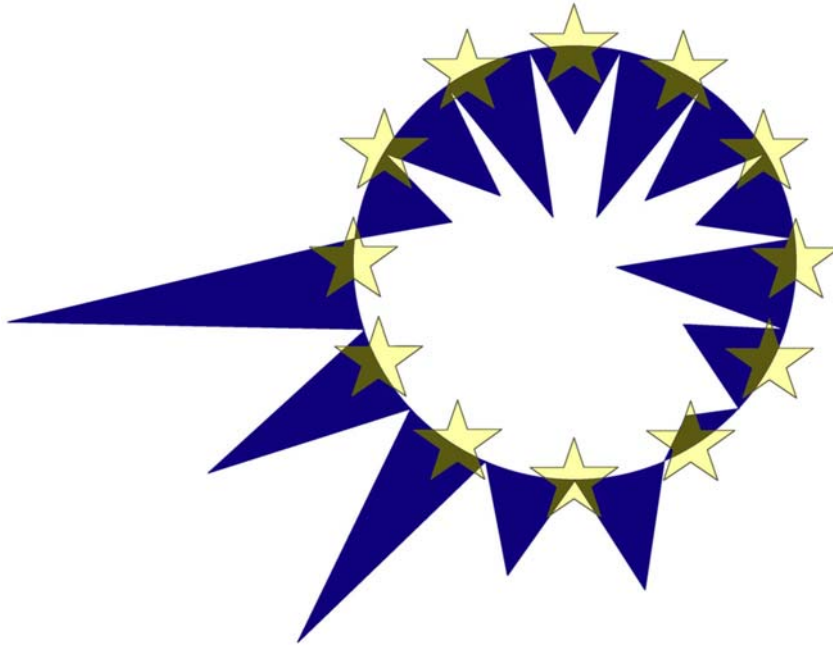


# **EUROMOD**

## **COUNTRY REPORT**



EUROMOD Country Report

**SPAIN**  
(2001 TAX-BENEFIT SYSTEM)

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**Euromod Country report - Spain**

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## 1 Tax-benefit system in Spain 2001

### 1.1 Benefits in Spain 2001

In Spain, social security benefits can be divided into three different types. The first category consists of *contributory* benefits, which depend on having met certain conditions regarding social insurance contributions. The second type is *contributory, income-tested* benefits. These benefits depend on certain contingencies such as old-age, widowhood, disability or unemployment, require minimum amount of contributions and are subject to an income test (the main example are pension supplements). The third type is *income-tested* benefits. These benefits depend on a range of personal and family circumstances and also on individual or family incomes but do not require insurance contributions<sup>1</sup>.

Table 1 shows that the Spanish social protection is mainly contributory. About 85 percent of total expenditure is related to contributory benefits. The second main source of expenditure is the contributory income-tested benefits. Only 3 percent of social protection in Spain is used in benefits not conditional on previous contributions.

In terms of social protection functions, the expenditure is mainly used to the old-age (50% of total expenditure), disability (20%), survivors (16%) and unemployed (11%). Only 2.3 percent of total expenditure is used to family related benefits and less than half percentage point is spent on social assistance benefits. It should also be stressed that there is no housing benefit in Spain.

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<sup>1</sup> For a very brief description of all Spanish social benefits see section 2.1.

Table 1. Benefits in Spain 2001: Number of claimants and expenditure

Benefits	Number	Amount (10 <sup>6</sup> €)	% of total
<b>Contributory benefits</b>	<b>8,179,058</b>	<b>58,305</b>	<b>84.9%</b>
Unemployment insurance	501,258	4,728	6.9%
Incapacity pension	788,600	10,559	15.4%
Old-age pension	4,545,600	33,655	49.0%
Widow's pension	2,042,400	7,712	11.2%
Orphan's pension	257,800	665	1.0%
Relative's pension	43,400	138	0.2%
Maternity benefit	0,000	848	1.2%
<b>Contributory, income-tested benefits</b>	<b>3,634,620</b>	<b>8,098</b>	<b>11.8%</b>
Unemployment assistance	590,567	2,746	4.0%
Old-age pension supplement	23,451	26	0.0%
Incapacity pension supplement	1,397,755	2,299	3.3%
Widow's pension supplement	878,067	2,263	3.3%
Orphan's pension supplement	113,041	95	0.1%
Relative's pension supplement	19,045	21	0.0%
Child benefit	612,693	648	0.9%
<b>Income-tested benefits</b>	<b>774,534</b>	<b>2,257</b>	<b>3.3%</b>
Child benefit	135,152	106	0.2%
Old-age assistance benefit	276,488	938	1.4%
Old-age assistance (old-system)	17,045	36	0.1%
Incapacity assistance benefit	345,849	967	1.4%
Minimum Income Guarantee (2000)	(1) 78,445	210	0.3%
<b>Total</b>		<b>68,660</b>	<b>100.0%</b>

Sources: MTAS (2002). For the Minimum Income Guarantee figure Arriba and Moreno (2002).

Notes: (1) Number of households.

### 1.1.1 Benefits simulated in Euromod

Table 2 summarises how each benefit is treated in Euromod.

The database used by Euromod to simulate the Spanish tax benefit system does not have information on labour or contribution history. For this reason, Euromod is not able to simulate contributory benefits. However, these benefits are *included* in the model's data. Therefore, Euromod users are able to "simulate" the elimination of these benefits by switching them off in the relevant income lists.

Pension supplements, unemployment assistance and old-age assistance benefit are income-tested and, therefore, could be simulated by Euromod. However, some previous data quality analysis has shown that simulation results would not be consistent neither with the benefit recipients in the database nor with official statistics. For this reason, Euromod does not simulate eligibility conditions. Only those individuals who receive the benefit in the database are eligible in the simulations. However, the model allows the user to change the

amount of the benefit. It should be kept in mind that these *partial simulations* restrict substantially the scope and effects of reforms. The user must bear this in mind when designing his/her reforms. More details about partial simulations of benefits available in Euromod can be found in section 2.1.

Contributory and non-contributory child benefits have the same rules. For this reason, Euromod simulates both benefits as one “child benefit”. Data quality analysis has shown that the results of simulating child benefit are consistent with official statistics (see section 3.3.2). Therefore, child benefit is *simulated* in Euromod (see section 2.1.1). It should be noticed, however, that Euromod does not simulate child benefit for invalid children.

The rules and the degree of implementation of minimum income guarantee programs differ dramatically across Spanish regional governments or Autonomous Communities . In 1995, the coverage of these programs ranged from 99.5 percent in the Basque country to 4.5 percent in Murcia (the national average was 17.7%) (Ayala, 2000). On the other hand, Euromod’s database does not allow us to identify each region separately. For this reason, Euromod does not simulate the “minimum income guarantee” programmes. However, these benefits are *included* in the data in variable spBEN005.

Table 2. Benefits in Spain 2001: Treatment in Euromod

Benefits	Treat. in Euromod <sup>x</sup>	Variable name(s)	Why not fully simulated?
<b>Contributory benefits</b>			
Unemployment insurance	Included	SpBE001a	No data on contribution history
Incapacity pension	Included	SpBEN004 (1)	No data on contribution history
Old-age pension	Included	SpBE002a	No data on contribution history
Widow's pension	Included	SpBE003a (1)	No data on contribution history
Orphan's pension	Included	SpBE003a (1)	No data on contribution history
Relative's pension	Included	SpBE003a (1)	No data on contribution history
Maternity benefit	Included	Spbenfam (1)	No data on contribution history
<b>Contributory, income-tested benefits</b>			
Unemployment assistance	Partially simulated	SpBE001b	Eligibility is taken from data.
Old-age pension supplement	Included	sp_sben_unab_fam SpBE002b	Data available is not sufficient to simulate all eligibility conditions. Eligibility is taken from data.
Incapacity pension supplement	Included	SpBEN004 (1)	Data available is not sufficient to simulate all eligibility conditions.. No information on disability
Widow's pension supplement	Included	SpBE003b	Eligibility is taken from data. Data available is not sufficient to simulate all eligibility conditions..
Orphan's pension supplement	Included	SpBE003a (1)	No information about relationship of recipient with late worker/pensioner. Eligibility is taken from data. Data available is not sufficient to simulate all eligibility conditions..
Relative's pension supplement	Included	SpBE003a (1)	No information about relationship of recipient with late worker/pensioner. Eligibility is taken from data. Data available is not sufficient to simulate all eligibility conditions..
Child benefit	Simulated	SpBENKID sp_sben_cb	Benefit is not simulated for disabled children. This is included in Spbenfam. Since contributory and non-contributory child benefit have the same income-test and entitlements, they are simulated as one.
<b>Income-tested benefits</b>			
Child benefit	Simulated	SpBENKID sp_sben_cb	Benefit is not simulated for disabled children. This is included in Spbenfam. Since contributory and non-contributory child benefit have the same income-test and entitlements, they are simulated as one.
Old-age assistance benefit	Partially simulated	SpBE002c sp_sben_oab	Eligibility is taken from data. Number of recipients is quite different from official sources when eligibility criteria are applied on data.
Old-age assistance (old-system)	Partially simulated	SpBE002d sp_sben_oab	Eligibility is taken from data. This is an old system and only people who were receiving it before 1990 are eligible for it
Incapacity assistance benefit	Included	SpBEN004 (1)	No information on disability
Minimum Income Guarantee	Included	spBEN005	Regional information not available.

Notes: <sup>x</sup> "Included" means that the benefit is included in the microdata but is not simulated by Euromod. "Partially Simulated" means that only some of benefit's rules are simulated by Euromod. "Simulated" means that most rules are simulated, however, some minor specificities may not be simulated.

(1) This variable includes more than one benefit and may be cited more than once in this list.



## 1.2 Taxes in Spain 2001

According to Table 3, the Spanish tax system is divided into similar shares between direct and indirect taxes and social insurance contributions. Indirect taxation is slightly higher than direct taxation in Spain. More than 1/5 of the revenue comes from the income tax. However, the main source of government revenue are the social contributions from the general regime (25% of total revenue). VAT (19%), corporate income tax (10%) and excise duties (9%) are also major sources of tax collection<sup>2</sup>.

Table 3. Taxes in Spain 2001: Number of taxpayers and revenue

Taxes	Number	Amount (10 <sup>6</sup> €)	% of total
<b>Direct Taxes</b>		<b>59,447</b>	<b>33.3%</b>
Personal Income Tax		40,424	22.6%
Corporate income tax		17,005	9.5%
Income tax on non-residents		905	0.5%
Inheritance tax		10	0.0%
Property tax		338	0.2%
Other direct taxes		765	0.4%
<b>Indirect Taxes</b>		<b>63,539</b>	<b>35.6%</b>
Value Added Tax		34,378	19.2%
Excise duties		16,563	9.3%
Other indirect taxes		1,863	1.0%
Fees and public prices		2,413	1.4%
Other non-financial revenues		8,322	4.7%
<b>Social Insurance Contributions</b>	<b>15,649,900</b>	<b>55,631</b>	<b>31.1%</b>
General Regime	11,656,800	45,300	25.4%
Coal-miner regime	16,600	155	0.1%
Agrarian Regime	1,127,600	1,202	0.7%
Sea worker regime	78,100	235	0.1%
Housemaid regime	155,900	207	0.1%
Self-employees	2,614,900	6,572	3.7%
Unemployed workers		1,960	1.1%
Student's regime ( <i>seguro escolar</i> )	-	-	-
Civil servants' regime	-	-	-
Military forces' regime	-	-	-
Judges' regime	-	-	-
<b>Total</b>		<b>178,617</b>	<b>100.0%</b>

Source: IGAE (2002) and MTAS (2002).

### 1.2.1 Taxes simulated in Euromod

Table 4 summarises how each tax is treated by Euromod.

<sup>2</sup> For a very brief description of all Spanish social benefits see the annex in section 6.

Euromod's database is at the personal level, therefore non-personal taxes, such as the corporate income tax, are not simulated. Moreover, due to lack of data other taxes such as inheritance tax, property, fees and public prices are neither simulated nor included in the data.

In spite of that, Euromod simulates the most important taxes in Spain: Personal income tax, value-added tax, excise duties and employee and employer social security contributions. As Table 3 reflects, altogether these taxes and contributions represent 82.2 percent of all tax revenues in Spain.

Even if the model simulates in detail most of these taxes and contributions, some elements regarding regional differences in the income tax regimes are not considered in Euromod. The Basque Country and Navarra have their own income tax systems (under the Régimen Foral) quite different from the common one (Régimen Común) applied to the rest of the country. These two systems are not simulated in Euromod, and instead the common income tax is applied to the whole country. . Also, all other regions offer special tax deductions (for example additional tax credits for families with children) which are not modelled in Euromod.

Euromod simulates most social security contribution's regimes. But, some special regimes (coal-miner, sea-worker, housemaid and public servants) require information that is not available in the dataset and, for this reason, workers in these special regimes are simulated together with workers in other regimes (see section 2.2).

Table 4. Taxes in Spain 2001: Treatment in Euromod

Taxes	Treat. in Euromod <sup>*</sup>	Variable name(s)	Why not simulated?
Personal Income Tax	Simulated	CoINCTAX co_nat_inctax	Some exemptions, small allowances and special treatment of some capital and self-employment income are ignored. Basque country's and Navarra's income taxes are not considered. Other regional particularities are not considered because no information available
Corporate income tax	Excluded	-	
Income tax on non-residents	Excluded	-	No information available about non-residents
Inheritance tax	Excluded	-	No information available about inheritance or donations
Property tax	Excluded	-	No information available about property
Other direct taxes	Excluded	-	
Value Added Tax	Simulated (1)	polINDIRTAX_SP	
Excise duties	Most simulated (1)	polINDIRTAX_SP	
Other indirect taxes	Excluded	-	No information available
Fees and public prices	Excluded	-	No information available
Other non-financial revenues	Excluded	-	No information available
Social Insurance Contributions General Regime	Simulated	CoEESIC polersicgeneral_SP poleesicgeneral_SP poleesic_apprenticeship_SP polersic_apprenticeship_SP poleesic_parttime_SP polersic_parttime_SP	Original variable Apprenticeship and part-time specific contributions are taken into account.
Coal-miner regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime
Agrarian Regime	Simulated	polersic_agrarian_emp_SP poleesic_agrarian_emp_SP poleesic_agrarian_selfemp_SP	
Sea worker regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime
Housemaid regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime
Self-employees	Simulated	polersic_SP	
Unemployed workers	Simulated	polUNSIC_SP	
Student's regime (seguro escolar)	Excluded	-	No information available
Civil servants' regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime
Military forces' regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime
Judges' regime	Partially Simulated	polersic_general_SP poleesic_general_SP	Due to lack of data this regime is taken as part of the general regime

Source: IGAE (2002) and MTAS (2002).

Notes: <sup>\*</sup> "Excluded" means that the tax is not included in the microdata and not simulated by Euromod. "Partially Simulated" means that only some tax's rules are simulated by Euromod. "Simulated" means that most rules are simulated, however, some minor specificities may not be simulated.

## 1.2.2 Euromod simulation procedure

Table 5 shows the *spine* for Spanish tax-benefit system 2001. This describes the proceeding of the simulation in Euromod. First, Euromod simulates the benefits. After that, it simulates the social security contributions. Those previous elements are used as input to the income tax. Finally, the model simulates the value-added tax.

Table 5. Simulation Procedure: spine\_SP\_2001

Policy	Switch	Main output variable	Type of policy
Ersicgeneral_sp	1	sp_ersic_general	Social insurance contribution
eesticgeneral_sp	1	sp_eestic_general	Social insurance contribution
ersicagrarian_SP	1	sp_ersic_agrarian_emp	Social insurance contribution
eesticagrarian_SP	1	sp_eestic_agrarian_emp	Social insurance contribution
sesicagrarian_SP	1	sp_eestic_agrarian_selfemp	Social insurance contribution
Eesticapprenticeship_sp	1	sp_eestic_apprenticeship	Social insurance contribution
Ersicapprenticeship_sp	1	sp_ersic_apprenticeship	Social insurance contribution
eesticparttime_sp	1	sp_eestic_parttime	Social insurance contribution
ersicparttime_sp	1	sp_ersic_parttime	Social insurance contribution
eesticparttime_sp	1	sp_eestic_general	Social insurance contribution
sesic_sp	1	sp_sesic	Social insurance contribution
unsic_sp	1	sp_unsic	Social insurance contribution
sben_oab_sp	1	sp_sben_oab	Benefit
sben_unab_fam_sp	1	sp_sben_unab_fam	Benefit
sben_cb_sp	1	sp_sben_cb	Benefit
it_sp	1	sp_IT	Income Tax
itmarr_sp	1	co_nat_inctax	Income Tax
output_std_sp	1	n/a	Output file

Source: C:\Euromod\Program Files\Param\spine.xls [worksheet: spine\_SP\_2001]

## 2 Tax benefit system - detailed description

This section describes, in detail, the rules of all the Spanish taxes and benefits simulated by Euromod and listed in Table 6.

Table 6. Tax-benefit policies simulated by Euromod

Policy (Euromod Code)	Description
Polsben_cb_SP	Child Benefits
PolUNSIC_SP	Unemployed Persons Social Insurance Contributions
PolSEsIC_SP	Non-Agricultural Self-Employed Persons Social Insurance Contributions
PolSEsICagrarian_SP	Agricultural Self-Employed Persons Social Insurance Contributions
PolERSICagrarian_SP	Agricultural Employer Social Insurance Contributions
PolEESICagrarian_SP	Agricultural Employee Social Insurance Contributions
PolERSICgeneral_SP	General Regime Employer Social Insurance Contributions
PolEESICgeneral_SP	General Regime Employee Social Insurance Contributions
PolIT_SP	Single Persons Income Tax
PolITMarr_SP	Optional Joint Income Tax

### 2.1 Benefits simulated by Euromod

#### 2.1.1 Child Benefit polsben\_cb\_SP (*Prestación económica de pago periódico por hijo a cargo*)

The Spanish child benefit is an income-tested benefit designed to low income families with one or more dependent child. The Spanish child benefit also has a special system for handicapped children, but Euromod does not simulate this<sup>3</sup>.

##### Definitions

Dependent children are defined as aged under 18, not married or cohabiting and with income below a determined level. (*tax\_unit = cb*)

##### Eligibility Conditions (*co\_SBEN\_Elig*)

Parents are eligible to this benefit if they have at least one child (*ge\_nch = 1; ge\_nch\_lt = 1*).

##### Income-test (*co\_SBEN\_disregard; co\_SBEN\_Means*)

All families with income below a determined limit (*disregard\_amt = 7445*) are eligible for

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<sup>3</sup> Despite having the same rules (eligibility conditions, duration and amount of the grant) this benefit is divided in two target groups: contributory and non-contributory beneficiaries. Since the database used does not provide information about the individual's or family's contributory record, and considering that the income support *de facto* is the same, the simulations in Euromod do not distinguish between those two groups. Therefore, Euromod simulates both child benefits as if they were one.

the full amount of the benefit. This limit increases 15% with every additional child ( $es\_ch\_parity2 = 15\%$ ). Families with income above this level get a benefit which diminishes with income.

All *gross* sources of income are counted in the test ( $means\_inc\_il = cb\_means2$ )

Amount ( $co\_SBEN\_Calc$ )

The maximum benefit consists on an annual single fixed pay per child ( $benefit\_base\_amt = 291$ ). This maximum amount is paid to all families with income below the income test.

Families whose incomes are greater than the income-test limit ( $disregard\_amt$ ), get the difference between the maximum benefit and the income that exceeds the income test limit ( $wdr1\_rt = 1$ ).

Taxable

This benefit is not taxable and not counted in the income-test of any other income-tested benefit.

## 2.1.2 Unemployment assistance - **polSBEN\_unab\_fam\_SP** (*Subsidio por Desempleo*)

The unemployment assistance benefit is partially simulated in Euromod. The simulation is considered *partial* because the model cannot modify the eligibility conditions. Therefore it does not allow the user to change the number of recipients.

Eligibility Conditions ( $co\_SBEN\_Elig$ )

Eligibility is taken from data<sup>4</sup>. Only individuals who have the benefit in data ( $benelig=1$ ;  $benelig\_name = SpBE001B$ ) are eligible to unemployment assistance in EUROMOD.

Income-test

One of the eligibility conditions is that the individual does not have gross income greater than 75% of minimum wage. However, since the eligibility is taken from data, this income-test is not applied in Euromod

Amount ( $co\_SBEN\_Calc$ )

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<sup>4</sup> According to rules, there are 7 different situations under which a person may be eligible to unemployment assistant [for having dependent family and unemployment insurance expired, being older than 45 and having unemployment insurance expired, returned emigrants, not contributing enough time to get unemployment insurance, liberated from prison, recovering from great incapacity, being older than 52]. However many of those situations are related to events in the past (contribution record, have received unemployment insurance for some time, have returned from emigration, etc.). Since our database does not have this information, EUROMOD cannot simulate the eligibility to unemployment assistance.

The amount is equal to 75 percent of the minimum wage (12 pays per year), in annual terms the value is  $SingPay = 3,901$  euro. If the unemployed is at least 45 years-old and has expired her/his unemployment insurance benefit after receiving it for 24 months, than the amount of the benefit changes with the number of dependent relatives<sup>5</sup>.

### Taxable

This benefit is taxable and counted in the income-test of other income-tested benefit

### **2.1.3 Income-tested Old-age Benefit - polSBEN\_oab\_SP (*Pensión no contributiva de jubilación*)**

The *Income-tested Old-age Benefit* is partially simulated in Euromod. The simulation is considered *partial* because the model cannot modify the eligibility conditions. Therefore the number of recipients is fixed.

#### Eligibility Conditions (*co\_SBEN\_Elig*)

This benefit provides a pension to all individuals who are at least 65 years old and neither he/she nor his/her family reach a minimum level of income.

Due to important discrepancies between the simulated number of individuals eligible and the number of recipients in official statistics, we take the eligibility from data (which is closer to official figures). Therefore, only individuals who have the benefit in data are eligible in the simulation (*benelig1 = 2; benelig1\_name = SpBE002c*).

On the other hand, some individuals still get an old-age assistance benefit which was abolished in 1991. Given that the amount of the benefit has not increased, in nominal terms, since 1991, and that these individuals are free to move to the new system, in Euromod we assume that they move to the new system (*benelig2 = 3; benelig2\_name = SpBE002d*)

#### Amount (*co\_SBEN\_Means, co\_SBEN\_Calc*)

The benefit, in 2001, is  $SingPay = 3550$  euro per year. If there are more than one beneficiaries in the dwelling, the amount for every additional beneficiary is increases at a rate ( $0.7$ ). Each beneficiary in the dwelling would receive the same share of the total amount.

### Taxable

This benefit is taxable and counted in the income-test of any income-tested benefit

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<sup>5</sup> Spouses and children under 26 with income under 75 percent of minimum wage are considered dependent relatives. The amount of the benefit is 75 percent of minimum wage if the unemployed has one or no dependent relative, 100 percent if she/he has two dependent relatives and 125 percent if she/he has three or more.

## 2.2 Social insurance contributions (*Cotización a la Seguridad Social*)

Social contributions in Spain are divided in 8 regimes, plus 3 special regimes for public servants<sup>6</sup>. In Euromod we aggregate 10 of these regimes into 4<sup>7</sup>:

1. General Regime<sup>8</sup>
2. Unemployed persons' regime
3. Self-employees' regime<sup>9</sup>
4. Agricultural Regime<sup>10</sup>

However, the general regime has some types of workers who have specific contribution rules. In Euromod, we take part-time workers and apprentices as if they had their own regime.

The model identifies each individual's regime using module "*sp\_eesic\_categories*". Currently it is a country specific module because it requires the Spanish specific variable "spBE001A" (unemployment insurance). This module heads the policy sheets of all social insurance contributions.

### 2.2.1 General Regime (*Régimen General*)

Fulltime employees who do not work in agriculture contribute to Social Security through the general regime (apprentices and part times workers are treated separately in Euromod). In Euromod we assume that house workers, sailors and coal-miners employees (who, in law, have their own regimes) are affiliated to the general regime.

This regime is divided into eleven categories of contribution according to the type of occupation. Over the last decade there has been a process of harmonisation of the rules of contribution of these categories. Therefore, nowadays seven of these have exactly the same rules. For this reason, in Euromod, four regimes are taken as if they were one<sup>11</sup>. The categories simulated in Euromod are:

1. Engineer: *engineer*

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<sup>6</sup> See Table 1 and annex for details.

<sup>7</sup> Student's regime (*seguro escolar*) is not simulated due to lack of data.

<sup>8</sup> In Euromod, house workers, sailors, coalminers employees and public servants contribute under the general regime.

<sup>9</sup> In Euromod, house workers, sailors and coalminers self-employees contribute under self-employees' regime.

<sup>10</sup> This applies different contribution rules for employees and self-employees.

<sup>11</sup> This umbrella category is called *Blue-collar category* and includes *Subalternos, Auxiliares administrativos, Oficiales de 1ª y 2ª, Oficiales de 3ª y especialistas, Trabajadores mayores de 18 años*. Some of them have their base of contribution defined per working-day; however the value is identical to the value of others categories divided by 30.



2. Technicians and Engineers: *tech\_engineer*
3. Administrative heads: *admin\_head*
4. Administrative assistants: *assistant*
5. White collars: *white\_collar*
6. Blue collar: *blue\_collar*
7. Workers under 18: *young\_worker*

The module “*sp\_eesic\_categories*” identifies each individual’s category of contribution.

#### 2.2.1.1 General Regime: Employee’s contribution (poleesicgeneral\_SP)

Contributions under this regime are the product of multiplying a base by a rate of contribution:

$$SIC = base * rate$$

The *rate* of contribution results from the sum of four different rates, each one related to a specific professional or social contingency<sup>12</sup>. In 2001 the sum of these rates is 6.35 percent (*rate = 0.0635*)

Under this regime, the *base* of contribution is equal to the gross employment income (*coempy*) limited to a maximum and minimum value. The amounts of the maximum and minimum limits vary according to the worker’s *category of contribution*. Hence, for example, the base of contribution of blue-collar workers must be between 506 and 2,380 euro per month (*blue\_collar\_min\_lt = 506; blue\_collar\_max\_lt = 2380*)<sup>13</sup>.

In Spain seasonal employment is very important especially in some sectors, such as tourism or agriculture. Since contributions have a minimum and a maximum base and are levied in a monthly basis, calculating contributions under the assumption that annual earning result from 12 months of work would overestimate the contributions of many workers. In order to avoid it, Euromod takes into account the number of months worked (*i.e.* number of months of paid contributions) using the Spanish specific variable “*SPMTHCON*” (number of

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<sup>12</sup> The 4 contingencies are: Common contingencies (same rate to all workers); Temporal incapacity (same rate to all workers); Unemployment (the rate depends on the type of contract); Professional Education (same rate to all workers).

<sup>13</sup> According to the law, these maximum and minimum limits only apply for *common contingencies*. The limits for the other contingencies are the same for all professional categories. In Euromod we simplify the system applying the sum of all rates of contribution to the base of contribution for common contingencies. Therefore, we assume that the base of contribution for all contingencies is the same. This assumption should not alter significantly the quality of Euromod results. Common contingencies are the greatest contingency covered by social security contributions. The rate of contribution for common contingencies is approximately 3 times higher than the sum of all other contingencies.

contributions). For this reason, the module that calculates contributions “*sp\_eesic\_general*” needs to be country specific.

### 2.2.1.2 General Regime: Employer’s contribution (polersicgeneral\_SP)

There are six different rates of contribution in the Employers General Regime, each one related to a specific professional or social contingency<sup>14</sup>. In 2001 the sum of these rates is 30.6% percent (*rate = 0.306*)

The maximum and minimum limits of the base of contribution vary according to the *category of contribution*. Hence, for example, the base of contribution of blue-collar workers must be between 506 and 2,380 euro per month (*blue\_collar\_min\_lt = 506; blue\_collar\_max\_lt = 2380*)<sup>15</sup>.

The module that calculates the amount of contribution “*sp\_eesic\_general*” is country specific<sup>16</sup>.

## 2.2.2 **Apprenticeship (*Régimen General, Cotización en los contratos para la formación y de aprendizaje*)**

Employees who have an apprenticeship contract (*spmnact = 2*) contribute to Social Security through the general regime under special rules. There is neither rate nor base of contribution, every apprentice and her/his employer pays a fixed amount.

### 2.2.2.1 Apprenticeship: Employee’s contribution (poleesicapprenticeship\_SP)

Employees contribute for two types of contingencies<sup>17</sup>. In 2001 the amount is 4.09 euro per month (*base = 4.09*).

### 2.2.2.2 Apprenticeship: Employer’s contribution (polersicapprenticeship\_SP)

Employers contribute for five types of contingencies<sup>18</sup>. In 2001 the amount is 25.96 euro per month (*base = 25.96*).

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<sup>14</sup> The 6 contingencies are: Common contingencies; Professional accidents or diseases (rates depend on the type of job); Temporal incapacity; Unemployment (the rate depends on the type of contract); Wage guarantee fund; Professional Education (*Formación Profesional*).

<sup>15</sup> In Euromod we assume that all contingencies contribute through the base for common contingencies. See section 2.2.2.1 for details.

<sup>16</sup> See section 2.2.2.1 to know why this module needs to be country specific.

<sup>17</sup> The contingencies are: Common contingencies; and Professional Education.

<sup>18</sup> The contingencies are: Common contingencies; Professional accidents or diseases; Temporal incapacity; Wage guarantee fund; and Professional Education.

### 2.2.3 Part-time Workers (*Régimen General, Cotización del trabajador a tiempo parcial*)

Employees who work part-time (less than 30 hours a week) contribute to Social Security through the general regime under special rules. As in the general regime, the contribution is the product of multiplying a base by a rate of contribution. In the part-time regime the base of contribution is fixed (independent from earnings).

#### 2.2.3.1 Part-time Workers: Employee's contribution (poleesicparttime\_SP)

The *rate* of contribution results from the sum of four different rates, each one related to a specific professional or social contingency<sup>19</sup>. In 2001 the sum is equal to 6.35 percent ( $rate = 0.0635$ ).

Although fixed (independent from earnings), the base of contribution is different by *category of contribution*. The types of categories are similar to the ones in the general regime. Hence, for example, the base of contribution of blue-collar workers is 2.52 euro per hours ( $blue\_collar\_amt = 2.52$ ).

#### 2.2.3.2 Part-time Workers: Employer's contribution (polersicparttime\_SP)

There are six different rates of contribution each one related to a specific professional or social contingency<sup>20</sup>. In 2001 the sum is equal to 30.6 percent ( $rate = 0.306$ ).

Although fixed (independent from earnings), the base of contribution is different by *category of contribution*. The types of categories are similar to the ones in the general regime. Hence, for example, the base of contribution of blue-collar workers is 2.52 euro per hours ( $blue\_collar\_amt = 2.52$ ).

### 2.2.4 Unemployed Workers - polunsic\_SP (*Régimen General, Cotización en situación especial de desempleo*)

Receivers of unemployment insurance pay contributions under this regime. The amount results from multiplying a base by a rate of contribution.

$$SIC = base * rate$$

The base is a function of the base of the last 6 contributions previous to unemployment.

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<sup>19</sup> The contingencies are: Common contingencies; Temporal incapacity; Unemployment (the rate depends on the type of contract); Professional Education.

<sup>20</sup> The contingencies are: Common contingencies; Professional accidents or diseases (rates depend on the type of job); Temporal incapacity; Unemployment (the rate depends on the type of contract); Wage guarantee fund; Professional Education.

Our database does not have information about previous contributions. However, from legislation we know that the amount of unemployment insurance is a function of the base of the last 6 contributions. Inverting this function, module “*sp\_calc\_spprvern*” calculates the base of contribution.

The rate of contribution (common contingencies) is equal to 65 percent of the rate of contribution for common contingencies in the General Regime ( $rate = 0.03055$ ). Social Security’s Employment Institute (INEM) pays the remaining 35 percent, as well as the employer contribution.

### **2.2.5 Non-Agricultural Self-Employed Workers - *polsesic\_SP (Régimen Especial Trabajadores Autónomos)***

The social insurance contribution for self-employed workers has some degree of flexibility. The worker can opt between two different rates of contribution (including or not including temporary sickness or incapacity benefits). The base of contribution is also flexible. The worker can choose her/his amount between a minimum and a maximum limit. In Euromod we assume that all workers choose the rate which includes temporary sickness and incapacity ( $rate = 0.283$ ) and the lowest base of contribution ( $base = 712.04$ ).

### **2.2.6 Agricultural Workers (*Régimen Especial Agrario*)**

Employees and self-employed who work in agriculture are affiliated to this regime.

#### **2.2.6.1 Agricultural Self-Employed Workers (*polsesicagrarian\_SP*)**

The contribution for agricultural self-employed persons results from multiplying a base by a rate of contribution.

$$SIC = base * rate$$

The rate of contribution includes the protection of the worker against three different types of professional and social contingencies<sup>21</sup>. In 2001 the total rate of contribution is equal to 22.45 percent ( $rate = 0.2245$ ).

The base of contribution is a fixed amount which is the same for all agricultural self-employed workers. In 2001 base is 562 euro per month ( $base = 562$ ).

#### **2.2.6.2 Agricultural Workers: Employees Contribution (*poleesicagrarian\_SP*)**

Contributions under this regime are the product of multiplying a base by a rate of

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<sup>21</sup> The contingencies are: Common contingencies; Professional accidents or diseases; Temporal incapacity.

contribution:

$$SIC = base * rate$$

The *rate* of contribution results from the sum of two different rates, each one related to a specific professional or social contingency<sup>22</sup>. In 2001 the total rate of contribution is equal to 13.05 percent ( $rate = 0.1305$ )

Under this regime, the *base* of contribution is fixed (independent from earnings) but the amount varies according to the worker's *category of contribution*. Hence, for example, the base of contribution of blue-collar workers is 529 euro per month ( $blue\_collar\_min\_lt = 529$ ).

### 2.2.6.3 Agricultural Workers: Employers Contribution (polersicagrarian SP)

There are three different rates of contribution<sup>23</sup>: In 2001 the total rate of contribution is equal to 21.9 percent ( $rate = 0.219$ )

Under this regime, the *base* of contribution is fixed (independent from earnings) but the amount varies according to the worker's *category of contribution*. Hence, for example, the base of contribution of blue-collar workers is 529 euro per month ( $blue\_collar\_min\_lt = 529$ ).

## 2.3 **Income tax (*Impuesto sobre la renta de las personas físicas*)**

The Spanish Personal Income Tax was fully reformed in 1998. The new system was implemented in 1999. For this reason, there are substantial changes in the Spanish income tax parameter sheets.

Among other important changes, the reform has altered the way by which individuals pay income tax. Like before the reform, 6 million taxpayers are obliged to fill a tax return after the end of the year, so that the annual income can be correctly assessed and levied by the income tax legislation. However, 5 million taxpayers are exempt from filling a tax return. Hence, if they wish, they can take the amount of withholdings paid during the year as their final liability. The objective of this change was to simplify the income tax by reducing the number of tax returns. Nevertheless, this adds a lot of complexity for simulation purposes.

In order to strictly simulate the income tax liability of individuals who are exempt from filling a tax return we should simulate the system of withholdings. With this information we could

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<sup>22</sup> The contingencies are: Common contingencies: same rate to all workers ; Unemployment: the rate depends on the type of contract.

<sup>23</sup> The contingencies are: Common contingencies; Unemployment: the rate depends on the type of contract; Professional Education.

<sup>24</sup> See Levy and Mercader-Prats (2002) for details.

compare the amount of withholdings to the amount of tax calculated through the tax return and choose the lowest value as final tax liability. In Euromod we choose a simpler alternative. We take the value calculated through the tax return as final liability. According to our calculations, using the national model EspaSim, this assumption must be overestimating by 150 euros, in average, the tax liability of 2.3 million taxpayers (Levy and Mercader-Prats, 2002).

### 2.3.1 Tax Unit (*Tributación Individual o Conjunta*)

The Spanish income tax is an individual system. However, if the individual is part of a *family unit*<sup>25</sup>, then the system allows him/her to pay under a *joint scheme* with the other members of the family unit.

The rules and amounts of most elements of the Spanish income tax are the same under individual and joint taxation. The only major difference between these schemes is the amount of personal and family tax allowances. Under joint taxation the personal tax deduction is greater. Under individual scheme, each married taxpayer gets half the amount of the family tax allowance.

Euromod calculates both schemes of taxation (individual and joint) separately through policy sheets: polIT\_SP (individual) and polITMARR\_SP (joint). The scheme which minimizes *family unit's* liability is taken as the final income tax. If the joint scheme is the most convenient then the *family unit's* liability is split among its members proportionally each individual's income share.

### 2.3.2 Tax allowances

#### 2.3.2.1 Personal Tax Allowance (*Mínimo Personal*)

##### Eligibility (*co\_SBEN\_Elig*)

This is a tax allowance which is assigned to every taxpayer (*ge\_ag1 = 1, ge\_age1\_lt = 0*).

##### Amount (*co\_SBEN\_Calc*)

Under the individual scheme of taxation the amount of the tax allowance is fixed and non-refundable (*SingPay = 3306*). There is a supplement for taxpayers who are at least 66 years old (*es\_age2\_min = 66; es\_age2 = 1.18*).

Under the joint scheme of taxation the personal allowance for a married couple doubles the amount under the individual scheme (*SingPay = 6611*). The complement for those over 65 years of age applies per spouse (*es\_age2\_min = 66; es\_age2 = 0.59*). If the family unit is

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<sup>25</sup> A family unit can be formed either by married couples sharing or not the dwelling with children aged under 18, or lone-parents living with children under 18.

composed by a lone-parent and children under 18, then the increase is lower ( $SingPay = 5409$ ). The complement for those over 65 years of age applies for the lone-parent ( $es\_age2\_min = 66$ ;  $es\_age2 = 1.11$ ).

### 2.3.2.2 Family Tax Allowance for Children (*Mínimo Familiar por Descendientes*)

#### Eligibility ( $co\_SBEN\_Elig$ )

This is a tax allowance which is assigned to taxpayers with children ( $ge\_nOwnDepCh\_inHH = 1$ ,  $ge\_nOwnDepCh\_inHH\_lt = 1$ ).

Children are defined as single, under 25 years of age and with income below a certain amount ( $tax\_unit = it\_ind\_it\_ch\_TA$ ) and ( $tax\_unit = it\_joint\_it\_ch\_TA$ )

#### Amount ( $co\_SBEN\_Calc$ )

The amount per child is 1.202 euro ( $SingPay = 1202$ ;  $es\_ch\_parity1\_lt = 2$ ;  $es\_ch\_parity1 = 1$ ). There is a supplement of 601 euro per each child after the second ( $es\_ch\_parity2\_lt = 20$ ;  $es\_ch\_parity2 = 1.5$ ), another 300 euro per each child under 3 years of age ( $es\_Ch\_age1\_min = 0$ ;  $es\_Ch\_age1\_max = 2$ ;  $es\_Ch\_age1 = 0.25$ ) and 150 euro per child between 3 and 16 ( $es\_Ch\_age2\_min = 3$ ;  $es\_Ch\_age2\_max = 16$ ;  $es\_Ch\_age2 = 0.125$ )

Under the individual scheme married taxpayers are obliged to divide the amount of the child tax allowance by two. This is done by module “ $co\_sharing$ ” ( $var\_name = sp\_family\_TA\_child$ ;  $share\_equ = 1$ ;  $share\_adult = 1$ ).

### 2.3.2.3 Family Tax Allowance for Dependent Parents (*Mínimo Familiar por Ascendientes*)

#### Eligibility ( $co\_SBEN\_Elig$ )

This is a tax allowance which is assigned to taxpayers with dependent parent ( $ge\_nPersInTU = 1$ ,  $ge\_nPersInTU\_lt = 2$ ).

Dependent parents are defined as over 65 years and with income below a certain amount ( $tax\_unit = it\_ind\_parent\_TA$ ) and ( $tax\_unit = it\_joint\_parent\_TA$ )

#### Amount ( $co\_amount\_schedule$ )

The amount for each dependent parent is 601 euro ( $SingPay = 601$ ;  $es\_depParent = 1$ ).

Under the individual scheme married taxpayers are obliged to divide the amount of the tax

allowance by two. This is done by module “*co\_sharing*” (*var\_name* = *sp\_family\_TA\_ascendent*; *share\_equ* = 1; *share\_adult* = 1).

#### 2.3.2.4 Employment income tax allowance (*Reducción general del rendimiento neto*)

This is an income related non-refundable tax allowance for taxpayers who receive “employment income” which, according to the rule, are employment earnings and social benefits. The amount of the allowance diminishes with the level income as follows:

$$\begin{cases} \text{If } (W < LIM1 \text{ and } OY < LIM3) \text{ then EITA} = MAX \\ \text{If } (W > LIM1 \text{ and } W < LIM2 \text{ and } OY < LIM3) \text{ then EITA} = MAX (W - LIM1) * t \\ \text{If } (W > LIM2 \text{ or } OY > LIM3) \text{ then EITA} = MIN \end{cases}$$

Where *W* is “employment income”, *OY* are other sources of income (capital, self-employment, etc.), *LIM1*, *LIM2* and *LIM3* are the limits, and *MAX* and *MIN* are the maximum and the minimum amount of the allowance, respectively. The maximum amount is paid to those whose employment income is less than LIM1 and other incomes are lower than LIM3. If employment income is between LIM1 and LIM2 and other incomes are lower than LIM3, EITA is equal to the maximum minus a percentage (*t*) of the amount that exceeds LIM1. If employment income exceeds LIM2 or other incomes exceed LIM3 then EITA is equal to the minimum amount.

In Euromod this allowance is parameterised as follows:

##### Eligibility (*co\_SBEN\_Elig*)

All persons with employment income or social benefits (*le\_inc1* = -1; *le\_inc1\_il* = *empty*; *le\_inc1\_lt* = 0) and with income from “other sources” below a limit (*le\_inc2* = 1; *le\_inc2\_il* = *othery*; *le\_inc2\_lt* = 6010) are eligible to this tax allowance.

If the person fulfils the first condition (*le\_inc1* = -1; *le\_inc1\_il* = *empty*; *le\_inc1\_lt* = 0), but income from “other sources” exceeds the limit (*ge\_inc2* = 1; *ge\_inc2\_il* = *othery*; *ge\_inc2\_lt* = 6010) then the person is eligible for a lower amount.

##### Amount (*co\_amount\_schedule*)

The maximum amount (*co\_amount\_schedule/amount1* = 3005) is given to those with income below *co\_schedule/band1* = 8114. If “employment income” is greater than *band1* but less *band2* (*co\_schedule/band2* = 12020), then the allowance diminishes at a rate of 0.1923 cents per each additional euro of “employment income” (*co\_schedule/rate2* = 0.1923). If “employment income” is greater than *band2* then the tax allowance is equal to a minimum amount: (*co\_amount\_schedule/amount1* - *co\_schedule/rate2* \* [*co\_schedule/band2* - *co\_schedule/band1*]).

If “employment income” is positive and income from “other sources” is greater than the limit (*le\_inc2* = -1; *le\_inc2\_il* = *othery*; *le\_inc2\_lt* = 6010) then the tax allowance is



equal to the minimum (*co\_amount\_schedule* = 2254).

### 2.3.3 Tax Base (*Base Imponible*)

*Tax base* includes employment, self-employment, property, capital, and an imputed income from owner-occupied dwellings only for secondary houses. net of social insurance contributions and tax allowances. See *Base\_IL* = *TaxableY2001*; *JointTaxableY2001*:

= (*coEMPY coHB coINVY coIRREGY coMAINTY coMATERY coOTHERY coPROPY coPRVPEN coREGY coSLFEMY sp\_sben\_cb spBE001A spBE001B SpBE002a SpBE002b SpBE002c SpBE002d SpBE003a SpBE003b spBEN004 spBEN005 spBENFAM*)

- (*sp\_eesic\_agrarian\_emp sp\_eesic\_agrarian\_selfemp sp\_eesic\_apprenticeship sp\_eesic\_general sp\_eesic\_parttime sp\_sesic sp\_UNSIC*)

- (*sp\_emy\_TA11 sp\_emy\_TA12 sp\_emy\_TA20 sp\_family\_TA\_ascendent sp\_family\_TA\_child sp\_personal\_TA*)

### 2.3.4 Tax Schedule - *co\_schedule* (*Escala de Gravamen*;) )

Table 7 includes income brackets and rates for Spain

Table 7. Income Tax Schedule 2001

Income Brackets (€/year)		Rate
Bottom	Top	
0	3,678	18.0%
3,678	12,874	24.0%
12,874	25,134	28.3%
25,134	40,460	37.2%
40,460	67,434	45.0%
67,434		48.0%

### 2.3.5 Tax Credits (*Deducciones de Cuota*)

#### 2.3.5.1 Mortgage Tax Credit (*Deducción de Cuota por Inversión en Vivienda Habitual*)

Those paying mortgages can deduct 25 percent of their mortgages expenses (interests plus capital repayment; *Base\_IL* = *mortgage*) for the first 4508 euros of expenses (*co\_schedule/band1* = 4508; *rate1* = 0.25). They can also deduct 15 percent for the following 4508 euros (*co\_schedule/band2* = 9015; *rate1* = 0.15).

In the case of a married couple the tax credit is split between spouses (*co\_sharing*). This tax

credit is not refundable. **Data**

### **3.1 General description**

The data used are from the Spanish sample of the European Community Household Panel (ECHP), designed by Statistical Office of the European Community (Eurostat) and collected by the Spanish National Institute of Statistics (INE). The datafile used is the User's Database (UDB), which is provided by Eurostat.

The information available in the database is representative of the Spanish population. It contains detailed material on income, housing and other demographic, social and economic characteristics of the respondents. The interviews are performed to all individuals of the household aged 16 or more. The information available for those individuals below that age is restricted to some demographic characteristics (age, gender and relationship with the other household members).

The baseline information comes from the 1996 wave of the ECHP (third wave). The income reported in this survey refers to annual amounts from the previous year (i.e., 1995). In order to reconcile income and labour status information, variables on employment and occupation were taken from the 1995 ECHP's wave.

### **3.2 Sample selection, weighting**

ECHP is a panel database. Therefore all individuals living in households that have been interviewed at least once are kept in the database for all years, even if they are not interviewed anymore. In EUROMOD we use ECHP's cross-section data from one year (1996 – wave 3). Some households and individuals in the ECHP are not interviewed in wave 3 for a variety of reasons. Since these observations do not provide enough information to compute taxes and benefits they are dropped from EUROMOD's input data.

Table 8 summarises the reasons, number, gender and age of individuals in ECHP wave 3 that are dropped from EUROMOD's database. In total, 1423 households and 5304 individuals are excluded from the sample. There are not copious data about excluded individuals. However, it can be seen that they are slightly older in the average. Most exclusions are not well documented (the cause of exclusion is missing).

Table 8. ECHP Wave 3 Sample

Data Sample	Number of Households	Number of Individuals	Average age
Original ECHP wave 3	7542	24295	39.2 (a)
Observations excluded from wave 3	1274	4629	@@@ (a)
Moved abroad		7	31.9
Was institutionalised		12	61.4
Moved to an old-age home		8	78.8
Moved to a hospital		1	28
Died		179	74.8
Dropped from sample		6	48.8
Lost		19	27.2
Unable to locate		68	44.7
Not contacted		78	51.6
Missing		4251	40.5
Observations included in wave 3	6268	19666	@@@
Household with missing annual income	147	470	35.3
Adult that refused to be interviewed	2	205	38.7
EUROMOD INPUT DATA	6119	18991	38.6

The age of 6 observations is missing.

The weights provided by the ECHP are household weights aiming to correct for selective non-response and panel attrition. In Euromod these weights have been scaled-up to offset the cut-offs done on the original sample. Table 9 presents some basic descriptive statistics for the grossing-up weight.

Table 9. Descriptive Statistics of the Grossing-up weight

	Grossing-up weight
Number	18991
Mean	2,048.595
Median	1,803.551
Maximum	5,827.082
Minimum	83.210
Max/Min	70.029
Decile 1	675.917
Decile 9	3,687.089
Dec 9 / Dec1	5.455

### 3.3 Data adjustment

This section summarizes the most important adjustments done on the data in order to make it suitable to the purposes in Euromod. Most of the methods of adjustment were taken from the ones used in the development of a database for the Spanish national model ESPASIM<sup>26</sup>.

#### 3.3.1 ‘Net-to-gross’ conversion

The income information available in the survey is net of income tax withholdings and social insurance contributions. In order to obtain gross figures, self-employment incomes and income from liquid capital have been imputed according to the legislation of the income tax withholdings from year 1995. In the case of employment incomes, this conversion is not a trivial matter, for this reason, a fixed-point algorithm has been developed taking into account the legislation concerning income tax withholdings and social insurance contributions (Levy and Mercader-Prats, 1999).

#### 3.3.2 Splitting of Social Benefits

Social benefit variables in the UDB contain more than one benefit (for example, variable *pi1311* contains all unemployment-related benefits: insurance and assistance). This aggregation is a limitation for Euromod’s purpose of analysing the benefit system in detail. To overcome this drawback some imputation methods were used to split the aggregated variables into the benefits needed. A detailed work based on the information provided in the survey and legislation has been done to identify the type of pension or benefit that the individual in fact receives. Once identified, the value of the benefit is imputed to the recipient. This procedure was applied to 4 different UDB variables, as result of this 10 Euromod variables were created.

- *Unemployment-related benefits (UDB pi131)*

In Spain, unemployment insurance benefit cannot be lower than 75% of the minimum wage. On the other hand, the amount of the unemployment assistance benefit is 75% of the minimum wage. Therefore, UDB’S variable *unemployment-related benefits* can be easily split into the two benefits using 75% of minimum wage to cut-off.

Some beneficiaries of unemployment benefits report, in the ECHP, an amount that is lower than 75% of minimum wage per month. According to the rules, no one can receive less than this amount. For this reason, we assume that these individuals have underreported their benefit and we impute the benefit as equal to 75% of the minimum wage. For an assessment on the effects of these imputations see section 4).

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<sup>26</sup> Further information about Espasim can be found at Levy, Mercader-Prats and Planas (2001) or in the website <http://selene.uab.es/espasim>

- Old-age related benefits (UDB pi1321)

Old-age insurance pensions in Spain cannot be lower than a minimum amount (Minimum old age social insurance pension). If the pensioner is eligible for an insurance pension that is lower than this minimum amount and fulfils some further eligibility conditions then she/he receives the difference as a supplement. Moreover, in Spain there is also an income-tested old-age assistance benefit (see section 2.1.3). Given that the amount of this assistance benefit is lower than minimum insurance pension and that the eligibility conditions are much more restrictive, there is no overlap between old-age assistance and pension supplement.

Therefore, identifying beneficiaries of ‘pure’ insurance pensions, insurance pensions supplements and old-age assistance is possible. All that is done is to check the amount of the old-age benefit and the fulfilment of each benefit’s eligibility condition. For those individuals identified as recipients of ‘pure’ old-age insurance pension or old-age assistance the imputation is automatic: the whole amount is classified as the identified benefit. However, in the case of supplement receivers the imputation is more complex. One part of the benefit is paid as insurance pension and the other as supplement. Since there is no information in the database to know which part is which, we impute these amounts according to the average share of the supplement on total old-age insurance pension of supplement receivers<sup>27</sup>.

- Survivors benefits (UDB pi1322)

The procedure to split survivors benefits into widow insurance pension, widow insurance pension supplement and orphan pensions is similar to the one used on old-age related benefits. The only divergence, beside differences in policy rules, was the identification of orphans. Instead of using policy rules, these individuals were identified according to personal characteristics such as age, marital status and number of children.<sup>28</sup>

- Family related allowances (UDB pi133)

The number of recipients of “family related allowances” in ECHP’s original data is well below the number of beneficiaries reported by official sources. The most important component of these allowances is the means-tested child benefit. Our hypothesis is that since the amount of this benefit is so low (226 euro per year) and it is paid only every six months most families may forget to report the benefit during the survey’s interview. In this case we decided to impute the amount of this benefit to all families that are eligible. We also include a new variable in Euromod “other family benefits” that includes the positive difference between original data’s “family related allowances” and imputed “child benefit”.

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<sup>27</sup> This share is estimated as the overall expenditure on old-age supplements, which is published by the Ministry of Labour and Social Affairs, divided by the overall expenditure on old-age benefits among the individuals that are identified as supplement recipients in the data. For 1995, this share is estimated in 27.4 percent.

<sup>28</sup> For 1995, the share of supplements on widow’s insurance pension is estimated in 47.6 percent.

For an assessment on the effects of these imputations see section 4).

### 3.3.3 Updating

The monetary variables in the data have been updated to the common base year 2001 using updating indexes presented in Table 10. The data was not re-weighted to take into account socio-demographic changes between 1995 and 2001.

Table 10. Updating factors 1995 to 2001

Adjustment Index	Index value	Monetary variables updated with this index	Data used for adjustment to 2001
E-ind	1.49	Employment earnings	Compensation of resident employees Source: National Accounts
Sfl-ind	1.39	Self-employment earnings	Gross operating surplus Source: National Accounts
I-ind	0.86	Investment income	Property and entrepreneurial income Source: National Accounts
B_ind	1.33	All social benefits without specific index	Cash social benefits Source: National Accounts
R-ind	1.52	Rent	House rent Source: Consumer's Price Index
Prv-ind	1.53	Private transfers	Miscellaneous current transfers Source: National Accounts
B01b-ind	1.15	Unemployment assistance	Nominal increase of the benefit Source: Social Security
B02b-ind	0.91	Old-age minimum pension	Nominal increase of the benefit Source: Social Security
B02c-ind	1.23	Old-age non-contributory benefit	Nominal increase of the benefit Source: Social Security
B03b-ind	1.28	Widow minimum pension	Nominal increase of the benefit Source: Social Security
Bkid-ind	1.35	Child Benefit	Nominal increase of the benefit Source: Social Security
M-ind	0.95	Mortgage Interests	Growth of average mortgages Source: Mortgage Statistics (INE)
Med-ind	1.38	Medical Expenses	Medical expenses Source: Consumer's Price Index (1995-1998):

## 4 Validation

### 4.1 Validation of Policy Outcomes

#### 4.1.1 Instruments of validation

Euromod was validated against two types of sources. The first type was official statistics. This information permitted us to contrast the aggregate results obtained with Euromod's

baseline simulation with the aggregated government statistics.

The second source was the Spanish tax-benefit model ESPASIM. Since both models calculate the same policies for the same individuals, this validation can be done in a case-by-case basis.

#### 4.1.2 Benefits

Table 11 shows a comparison of Euromod outcomes against other sources.

Benefits not simulated in Euromod are not simulated in Espasim, This is way the expenditure and the number of recipients is the same in both models for these benefits.

As we have pointed out, our updating procedure does not take into account demographic and socio-economic changes between 1995 and 2001. The updating factor is just a grossing-up factor that accounts for income growth. Between 1995 and 2001 unemployment fell so we would expect our data overestimate the number and expenditure of the unemployment protection. This is true for the unemployment assistance benefit but not for the social insurance benefit, which appears slightly underestimated in our original data. The number of old age people have also increased between 1995 and 2001. Thus, Euromod's underestimation in the number of recipients may be partly due to a increase in the number of old-age pension receivers between these two years. In this case the original data overestimates the aggregate amount of old-age benefits. In this line, regarding the Old age pension supplement, Euromod also underestimates the number of recipients by 4 percent and the amount expenditure by almost 40 percent. Euromod underestimates also the number and the aggregate expenditure on widows' pensions and supplements, mainly because these are not well recorded in the ECHP's original data but also because of the increase in the number of beneficiaries between 1995 and 2001. Underreporting in ECHP's original data is also behind the underestimation of sick/incapacity pensions for Euromod 2001. Finally, child benefit estimates in Euromod and national official statistics shows that Euromod overestimates the number of children eligible and, as a result, overestimates the expenditure. Espasim's and Euromod's results are quite similar. They are not exactly the same because Espasim uses a different method to compute tax units.

In sum, our updating procedure is causing some of the divergences we observe between Euromod and Official estimates. But the larger part of these differences is certainly due to the shortcomings of the original ECHP.

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<sup>29</sup> It is planned to simulate this benefit in Euromod in the future.

Table 11. Social Benefits: number of recipients and aggregate amount; a comparison of Euromod's outcomes to external sources (2001 figures)

Benefit	Recipients (thousands)				Expenditure (millions of euros)			
	Euromod	Espasim	Official	Ratio	Euromod	Espasim	Official	Ratio
	(1)	(2)	(3)	(1) / (3)	(5)	(6)	(7)	(5) / (7)
Unemployment insurance	452	452	501	90%	3,858	3,858	4,728	63%
Unemployment assistance	759	759	591	128%	2,959	2,959	2,746	108%
Old-age insurance pension	4,208	4,208	4,546	93%	38,790	38,822	35,954	108%
Old-age pension supplement	1,348	1,348	1,398	96%	1,438	1,433	2,299	63%
Old-age assistance benefit	226	231	276	82%	813	727	938	87%
Widows insurance pensions	1,719	1,719	2,300	75%	7,863	7,869	10,735	73%
Widow minimum supplement	759	759	878	86%	1,615	1,614	2,263	71%
Sick/incapacity pensions	1,136	1,136	1,158	98%	9,951	9,959	11,551	86%
Social Assistance benefits	75	75	78	96%	189	189	210	90%
Child Benefit	727	746	748	97%	344	359	275	125%
	1,260	1,260	978	129%				

Sources: Euromod, Espasim, MTAS (2002)

#### 4.1.3 Social insurance contributions

Table 12 shows social insurance contributions in Euromod, Espasim and Official Statistics by regimes. Euromod gets the same results obtained by the Spanish national model. However, the adjustment is less precise against official statistics. Between 1995 and 2001 the number of social insurance contributors increased 27 percent. Since the data was not re-weighted to take into account this structural change, Euromod underestimates the number of contributions. The exception is the agricultural self-employed regime, the number of workers in this regime has decreased 23 percent in the period.

Given the underestimation in the number, Euromod also underestimates the aggregate amount of contributions for agricultural and self-employed workers. On the other hand, the model overestimates the revenue from general and unemployed regimes. The overestimation in the general regime is mainly due to the inclusion of some public servants (judges, members of the armed forces, university professors, etc.) that have special regimes of contribution in the general regime (see section 2.2). Since these workers earn wages well above the mean, their contributions distort the revenue. Contributions overestimation in the unemployed regime is due to the fall in unemployment between 1995 and 2001.

Table 12. Social Insurance Contributions: number of contributors and aggregate amount; a comparison of Euromod's outcomes to external sources (2001 figures)

Regime	Contributors (thousands)				Revenue (millions of euros)			
	Euromod	Espasim	Official	Ratio	Euromod	Espasim	Official	Ratio
	(1)	(2)	(3)	(1) / (3)	(5)	(6)	(7)	(5) / (7)
General	10,824	10,824	11,847	91%	10,200	10,225	8,787	116%
Agricultural workers	783	783	1,128	69%	787	787	961	82%
Agricultural Employees	405	405	812	50%	238	238		
Agricultural Self-Employed	378	378	316	120%	548	548		
Self Employed	1,814	1,814	2,675	68%	4,069	4,069	6,572	62%
Unemployed	859	859	---	---	186	186	163	114%



Sources: Euromod, Espasim, MTAS (2002)

#### 4.1.4 Income Tax

Results obtained by the baseline simulation in Euromod are quite close to the ones from Espasim and the Spanish Inland Revenue (*Agencia Tributaria*). Euromod obtains a greater number of taxpayers than EspaSim because it does not simulate the “obligation to file a tax return exemption limit”. On the other hand, Euromod gets slightly lower revenue due to differences in the way of assessing the tax unit.

Table 13. Income Tax: number of taxpayers and aggregate amount; a comparison of Euromod’s outcomes to external sources (2001 figures)

	Taxpayers (thousands)				Revenue (millions of euros)			
	Euromod (1)	Espasim (2)	Official (3)	Ratio (1) / (3)	Euromod (5)	Espasim (6)	Official (7)	Ratio (5) / (7)
Income Tax Liability	12,978	12,268			38,773	38,828	40,424	96%

Sources: Euromod, Espasim, IGAE (2002)

## 4.2 Validation of Poverty indexes

Tables in this section show poverty headcount, FGT1 and FGT2 indexes for different sources, using the same equivalence scale and poverty line definitions<sup>31</sup>. The first column shows results published by the Spanish Statistical Institute (INE) using ECHP 1996 (the same database used by Euromod). The second column presents own calculations using ECHP 1996 sample used by Euromod (See Section 3.2).. The third column shows poverty rates for ECHP 1996 data after imputing gross incomes (see section 3.3.1). Column 4 shows results for ECHP 1996 data after imputing gross incomes and splitting social benefits (see section 3.3.2). Column 5 shows results for ECHP 1996 data after imputing gross incomes, splitting social benefits and updating monetary variables to 2001 (see section 3.3.3). Column 6 shows Euromod’s results for 2001. The last column presents results for EspaSim 2001.

The imputation of gross incomes increases the amount of the poverty line in 16 percent. However, this increase is not equally distributed across levels and sources of income. Pensioners do not pay social insurance contributions and, in average, pay less income tax. For this reason, poverty indexes (using gross income) increase specially among those who are 65 years or more.

The effects of splitting social benefits on poverty are different across indexes. Some recipients of widow benefits are slightly below the poverty line and cross it after splitting. However this step out of poverty has barely any effect on the intensity or severity of

<sup>30</sup> In order to simulate this, Euromod would have to simulate income tax withholdings. See section 2.3 or Levy and Mercader (2002) for details.

<sup>31</sup> It is used the OECD modified equivalence scale and 60 percent of the median as poverty line.

poverty among elderly women. On the other hand, the imputation of child benefit on eligible households changes FGT1 and FGT2 among children.

Updating incomes to 2001 has an important impact on poverty. Once again the elderly are the age group most affected. Despite the index used, poverty among those 65 year-old or more has increased, in average, more than 50 percent. The reason for such high increase can be found in the macroeconomic cycle and in the pension's updating system. Between 1995 and 2001 Spain experienced important economic growth. Pensions are updated by inflation but are not increased by real economic growth. As a result, in relative terms, pensions decreased with respect to market incomes. Since the poverty line used is relative to the median, a considerable part of pensioners fell into poverty.

At the moment this country report was being written the only external source available to compare to Euromod was Espasim. Given that both models use similar data and simulate the same policies results are very alike. Despite this comparison does not provide much evidence about the representativeness of Euromod's results, it does give us greater confidence on the quality of the simulations in both models.

Table 14. Poverty Headcount by age and gender in different sources

	ECHP 1996 INE (net)	ECHP 1996 Own calcul. (net)	ECHP 1996 after net to gross (gross)	ECHP 1996 after splitting (gross)	ECHP 1996 after updating (gross)	EUROMOD (2001) (net)	ESPASIM (2001) (net)
Population	18.5%	18.6%	19.7%	19.5%	21.4%	19.1%	19.0%
Pop ≤ 15	23.0%	23.1%	23.2%	23.1%	22.8%	20.4%	20.3%
Pop 16-29	20.0%	20.1%	20.2%	19.9%	20.2%	19.0%	18.9%
Pop 30-44	17.4%	17.5%	17.8%	17.8%	17.8%	15.7%	15.6%
Pop 45-64	17.7%	17.7%	18.2%	18.1%	19.1%	17.8%	17.7%
Pop ≥ 65	14.6%	14.8%	20.1%	19.2%	29.3%	23.9%	24.0%
Male	18.4%	18.6%	19.7%	19.5%	21.4%	19.1%	19.0%
Male ≤ 15	21.5%	21.9%	22.3%	22.2%	21.8%	19.5%	19.4%
Male 16-29	20.1%	20.3%	20.5%	20.2%	20.5%	19.3%	19.2%
Male 30-44	16.6%	16.5%	16.9%	16.9%	16.8%	14.7%	14.7%
Male 45-64	17.8%	17.6%	17.5%	17.4%	18.1%	17.1%	17.0%
Male ≥ 65	15.3%	15.5%	20.5%	20.3%	26.7%	21.1%	21.1%
Female	18.7%	18.7%	20.1%	19.7%	22.4%	20.0%	19.9%
Female ≤ 15	24.6%	24.4%	24.3%	24.2%	24.0%	21.4%	21.4%
Female 16-29	19.8%	19.9%	19.8%	19.6%	19.8%	18.6%	18.5%
Female 30-44	18.3%	18.4%	18.8%	18.6%	18.8%	16.7%	16.5%
Female 45-64	17.6%	17.7%	18.9%	18.7%	20.0%	18.4%	18.3%
Female ≥ 65	14.1%	14.2%	19.7%	18.5%	31.3%	26.0%	26.1%
Poverty Line (€)		3,681	4,257	4,257	6,017	5,256	5,269

Results obtained using OECD modified equivalence scale and 60 percent of median as poverty line

Sources: INE (2003), Own calculation using ECHP 1996, Euromod's input data, Euromod and Espasim.

Table 15. FGT1 by age and gender in different sources

	ECHP 1996 INE (net)	ECHP 1996 Own calcul. (net)	ECHP 1996 after net to gross (gross)	ECHP 1996 after splitting (gross)	ECHP 1996 after updating (gross)	EUROMOD (2001) (net)	ESPASIM (2001) (net)
Population		6.0%	6.4%	6.1%	6.8%	5.8%	5.8%
Pop ≤ 15		8.0%	8.1%	7.5%	7.6%	6.9%	7.0%
Pop 16-29		7.3%	7.3%	7.1%	7.4%	6.8%	6.8%
Pop 30-44		5.8%	5.9%	5.6%	5.8%	5.3%	5.3%
Pop 45-64		5.7%	6.1%	6.0%	6.6%	5.8%	5.8%
Pop ≥ 65		2.5%	4.2%	4.2%	6.5%	4.1%	4.1%
Male		6.0%	6.4%	6.1%	6.8%	5.8%	5.8%
Male ≤ 15		7.2%	7.4%	6.8%	7.0%	6.2%	6.3%
Male 16-29		7.6%	7.5%	7.3%	7.6%	7.1%	7.1%
Male 30-44		5.5%	5.6%	5.3%	5.5%	5.0%	5.0%
Male 45-64		5.9%	6.0%	5.9%	6.4%	5.7%	5.7%
Male ≥ 65		2.2%	4.1%	4.1%	6.3%	4.0%	4.0%
Female		6.0%	6.5%	6.2%	6.9%	5.9%	5.9%
Female ≤ 15		8.8%	8.9%	8.2%	8.4%	7.7%	7.8%
Female 16-29		7.0%	7.1%	6.9%	7.2%	6.5%	6.5%
Female 30-44		6.2%	6.2%	5.8%	6.0%	5.5%	5.5%
Female 45-64		5.6%	6.1%	6.0%	6.7%	5.8%	5.8%
Female ≥ 65		2.7%	4.3%	4.3%	6.6%	4.1%	4.2%
Poverty Line (€)		<b>3,681</b>	<b>4,257</b>	<b>4,257</b>	<b>6,017</b>	<b>5,256</b>	<b>5,269</b>

Results obtained using OECD modified equivalence scale and 60 percent of median as poverty line

Sources: INE (2003), Own calculation using ECHP 1996, Euromod's input data, Euromod and EspaSim.

Table 16. FGT2 by age and gender in different sources

	ECHP 1996 INE (net)	ECHP 1996 Own calcul. (net)	ECHP 1996 after net to gross (gross)	ECHP 1996 after splitting (gross)	ECHP 1996 after updating (gross)	EUROMOD (2001) (net)	ESPASIM (2001) (net)
Population		3.1%	3.1%	2.9%	3.3%	2.9%	2.9%
Pop ≤ 15		4.3%	4.2%	3.7%	3.9%	3.5%	3.6%
Pop 16-29		4.1%	3.9%	3.7%	4.0%	3.7%	3.7%
Pop 30-44		3.1%	3.0%	2.7%	2.9%	2.7%	2.7%
Pop 45-64		2.9%	2.9%	2.8%	3.2%	2.8%	2.8%
Pop ≥ 65		0.9%	1.4%	1.4%	2.2%	1.4%	1.4%
Male		3.1%	3.1%	2.9%	3.3%	2.9%	2.9%
Male ≤ 15		3.8%	3.7%	3.2%	3.4%	3.0%	3.1%
Male 16-29		4.4%	4.1%	3.9%	4.2%	3.9%	3.9%
Male 30-44		3.0%	2.9%	2.6%	2.8%	2.6%	2.6%
Male 45-64		3.1%	3.0%	2.8%	3.2%	2.9%	2.9%
Male ≥ 65		0.7%	1.2%	1.2%	2.0%	1.2%	1.2%
Female		3.1%	3.2%	3.0%	3.3%	2.9%	2.9%
Female ≤ 15		4.9%	4.8%	4.2%	4.5%	4.1%	4.1%
Female 16-29		3.7%	3.7%	3.5%	3.8%	3.4%	3.4%
Female 30-44		3.3%	3.2%	2.8%	3.0%	2.8%	2.8%
Female 45-64		2.8%	2.9%	2.8%	3.2%	2.8%	2.8%
Female ≥ 65		1.1%	1.5%	1.5%	2.3%	1.5%	1.6%
Poverty Line (€)		<b>3,681</b>	<b>4,257</b>	<b>4,257</b>	<b>6,017</b>	<b>5,256</b>	<b>5,269</b>

Results obtained using OECD modified equivalence scale and 60 percent of median as poverty line

Sources: INE (2003), Own calculation using ECHP 1996, Euromod's input data, Euromod and Espasim.

### 4.3 Validation of Inequality indexes

As it would be expected the distribution of imputed gross incomes is more unequal than the distribution of net incomes. On the other hand, the imputation of child benefit and unemployment assistance helped low-income households. As a result, the splitting of benefits (see section 3.3.2) decreases income inequality. Finally, updating 1995 incomes to 2001 have also an inequality increasing effect.

At the time this report was being written there was no external statistic to compare Euromod's results to. Given that in 1999 there was an important income tax reform, this lack of recent external data to contrasts Euromod's results does not allow us to say anything about its adjustment. However, the comparison against Espasim's results show that both models get very similar figures.

Table 17. Inequality indexes

	ECHP 1996 INE	ECHP 1996 Own calculations	ECHP 1996 after net to gross (gross)	ECHP 1996 after splitting (gross)	ECHP 1996 after updating (gross)	EUROMOD (2001)	ESPASIM (2001)
Gini	34.0	34.4	36.4	36.3	37.3	33.6	33.7
M80/M20	6.2	6.2	6.7	6.6	7.0	6.0	5.9

Results obtained using per capita income

Sources: INE (2003), Own calculation using ECHP 1996, Euromod's input data, Euromod and Espasim.

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## 6 Annex: Summary description of tax-benefit policies in Spain 2001

This description is far from exhaustive and sufficient to understand the Spanish tax-benefit system. The objective is just to let the user to know which are the taxes and benefits that existed in Spain in 2001.

### Some basic information:

- The tax-benefit system is still largely a unified, national system. However, there is an increasing process of decentralization. The main “decentralized” policies are: the income tax (except the Basque Country and Navarra that have independent systems, the main differences between regions are some tax deductions) and the minimum income guarantee benefits that are designed and run independently by each regional government.
- The tax system and the main benefits are usually changed/updated in January each year.
- There is no universal definition of dependent children. In the income tax, all children under 25 and with annual income below minimum wage are eligible for child tax allowances. In the child benefit the age limit is 17.
- The income tax system is an individual system, however spouses, single parents and their children below 18 can be assessed jointly if they prefer.
- Social security is divided in regimes
- Social contributions and state benefits and pensions are usually assessed and delivered on a monthly basis. Most pensions and benefits are paid 14 times a year (i.e. there are two extra pays), the main exception is unemployment assistance.

### 6.1 Benefits

For a better knowledge of the Spanish benefits in 2001 in English we recommend to read MISSOC 2001.

#### 6.1.1 Contributory Benefits

These benefits are conditional on minimum period of contribution. The amount of the benefit, among other things, is a function of the contribution record.

Unemployment insurance (*Prestación por desempleo*): for unemployed worker who has contributed at least 360 days in the last 6 years. The amount is equal to 70 percent of the base of contribution during the first 180 days and 60 percent afterwards. The amount can be neither lower than 75 percent of the minimum wage (14 pays per year) nor greater than a limit that depends on the number of dependent children. This benefit is taxable and is

counted in the income-test of any income-tested benefit.

Old-age pension (*pension de jubilación*): for those at least 65 years-old, who have contributed for at least 15 years of which at least 2 must have been in the last 15 years previous to retirement. Under special circumstances individuals may be eligible to the pension before the age limit. The amount of the pension is a function of the contributions paid during the last 15 years and the number of years contributed. The base of contributions depends on the contribution regime and professional category where the retiree was affiliated when active. This pension is taxable and counted in the income-test of any income-tested benefit.

Incapacity pension (*pension de incapacidad*): Individuals must have contributed for a certain number of years, which depend on the cause (disease or accident) and type of incapacity (temporary or permanent). The amount of the pension is also a function of the cause, type of incapacity and contribution record. This pension is taxable and counted in the income-test of any income-tested benefit.

Widow's pension (*pension de viudedad*): based on the contributory record of late wife/husband. Separated and divorced spouses are also eligible under special circumstances. This pension is taxable and counted in the income-test of any income-tested benefit.

Orphan's pension (*pension de orfandad*): single children, under 18 years of age, under 21 with annual earnings below 75 percent of minimum wage, or disabled (any age) are eligible. The amount of the pension is based on the contributory record of late parent. This pension is taxable and counted in the income-test of any income-tested benefit.

Relative's pension (*pension en favor de familiares*): are eligible four different groups of relatives who have cohabited and economically depended on late worker or pensioner for 2 years: (1) grandchildren and siblings fully orphans (with no surviving parents), under 18 or under 21 with annual earnings below 75 percent of minimum wage, or disabled (any age); (2) mother and grandmothers whose husband is disabled or over 60 years of age; (3) father and grandfathers who are disabled or over 60 years of age; (4) children or siblings of late pensioners, who are over 45 years of age and are single, widowed, divorced or legally separated. The amount of the pension is based on the contributory record of late worker or pensioner. This pension is taxable and counted in the income-test of any income-tested benefit.

Maternity benefit (*Prestación por maternidad*): for biological mother or for adoption of children under 6 (under 18 if handicapped). The amount is equal to 100 percent of the base of contribution and lasts 16 weeks. This benefit is taxable and is counted in the income-test of any income-tested benefit.

### **6.1.2 Contributory, income-tested benefits**

These benefits usually complement the amount or duration of some benefits previously listed.

Unemployment assistance (*subsidio por desempleo*): for unemployed workers who have not contributed enough months to receive unemployment insurance (but have contributed at least 3 months) or whose unemployment insurance has expired; and with income below 75 percent of minimum wage. The amount is equal to 75 percent of minimum wage (12 pays per year). This benefit is taxable and is counted in the income-test of any income-tested benefit.

Old-age pension supplement (*complemento por mínimo de pension de jubilación*): for recipients of old-age pension whose pension and income (excluding the pension) are below certain limits. The amount is equal to the difference between the pension limit (minimum pension) and the pension received. The minimum pension is greater if the pensioner is above 65 years of age and/or has a dependent spouse. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Incapacity pension supplement (*complemento por mínimo de pension de incapacidad*): for recipients of incapacity pension whose pension and income (excluding the pension) are below certain limits. The amount is equal to the difference between the pension limit (minimum pension) and the pension received. The amount of the minimum pension depends on the type and cause of incapacity and on the existence of a dependent spouse. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Widow's pension supplement (*complemento por mínimo de pension de viudedad*): for recipients of widow's pension whose pension and income (excluding the pension) are below certain limits. The amount is equal to the difference between the pension limit (minimum pension) and the pension received. The amount of the minimum pension depends on the age and on the existence of dependent children. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Orphans's pension supplement (*complemento por mínimo de pension de orfandad*): for recipients of orphan's pension whose pension and income (excluding the pension) are below certain limits. The amount is equal to the difference between the pension limit (minimum pension) and the pension received. The amount of the minimum pension depends on the type of orphanage (loss of one or two parents). This benefit is taxable and is counted in the income-test of any income-tested benefit.

Relative's pension supplement (*complemento por pension en favor de familiares*): for recipients of relative's pension whose pension and income (excluding the pension) are below certain limits. The amount is equal to the difference between the pension limit (minimum pension) and the pension received. The amount of the minimum pension depends on the existence of widow and orphans and the number of recipients. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Child benefit (*prestación económica por hijo a cargo*): for workers affiliated to social security with children under 18 (any age if handicapped) and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

Lump-sum benefit for birth of third or following children (*prestación económica de pago*)



único por nacimiento de tercer o sucesivos hijos): for workers affiliated to social security with three or more children and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

Lump-sum benefit for multiple birth (prestación económica de pago por parto múltiple): for workers affiliated to social security and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

### 6.1.3 Income-tested benefits

Child benefit (prestación económica por hijo a cargo): for those not affiliated to social security with children under 18 (any age if handicapped) and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

Lump-sum benefit for birth of third or following children (prestación económica de pago único por nacimiento de tercer o sucesivos hijos): for those not affiliated to social security with three or more children and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

Lump-sum benefit for multiple birth (prestación económica de pago por parto múltiple): for those not affiliated to social security and with income below a certain limit. This benefit is **not** taxable and is **not** counted in the income-test of any income-tested benefit.

Old-age assistance benefit (pension no contributiva por jubilación): for those above 65 years of age, not eligible for social security old-age pension and with income below the amount of the benefit. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Incapacity assistance benefit (pension no contributiva por invalidez): for those disable, not eligible for social security incapacity pension and with income below the amount of the benefit. This benefit is taxable and is counted in the income-test of any income-tested benefit.

Minimum income guarantee (programas de rentas mínimas): these benefits are designed and run independently by each regional government. The generosity of the benefits and the eligibility rules; and the take-up are vary enormously across regional governments<sup>32</sup>.

## 6.2 Contributions

These are obligatory for most Spanish workers and are necessary to be eligible for social security contributory benefits. Employees, employers and self-employed contribute through different bases and rates. There are 7 different regimes for workers at the private sector,

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<sup>32</sup> More about minimum income guarantee in Spain is available (in Spanish) at Ayala (2000).

each one with different contribution rules.

General Regime (*Régimen General*): most Spanish employees are affiliated to this regime. It also includes special professions such as part-time workers, trainees, artists, football players, bullfighters, rail workers and salesmen

Agrarian Regime (*Régimen Especial Agrario*): for employees and self-employed who work in the agricultural sector

Housemaid Regime (*Régimen Especial de Empleados de Hogar*): for employees and self-employed who work as domestic servants.

Coal-miners Regime (*Régimen Especial Minería del Carbón*): for employees who work at coalmines.

Self-employed Regime (*Régimen Especial Trabajadores Autónomos*): for self-employed who are not in any other regime

Sea workers Regime (*Régimen Especial Trabajadores del Mar*): for employees who work at sea

Student's Regime (*Seguro escolar*): students under 28.

There are also three regimes for workers at the public sector:

Civil servants regime (*Mutualidad General de Funcionarios Civiles del Estado - MUFACE*) : for civil servants. However many civil workers at the public sector contribute through private sector's general regime

Military forces' regime (*Instituto Social de las Fuerzas Armadas - ISFAS*): for military servants.

Judges' regime (*Mutualidad General Judicial - MUGEJU*): for members of justice administration.

## **6.3 Personal Taxes**

### **6.3.1 Personal Income Tax**

The Spanish personal income tax is an individual system. However, *family units* (single-parent or couples and children under 18) may pay taxes jointly if they prefer.

Income tax in Spain was heavily reformed in 1999. Under the new system, the main difference between the individual and joint scheme of taxation is the amount of the personal and family tax allowances (*mínimo personal* and *familiar*). In the previous system the tax schedules were different in the two schemes. All tax allowances and tax credits are non-

refundable in the 2001 income tax.

The base of the income tax is relatively broad. It includes most benefits, employment, self-employment, and capital incomes. The main exceptions are social security pensions for great incapacity or permanent and absolute incapacity; child benefit and child support (the parent who pays the support must pay income tax for it). In comparison to the previous system, imputed income from the property of the usual residence has been eliminated from the tax base. Notwithstanding, imputed income from ownership of other residences is still taxable.

Income tax in 2001 has 6 tax brackets; the first bracket with rate zero was replaced by the personal allowance (*mínimo personal*), already mentioned.

### **6.3.2 Property tax (impuesto sobre el patrimonio)**

It is charged on individual property through a progressive tax schedule. The exemption limit is 108,182 euros and main residence is exempt up to 150,000 euros. The sum of income tax and property tax cannot exceed 70 percent of income tax base.

### **6.3.3 Inheritance tax (impuesto sobre sucesiones y donaciones)**

It is charged using a progressive tax schedule. There are many exemptions and deductions related to the type of relationship the individual has/had with the previous owner and the nature of the donation or bequest.

### **6.3.4 Value Added Tax**

Basically, there are three different rates: 4 percent for books, magazines and newspapers; 7 percent for food, non-alcoholic beverages, medicines and medical services, transport and restaurants; and 16 percent for other goods and services.

### **6.3.5 Excise duties**

These are charged on alcohol and alcoholic beverages, beer, tobacco, fuel, some transports and electrical energy.