

## COUNTRY REPORT: ROMANIA

### 1. DESCRIPTION OF THE INDIRECT TAX SYSTEMS

This section describes the indirect tax system for Romania. First we explain the value added tax rates, which goods and services they apply on, and which exemptions there are to the standard rates. We then summarize excises for each product category. Finally we list the other notable indirect taxes besides VAT and excises. Information generally refers to June 30th in a given year, unless specified otherwise. Information is presented up to the latest available year.

#### 1.1 Value Added Tax

In Romania, the standard VAT rate in 2011 was equal to 24% and it has remained at the same level until January 1<sup>st</sup> 2016, when it has been decreased to 20%. The reduced rates, of 5% and 9%, did not change over time.

**Table 1: Overview of changes in VAT rates (2011-2016)**

	2011	2012	2013	2014	2015	2016
Standard	24%	24%	24%	24%	24%	20%
Reduced	9%	9%	9%	9%	9%	9%
Super-reduced	5%	5%	5%	5%	5%	5%

Source: Romanian Fiscal Code, 2011 – 2016.

The reduced VAT rates apply to specific product categories, which are listed in Table 18 in appendix.

Since 2011 some important changes have taken place within each category. Starting from September 2013, the reduced 9% VAT rate applies for bread and wheat flour. In 2016, jointly with the lowering of the standard VAT rate to 20%, the VAT rate for cultural services and supply of books, newspapers, magazines, etc. was lowered to the 5% rate, instead of the 9% rate. The application of the 9% rate is extended to the following product categories: Food and non-alcoholic beverages; Water supply; Restaurant and catering service (except for alcoholic beverages).

More than half of the annual governmental revenues proceed from VAT collection, but the relative importance of VAT revenues has declined from 2011 both as percent in total government revenues and in GDP as well. The percentage of VAT revenues relative to GDP has been around 7-8% during 2011 to 2014.

**Table 2: VAT revenue 2010-2014**

	2010	2011	2012	2013	2014
% of government revenues	59.0	60.1	58.7	57.0	53.8
% of GDP	7.4	8.5	8.5	8.1	7.6

Source: National Institute of Statistics, Tempo-online database.

## 1.2 Excise duties and prices

The main types of excises are levied on tobacco products, alcoholic beverages and energy products. For alcoholic beverages and energy products, the Romanian regulatory framework (Fiscal Code) stipulates only specific excises, while for tobacco products, the excises can be either specific or both specific and ad valorem, depending on the product category.

### 1.2.1 Alcoholic beverages

In the Romanian regulatory framework, excises on alcoholic beverages are levied on beers, wine, fermented beverages other than wine and beer, intermediaries and spirits. The level of the excise is differentiated for beers and spirits by the size of the production capacity. The most important changes have occurred in 2016, when the excises for beers, wine, intermediaries and spirits have decreased considerably. Starting from 2013, a supplementary excise has been introduced on beers (if the degree Plato obtained from malt is less than 30% of the total degree Plato) and on fermented beverages other than wine and beer (if the percent of pure alcohol obtained from fruits is less than 50% of the total pure alcohol). The excises on alcoholic beverages are listed in Table 3.

**Table 3: Excises on alcoholic beverages (Leu per unit, 2011-2016)**

	2011	2012	2013	2014	2015	2016	unit
<u>Beers</u>							
<i>Standard</i>	3.19	3.21	3.72	3.89	3.89	3.33	hl/degree Plato
<i>Small breweries</i>	1.83	1.85	2.14	2.24	2.24	1.82	hl/degree Plato
<u>Wine</u>							
<i>Still wine</i>	0.0	0.0	0.0	0.0	0.0	0.0	hl
<i>Sparkling wine</i>	145.2	146.4	154.0	161.3	161.3	47.4	hl
<u>Intermediaries</u>	703.8	709.5	746.2	781.8	781.8	396.8	hl
<u>Spirits</u>							
<i>Standard</i>	3199.1	3225.1	3391.7	4738.0	4738.0	3307.0	hl of pa
<i>Small distilleries</i>	2026.1	2042.6	2148.1	2250.6	2250.6	1653.5	hl of pa

Notes: small breweries=independent producers with a nominal production capacity < 200.000 hl/ year; small distilleries=distilleries with a production of less than 50 hl of pure alcohol/ year; pa=pure alcohol.

### 1.2.2 Tobacco

The following tobacco products are subject of excise duties: cigarettes, cigars and cigarillos, fine-cut smoking tobacco and other smoking tobacco products. Only for cigarettes, the total excises levied are the sum between ad valorem and specific excise; for all the other categories, specific excises are applied either on 1000 units (for cigars and cigarillos) or per kg (fine-cut smoking tobacco and other smoking tobacco products). In the case of cigarettes, the ad valorem excise is calculated as a percentage of the retail price, while the specific excise is expressed in Leu per 1000 units. For cigarettes a minimum excise duty is stipulated, which is equal to the value of the excise levied per 1000 units.

The current practice regarding the value of the specific excise for cigarettes is the annual modification on April 1<sup>st</sup>, taking into consideration the previous year's average weighted retail price. The ad valorem excise for cigarettes has been reduced from 22% in 2010 to 14% in 2015 and 2016.

**Table 4: Excises on tobacco products (2011-2016)**

	2011	2012	2013	2014	2015	2016
<u>Specific excises</u> (€ per 1000 units, or per kg)						
<i>Cigarettes</i>	219.6	228.7	256.5	268.7	314.7	333.4
<i>Cigars and cigarillos</i>	273.0	275.2	289.4	303.2	303.2	303.2
<i>Fine-cut smoking tobacco</i>	345.5	348.1	366.1	383.8	383.8	383.8
<i>Other tobacco products</i>	345.5	345.5	366.3	383.8	383.8	383.8
<u>Ad valorem excises</u> (% of retail price)						
<i>Cigarettes</i>	21%	21%	20%	19%	18%	14%
<i>Cigars and cigarillos</i>	0	0	0	0	0	0
<i>Fine-cut smoking tobacco</i>	0	0	0	0	0	0
<i>Other tobacco products</i>	0	0	0	0	0	0

Source: Romanian Fiscal Code, 2011 – 2016.

### 1.2.3 Energy products

Excises are levied on the following energy products: petrol, gas oil, natural gas, liquefied petroleum gas, coal and coke, heavy fuel oil, kerosene and electricity. Other energy products can become excisable as well if used as fuel or for heating, in which case the level of the excises is that applied for the equivalent fuel or heating product.

**Table 5: Excises on energy products (Leu per unit, 2011-2016)**

	2011	2012	2013	2014	2015	2016	unit
<u>Petrol</u>							
<i>Leaded petrol</i>	421.19	421.19	421.19	491.19	523.73	523.53	1000 litre
<i>Unleaded petrol</i>	359.59	359.59	359.59	429.59	457.87	457.87	1000 litre
<u>Gas oil</u>							
<i>Propellant</i>	302.51	316.03	330.395	400.395	426.92	426.76	1000 litre
<i>Heating (non-business use)</i>	302.51	316.03	330.395	400.395	426.92	426.76	1000 litre
<i>Heavy fuel oil for heating (non-business use)</i>	302.51	316.03	330.395	400.395	426.92	426.76	1000 kg
<u>Liquefied Petroleum Gas</u>							
<i>Propellant</i>	128.26	128.26	128.26	128.26	136.76	136.71	1000 kg
<i>Heating (non-business use)</i>	113.50	113.50	113.50	113.50	121.02	120.97	1000 kg
<u>Natural Gas</u>							
<i>Propellant</i>	2.60	2.60	2.60	2.60	2.78	2.78	Gigajoule
<i>Heating (non-business use)</i>	0.32	0.32	0.32	0.32	0.35	0.35	Gigajoule
<u>Coal and Coke</u>							
<i>Heating (non-business use)</i>	0.30	0.30	0.30	0.30	0.32	0.32	Gigajoule
<u>Electricity</u>							
<i>Non-business use</i>	1	1	1	1	1.07	1.07	MWh
<u>Heavy fuel oil</u>	15	15	15	15	16	15.99	1000 kg
<u>Kerosene</u>							
<i>Propellant</i>	375.91	375.91	375.91	375.91	475.45	475.27	1000 litre
<i>Heating (non-business use)</i>	375.91	375.91	375.91	445.91	400.81	400.66	1000 litre

Notes: \*conversion based on ECB Leu/ Euro exchange rate for 2014 and 2015: 4.4437 and, respectively, 4.4454, European Central Bank.  
Source: Romanian Fiscal Code, 2011 – 2016.

#### 1.2.4 Product and sector specific charges

Other groups of products than alcoholic beverages, tobacco and energy products could be subject to excises under specific conditions, such as: coffee, jewellery, natural fur products, cars, weapons, boats. Excises on coffee have been introduced in 2012, while other products listed below such as jewellery, fur, cars, weapons and boats became excisable starting from September 2013. However, in 2016 the excises have been lifted for all the products listed below.

**Table 6: Other excises (2012-2016)**

	2012	2013	2015	2016	unit
		Sept	Jan	Jan	
<u>Coffee</u>					
<i>Green</i>	153	153	163.1	0	1000 kg
<i>Roasted</i>	225	225	239.9	0	1000 kg
<i>Soluble</i>	900	900	959.6	0	1000 kg
<u>Jewellery</u>					
<i>Gold &lt;=14K</i>	0	1	1.07	0	g
<i>Gold &gt; 14K</i>	0	2	2.14	0	g
<i>Platinum</i>	0	2	2.14	0	g
<u>Natural fur products</u>					
<i>Value &gt;500 € and &lt;=1500€</i>	0	50	53.32	0	unit
<i>Value &gt;1500 € and &lt;=3000€</i>	0	200	213.25	0	unit
<i>Value &gt;3000 € and &lt;=4500€</i>	0	450	479.81	0	unit
<i>Value &gt;4500 € and &lt;=6000€</i>	0	750	800	0	unit
<i>Value &gt;6000 €</i>	0	1200	1279	0	unit
<u>Cars (c.c.&gt; 300cm<sup>3</sup>)</u>	0	1.0	1.07	0	cm <sup>3</sup>
<u>Weapons</u>					
<i>Value &lt;500 €</i>	0	50	53.3	0	unit
<i>Value &gt;500 € and &lt;=2000€</i>	0	150	159.9	0	unit
<i>Value &gt;2000 € and &lt;=3000€</i>	0	400	426.5	0	unit
<i>Value &gt;3000 € and &lt;=4000€</i>	0	700	746.4	0	unit
<i>Value &gt;4000 € and &lt;=5000€</i>	0	500	959.6	0	unit
<i>Value &gt;5000 € and &lt;=6000€</i>	0	1100	1172.9	0	unit
<i>Value &gt;6000 €</i>	0	1500	1599.4	0	unit
<u>Boats</u>					
<i>Sailing boats (&gt;8m)</i>	0	500	533.1	0	m
<i>Motor boats (&gt;100HP)</i>	0	10	10.7	0	horsepower

Notes: \*conversion based on ECB Leu/ Euro exchange rate for 2014: 4.4437, European Central Bank.

Source: Romanian Fiscal Code, 2011 – 2016.

### 1.2.5 Tax revenue from excise duties

After dropping from 24.4 to 22.3 as percentage of government revenue, excise duties increased again between 2011 and 2014. In 2014 the proceeds from excise duties account for 24.1% of government revenues and 3.4% of GDP.

**Table 7: Proceeds from excise duties (2010-2015)**

	2010	2011	2012	2013	2014
% of gov. revenue	24.4	22.3	22.0	21.8	24.1
% of GDP	3.0	3.2	3.2	3.1	3.4

Source: National Institute of Statistics, Tempo-online database.

### 1.2.6 Prices

Table 8 lists consumer prices at the most detailed level of commodity groups available in HBS.

**Table 8: Average consumer prices of items subject to excises (Leu per unit, 2011-2016)**

	2011	2012	2013	2014	2015	2016	unit
Spirits and liqueurs <sup>1)</sup>	4035.2	4282.9	4825.3	5075.7	5220.6	5182.1	100 litre
Wine <sup>2)</sup>	1369.2	1255.6	1524.0	1561.4	1503.6	1492.6	100 litre
Beer <sup>3)</sup>	618.5	606.3	710.0	702.9	709.9	704.8	100 litre
Coffee	49.1	50.4	53.0	48.7	47.5	47.3	kg
Cigarettes <sup>4)</sup>	2385.8	2566.0	2928.4	3091.7	3193.9	3170.6	1000 cigarettes
Electricity <sup>5)</sup>	460.7	451.5	596.9	573.9	573.2	569.2	kWh
Natural gas and town gas <sup>6)</sup>	33.7	32.3	35.8	38.2	38.1	38.0	Gigajoule
Petrol <sup>7)</sup>	5251.3	5321.8	5713.5	6442.8	4935.3	4899.0	litre

Source: 1), 2), 3) Eurostat, Consumer prices research, 2011-2014. The average consumer prices are for: 1) vodka, 2) white wine; 4) Romanian Ministry of Finance; 5) Eurostat – Energy statistics/ Prices; 7) European Commission – Oil Bulletin Prices History.

### 1.3 *Other indirect taxes*

Besides VAT and excises, the Romanian government raises important revenues through local taxes on land, buildings and vehicles, as well as on services or activities related to: the issuing of certificates and permits, advertisements, cultural or recreational activities and tourism/accommodation.

Owners of land or buildings pay an annual tax on their property, which is levied by the local authorities. The level of the tax on land depends on the ranking of the municipality, land use category and area. The ownership of buildings is taxed based on the ranking of the municipality, the location of the building, construction materials, facilities and area.

The ownership of vehicles is taxed annually based on vehicle category, engine capacity and weight. Any individual application for the issuing of certificates and permits by local authorities is taxed. The advertisement services provided based on a contract between parties are taxed by a percentage amounting between 1% and 3% applied to the value of the services. The organization of cultural or recreational activities is taxed at 2% or 5% of the ticket sales. Accommodation services in hotels are also subject to taxation at 1% per day applied on the daily rate.

**Table 9: Revenue from other indirect taxes (2011)**

	billion €	% of gov. revenue
Tax on land	0.66	3.5
Tax on buildings	0.22	1.2
Other local taxes on products and services	3.40	18.1

## 2. DATA

### 2.1 Description of HBS

The Household Budget Survey is organised by the Romanian National Institute of Statistics. The survey sample covers the whole territory of Romania and consists of private households (i.e. collective households such as homes for elderly, hospitals, student hostels, and other types of collective households are not covered by the survey sample). Data on most non-durable expenditures are derived from diaries filled in by respondents over a period of one month. Data on other kinds of spending is collected through face-to-face interviews and cover longer periods. All socio-demographic characteristics of households reflect the situation at the time of the interview.

### 2.2 Sample descriptives

Table 10 presents the distribution of expenditure in the HBS data across income deciles. We can see from the table that two commodities dominate the other categories, across the income distribution: *food expenditures* account for over one third of expenditures, followed by utilities (*home fuels, electricity and water*), which make up another 17.0% of total expenditures. The third largest expenditure group is *tobacco* with 6.1% of total expenditures. According to the HBS Romanian households spend the least on *alcoholic beverages* (1.1%), *education* (0.7%), *restaurants and hotels* (1.1%), *public transport* (1.6%) and *housing and rents* (1.6%).

**Table 10: Mean (unequalised) household disposable income and expenditure by income decile and expenditure category, Leu/month**

Expenditure category	1	2	3	4	5	6	7	8	9	10	All
1. Food & non-alcoholic beverages	313	337	369	403	425	495	518	551	618	675	470
2. Alcoholic beverages	10	11	12	12	12	14	15	18	21	28	15
3. Tobacco	35	45	52	62	66	80	96	106	124	150	82
4. Clothing & footwear	29	34	45	51	54	67	83	97	112	197	77
5. Home fuels, electricity & water	103	141	172	205	224	247	271	285	317	325	229
6. Housing & rents	4	6	8	11	14	22	27	33	35	53	21
7. Household goods & services	17	21	26	31	33	38	43	46	54	70	38
8. Health	20	33	43	56	66	75	83	93	118	133	72
9. Private transport	7	15	20	27	36	50	66	90	139	231	68
10. Public transport	9	16	18	21	23	27	27	28	26	26	22
11. Communication	26	34	43	54	58	72	84	94	113	144	72
12. Recreation & culture	26	29	33	38	42	47	52	60	67	105	50
13. Education	0	2	4	4	5	11	9	10	20	30	9
14. Restaurants & hotels	2	3	2	4	7	6	10	14	21	81	15
15. Other goods & services	28	35	41	52	58	71	82	95	120	193	77
Durables	8	10	7	11	17	21	27	39	42	139	32
Mean household income	537	773	963	1149	1295	1547	1778	2024	2510	3789	1634
Mean total expenditure	637	773	896	1043	1139	1344	1492	1658	1947	2580	1349

Notes: deciles are constructed on the basis of household disposable income equalised with the modified OECD scale, allocating the same number of households to each decile.

Source: HBS 2011

Comparing the differences in spending of the bottom and top, we can see that the top decile spends 25 times more on education (be it from a very low level), 20 times the amount on restaurants and hotels, and 17 times the amount on private transport.

### 2.3 Comparison of variable distributions in HBS and EUROMOD input data

The following subsection gives an overview of the comparability of HBS and the EUROMOD input data. Table 11 compares the means of the covariates used in estimation (and imputation) of the Engel curves. The characteristics of the households are near identical in the HBS and the SILC, whereas the attributes of the household heads are more distinct.

**Table 11: Sample descriptives**

	HBS	SILC
<b>Household heads</b>		
Mean age	54.6	50.0
Share of men	73.3	67.5
Secondary education	74.1	66.9
Higher education	11.8	21.2
Employed	50.9	69.0
Unemployed	4.1	0.9
Retired	43.2	28.0
<b>Households</b>		
Disposable income	1632.7	1600.8
Household size, mean	2.9	2.9
Number of children, mean	0.5	0.5
Number of active persons	1.1	1.3
Urban area	56.8	59.5
Region 1: Nord-Vest, Centru	24.4	25.3
Region 2: Nord-Est, Sud-Est	29.8	29.7
Region 3: Sud - Muntenia, București - Ilfov	26.4	26.0
Region 4: Sud-Vest Oltenia, Vest	19.4	19.0

Note: variables presented in the table are self-reported

Source: HBS 2011, SILC 2012



In Figure 1 we present a number of histograms to further assess the covariates used for the Engel curve estimations. The covariates have a similar distribution, be it that there are clearly more young household heads in SILC/EUROMOD than in HBS.

**Figure 1: Household head/household characteristics, HBS vs SILC**

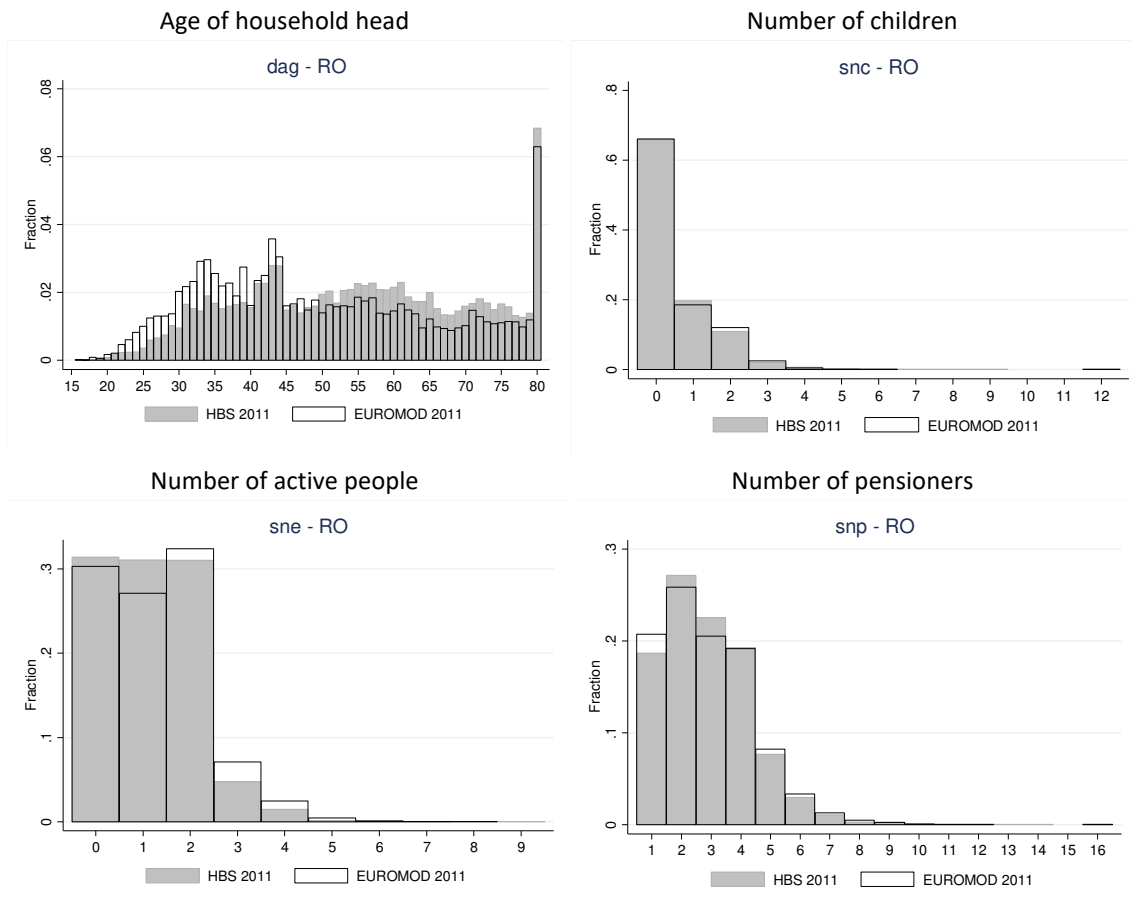
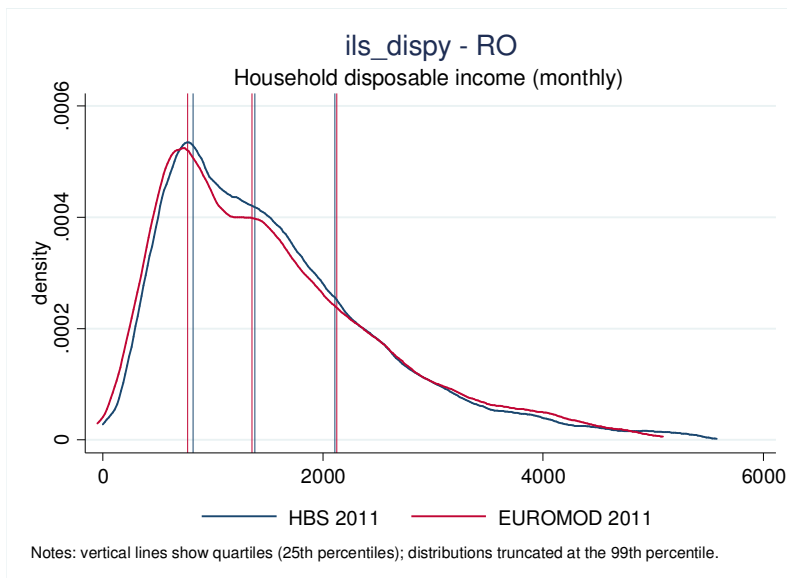


Figure 2 shows that household disposable income follows a very similar pattern in the HBS and the SILC dataset.

**Figure 2: Household disposable income, HBS vs SILC**



### 3. VALIDATION OF ESTIMATED ENGEL CURVES AND EXPENDITURES IMPUTED INTO EUROMOD

Table 12 presents the total expenditure and expenditures by category as observed in HBS, and simulated in EUROMOD. As Romania is not a member of the OECD, the OECD database does not contain the National Accounts statistics on household expenditures of Romania. EUROMOD simulations are very close to the expenditures observed in HBS. The three biggest expenditure groups according to HBS and EUROMOD are *food and non-alcoholic beverages*, *home fuels* and *-jointly- clothing and footwear and other goods and services*.

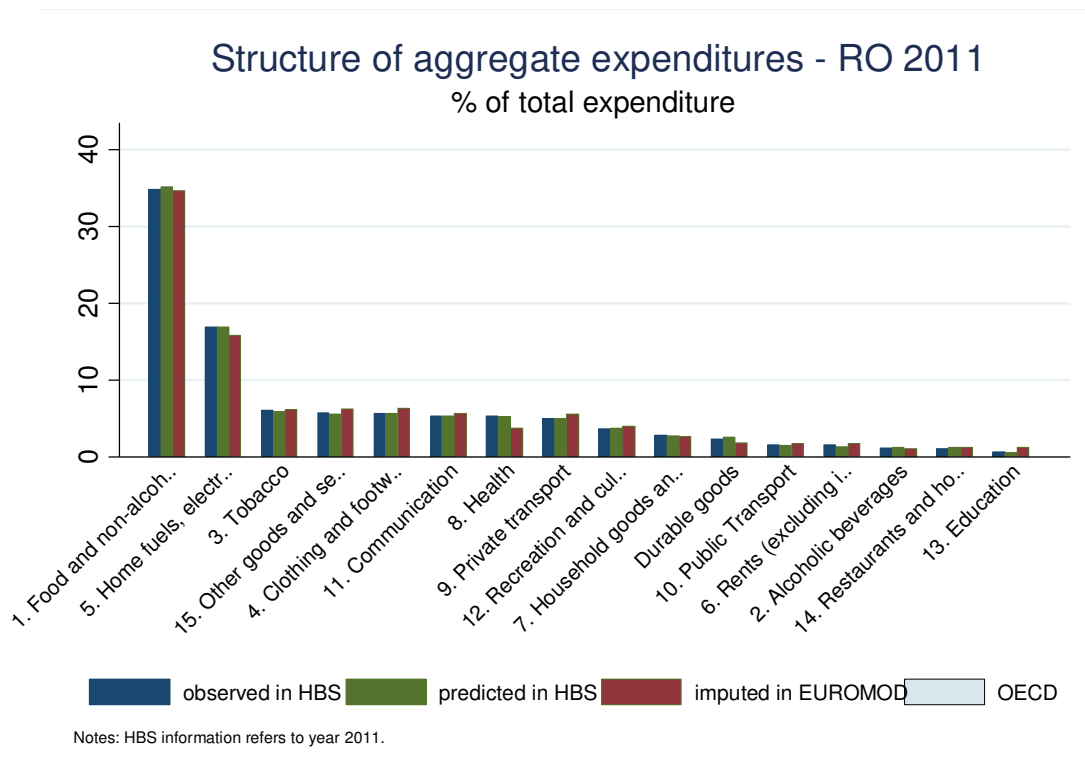
**Table 12: Total annual expenditure by category: HBS (2011) and EUROMOD (2011 simulations)**

Expenditure category	Annual expenditure, million Leu			Share, %		
	HBS	EUROMOD	Nat.Acc.	HBS	EUROMOD	Nat.Acc.
1. Food & non-alcoholic beverages	41786	42960		34.8	34.7	
2. Alcoholic beverages	1362	1392		1.1	1.1	
3. Tobacco	7253	7644		6.0	6.2	
4. Clothing & footwear	6822	7859		5.7	6.3	
5. Home fuels, electricity & water	20328	19564		16.9	15.8	
6. Housing & rents	1889	2145		1.6	1.7	
7. Household goods & services	3365	3351		2.8	2.7	
8. Health	6398	4646		5.3	3.8	
9. Private transport	6047	6899		5.0	5.6	
10. Public transport	1949	2226		1.6	1.8	
11. Communication	6412	7054		5.3	5.7	
12. Recreation & culture	4440	4917		3.7	4.0	
13. Education	843	1610		0.7	1.3	
14. Restaurants & hotels	1320	1580		1.1	1.3	
15. Other goods & services	6883	7719		5.7	6.2	
Durable goods	2849	2287		2.4	1.8	
Total non-durables	117097	121567		97.6	98.2	
Total expenditures	119947	123853		100.0	100.0	

Sources: HBS 2011, SILC 2011, EUROMOD

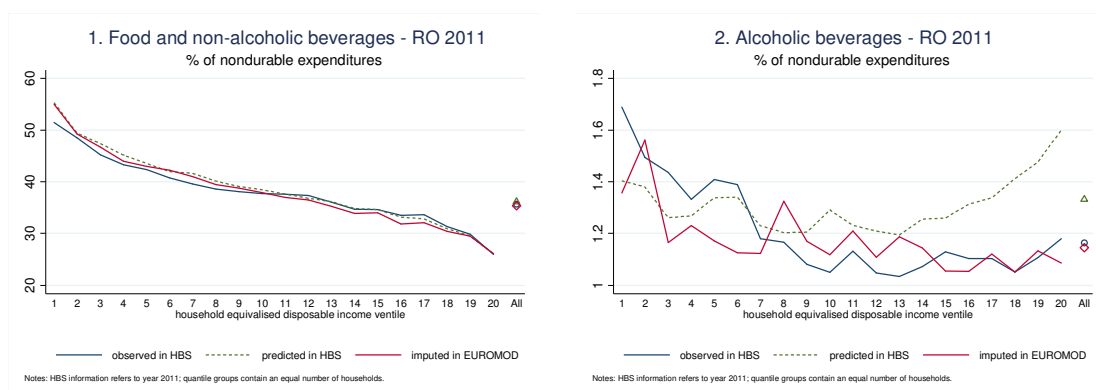
The match between the aggregates of the actual HBS data and predictions into HBS is very good with almost no noticeable difference in most cases. Imputation into EUROMOD also matches up well with the actual HBS data. Total imputed expenditure covers around 103.3% of actual expenditure in the HBS. Following this measure, one commodity stands out as highly oversimulated: *education expenditures* are 91% higher than the HBS aggregate, this gap is much smaller in monetary values however. The other main differences can be seen in *health* expenditures with the simulated expenditure reaching only 73% of what is observed in HBS, and both *clothing*, and *public and private transport* all being 14 to 15% higher than the HBS total.

**Figure 3: Aggregate observed and imputed household expenditures by category (% of total expenditures)**

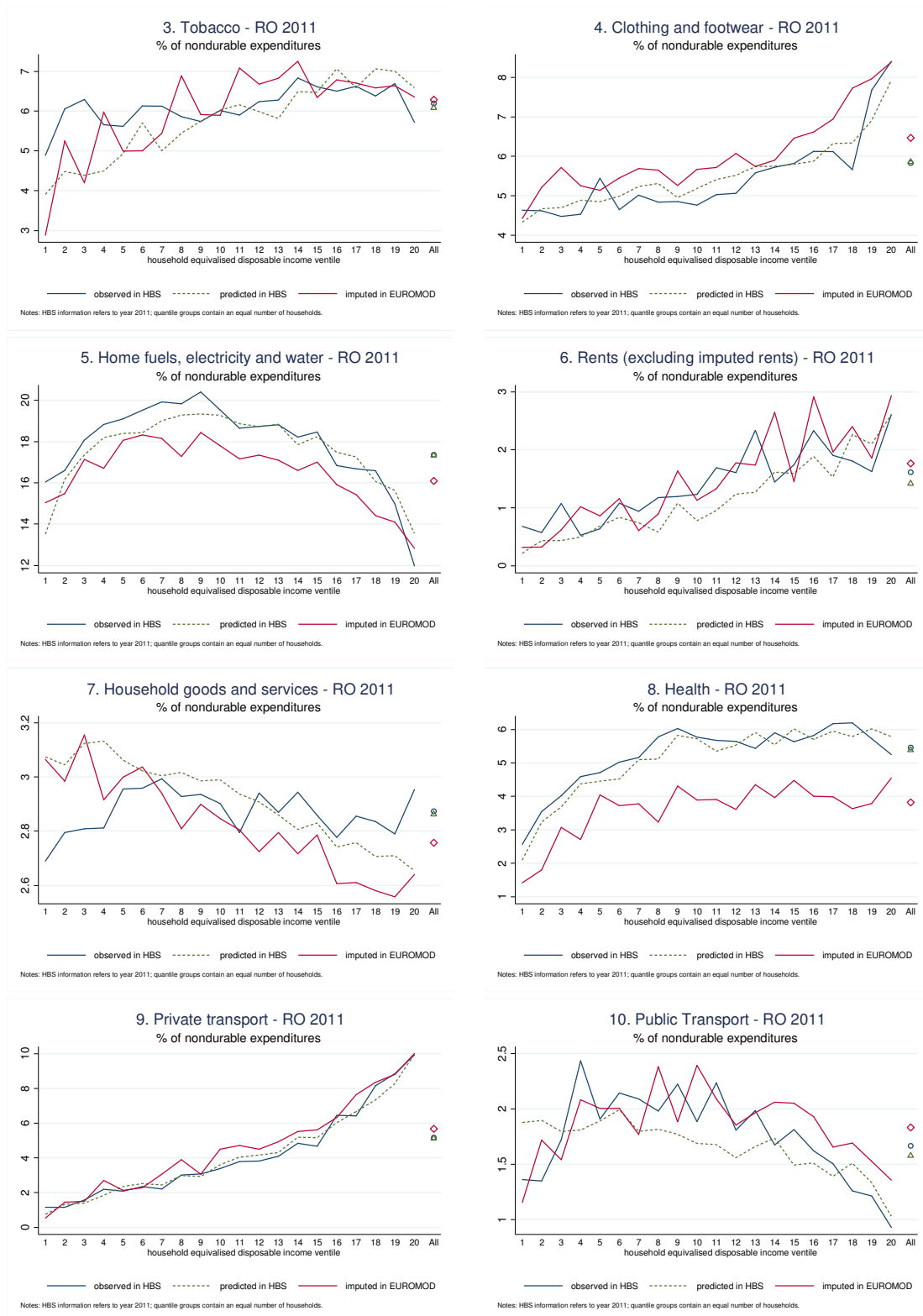


Finally, we plot in Figure 4 the budget shares for each commodity by ventile of household equivalised disposable income, comparing observed and predicted values in HBS 2011 with imputed values in SILC.

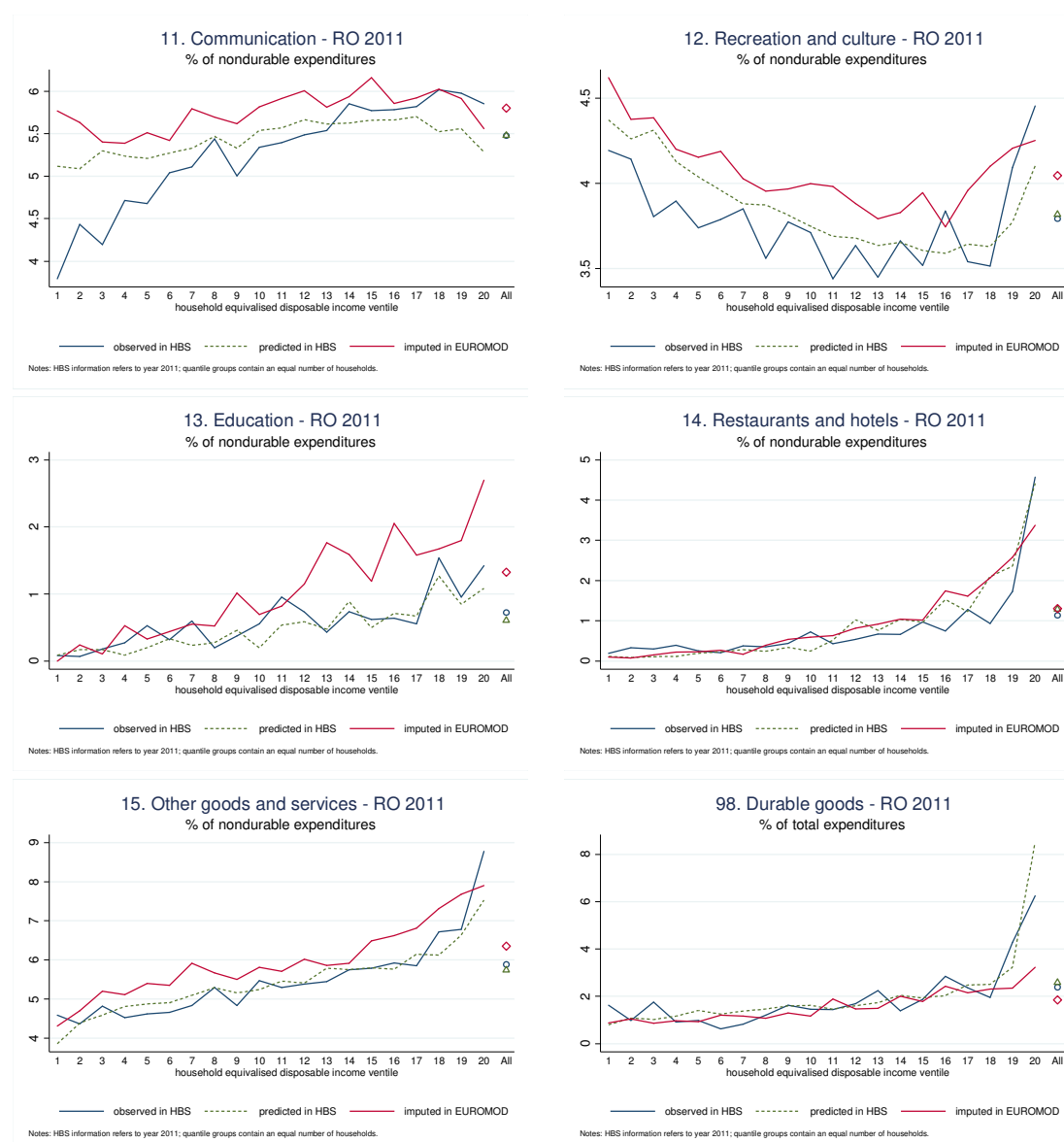
**Figure 4: Observed, predicted and imputed expenditure shares by ventiles of household equivalised disposable income, %**



**Figure 4: Observed, predicted and imputed expenditure shares by ventiles of household equivalised disposable income, %**



**Figure 4: Observed, predicted and imputed expenditure shares by ventiles of household equivalised disposable income, %**



Source: authors' calculations

We can conclude that overall imputed expenditures in SILC follow very similar levels and patterns across the income distribution, as the HBS does, for each of the commodities. The commodities for which the Engel curve imputation perform the least good are *household goods and services*, for which the pattern does not match nicely; *health services* which is generally under-imputed; *communication services* are over-imputed, especially at the bottom; *education services* are over-imputed at the top of the income distribution; and *other goods and services* are somewhat over-imputed throughout the distribution.

#### 4. VALIDATION OF INDIRECT TAX SIMULATIONS IN EUROMOD

Table 13 presents the implicit tax rates by expenditure category. The highest taxed commodity was tobacco, until 2015, when cigarette excises were lowered considerably. The fact that private transport raced to the top of the implicit tax rate chart has to do with a gradual increase in petrol

excises, and with the stark drop in petrol prices in 2015 and 2016. In 2016 all VAT rates change drastically as the result of a large scale reform of the VAT structure.

**Table 13 Implicit indirect tax rate by expenditure category, %, 2011-2016**

Expenditure category	2011	2012	2013	2014	2015	2016
1. Food & non-alcoholic beverages	24.0	24.1	21.0	21.0	21.0	9.1
2. Alcoholic beverages	39.3	39.0	38.3	41.6	41.2	32.0
3. Tobacco	94.4	93.3	92.7	92.5	64.5	59.2
4. Clothing & footwear	24.0	24.0	24.0	24.0	24.0	20.0
5. Home fuels, electricity & water	24.5	24.5	24.4	24.4	24.4	18.4
6. Housing & rents	9.4	9.4	9.4	9.4	9.4	8.0
7. Household goods & services	24.0	24.0	24.0	24.0	24.0	20.0
8. Health	6.9	6.9	6.9	6.9	6.9	6.9
9. Private transport	71.9	71.5	70.2	65.8	102.7	93.1
10. Public transport	24.0	24.0	24.0	24.0	24.0	20.0
11. Communication	24.0	24.0	24.0	24.0	24.0	20.0
12. Recreation & culture	5.5	5.5	5.5	5.5	5.5	5.1
13. Education	0.0	0.0	0.0	0.0	0.0	0.0
14. Restaurants & hotels	20.5	20.5	20.5	20.5	20.5	9.0
15. Other goods & services	18.3	18.3	18.3	18.3	18.3	14.9
Durable goods	24.0	24.0	24.0	24.0	24.0	20.0

Source: EUROMOD

The coverage of total indirect taxes, especially that of VAT, drops slightly across the years. This can be explained by the expenditure data originating from the period of economic uncertainty. Data collected while households were still recovering from the effects of the crisis does not accurately represent the level of expenditure one might expect now.

**Table 14: Indirect tax amounts 2011-2016, million Leu**

		2011	2012	2013	2014	2015	2016
VAT	EUROMOD	21792	22532	22287	22583	22544	15825
	Actual	48598	48820	51634	50779	57739	
	Coverage	0.45	0.46	0.43	0.44	0.39	
Excises	EUROMOD	3962	4091	4154	4116	4201	4210
	Actual	19778	20838	21674	24053	26375	
	Coverage	0.20	0.20	0.19	0.17	0.16	
Total indirect taxes	EUROMOD	25755	26623	26441	26698	26745	20035
	Actual	68377	69658	73307	74832	84114	
	Coverage	0.38	0.38	0.36	0.36	0.32	

Sources: EUROMOD, EUROSTAT

From Table 15 we can see the distribution of expenditure and indirect taxes for each disposable income decile. It is expected that households with lower income spend a larger share of their income and also pay a bigger share of their income as indirect taxes. Romanian indirect taxes are strongly regressive in income: the bottom decile pays 25.0% of their income on VAT and excises, whereas the top decile only pays 15.7%. This effect is solely driven by the VAT, as the excises are progressive with respect to household disposable income: the bottom decile paying 2.1% of their disposable income in excises, whereas the top decile pays 3.0%.

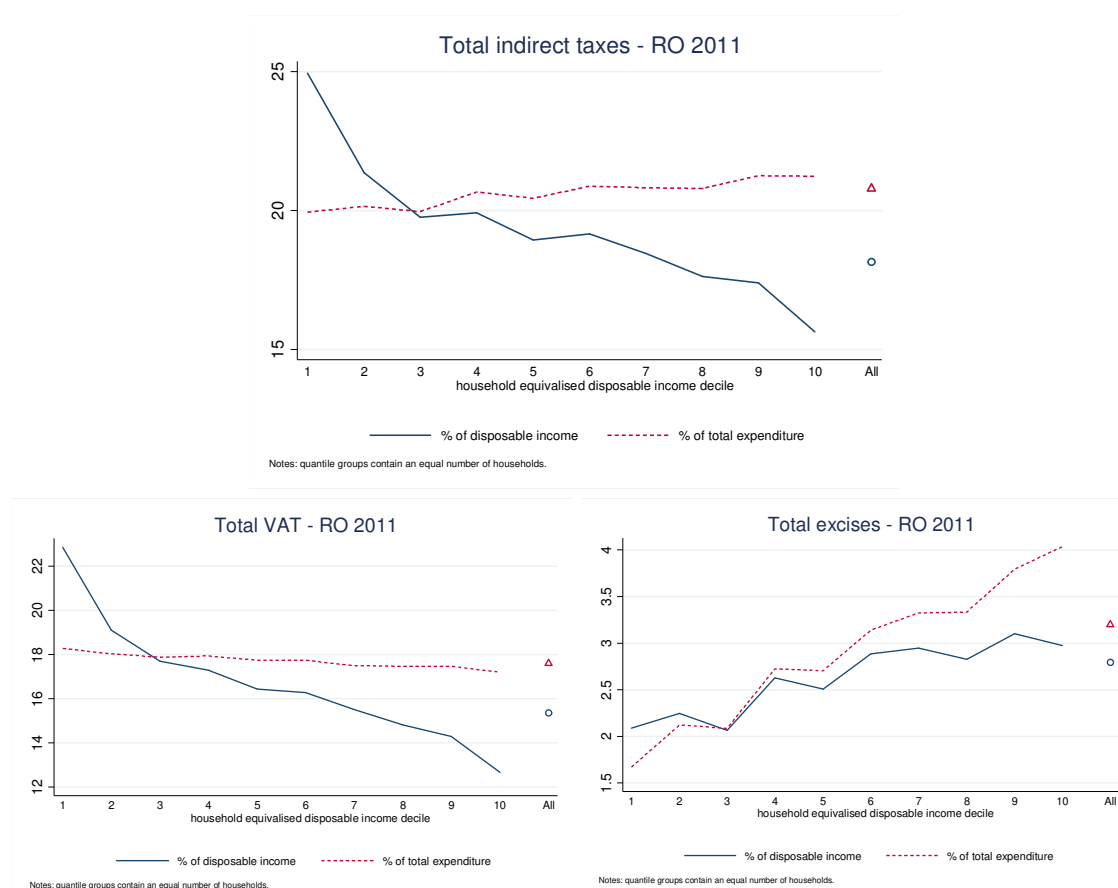
**Table 15: Mean household income, expenditure and indirect taxes by income decile, in 2011  
Leu/month**

Income decile	Disposable income	Expenditure	VAT	Excises	Share of exp. in income (%)	Share of VAT in income (%)	Share of excises in income (%)
1	476.2	595.5	108.8	9.9	125.1	22.9	2.1
2	726.0	769.3	138.7	16.3	106.0	19.1	2.2
3	900.0	890.5	159.2	18.6	98.9	17.7	2.1
4	1157.1	1115.4	200.1	30.4	96.4	17.3	2.6
5	1237.9	1146.9	203.4	31.0	92.6	16.4	2.5
6	1497.9	1374.6	243.8	43.2	91.8	16.3	2.9
7	1725.8	1529.6	267.6	50.9	88.6	15.5	2.9
8	2090.5	1773.0	309.5	59.1	84.8	14.8	2.8
9	2598.9	2126.3	371.3	80.7	81.8	14.3	3.1
10	3602.9	2652.5	456.1	107.1	73.6	12.7	3.0
All	1600.8	1397.0	245.8	44.7	87.3	15.4	2.8

Notes: deciles are constructed on the basis of household disposable income equivalised with the modified OECD scale, allocating the same number of households to each decile.

Source: EUROMOD

**Figure 5: Incidence of indirect taxes by income decile, % of income and expenditure**



Notes: deciles are constructed on the basis of household disposable income equivalised with the modified OECD scale, allocating the same number of households to each decile.

Source: EUROMOD

Table 16 presents the equivalent information by expenditure deciles and relative to total expenditure. We can see from the table that the share of VAT in expenditure is uniform across the

expenditure distribution while the share of excises in expenditure increases more than twofold from 1.5% for the low spenders to 3.1% for the highest spenders.

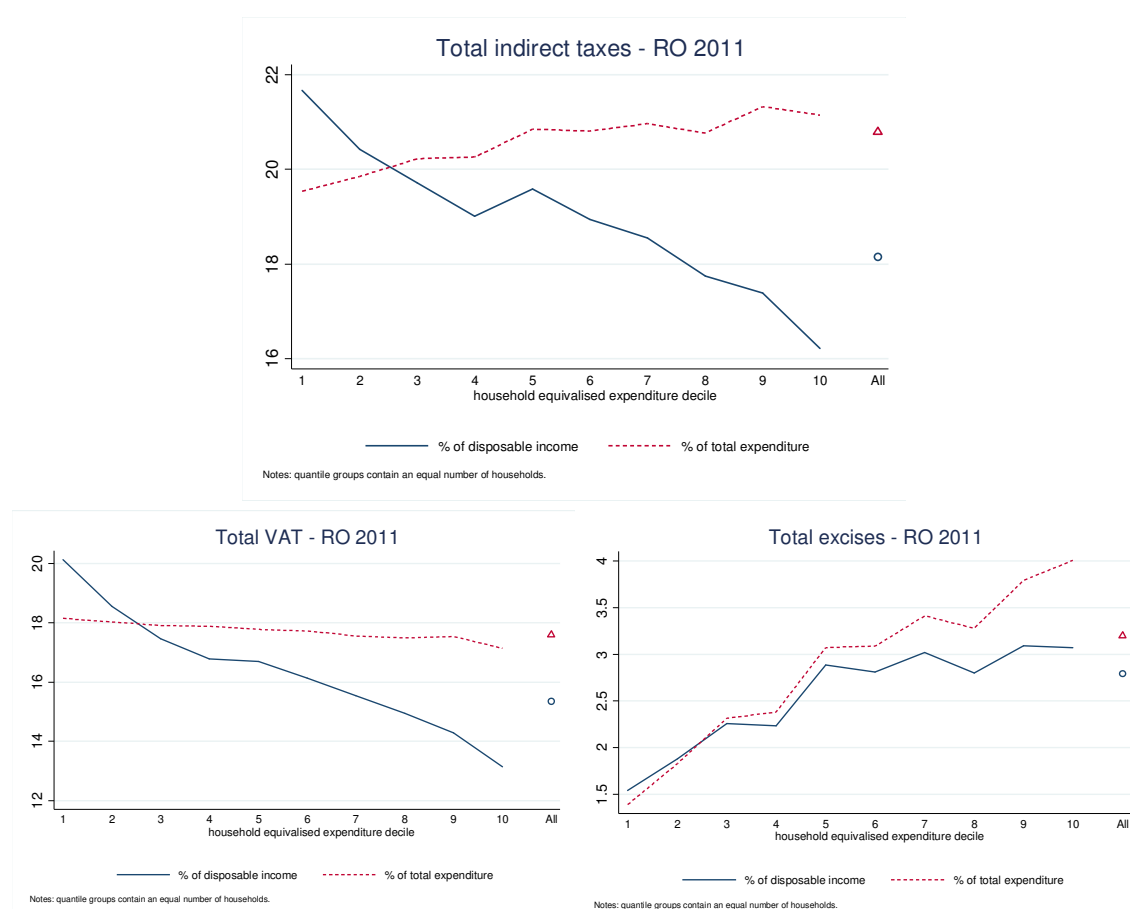
**Table 16: Mean household income, expenditure and indirect taxes by expenditure decile, in 2011 Leu/month**

Expenditure decile	Disposable income	Expenditure	VAT	Excises	Share of VAT in expenditure (%)	Share of excises in expenditure (%)
1	437.4	485.1	88.0	6.7	18.2	1.4
2	699.5	719.7	129.7	13.2	18.0	1.8
3	943.2	919.5	164.7	21.3	17.9	2.3
4	1143.0	1072.3	191.8	25.5	17.9	2.4
5	1326.2	1245.6	221.4	38.3	17.8	3.1
6	1533.0	1395.4	247.3	43.1	17.7	3.1
7	1786.9	1580.7	277.5	54.0	17.6	3.4
8	2115.3	1807.5	316.1	59.3	17.5	3.3
9	2613.5	2130.0	373.5	80.8	17.5	3.8
10	3413.3	2616.8	448.5	104.9	17.1	4.0
All	1600.8	1397.0	245.8	44.7	17.6	3.2

Notes: deciles are constructed on the basis of household total expenditure equivalised with the modified OECD scale, allocating the same number of households to each decile.

Source: EUROMOD

**Figure 6: Incidence of indirect taxes by expenditure decile, % of income and expenditure**



Notes: deciles are constructed on the basis of household total expenditure equivalised with the modified OECD scale, allocating the same number of households to each decile. Source: EUROMOD



## 5. REFERENCES

Eurostat

European Commission – Excise duty tables 2011-2016

National Institute of Statistics, Tempo-online database

Romanian Fiscal Code 2011-2016

## Annex

**Table 17: Index factor used for imputing expenditures**

Year	Index factor (2009=100)
2009	100.0
2010	106.1
2011	112.2
2012	116.0
2013	119.8
2014	121.4
2015	120.9
2016	119.8

**Table 18: Overview of reduced VAT product categories (2011)**

Standard rate	
Reduced	<p>List of goods and services:</p> <p>9%:</p> <ul style="list-style-type: none"> <li>- Cultural services, except for those exempted (see below) (cinemas, theatres, concerts, etc</li> <li>- Hotels and other accommodation services;</li> <li>- Therapeutic equipment; pharmaceuticals products;</li> <li>- Books, newspapers, magazines, etc.</li> </ul> <p>5%:</p> <ul style="list-style-type: none"> <li>- Consignment of social houses.</li> </ul>
Exempted	<p>List of goods and services:</p> <p>Medical services (Outpatient medical services, Dental services, Paramedical services, Hospital services, etc.);</p> <p>Education;</p> <p>Social protection;</p> <p>Recreational and sporting services;</p> <p>Postal (public) services;</p> <p>Public TV and radio taxes;</p> <p>Games of chances;</p> <p>Insurance (life, dwelling, health, transport, other);</p> <p>Financial services (Interests and other);</p> <p>Cultural services provided by public institutions or non-profit organizations;</p> <p>Consignment of building (not new);</p> <p>Rental of immovable.</p>

Source: Romanian Fiscal Code, 2011 – 2016.