-simulation techniques on the other.

In the Eu-Silc survey, five administrative registers are currently used: taxpayers' tax returns, namely model 730 and Unico Persone Fisiche (UPF); declarations of tax substitutes, CU certifications and model 770, and the Pension Register drawn up jointly by Istat and Inps (Italian National Social Security Institute). In particular, for the construction of gross income, the payment prospectus of the 730 models and the RN framework of the UPF models were used to calculate net and gross income by type of source, withholding taxes and taxes paid, and deductions<sup>6</sup> and tax credits<sup>7</sup> of the taxpayer and the spouse<sup>8</sup>.

After the collection of all available information, the integrated database is subjected to a complex procedure for checking the consistency and correction of net data, gross data, withholdings and administrative taxes. In particular, some anomalies between withholding taxes, social contributions and corresponding income are eliminated. Withholdings or taxes paid by administrative sources are not used when no income figure is present, or when the values are inconsistent.

The integrated database is, therefore, used as an input to the micro-simulation model and the availability of fiscal data and microsimulated income allows a comparison and cross validation of the results very useful for the construction of the target variables of individual and household gross income<sup>9</sup>.

The micro-simulation model also allows estimating the tax and social security contributions of individuals not present in the administrative registers because they are de facto household components (i.e. individuals present at the time of the interview, but not present in the family registry form at the time of the extraction of the theoretical sample of Eu-Silc) or for the impossibility to establish a combination of the fiscal codes (it is not possible, in fact, to link the

<sup>&</sup>lt;sup>2</sup> See: Istat, La metodologia di stima dei redditi lordi nell'indagine Eu-Silc – Indagine europea sui redditi e le condizioni di vita delle famiglie, Metodi e Norme n. 49, 2011. 3 See also: Eurostat, Income in EU-SILC: Net/Gross/Net conversion. Report on common structure of the model; model description and application to the ECHP data for France, Italy and Spain, prepared by V. Verma, G. Betti and co-researcher. EU-SILC 133/04, Luxembourg 2004.

<sup>4</sup> Some net-gross conversion routines have been modified, in particular for the estimate of income from self-employment, the calculation of IRAP and the income of parasubordinate workers. The tax rules were also updated to include the second module of the 2005 IRPEF reform and subsequent changes in tax legislation. 5 See: Istat. Integrazione dei dati campionari Eu-Silc con dati di fonte amministrativa. Istat Metodi e Norme n. 38, 2009.

<sup>6</sup> Deduction for the main residence and deductions from the overall income of Section II of the RP framework of the UPF model 2016 and Section II of the Framework E of the 730/2016 model.

<sup>7</sup> Tax credits for work and family expenses and Tax credits for expenses of Section I, III, IV, V, VI VII of the RP framework of the UPF model 2016 and Section I, III, IV, V, VI of the Section II of the Framework E of the 730/2016 model.

<sup>8</sup> For taxpayers in which both declarations 730 and UPF were present, UPF was used as it usually contains additional and subsequent information with respect to the model 730.

<sup>&</sup>lt;sup>9</sup> See: Consolini P., Donatiello G., Multi-source data collection strategy and microsimulation techniques for the Italian EU-SILC, in Istat Rivista di Statistica ufficiale, n.2 2015, pp. 77-93: <u>http://www.istat.it/it/files/2015/10/rsu 2 2015.pdf</u>





individuals who report incomplete information on the tax codes and personal data). The model SM2-Eu-Silc also provides an estimate of social contributions payable by workers and employers.

The final database of individual and household income gross of tax and social security contributions is therefore constructed as the sum of available income and taxes and withholdings of administrative source, if available, or as a sum of disposable incomes and microsimulated taxes. It also includes social contributions from workers and employers. Finally, to the withholdings and taxes of administrative source a stochastic component is added to make anonymous the information used.

#### **Confidence intervals**

When a sample rather than the entire population is observed. the computed estimates are affected by sampling error. That error can be measured as standard error or relative error. that is the standard error divided by the mean estimate. named the coefficient of variation (CV).

Based on these values. confidence intervals. including the real unknown value of the parameter to be estimated with a pre-fixed probability level. can be derivated. The confidence interval is obtained adding and subtracting the standard error multiplied by a coefficient. depending on the confidence level chosen. to the punctual estimate. Taking into account a confidence level of 0.95 ( $\alpha$ =0.05). the coefficient is 1.96.

In the table A3. relative errors (CV). standard errors and confidence intervals of the estimates of the main indicators published in this note are shown:

TABLE A5 RELATIVE ERRORS, STANDARD ERRORS AND CONFIDENCE INTERVALS OF THE MAIN INDICATORS ESTIMATES. Year 2016

	Estimate (a)			Confidence interval (probability level=0.95)		
		Relative error (CV) (b)	Standard error (s.e.) (c)=(a)*(b)	Lower bound (a)-1.96*(c)	Upper bound (a)+1.96*(c)	
Population at risk of poverty or social exclusion (out of 100 individuals)	30.0	0.01648	0.49394	29.0	30.9	
Population at risk of poverty (out of 100 individuals)	20.6	0.02277	0.46974	19.7	21.6	
Severe material deprivation (out of 100 individuals))	12.1	0.03895	0.47096	11.2	13.0	
Very low working intensity (out of 100 eligible individuals)	12.8	0.02979	0.38270	12.1	13.6	
Mean disposable household income (year 2015. values in euros)						
- Excluding imputed rents	29,988	0.00594	178.15379	29,639	30,337	
- Including imputed rents	34,743	0.00525	182.55868	34,385	35,101	
Mean gross household income (year 2015, values in euros)	36,818	0.00703	258.98122	36,310	37,326	
Labour cost (year 2015, values in euros)	32,000	0.00777	248.67872	31,513	32,487	



#### REDDITO E CONDIZIONI DI VITA

#### Some indicators computation method

The **imputed rent** is estimated by means of an econometric model relating the dwelling characteristics and the market price rent paid by renters. On the market renters subset, through a two stage Heckman procedure, the following model has been estimated:

$$lny_i = \beta_0 + \beta_{1k}X_{ki} + \beta_2T_i + \beta_3\lambda_i + u_i$$

where  $y_i$  is the paid rent,  $X_{ki}$  is a vector of the dwelling characteristics (type of dwelling, dwelling size, presence of terrace, balcony, garden, lack of enough light) and characteristics of the area where the dwelling is located,  $T_i$  is the tenure seniority,  $\lambda_i$  is the inverse Mill's ratio to correct the sample selection bias (rent is observed only among those paying a market price rent and they could differ in a systematic and not-observable way from the remaining sample) and  $u_i$  is the error term,

In details  $\lambda_i$  is obtained through a probit model with renter status as dependent variable and households characteristics as independent variables (number of household members, number of income recipients, equivalised income quintiles and some socio-economic characteristics of the reference person),

The estimated parameters  $\beta_i$ , are used to compute the imputed rent for no-renters households, Seniority is included between regressors, but its effect is depurated (setting the parameter from regression equal to 0) in estimating predicted values for sub-populations other than tenants at a market rate, From that value, interests paid on mortgage, if any, are deducted,

The Gini coefficient can be computed through the following formula:

$$\frac{\sum_{i=1}^{n-1} (P_i - Q_i)}{\sum_{i=1}^{n-1} P_i}$$

where  $Q_i$  are the cumulate income shares and  $P_i$  are the cumulate shares in case of equidistribution,