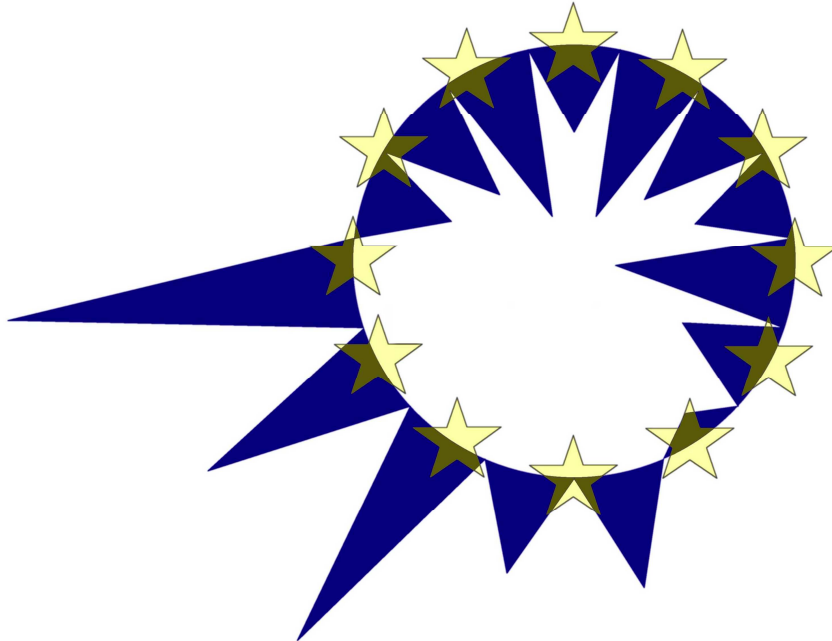


# **EUROMOD**

## **COUNTRY REPORT**



EUROMOD Country Report

**THE NETHERLANDS**  
(2001 TAX-BENEFIT SYSTEM – REVISED)

Klaas De Vos

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# **Euromod Country report - The Netherlands**

Klaas de Vos  
CentER Applied Research  
Tilburg University

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## 1. Tax-benefit system - outline

The purpose of this report is to document the tax-benefit model Euromod as it has been developed to model the tax-benefit system of the Netherlands. Put extremely briefly, Euromod, using as data the income components as discussed in chapter 3, adds simulated benefits (section 2.1) and deducts social insurance contributions (section 2.2) and income tax (section 2.3) to compute disposable income.

In this introductory chapter we summarize the dutch tax benefit system in a few paragraphs. In these paragraphs, entries in *italics* refer to benefits and contributions simulated by Euromod.

### 1.1 Income components, benefits

Next to, or, usually, instead of earned income (wages, profits, property income) persons in the Netherlands may be entitled to earnings-replacing benefits, such as unemployment and disability benefits. *Unemployment benefits* are paid to employees when they lose their job, disability benefits are paid to employees when they lose their ability to work, after one year of sickness. (Employers are obliged to pay their employees at least 70% of their wage during the first year of sickness). Upon retirement before the age of 65 most employees are entitled to employer provided early retirement pensions, after the age of 65 all residents are entitled to a (flat rate) *State pension*. In addition to state pensions, most retired employees receive additional occupational pensions.

Couples and single parents with dependent children aged below 18 are entitled to *Child benefit*. Above 18, students receive scholarships as well as student loans. Widow(er)s aged below 65 may be entitled to *Survivors' benefits*. Single persons, couples and single parents with low or no other means of existence may be entitled to *Social Assistance Benefits*. Tenant households who pay a relatively high rent (within limits) given their (net) income can be eligible for *Rent Subsidy*.

### 1.2 Taxes and contributions

To pay for all these benefits taxes and social insurance contributions have to be paid. Unemployment benefits and disability benefits are paid out of *employee and employer contributions to unemployment insurance*, and *employer contributions to disability insurance*. Self-employed pay the *self-employed contribution to disability insurance*. In addition, employees and persons receiving benefits may have to pay *employee contributions to health insurance* while their employer or benefit agency may be paying *employer contributions to health insurance*.

The basis for calculating *employee contributions to peoples' insurance contributions* is the same as the basis for the calculation of *income tax* (from 2001: income from work and owned accommodation, Box 1). The *earnings transfer allowance* which employees and persons in receipt of most benefits, aged below 65, received to compensate them for increases in these contributions, was abolished from January 2001. Taxable income is calculated taking into account most of the above mentioned income components (except child benefit and rent subsidy), deducting employee

contributions to unemployment insurance and self-employed contributions to disability insurance, but adding employer contributions to health insurance, (and before 2001, the earnings transfer allowance). There are other *income tax deductions* (*mortgage interest*). The remaining taxable income is subject to a four-bracket *income tax schedule*, but, depending on the circumstances of the tax-payer, *tax-credits* are awarded for income tax and peoples' insurance contributions. From 2001, *income tax free allowances* and some deductions (*professional deductions*) were abolished.

In table 1.1 and 1.2 we include information on the size of the simulated instruments and on the number of recipients/payers. Both in terms of total amounts as in terms of number of beneficiaries, the largest benefit is the state pension. As a part of the peoples' insurances, it also requires an important part of the social insurance contributions.

Table 1.1 Total amounts and number of recipients of benefits to be simulated in Euromod (1998, 2001)

Type of benefit		Total amounts		Number of benefit recipients	
		(x 10 <sup>9</sup> €)	Source	(x 10 <sup>6</sup> )	Source
Child benefits	1998	2.87	(1)	1.82	(hh) (2)
	2001	3.01	(3)	1.86	(hh) (3)
State pension	1998	17.58	(2)	2.28	(pers) (2)
	2001	20.28	(3)	2.21	(pers) (3)
Survivor benefits	1998	1.62	(2)	0.18	(pers) (2)
	2001	1.51	(3)	0.14	(pers) (3)
Social assistance					
General (ABW)	1998	4.53	(1)	0.41	(hh) (2)
	2001	4.27	(3)	0.33	(hh) (3)
Elderly or partly disabled unemployed (IOAW)	1998	.26	(1)	0.02	(hh) (2)
				0.02	(hh) (3)
Rent subsidy	1998	1.33	(2)	1.05	(hh) (2)
	2001	1.55	(4)	0.99	(hh) (4)

(1) Sociale nota 2000, Tweede Kamer der Staten Generaal 1999-2000, 26802.

(2) Statistical yearbook 2000, Statistics Netherlands, Voorburg

(3) Sociale nota 2003, Department of social affairs and employment, [www.szw.nl](http://www.szw.nl)

(4) Department of housing etc, [www.datawonen.nl/his](http://www.datawonen.nl/his)

hh: households, pers: persons

1 € = 2.20371 NLG

Table 1.2. Total amounts and number of persons paying the contributions to be simulated in Euromod (1998)

		Total amounts (x 10 <sup>9</sup> €)	Source	Number of persons contributing (x 10 <sup>6</sup> )
Social insurance contributions:				
Unemployment insurance				
employee contributions		?		4.7 <sup>1</sup> (4)
employer contributions		?		
total	1998	6.13 (6)		
	2001	6.35 (8)		5.9 (11)
Disability insurance				
employer contributions	1998	10.8 (6)		5.6 <sup>1</sup> (4)
	2001	12.3 (8)		6.0 (11)
self-employed contr.	1998	0.51 (2)		
		0.36 (3)		0.4 <sup>2</sup> (3)
	2001	0.83 (10)		0.8 <sup>2</sup> (10)
Health insurance				
employee contributions	1998	2.8 (7)		9.9 <sup>3</sup> (5)
employer contributions	1998	4.6 (7)		
total	2001	11.0 (9)		10.3 <sup>3</sup> (5)
Peoples insurances				
employee contributions	1998	31.06 (2)		n.a.
		31.35 (3)		
	2001	32.05 (10)		
Income taxation	1998	21.81 (3)		9.3 <sup>4</sup> (3)
	2001	23.34 (10)		6.7 <sup>5</sup> (10)

(2) Statistical yearbook 2000, Statistics Netherlands, Voorburg

(3) Belastingdienst, Jaarverslag 1999 (Tax service, yearly report)

(4) LISV, Kroniek van de Sociale Verzekeringen 1999

(5) Statistics Netherlands, Statweb, <http://statline.cbs.nl>

(6) LISV, Kerncijfers werknemersverzekeringen t/m oktober 2000, <http://www.lisv.nl>

(7) EIM, 'Inventarisatie beslissingen...', <http://www.eim.nl>, estimate based on household survey

(8) IWI, 'De sociale verzekeringen in 2001', [www.iwiweb.nl](http://www.iwiweb.nl)

(9) CVZ, 'Lasten en financiering ziekenfondswet 2001-2003', [www.cvz.nl](http://www.cvz.nl)

(10) Belastingdienst, Jaarverslag 2002, [www.belastingdienst.nl](http://www.belastingdienst.nl) (Tax service, yearly report)

(11) UWV, Kroniek van de Sociale Verzekeringen 2003, [www.uwv.nl](http://www.uwv.nl)

<sup>1</sup>Number of person-years insured

<sup>2</sup>Preliminary assessments

<sup>3</sup>Total number of persons insured

<sup>4</sup>Includes double counting

<sup>5</sup>Final assessments

## 2. Tax-benefit system - Detailed description

In this chapter, we provide a description of relevant details of the tax-benefit system in the Netherlands, focusing on the way it has been modeled by Euromod. All entries in *italic* refer to the names of policy modules, parameters and conditions in the various Euromod parameter sheets, in particular *pol\_NL.xls*. In a number of instances, we mention where we make simplifying assumptions for Euromod. All amounts pertain to the system valid on 30 June 2001 and are monthly unless otherwise noted. Where relevant, the values on 30 June 1998 are mentioned between brackets.

Table 2.1 lists the relevant policy sheets in *pol\_NL.xls*, and refers to the sections in which the various policies are described.

Table 2.1. Policies included in *pol\_NL.xls*

section	Policy	Description
2.1.1	<b><i>SBEN_CB_NL</i></b>	child benefit
2.2.8	<b><i>ITeta_NL</i></b>	earnings transfer (no longer relevant in 2001)
2.1.2	<b><i>SBEN_survben_NL</i></b>	survivors' benefit
2.1.3	<b><i>SBEN_statepen_NL</i></b>	State Pension
2.1.4	<b><i>SBEN_IOAWch_NL</i></b>	SAB for unemployed aged 50-64 and disabled unemployed younger than 64 <b>with</b> children
2.1.4	<b><i>SBEN_SABch_NL</i></b>	sab for fam <b>with</b> children
2.1.4	<b><i>SBEN_IOAWnoch_NL</i></b>	SAB for unemployed aged 50-64 and disabled unemployed younger than 64 <b>without</b> children
2.1.4	<b><i>SBEN_SABnoch_NL</i></b>	sab for fam <b>w/o</b> children
2.2.1	<b><i>EESICui_NL</i></b>	employee contributions to unemployment insurance
2.2.3	<b><i>SESICdi_NL</i></b>	self employed contributions to disability insurance
2.2.6	<b><i>ERSIChi_NL</i></b>	employer contributions to health insurance
2.2.7	<b><i>SESIChi_NL</i></b>	self employed contributions to health insurance
2.3.2	<b><i>ITded_NL</i></b>	income tax deductions
2.3.5	<b><i>ITasset_tfa_NL</i></b>	asset tax free allowances
2.3.5	<b><i>ITbox3_NL</i></b>	income tax on capital income ("Box 3")
2.3.2	<b><i>ITintYattrib_NL</i></b>	Attribution of Interest Y to person with the highest earnings in tax unit (no longer relevant in 2001)
2.3.2	<b><i>ITdivYattrib_NL</i></b>	Attribution of Dividend Y to person with the highest earnings in tax unit (no longer relevant in 2001)
2.1.5	<b><i>SBEN_HB_NL</i></b>	Rent Subsidy
2.3.4	<b><i>ITtfa_NL</i></b>	income tax free allowances (no longer relevant in 2001)
2.3.5	<b><i>ITschedule_NL</i></b>	income tax (schedule)
2.3.3	<b><i>ITtc_NL</i></b>	income tax credits
2.2.9	<b><i>EESICpi_NL</i></b>	employee contributions to (peoples) pensions insurance
2.2.5	<b><i>EESIChi_NL</i></b>	employee contributions to health insurance
2.2.4	<b><i>ERSICdi_NL</i></b>	employer contributions to disability insurance
2.2.2	<b><i>ERSICui_NL</i></b>	employer contributions to unemployment insurance
2.1.4	<b><i>SBEN_NetCorr_NL</i></b>	Net Correction Amount - to be subtracted to get to 'exact' disposable income
2.1.4	<b><i>EESICui_NL_SAmans</i></b>	Used for computing SA means: employee contributions to unemployment insurance
2.1.4	<b><i>SESICdi_NL_SAmans</i></b>	Used for computing SA means: self employed contributions to disability insurance
2.1.4	<b><i>ERSIChi_NL_SAmans</i></b>	Used for computing SA means: employer contributions to health insurance
2.1.4	<b><i>SESIChi_NL_SAmans</i></b>	Used for computing SA means: self-employed contributions to health insurance
2.1.4	<b><i>ITded_NL_SAmans</i></b>	Used for computing SA means: income tax deductions
2.1.4	<b><i>ITintYattrib_NL_SAmans</i></b>	Used for computing SA means: Attribution of Interest Y to person with the highest earnings in tax unit
2.1.4	<b><i>ITasset_tfa_NL_SAmans</i></b>	Used for computing SA means: asset tax free allowance

2.1.4	<i>ITbox3_NL_SAm</i>	Used for computing SA means: income tax on capital income
2.1.4	<i>ITdivYattrib_NL_SAm</i>	Used for computing SA means: Attribution of Dividend Y to person with the highest earnings in tax unit
2.1.4	<i>ITtfa_NL_SAm</i>	Used for computing SA means: income tax free allowances
2.1.4	<i>ITschedule_NL_SAm</i>	Used for computing SA means: income tax (schedule)
2.1.4	<i>ITtc_NL_SAm</i>	Used for computing SA means: tax credits
2.1.4	<i>EESICpi_NL_SAm</i>	Used for computing SA means: employee contributions to (peoples) pensions insurance
2.1.4	<i>EESIChi_NL_SAm</i>	Used for computing SA means: employee contributions to health insurance

In addition *pol\_NL.xls* contains a number of worksheets used for the simulation of unemployment benefits. These are not used in the baseline runs of Euromod.

## 2.1 Benefits simulated by Euromod

### 2.1.1 Child benefits (policy *SBEN\_CB\_NL*)

Eligibility:

Parents (including foster-parents) are eligible for child benefits for children aged less than 18 but eligibility for children aged above 15 (*cd\_agelow*) but less than or equal to 17 (*cd\_agehigh*) requires that they are in education (*cd\_InFTed*) (at least 213 hours per quarter), or unemployed (*cd\_Unemp*), or at least 45% disabled (*cd\_Disabled*). Moreover, the parents should contribute to the sustenance of the children to an important extent, which translates to the condition that the income of the children in this age group should be less than € 1,091.34 + 839.49/4 (1998: 1,039.61) net per quarter or € 363.78 + 69.96 (1998: 346.54) per month (*cd\_ge\_Inc\_lt*).

Calculation of payment:

The base amount is € 163.41 (1998: 142.79) per quarter (*SingPay*). Different multipliers apply depending on whether the child was born before or after (and including) 1994. If born before October 1<sup>st</sup>, 1994, the multiplier depends on both parity and age:

AGE	Number of Children									
	1	2	3	4	5	6	7	8	9	10+
6 to 11	1.214268	1.371636	1.424037	1.539335	1.608425	1.654606	1.687568	1.747938	1.794924	1.832496
<18	1.428563	1.613674	1.675349	1.810974	1.892366	1.9466	1.985366	2.056399	2.11166	2.161423

If born after October 1<sup>st</sup>, 1994, the amount depends only on age:

AGE	
<6	1
6 to 11	1.214268
<18	1.428563

The resulting multiplier table valid for 2001 is as follows:

	1	2	3	4	5	6	7	8	9	10+
<=5	1	1	1	1	1	1	1	1	1	1
6	1.214268	1.214268	1.214268	1.214268	1.214268	1.214268	1.214268	1.214268	1.214268	1.214268
7 to 11	1.214268	1.371636	1.424037	1.539335	1.608425	1.654606	1.687568	1.747938	1.794924	1.832496
12 to 17	1.428563	1.613674	1.675349	1.810974	1.892366	1.9466	1.985366	2.056399	2.11166	2.161423

In Euromod, the entries for the third and fourth row of this table are approximated by multiplying the parameters of the first column:

```
es_nl_age_3      1.214263
es_nl_age_4      1.428563
```

with those of the third row divided by 1.214263:

```
es_nl_parity_a1      1
```



<i>es_nl_parity_a2</i>	1.129599561
<i>es_nl_parity_a3</i>	1.172753676
<i>es_nl_parity_a4</i>	1.267706451
<i>es_nl_parity_a5</i>	1.324673543
<i>es_nl_parity_a6</i>	1.362636357
<i>es_nl_parity_a7</i>	1.389782057
<i>es_nl_parity_a8</i>	1.439499623
<i>es_nl_parity_a9</i>	1.478194251
<i>es_nl_parity_a10</i>	1.509136232

and separately as 1 for children aged less than 6 and 1.214263 for children aged 6. For the multiplication factors valid in 1998 we refer to the 1998 edition of this country report.

In Euromod, if both parents are present in the household, the child benefit is assumed to be shared among the parents (*co\_sharing*).

No taxes/contributions are payable on child benefit. It is not included in the means test for the calculation of social assistance, rent subsidy and other benefits.

### 2.1.2 Survivor benefit (*SBEN\_survben\_NL*)

Eligibility:

Entitlement to the survivor benefit exists for the survivor (*NotWidowed*= -1) younger than 65 (*ge\_age2\_lt*) who:

- has an unmarried child younger than 18 who does not belong to somebody else's household (*ge\_nOwnCh\_inHH\_lt* = 1) or
- is disabled for work for at least 45% (*IsDisabledI*) or
- was born before 1 january 1950 (*ge\_age1\_lt*)

The person who in his household takes care of a child of whom one parent has died is entitled to a 'half-orphan'-benefit (which is not calculated in Euromod)

Means test:

The survivor benefit is income dependent: income received 'in relation with' work (i.e. social insurance benefits) is deducted entirely (*widben\_means*), but a part of income received from work (earnings, profits, private pensions: *widben\_workY*) is exempt ( $0.5 (=min\_wage\_ratio) * \text{the minimum wage (1998: including transfer allowance) of € 1,154.46 (1998: 1,051.05) per month}(=min\_wage)$ ), plus a third ( $(=disreg\_ratio)$  of the remainder). In other words, the disregard equals:

$\max(0, disreg\_ratio * (workY - min\_wage\_ratio * min\_wage))$ . As a result, the benefit is paid in full if income from work (including transfer allowance) is below € 577.23 (1998: 525.53), and zero if income from work is above € 1,915.50 (1998: 1,732.25). Notably, all these amounts are net of holiday allowance. In Euromod, it is assumed that in income from work and benefit income a holiday allowance of 8% ( $= ha\_pct$ ) is already included. The holiday allowance added to the survivor benefit is reduced by the same percentage by which the survivor benefit is reduced as a result of the means test.

In Euromod, private pensions received by males younger than 60 and females younger than 65 are assumed to be private survivor pensions, and, as such, counted as income 'in relation with' work (*widben\_means<60*). Private pensions received by males aged between 60 and 65 are assumed to be old-age pensions, and counted as income received from work (*widben\_workY<60*). Before 2001, the earnings transfer allowance (see section 2.2.7) received on income from or 'in relation with' work was to be included with the relevant income component, but no earnings transfer allowance is paid on the survivor benefit itself.

Amounts:

survivor benefit: € 944.81 (1998: 856.62) (*SingPay*) = € 892.18 (1998: 804.48) (*max\_benefit*) + 52.63 (1998: 52.14) holiday allowance (*holiday\_allowance*);  
 'half-orphan' benefit: € 203.91 + 15.03 (1998: 19226) per month.

Notably, the current survivor benefit act ('Algemene Nabestaandenwet', ANW) was introduced on 1 July 1996. Special rules apply for persons who were already survivor before that date, and for persons born between 1 January 1950 and 1 July 1956 who lost their partner before 1 July 1999. These special cases are not taken into account in Euromod.

### 2.1.3 State pension (*SBEN\_StatePen\_NL*)

Eligibility:

All residents aged 65 (*ge\_age1\_lt*) or above are entitled to the flat rate State Pension (AOW). If both spouses are above 65 they both receive (in net terms) slightly more than half the (net) minimum wage, whilst single persons receive about 70% of the minimum wage. Persons with a spouse younger than 65 (*le\_age1\_lt = 64*) receive 50% of the minimum wage with a supplement of at most 50% of the minimum wage. The supplement depends on the means of the younger spouse.

For every year between age 15 and 65 the pensioner lived abroad the State Pension is reduced by 2% (however, reductions are not taken into account in Euromod).

Means test:

The means to be taken into account in the calculation of the State Pension are the means of the younger spouse (aged  $\leq 64$ , *le\_age1\_lt*).

Means (*statepen\_means*) =  $\max(0, \text{Income 'in relation with' work (i.e. benefits) (1998: including earnings transfer allowance, sec. 2.2.7)})$   
 +  $\max(0, 2/3 * \max(0, \text{Income from work} - 0.15 * \text{gross minimum wage (1998: incl. e.t.a.)})$ .

In other words, there is a disregard of

$\max(0, 1/3 (= \text{disreg_ratio}) * (\text{Income from work (=statepen_workY)} - 0.15 (= \text{min_wage_ratio}) * \text{gross minimum wage (1998: incl. e.t.a.)})$

Gross minimum wage (*=min\_wage*) = € 1,154.48 (1998: 1,051.05)

Notably, these amounts are net of holiday allowance. In Euromod, it is assumed that in income from work and benefit income a holiday allowance of 8% (*= ha\_pct*) is

included. The holiday allowance added to the supplement of the state pension is to be reduced by the same percentage as the supplement.

Private pensions are counted as income in relation with work

Amounts:

Amounts for the state pension (€ / month):

Single, 65+: 831.36 (1998: 736.63) + 41.62 (1998: 40.53) holiday allowance = 872.98 (1998: 777.15) (*SingPay*)

Married/cohabiting, 65+ 572.25 (1998: 507.74) + 29.73 (1998: 28.95) = 601.98 (1998: 536.69) (*SingPay*)

Supplement if spouse < 65: at most 572.25 (1998: 507.74) (*max\_benefit*) + 29.73 (1998: 28.95) (*holiday\_allowance*)

Supplement = max (0, maximum supplement - means of younger spouse)

The latter amounts are valid for pensions started from 1 July 1996. For pensions started earlier, rules for persons with a spouse aged < 65 differ to some extent (not taken into account in Euromod). If the pension started between 1-2-1994 and 1-6-1996, the person with a spouse < 65 receives € 831.36 (1998: 736.63) + 41.62 (1998: 40.53) hol. all. + a supplement of max. € 313.14 (1998: 278.86) + 17.84 (1998: 17.38). If the pension started before 1-2-1994 these amounts are also valid, but no distinction between income from work and other means of the younger spouse is made in the calculation of the supplement: all income is counted as income from work.

#### **2.1.4 Social Assistance Benefits (*SBEN\_IOAWch\_NL*, *SBEN\_SABch\_NL*, *SBEN\_IOAWnoch\_NL*, *SBEN\_SABnoch\_NL*)**

1. Social assistance (*SBEN\_SABch\_NL*, *SBEN\_SABnoch\_NL*)

Eligibility:

A benefit unit (couple, single person, lone parent) is eligible for social assistance if

- a. they are not a student (*InEd* = -1) and
- b. if single, assets are less than single asset limit of € 4,673.94 (1998: 4,401.67) (*le\_capital\_lt*)
- c. if married/cohabiting/lone parent, assets are less than married asset limit of € 9,347.87 (1998: 8,803.34) (*ge\_capital2\_lt*)
- d. aged 18 or over (*ge\_age2\_lt*) or
- e. a parent (Note: Even if a parent, persons below 18 are not generally entitled)

Self-employed persons (*IsSelfemployed1*, *IsFarmer1*) with (temporary) low incomes (which includes those in receipt of the separate social assistance benefit for selfemployed (variable *nlBENUBZ*)) are not entitled to the regular SAB.

Amounts:

a. Couples with children

€ 1,051.82 (1998: 464.97 + 464.97) (if both aged 21-64) :

€ 1,091.18 (1998: 968.52) (if both 65+)  
€ 1,108.24 (1998: 943.41) (if one 65+, one 21-64)  
€ 573.85 (1998: 507.35) (if both 18-20)  
€ 918.02 (1998: 811.64) (if one 18-20, one 21+)

*polSBEN\_SABch\_NL:*

*SingPay* \* (*es\_head\_age1* if head aged between 18 (*es\_head\_age1\_min*) and 20 (*es\_head\_age1\_max*)  
+ *es\_head\_age2* if head aged between 21 and 64  
+ *es\_head\_age3* if head aged above 65  
+ *es\_spouse\_age1* if spouse aged between 18 and 20  
+ *es\_spouse\_age2* if spouse aged between 21 and 64  
+ *es\_spouse\_age3* if spouse aged above 65  
+ *es\_both\_age1* if both aged between 18 and 20  
+ *es\_both\_age3* if both aged above 65 )

b. Couples without children

€ 1,051.82 (1998: 464.97 + 464.97) (if both aged 21-64) :  
€ 1,091.18 (1998: 968.52) (if both 65+)  
€ 1,108.24 (1998: 943.41) (if one 65+, one 21-64)  
€ 363.49 (1998: 321.36) (if both 18-20)  
€ 707.66 (1998: 625.65) (if one 18-20, one 21+)

*polSBEN\_SABnoch\_NL:*

*SingPay* \* (*es\_head\_age1* if head aged between 18 (*es\_head\_age1\_min*) and 20 (*es\_head\_age1\_max*)  
+ *es\_head\_age2* if head aged between 21 and 64  
+ *es\_head\_age3* if head aged above 65  
+ *es\_spouse\_age1* if spouse aged between 18 and 20  
+ *es\_spouse\_age2* if spouse aged between 21 and 64  
+ *es\_spouse\_age3* if spouse aged above 65  
+ *es\_both\_age3* if both aged above 65 )

c. Lone Parent

€ 736.28 (1998: 650.97) + 210.36 (1998: 185.99) (if 21-64)  
€ 986.99 (1998: 870.12) (if 65+)  
€ 392.11 (1998: 346.67) (if 18-20)

*polSBEN\_SABch\_NL:*

*SingPay* \* (*es\_head\_age1* if head aged between 18 and 20  
+ *es\_head\_age2* if head aged between 21 and 64  
+ *es\_head\_age3* if head aged above 65  
+ *es\_lp\_age1* if head aged between 18 and 20  
+ *es\_lp\_age2* if head aged between 21 and 64  
+ *es\_lp\_age3* if head aged above 65)

d. Single person

€ 525.91 (1998: 464.97) + 210.36 (1998: 185.99) (if really living alone) (21-64)  
€ 776.62 (1998: 684.13) (if 65+)  
€ 181.74 (1998: 160.68) (if 18-20)

*polSBEN\_SABnoch\_NL:*

*SingPay \* (es\_head\_age1 if head aged between 18 and 20  
+ es\_head\_age2 if head aged between 21 and 64  
+ es\_head\_age3 if head aged above 65  
+ es\_livealone\_age2 if living alone, aged between 21 and 64  
+ es\_livealone\_age3 if living alone, aged above 65)*

Means Test:

The income base for the means test (*sben\_means*) consists of all other employment income, benefits and pensions except child benefits and rent subsidy. Because the benefit is calculated as a net (after tax) amount, this requires the calculation of the taxes (*out\_inctax*) and s.i.c.'s (*out\_eesic*) on all other income components before the entitlement to Social Assistance can be calculated. Notably, Social Assistance is subject to s.i.c.'s and income tax as well. It is paid out as a net amount, on top of which the municipalities pay taxes and social insurance contributions directly to the relevant authorities.

So, to obtain net means, income taxation and social insurance contributions payable on gross means have to be calculated. In Euromod, this is done by a preliminary run through the policy modules designed to compute income taxation and social insurance contributions, specifically for the purpose of calculating the means taken into account for the calculation of social assistance (*EESICui\_NL\_SAmeans ... EESIChi\_NL\_SAmeans*). The withdrawal rate is 100%<sup>1</sup>.

In the case of a couple, the resulting net S.A. amount is supposed to be shared equally among both spouses (module *co\_sharing*).

Next, gross social assistance is approximated, by applying grossing-up factors to net S.A. (module *nl\_SBEN\_SAnet2gross*): gross S.A. = *factor1*\*net S.A. (1998: gross S.A. = *factor2*\*(*factor1*\*(net.S.A.- remaining tfa) + remaining tfa), where 'remaining tfa' represents that part of the tax free allowance (see section 2.3.3) which exceeds taxable income from non-SA sources.)

Finally, as described in the sections 2.2 and 2.3., total income taxation and social insurance contributions are calculated (payable on income including gross social assistance). Because of the approximation of gross SA, in addition to deducting income taxation and s.i.c.'s, a correction to the resulting amount of net social assistance as calculated by Euromod has to be applied so that the resulting disposable income is correct (policy *SBEN\_NetCorr\_NL*).

## 2. IOAW (*polSBEN\_IOAWch*, *polSBEN\_IOAWnoch*)

<sup>1</sup> In exceptional cases (not taken into account in Euromod) (persons 57.5 - 64, single parents with child younger than 5, persons who are deemed to be dependent on part-time jobs for medical or social reasons) municipalities may allow that  $\min(\text{inc}, \text{€ } 82.13 \text{ (1998: } 71.70)) + (\text{if } \text{inc} > 82.13 \text{ (1998: } 71.70)) : (50\% \text{ of } \min(150.66 \text{ (1998: } 132.96), \text{inc}) - 82.13 \text{ (1998: } 71.70))$  per month can be earned without consequences for the SAB. Furthermore the interest received on assets below the asset-limit is not taken into account. Some lump sum benefits for necessary education and for accepting a job are not taken into account.

Persons aged below 65 who became unemployed after age 50 and exhausted their entitlement to (earnings related) unemployment benefits are entitled to a separate social assistance benefit: IOAW<sup>2</sup>. The difference with the general SAB (ABW) is that no asset test is applied to calculate the entitlement for IOAW. The IOAW also applies to persons partially disabled for work, younger than 50, who were already disabled for work at age 17 and who are receiving a disability benefit (Wajong) based on their partial disability (< 80%). In Euromod, IOAW is calculated in *polSBEN\_IOAWch* and *polSBEN\_IOAWnoch*.

### 2.1.5 Rent subsidy (*SBEN\_HB\_NL*)

Tenant households with high (but not too high) rents given their income are entitled to rent subsidy. For the subsidy year running from 1-7-2000 to 30-6-2001 the income basis is the taxable income for the year 1999. There is also an asset test (no rent subsidy if household assets on 1-1-2000 above certain amounts). Assets comprise of: bank accounts and savings accounts, cars, caravans, motorcycles, other possessions, minus debts.

Computation of rent subsidy (amounts in € per month):

If the actual rent is between 162.00 (1998: 149.75) (*lo\_rent\_lt*) and 521.39 (1998: 492.35) (*up\_rent\_lt*) per month, the norm rent depends on the age and the number of persons in the household and the taxable income. It can be derived from table 2.2 below. The monthly rent subsidy is then calculated as follows:

a. norm rent < actual rent < 287.70 (1998: 260.92)(*rent1\_lt*):

subsidy = actual rent - norm rent

b. norm rent < actual rent & 287.70 (1998: 260.92) < actual rent < B.

(B= 412.03 (1998: 373.46) (1,2pers), (*rent21\_lt*), B= 441.53 (1998: 400.23) (3+ pers) (*rent22\_lt*)):

subsidy = 0.75(*subsidy2\_rt*)\*(actual rent - max (norm rent, 287.70 (1998: 260.92))) + max (0, 287.70 (1998: 260.92)- norm rent)

c. norm rent < actual rent & Actual rent > B:

subsidy = 0.5(=*subsidy3\_rt*)\* (actual rent-max (B, norm rent)) + 0.75\*max(0,B-max(norm rent, 287.70 (1998: 260.92))) + max (0, 287.70 (1998: 260.92) - norm rent)

No subsidy if income higher than highest amounts in table or if actual rent above 521.39 (1998: 492.35) (*up\_rent\_lt*) or below 162.00 (1998: 149.75) (*lo\_rent\_lt*).

There are four regimes depending on age and number of persons in the household:

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<sup>2</sup> Since the eligibility for IOAW can only be approximated (in particular the age at which one became unemployed is not registered in the data) Euromod probably overestimates the number of persons receiving IOAW and underestimates ordinary SAB.

A. 1-person hh. (<66 on 1-1-2000) (*age1 <=66(=le\_Age1\_lt)*) and not (*nPersInTu >=2(=ge\_nPersInTu\_lt)*)

C. multiperson hh. (*nPersInTu >=2*) in which more than half of income received by persons < 66 on 1-1-2000. The latter condition is assumed to be satisfied if the head is aged <= 66 in 2001. (*age1(head) <= 66*)

E. 1-person elderly hh. (66+ on 1-1-2000) (*age2 >=67*) and not (*nPersInTu >=2*)

G. multiperson elderly hh. (*nPersInTu >=2*) in which more than half of income received by persons 66+ on 1-1-2000 (*age1 >=67*)

Table 2.2. Norm rent given taxable income by regime

A		C		E		G	
inc. (year)	norm.rent (month)	inc. (year)	norm.rent (month)	inc. (year)	norm.rent (month)	inc. (year)	norm.rent (month)
<i>y_1-y_20</i>	<i>norm_rent_1- norm_rent_20</i>	<i>y_1-y_27</i>	<i>norm_rent_1- norm_rent_27</i>	<i>y_1-y_16</i>	<i>norm_rent_1- norm_rent_16</i>	<i>y_1-y_20</i>	<i>norm_rent_1- norm_rent_20</i>
10799.96	161.99	13568.02	161.99	10845.34	161.99	13499.96	161.99
10890.72	163.81	13613.4	162.9	10890.72	163.36	13613.4	163.81
11117.61	169.71	13840.29	166.08	11117.61	168.8	13840.29	168.8
11344.5	178.33	14067.18	171.07	11344.5	177.88	14067.18	175.61
11571.39	186.95	14294.07	176.52	11571.39	187.41	14294.07	182.41
11798.28	195.57	14520.96	181.96	11798.28	196.94	14520.96	189.22
12025.17	204.65	14747.85	187.41	12025.17	206.92	14747.85	196.48
12252.06	214.18	14974.74	193.31	12252.06	217.36	14974.74	203.74
12478.95	223.71	15201.63	198.75	12478.95	227.79	15201.63	211
12705.84	233.24	15428.52	204.65	12705.84	238.23	15428.52	218.72
12932.73	243.22	15655.41	210.55	12932.73	249.12	15655.41	226.43
13159.62	253.2	15882.3	216.45	13159.62	260.46	15882.3	234.15
13386.51	263.64	16109.19	222.35	13386.51	271.81	16109.19	241.86
13840.29	279.52	16562.97	231.88	13840.29	289.51	16562.97	254.11
14294.07	301.31	17016.75	244.13	14294.07	313.56	17016.75	270.45
14747.85	323.99	17470.53	257.29	14657.1	335.79	17470.53	287.69
15201.63	347.14	17924.31	270.45			17924.31	304.94
15655.41	371.64	18378.09	284.06			18378.09	323.09
16109.19	396.6	18831.87	298.13			18831.87	341.69
16517.59	421.1	19285.65	312.2			19126.83	357.57
		19739.43	326.72				
		20193.21	341.69				
		20646.99	356.67				
		21100.78	372.55				
		21554.56	388.43				
		22008.34	404.31				
		22144.47	415.2				

For the rent subsidy tables valid in 1998 we refer to the 1998 edition of this country report.

Asset test (no rent subsidy if household assets greater than or equal to these amounts):  
Assets on 1-1-2000.

1-person hh. (<65 on 30-6-2000) € 18,378.55 (1998:17,244.10) (*ge\_inc2\_lt*)  
multiperson hh. (all < 65 on 30-6-2000) € 27,091.13(1998: 25,412.15)  
1-person hh. (65+ on 30-6-2000) € 31,424.73 (1998:29,496.17)  
multiperson hh. (1 or more > 65 on 30-6-2000) € 43,517.98 (1998: 40,840.67)

Asset disregard:

For children below 23 (*IsDepCh\_of\_HH*) up to € 907.56 (*disregard\_amt*) of their assets are not taken into account (module: *co\_SBEN\_CapDisregard*).

Income disregard:

For children below 23 up to € 4,084.02 (*disregard\_amt*) of their income is not taken into account (module: *coSBEN\_Disregard*).

Supplement:

Households entitled to rent subsidy receive a supplement depending on the household composition (amounts in € per month):

1.82 (*supp1\_amt*) if alone,

3.63 (*supp2\_amt*) if multiperson but no children aged < 18

18.15 (*supp3\_amt*) if one or two children aged < 18

23.14 (*supp4\_amt*) if three or more children aged < 18.

### **2.1.6. Unemployment benefit<sup>3</sup> (*IBEN\_ue\_ext\_NL*, *IBEN\_ue\_gen1\_NL*, *IBEN\_ue\_gen2\_NL*, *IBEN\_ue\_1or2\_NL*, *IBEN\_ue\_fup1\_NL*, *IBEN\_ue\_fup2\_NL*)**

The unemployment insurance benefit comprises three types of benefits:

- General benefit (*nl\_iben\_ue\_gen*);
- Extended benefit (*nl\_iben\_ue\_ext*)
- Follow-up benefit (*nl\_iben\_ue\_fup*)

Entitlement to the follow-up benefit starts (only) at the end of the extended benefit.

The unemployment insurance scheme covers all employees under 65 (*ge\_age1\_lt*). *Self-employed* are not covered.

#### 1. Conditions for receipt :

- General benefit: at least 26 weeks of paid employment during the last 39 weeks.
- Extended and follow-up benefits: at least 26 weeks of paid employment during the last 39 weeks plus to have worked at least 52 days or more during at least four of the last five years. Notably, general benefit is received only if one is not eligible for extended benefit.

Notably, in Euromod, eligibility is assessed chiefly by checking who is actually in receipt of unemployment benefits (*nlBENWWU*) in the data.

#### 2. Calculation of benefit amount :

- General benefit : 70% of statutory minimum wage (€ 1,246.82 ((average over) 1998: 1,123.52) per month for persons aged 23 or over), or 70% of previous earnings (*co\_prvern*), whichever is lower (*nl\_iben\_ue\_gen* =  $\min$  (*nl\_iben\_ue\_gen1*, *nl\_iben\_ue\_gen2*));
- Extended benefit: 70% of previous earnings up to a maximum daily wage of € 136.96. (€ 2,978.98 per month)
- Follow-up benefit : 70% of statutory minimum wage, or 70% of previous earnings, whichever is lower (*nl\_iben\_ue\_fup* =  $\min$  (*nl\_iben\_ue\_fup1*, *nl\_iben\_ue\_fup2*))

#### 3. Payment duration :

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<sup>3</sup> The simulation of unemployment benefits is not included in the baseline simulation.



- General benefit : 6 months
- Extended benefit : depending on age and employment record  
Maximum: 5 years  
Minimum: 6 months
- Follow-up benefits : 2 years, (people aged 57.5 and over on first day of unemployment: until 65<sup>th</sup> birthday)

*Employment record (when relevant)*

Number of years having been employed 52 or more days during last five years (i.e. 4 or 5) *plus* (if age > 22) number of calendar years since 18<sup>th</sup> birthday minus five. To calculate the employment record during the last five years, calendar years in which the person did not have paid employment but took care of children younger than 6 are also taken into account, as well as half of the years in which he/she took care of children aged between 6 and 12.

Employment record	Duration of extended benefit
4 years	6 months
5 – 10 years	9 months
10 – 15 years	1 year
15 – 20 years	1.5 year
20 – 25 years	2 years
25 – 30 years	2.5 years
30 – 35 years	3 years
35 – 40 years	4 years
40 + years	5 years

*Previous earnings*: gross employment income (*coempy*) minus pension contributions (*copencon*) minus tax exempt savings (*nlsploon*).

Notably, when the total net household income (defined according to the means test for Social Assistance) is below the Social Assistance level, persons entitled to Unemployment Benefit are entitled to a supplement to reach the SA-level without an asset test, according to the *Toeslagenwet* ('extra allowances act') (this is comparable to the way the IOAW benefit is calculated). The extra allowance (*nl\_iben\_ue\_eal*) is at most 30% of the minimum wage in the case of couples, 27 % in the case of single parents, and 21% in the case of single persons. During at most 2 years part of the income from work may not be taken into account when computing this extra allowance: 15% of the minimum wage.

No extra allowance is granted to single persons younger than 21 living with their parent(s), and to persons with a partner, when born after 31-12-1971 and not having a child younger than 12.

Minimum wage for persons younger than 23:

22: 85%, 21: 72.5%, 20: 61.5%, 19:52.5%, 18: 45.5%, 17: 39.5%, 16:34.5%, 15: 30%.

\*\* information in this section to be completed \*\*

## 2.2 Social insurance contributions

### 2.2.1 Employee contributions to unemployment insurance (*EESICui\_NL*)

Employees in the private sector aged below 65 (*age\_thresh*) are insured against (loss of income as a result of) unemployment, and pay, on average, a total contribution of 5.25% (1998: 6.45%) (*rate*) on wages between € 1,154.76 (1998: 1,026.45) (*lower\_lt*) and 3,326.10 (1998: 2,970.79) (*maxbase*) per month. In 2001 the same rules apply for public sector employees; in the past these rules used to be rather similar, in particular with respect to the consequences of changes in the contribution rates. In Euromod, public sector employees are not identified separately.

The basis for the calculation of unemployment insurance contributions (*UIeesic\_Base*) includes next to gross wages net of (occupational) pension contributions and ‘spaarloon’, also wage replacing benefits such as unemployment and disability benefits. The relevant tax unit is the *individual*.

### 2.2.2 Employer contributions to unemployment insurance (*ERSICui\_NL*)

Employers of employees in the private sector aged below 65 (*age\_thresh*) pay, on average, a contribution of 0.87% (1998: 0%) (*rate1*) on wages below € 1,154.76 (1998: 1,026.45) (*maxbase1*), and a total contribution of 4.52% (1998: 6.35%) (*rate2*) on wages between € 1,154.76 (1998: 1,026.45) (*maxbase1*) and 3,326.10 (1998: 2,970.79) (*maxbase2*) per month. For public sector employees in 2001 rules are the same; in the past the rules were assumed to be similar.

The income basis for the employer contribution to unemployment insurance (*UIersic\_Base*) is the same as for the employee contribution to unemployment insurance.

### 2.2.3 Self-employed contributions to disability insurance (*SESICdi\_NL*)

The disability insurance for the self-employed (WAZ) is only relevant for persons aged below 65 (*age\_thresh*). All self-employment income as well as income from work other than as an employee (e.g. free-lance income) is taken into account (“waz inc”: *DIsesic\_base*) but there are complications if the person also has “other earnings” from paid employment, including earnings related benefits for which di-contributions are payable (*DIsesic\_empY*).

In general, the contribution = 0.088 (1998: 0.079) (= *rate2*)\*max(0,(min(upper threshold, waz inc)- lower threshold)).

If gross other earnings < € 1,096.64 (*maxbase1*): other earnings not taken into account,  
lower threshold = 1,096.64, upper threshold = 3,176.46 (*maxbase2*)

If gross other earnings > 1,096.64 & < 3,326.10 (1998: 2,970.79) (*empY\_upper\_lt*): no waz-contribution if waz income < gross other earnings;

lower threshold = gross other earnings if  $waz_{inc} > gross\ other\ earnings$  (upper thr remains 3,176.46)

(In 1998: If gross other earnings > 2,970.79: lower threshold = 2,970.79 (upper thr: 3,176.46))

(Amounts in €/month)

The contribution is tax-deductible: it has to be subtracted like other subtractions. It was not relevant for the earnings transfer allowance (abolished in 2001), since this was not received on self-employment income.

## 2.2.4 Employer contributions to disability insurance (*ERSICdi\_NL*)

Employers of employees in the private sector aged below 65 (*age\_thresh*) pay, on average, a total contribution of 7.76% (1998: 7.85%) (*rate2*) on wages with a wage limit of € 3,326.10 (1998: 2,970.79) (*maxbase2*) per month. For public sector employees rules are the same (1998: rather similar).

The income basis for the employer contribution to disability insurance (*DIersic\_base*) is the same as for the employee contribution to unemployment insurance.

## 2.2.5 Employee contributions to health insurance (*EESIChi\_NL*)

Employees in the private sector with earnings below a threshold pay contributions to the statutory health insurance. The same holds for persons with earnings replacing benefits and pensioners. For employees in the public sector there are several health insurance systems which are fairly comparable to the statutory health insurance for the private sector. In contrast to the employee contributions to unemployment insurance these contributions are not income tax deductible.

Employees with earnings (gross, but net of occupational pension contributions and 'spaarloon') below € 2,484.45 (1998: 2,352.09) (*limit*) per month pay a contribution of 1.7% (1998: 1.2%) (*rate*) over earnings up to 2,230.56 (1998: 2,003.55) (*maxbase*) per month. The same contribution is due over earnings replacing social insurance benefits (*ZFWeesic\_Base*).

It should be noted that people with incomes above *limit* generally take out private health insurance. In contrast to the simulated public health insurance contribution *co\_hi\_eesic* discussed in this section, private health insurance contributions are not taken into account in the calculation of disposable income in EUROMOD.

Persons aged 65 or over (*age\_thresh*) may be insured if their total earnings are below € 1,580.67 (1998: 1,495.58) (*oldage\_limit*) per month or if they were insured before reaching the age of 65. They pay 7.95 (1998: 6.8%) (*rate\_statepen*) over the state pension (*statepen*) and 5.95 (1998: 4.8%) (*rate\_prvpen*) over other income from or in relation with work (i.e. supplementary occupational pensions).

Persons younger than 65 receiving an early retirement pension can remain insured if they were insured while at work<sup>4</sup>.

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<sup>4</sup> They pay the employee contribution whilst the employer contribution is usually paid by the pension fund.

In addition, insured persons pay a fixed amount of € 12.25 (1998: 8.17) (24.50 (1998: 16.34) if their spouse has no earnings) per month (*zfwamount*) on average.

### **2.2.6 Employer contributions to health insurance (*ERSIChi\_NL*)**

Employers whose employees aged less than 65 (*age\_thresh*) are insured via the statutory health insurance pay the employer contribution to health insurance. The same holds for the agencies paying earnings replacing benefits. Employer contributions to health insurance are taxable.

The employer contribution rate is 6.25 (1998: 5.6%) (*rate*). It applies to the same earnings (*ZFWersic\_base*) as the employee contribution, with the same limits (*limit*, *maxbase*).

### **2.2.7 Self-employed contributions to health insurance<sup>5</sup>**

As of January 2000, self-employed persons with low taxable income have to insure via the statutory health insurance. Specifically, the statutory health insurance contribution applies in 2001 if the average taxable income in the three years 1996, 1997 and 1998 was below € 19,058.77. If taxable income is highly unstable, the calculation of the average may be done leaving out the lowest income. The contribution is 7.95% of taxable income in boxes 1, 2 and 3 (with an upper limit of 19,058.77). In addition, insured persons pay a fixed amount of € 12.25 per month (24.50 if their spouse has no taxable income).

Any employee and employer contributions to health insurance paid by or on behalf of the self-employed person involved, are deducted from the self-employed contribution.

### **2.2.8 Earnings transfer allowance (*ITeta\_NL*)**

As of 1 January 2001, the earnings transfer allowance has been abolished. The remainder of this section describes the situation in 1998.

The earnings transfer allowance ('*overhevelingstoelag*') was devised to compensate employees for the fact that certain social insurance contributions were transferred from the employer to the employee (as of 1990). It can be viewed as a negative social insurance contribution. It is paid by the employer to the employee.

The e.t.a. amounts to 1.7% (*eta\_rt*) of the e.t.a. basis up to € 3,047.89 (*eta\_max\_base*) per month (i.e. at most € 51.81 per month); it is only paid to persons aged less than 65 (*age\_thresh*).

The e.t.a. basis equals the basis for the income taxation and peoples' insurance contributions as observed by the employer, i.e. without taking into account employee specific deductions. In other words it includes gross wages/benefits minus pension contributions, wage savings, employee contributions to unemployment insurance plus

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<sup>5</sup> This section was not yet included in the 1998 edition of this country report.

employer contributions to health insurance. This amount is reduced by a (preliminary) ‘virtual’ work/benefit deduction, amounting to € 3906 (*benefit\_ded*) in the case of benefits and 12% (*prof\_ded\_rt*) with a minimum of € 9.53 NLG (*prof\_ded\_min*) and a maximum of 117.53 (*prof\_ded\_max*) in the case of earnings (*eta\_workY*). The benefits giving rise to an e.t.a. include most earnings replacing benefits for persons younger than 65, including early retirement pensions, but excluding survivor benefits (*eta\_benY*).

### **2.2.9 Peoples’ insurances (*EESICpi\_NL*)**

The so-called peoples’ insurances or national insurances include the State pension insurance (AOW), the Survivor benefit insurance (ANW) and the General act on special health care costs (AWBZ). All income tax payers also contribute to these insurances and the taxable income (before 2001: net of tax free allowances) (see par. 2.3) also acts as the basis for the calculation of these contributions (*PIeesic\_Base*).

The contribution rates are:

AOW	17.9% (1998: 18.25%)
ANW	1.25% (1998: 1.4%)
AWBZ	10.25% (1998: 9.6%)

Hence, the total contribution amounts to 29.4% (1998: 29.25%) (*pi\_rt*). Persons aged 65 (*pi\_age\_thresh*) or older do not pay AOW contributions, so their contribution rate is 11.5% (1998: 11%) (*pi\_age\_rt*).

The maximum base for the calculation of these contributions is € 27,009.00 (1998: 21,411.17) per year or 2,250.75 (1998: 1,784.26) per month (*pi\_maxbase*). Note that tax credits (as from 2001, section 2.3.3) apply to income tax and peoples’ insurance contributions as a whole.

## 2.3 Income taxation

In general, the tax unit for income taxation is the individual. Income of other members in the household is taken into account in the calculation of the income tax credits (section 2.3.3) (before 2001: tax free allowances). It is also important for the decision who is paying taxes on components of household income such as imputed income from owner-occupied housing, (and before 2001: interest and dividend income), and for the decision who can deduct expenditures such as mortgage interest, gifts etc. In the latter case, there is a difference between the treatment of married couples and other persons living together. In the case of married couples all non-personal income components and deductions are attributed to the individual with the highest personal income. Unmarried persons living together each add/deduct their own share in these components. Registered partnerships are counted as married couples.

As of 1 January 2001, a new tax system was introduced. The main differences with the old system are the introduction of tax credits instead of tax free allowances, and the introduction of the so-called box system. In this system three separate categories of income are taxed separately:

Box 1. Income from work and house (including benefits)

Box 2. Income from considerable interest (income received by shareholders owning more than 5% of the shares in a company) (ignored in Euromod)

Box 3. Income from saving and investment

### 2.3.1 Income components subject to income tax

Box 1.

Included in the income tax base are personal income components such as earnings from labour, (earnings replacing) benefits and pensions. If an employee drives a car provided by the employer, 20% of the catalogue value of the car is to be added (24% if the distance between home and work is more than 30 km). This component of taxable income is not modelled within Euromod, but read directly from the data (variable *nlcarinc*).

Income from abroad is also included in the tax base, but usually to the extent that it had not been taxed abroad.

Alimony received from the ex-spouse (not: alimony paid for the maintenance of children) is taxable as well.

Next to these personal income components, the tax base also includes imputed income from owner occupied housing, and some categories of allowances from life insurances.

Before 2001, the tax base also included interest and dividend income, income from letting or sub-letting one's owned or rented house and other income from immovable property and other property income. If income from property, dividends and interest income was received by children aged below 18, it was also included in the tax base of the parent (in the case of a married couple: the parent with the highest personal income).

Imputed income from owner occupied housing (per year) is calculated as a percentage of the value of the house as determined by the Act on Immovable Objects (WOZ).

The following percentages are used:

0% if the WOZ-value is not higher than € 12,500 (1998: 11,344.51)

0.3% (1998: 0.5%) if the WOZ-value is higher than 12,500 (1998: 11,344.51) but not higher than € 25,000 (1998: 22,689.01)

0.45% (1998: 0.75%) if the WOZ-value is higher than € 25,000 (1998: 22,689.01) but not higher than € 50,000 (1998: 45,378.02)

0.6% (1998: 1%) if the WOZ-value is higher than € 50,000 (1998: 45,378.02) but not higher than € 75,000 (1998: 68,067.03)

0.8% (1998: 1.25%) if the WOZ-value is higher than € 75,000 (1998: 68,067.03).

The maximum amount of imputed income from owner occupied housing is € 7,800 (1998: 7,623.51) NLG. This component of taxable is not modelled within Euromod but read directly from the data (variable *nlimprnt*).

### 2.3.2 Income tax deductions (*ITded\_NL*)

From personal income (earnings, benefits, pensions) the amounts to be paid as occupational pension contributions, tax-exempt savings ('spaarloon'), and employee contributions to unemployment insurance are deducted. However, employer contributions to health insurance are taxable and should be added. Before 2001, the earnings transfer allowance was also part of personal taxable income.

Before 2001, from the resulting amount (if applicable: including income from employer provided car) employees could deduct a fixed percentage as professional deductions: 12% (*prof\_ded\_rt*) with a minimum of € 9.53 (1998) (*prof\_ded\_min*) and a maximum of € 117.53 (1998) (*prof\_ded\_max*) per month. Next to earnings, these percentages were valid for wage replacing benefits in the case of sickness (*workben\_ded\_workY*). For (other) benefits arising from previous earnings and pensions (*workben\_ded\_benY*), a fixed deduction (overall, not per benefit) of € 39.06 (1998) (*bnft\_ded\_amt*) applied. If the tax-payer had income from both current and previous earnings, the maximum of both deductions was applied.

The separate deduction for self-employment income, including profit from own enterprise (*selfempY*) is maintained in the 2001 tax system (Self-employment income did not qualify for the professional deduction). In 2001, the following deduction schedule applies to self-employment income:

	if higher than (€/year)	up to	deduction
<i>lower_lt1</i>	0	11,745.19	<i>ded_amt1</i> 6,084.29
	11,745.19	13,625.20	5,661.36
	13,625.20	15,510.21	5,237.99
	15,510.21	44,425.08	4,675.30
	44,425.08	46,305.09	4,273.25
	46,305.09	48,190.10	3,829.00
	48,190.10	50,065.12	3,385.20
	50,065.12		2,984.06

Mortgage interest payments (*coMORINT*) for (all) owned dwellings are fully tax deductible (from 2001 : in Box 1).

Before 2001, of interest income the first € 453.78 (*tfa\_interestY*) were not taxed (Euromod policy: *polITtfa\_NL*). For married couples, the tax free amount was € 907.56. The interest income of children below 18 was not taxed to the extent that it was lower than € 226.89 per child. The remainder was still untaxed to the extent that, added to the interest income of the parent(s) the amount of € 453.78 (married couples: 907.56) was not exceeded. For dividend income, tax free amounts (*tfa\_dividendY*) and arrangements were the same as those for interest income. Notably, for married couples, interest and dividend income were attributed to the individual with the highest (individual) income (*tfa\_base*, Policies: *ITintYattrib\_NL*, *ITdivYattrib\_NL*).

Alimony paid to the former spouse (not: alimony paid for the maintenance of children) is fully tax deductible.

*Deductions not taken into account in Euromod:*

Several types of life-insurance premiums can be deducted; in most cases the deduction is limited to a total of € 1,035.98 (1998 2,699.99; 5,399.98 for the higher earning spouse in a couple).

Gifts to charity are tax-deductible within certain limits, as are exceptional expenses related to health care, adoption, child birth, death etc. Separate limits determine the tax deduction for child care costs and expenses for studies for a profession. In addition, expenditures for the cost of living of children and other relatives may under specific conditions (a.o. no entitlement to child benefits) be tax deductible.

### **2.3.3 Income tax credits (*ITtfa\_NL*)**

The amount resulting from adding all taxable income components and subtracting all deductions described in the previous section is called taxable income (in Box 1), upon which the tax schedule as described in section 2.3.5 is applied. In addition, (imputed) taxable income from saving and investing (Box 3) is taxed with a constant rate of 30%. However, tax credits are deducted from the full amount of taxes (and peoples' insurance contributions, 2.2.9).

The tax credits may consist of several components:

- general tax credit

All tax payers receive a general tax credit of € 1575.98 per year or 131.33 per month (*amount1*). For persons aged 65 or more, the general tax credit is € 704.27 per year (58.69 per month). In contrast to the former tax free allowances (section 2.3.4) which were partly transferable between spouses, the tax credits are not transferable. However, the general tax credit is also paid to a spouse with a low (or zero) income if his/her spouse pays income tax and peoples' insurance contributions. In that case the tax credit is not higher than the amount of income tax and peoples' insurance contributions paid by the spouse (after deducting his/her own tax credits): total tax/contributions paid by a couple is never negative.



- work credit

Tax credit on income from work (including self-empl. Income): 1.751% (*rate1*) of the first € 7359.86 (*band1*) and 10.751% (*rate2*) of the remainder, with a total maximum of € 919.81 (*up\_lt*) per year (65+: 0.782% of the first € 7389.86 and 4.8% of the remainder with a maximum of € 411.12 per year)

- child credit

Presence of a child aged below 16 gives rise to child credit of € 38.12 (*amount1* – *amount2*) (65+: 16.79) per year for single parent or spouse with highest taxable income if total taxable income of s.p./couple < € 54,508.53 (*band\_start3*) per year

- supplementary child credit

Presence of child aged < 16 gives rise to supplementary tax credit of € 191.95 (65+: 86.22) per year for single parent or spouse with highest taxable income if total taxable income of s.p./couple < € 27,250.86 (*band\_start2*) per year, bringing the total child credit to € 230.06 (*amount1*) (65+: € 103).

- combination credit

If child present < 12 and (earnings from paid employment > € 3,937.90 (*le\_incl\_lt*) per year or self-emp. Inc. > 0) a combination credit of € 137.95 (*amount1*) (65+: 61.71) per year is received (both working spouses can receive combination credit)

- single parent credit

Amount: € 1,261.06 (*amount1*) per year (65+: 563.60)

Conditions:

the tax payer was unmarried or lived separated for more than 6 months in 2001.

the tax payer lived in a household with only his own children (including step-children, foster-children) who were all younger than 27 on 1 January 2001.

the tax payer contributed to an important extent (at least € 358.94 per 3 months) to the cost of living of at least one of these children and/or was entitled to child benefit.

- supplementary single parent credit

Amount:

4.3% (*rate1*) of (taxable) income from work (*lp\_tfa\_Y*) outside the household (including income from employer provided car). The supplementary single parent credit is not higher than € 1,261.06 (*up\_lt*) per year (65+: 563.60).

Conditions:

the tax payer was entitled to the single parent credit.

one of the children was younger than 12 (*ge\_nch\_age1\_max*) on 1 January 2001.

the tax payer had income from work outside the household.

- old age credit

Tax payers aged 65 or over (*age\_thresh*) on 31 12 2001 are entitled to an additional tax credit : € 235.97 (*ded\_low\_inc*) per year if taxable income ('verzamelinkomen') is lower than € 27,704.19 per year (*inc\_threshold*).

-supplementary old age credit

Tax payers entitled to an old age credit and to the state pension for single persons (section 2.1.3) obtain the supplementary old age credit of € 248.22 (*sing\_ded\_low\_inc*) per year next to the old age credit.

Tax credits not taken into account in Euromod

- young disabled credit

Persons receiving the benefit for young disabled persons ‘wajong’ are entitled to the young disabled credit of € 484.18 per year

- temporary increase of the general tax credit

To mitigate the effect of the new tax system for persons with low incomes who did not pay income tax in the old system, the general tax credit is increased. This increase is gradually phased out during the next five years.

- credit for investment in venture capital, and green/ethical investment funds

Some categories of investments which are normally subject to the new capital gains taxation are tax exempt up to certain limits.

### **2.3.4 Pre-2001 Income tax free allowances (*ITtfa\_NL*)<sup>6</sup>**

The amount resulting from adding all taxable income components and subtracting all deductions and tax free amounts described in the section 2.3.2 was called taxable income. However, no taxes (and peoples’ insurance contributions, 2.2.9) were levied on part of taxable income, the so-called tax free allowance.

The tax-free allowance depended on the “tariff group” to which the tax payer belonged.

“Tariff groups”:

1: tax free allowance € 186.05 per year (15.51 permonth, *basic\_tfa\_amt*) if basic tax free allowance was transferred to spouse or housemate (who is classified in tariff group 3).

2: tax free allowance € 186.05 + 3,724.17 = 3,910.22 per year (this was the ‘default’ tariff group): 15.51 (*basic\_tfa\_amt*) + 310.02 (*sing\_tfa\_amt*) per month.

3: tax free allowance € 186.05 + 3,724.17 + 3,724.17 = 7,634.40 per year if spouse or housemate transferred his/her basic allowance of € 3,724.17.

The basic allowance could be transferred to spouse/housemate if the person had a taxable income below € 3,724.17 and the couple was married for more than 6 months during the tax year. In the case of unmarried couples/housemates additional conditions applied (In Euromod, these conditions were not assumed to be fulfilled, only married couples were assumed to be eligible: tax unit *marrcouple*):.

they lived in a common household for more than six months in 1998

they were registered at the same address during that period for more than six months

they were 18 years or older at 31 12 1997

the person with the lowest income was 27 years or older at 31 12 1997 or

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<sup>6</sup> The amounts and dates in this section apply to the fiscal year 1998.

the person with the lowest income was 18 years or older but younger than 27 at 31 12 1997, and did not depend to an important on his parents for more than six months in 1998 (depend to an important extent: parents contributed at least € 25.41 per week in his cost of living)

If the couple was married for less than 6 months the basic allowance of the person earning less than € 3,724.17 could still be transferred if the total period of being married and living together was more than 6 months and if the couple was registered at the same address during that period.

4: tax free allowance € 186.05 + 3,724.17 (basic allowance) + 2,979.52 (single parent allowance) = 6,889.75 per year or € 574.15 per month (*tfa\_LP*)

Conditions:

the tax payer was unmarried or lived separated for more than 6 months in 1998.

the tax payer lived in a household with only his own children (including step-children, foster-children) who were all younger than 27 on 31 12 1998.

the tax payer contributed to an important extent (at least € 25.41 per week) to the cost of living of at least one of these children and/or was entitled to child benefit.

the tax payer did not have income from work outside the household or none of the children was younger than 12 (*lp\_crit\_chage*) on 31 12 1997.

5: tax free allowance € 6,889.75 + supplementary single parent allowance: 12% (*tfa\_LP12*) of (taxable) income from work (*lp\_tfa\_Y*) outside the household (including income from employer provided car). The supplementary single parent allowance was not higher than € 2,979.52 per year or 248.29 per month (*tfa\_LP12\_max*)

Conditions:

the tax payer was unmarried or lived separated for more than 6 months in 1998.

the tax payer lived in a household with only his own children (including step-children, foster-children) who were all younger than 27 on 31 12 1998.

the tax payer contributed to an important extent (at least € 25.41 per week) to the cost of living of at least one of these children and/or was entitled to child benefit.

one of the children was younger than 12 (*lp\_crit\_chage*) on 31 12 1997.

the tax payer had income from work outside the household.

Old age deductions:

Tax payers aged 65 or over (*age\_thresh*) on 31 12 1998 were entitled to an additional tax free allowance: € 226.89 per year or 18.91 per month (*ded\_high\_inc*). The old age deduction was € 891.68 per year or 74.31 per month (*ded\_low\_inc*) if taxable income (*taxableYI*) was lower than € 25,321.39 per year or 2,110.11 per month (*inc\_threshold*).

Tax payers entitled to an old age deduction and to the state pension for single persons (section 2.1.3) obtained the supplementary old age deduction of € 18.91 per month (*sing\_ded\_high\_inc*) next to the old age deduction. The supplementary old age deduction was € 108.94 per month (*sing\_ded\_low\_inc*) if taxable income was below € 2,110.11 per month (*inc\_threshold*).

### **2.3.5 Income tax schedule (*ITschedule\_NL*)**

The income tax schedule, applied to taxable income minus all deductions in Box 1 is as follows:

tax band	tax-rate
1 0 14,869.92 per year, 1,239.16 per month, <i>tax_band1</i>	<i>tax_rate1</i> : 2.95%
2 14,869.92 27,009.00 per year, 2,250.75 per month, <i>tax_band2</i>	<i>tax_rate2</i> : 8.2%
3 27,009.00 46,309.18 per year, 3,859.06 per month, <i>tax_band3</i>	<i>tax_rate3</i> : 42%
<i>nbands</i> : 4 46,309.18	<i>tax_band4</i> <i>tax_rate4</i> : 52%

The income in the first two tax bands (up to € 2,250.75 per month) is also subject to peoples' insurance contributions (see section 2.2.8).

## Box 2

Income from considerable interest is taxed with a flat rate of 25%. In Euromod, information on this income component is not available.

## Box 3

Income from capital is generally taxed in Box 3. For that purpose assets (savings, shares, value of 2<sup>nd</sup> accommodation etc) minus max (0, debts minus € 2,499.88) are calculated on January 1 and December 31 and averaged. (Mortgages on owned (1<sup>st</sup>) accommodation are excluded from debts but mortgage interest is taken into account in Box 1). From this taxable asset base a tax free asset allowance is deducted. The remaining taxable amount (if positive) is assumed to have generated a taxable income of 4%, with a tax rate of 30% (or 1.2% of the taxable amount).

The general tax free asset allowance is € 17,599.87. For minor children (aged less than 18) an additional tax free asset allowance of € 2,349.22 is awarded. Couples may choose which part of their assets is reported by which spouse. They can also transfer the full amount of tax free asset allowance to their spouse. Only one of them is entitled to the asset allowance for minor children.

Persons older than 65 on December 31 are entitled to an additional asset allowance.

The old age allowance is zero if the taxable asset base exceeds € 232,943.99 or if taxable income in Box 1 exceeds € 16,564.79. If income in Box 1 is between € 11,905.83 and € 16,564.79, the old age allowance is 50% of the average taxable asset base minus the general tax free asset allowance and the asset allowance for minor children, but at most € 11,648.08. If income in Box 1 is below € 11,905.83, the maximum old age allowance is € 23,296.17.

In 1998, the income tax schedule, applied to taxable income minus all tax free allowances (*taxableY*) was as follows:

tax band	tax-rate
1 0 21,411.17 per year, 1,784.26 per month, <i>tax_band1</i>	<i>tax_rate1</i> : 7.1%
2 21,411.17 47,090.59 per year, 3,924.21 per month, <i>tax_band2</i>	<i>tax_rate2</i> : 50.0%
<i>nbands</i> : 3 47,090.59	<i>tax_band3</i> <i>tax_rate3</i> : 60.0%

The income in the first tax band (up to € 1,784.26 per month) was also subject to peoples' insurance contributions (see section 2.2.8).

### 3. Data

#### 3.1 General description

The data used are from the 1996 and 2000 waves of the Socio-economic Panel Survey (SEP), collected by Statistics Netherlands. The datafiles used are the public use datasets (PGL196.POR and PGL100.POR) made available through mediation of the Scientific Statistical Agency of the Netherlands Organisation for Scientific Research (WSA/NWO).

SEP, started in 1984, collects information on the social and economic situation of the respondents, including income, assets, labour market status etc. SEP follows about 5000 households containing about 13000 individuals. All household members aged 16 or over fill out a questionnaire. SEP also served as the dutch part of the European Community Household Panel Survey, of which the questionnaire was partly based on the one used by SEP. As from 2003, the survey was discontinued, to be replaced by administrative data collection.

#### 3.2 Sample selection, weighting

The variables from SEP included in the Euromod-database are described in the Data Requirements Document. The data were collected in april 1996, and april 2000, respectively, and the income data mostly pertain to the calendar years 1995 and 1999.

From the original data households with unit missings (persons aged 16 or more who did not fill out a questionnaire) and households with persons with missing income information have been deleted. As a result, the 1996 dataset used (w1) contains 11035 persons in 4568 households, or 85.6% of the persons in 88.2% of the households in the original data. The 2000 dataset (w2) has 10344 persons in 4329 households, or 83.1% of the persons in 86.4% of the households in the original data.

The weights provided by Statistics Netherlands (variable *SWEEGLGN* and *WLGW8400*, respectively) are person weights, aiming to correct for selective non-response and panel attrition.<sup>7</sup> The weighted sample should be representative in the dimensions: size of municipality, age, sex and marital status. For Euromod, household weights have been calculated as the average of the person weights within each household. These household weights have been multiplied by a grossing-up factor (1375 and 1501) to obtain the total number of households on 30 june 1998, and 30 june 2001, respectively. As yet, no reweighting has been applied to take into account that the deletion of households with missing information may have been selective. In fact, the grossed-up numbers of households (6.7 million and 6.9 million, respectively) are correct, but the grossed-up numbers of persons (15.1 million and 15.5 million) are about 350,000 and about 300,000 lower than the actual number of persons living in households in the Netherlands in 1998<sup>8</sup> and 2001<sup>9</sup>, respectively.

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<sup>7</sup> SEP is reported to have a high initial non-response ('currently about 70%', as reported on the web-site of the Scientific Statistical Agency <http://129.125.158.28/Data/CBS/SEP/design.htm>). Panel attrition is about 5% per year.

<sup>8</sup> Statistics Netherlands, 'Annual Household Statistics 1998', *Maandstatistiek bevolking*, 1999, no. 11.

<sup>9</sup> Statistics Netherlands, [statline.cbs.nl](http://statline.cbs.nl).

### 3.3 Variable adjustment

Most of the income variables refer to the calendar years 1995 and 1999. However, the employment status variables refer to the situation in april 1996 and april 2000. To improve consistency with the income variables, the employment status variables have been adjusted in accordance with income components received for 6 months or more in 1995 and 1999. If the adjusted employment status (*coempst*) differs from the original employment status, variables such as branch of industry (*coindust*), size of firm (*cofirmsz*), number of hours worked (*cohours*) have been adjusted as well, if relevant making use of information about previous or last employment.

In table 3.1 the results of this adjustment procedure are summarized. Note that in the actual employment status variable we distinguish several subcategories.

Table 3.1 Cross-tabulation of original and adjusted (dominant) employment status (unweighted)

		Original empl. status		Total
		non-working	working	
Adjusted empl. status non-working	w1	5887	369	6256
	w2	5180	344	5524
working	w1	159	4620	4779
	w2	169	4651	4820
Total	w1	6046	4989	11035
	w2	5349	4995	10344

### 3.4 'Net-to-gross' conversion

The income variables available in SEP are the amounts provided in the so-called annual statement of the employer. These are the amounts to be reported to the tax authorities, which implies that they are net of occupational pension contributions, tax-free savings and employee contributions to unemployment and disability insurance, but include employer contributions to health insurance and earnings transfer allowance. In the procedure applied to obtain gross amounts, it has been assumed that all employees pay the same average rates of unemployment, disability insurance and pension contributions, within the relevant limits, and that all employees with earnings below the public health insurance limit pay public health insurance contributions.

### 3.5 Summary statistics

#### - employment

In table 3.2 we compare summary statistics on employment status/activity in the data years with statistic for the data years and the base years for the simulations from external data sources.

Table 3.2 Employed and unemployed in data year and base years for the simulations

Employment status/activity	Base datasets (weighted)		Independent data source			
(I) % of population aged 15-64 who are:						
	w1	w2	1995	1998	1999	2001
In employment(12+ hpw)	60.4	67.0	57.8	62.1	63.5	65.4
Retired, sick, students or unoccupied	35.1	30.9	37.2	34.6	33.7	32.2
Unemployed (looking for 12+ hpw)	4.6	2.1	5.1	3.3	2.8	2.3
<i>(should add to 100)</i>	All 15 year old are assumed to be students. <i>Unit missings dropped without changing weights</i>		Source: survey of employed and unemployed population (EBB; statline.cbs.nl)			
(II) proportion of employed or unemployed (12+ hpw, 15-64) who are:						
Male	58.1	56.6	61.6	60.4	59.9	59.0
Female	41.9	43.4	38.4	39.6	40.1	41.0
(III) proportion of employees (12+ hpw, 15-64) who are:						
Male	60.5	57.2	62.0	60.3	59.8	59.5
Female	39.5	42.8	38.0	39.7	40.2	41.5
(IV) proportion of self-employed (12+ hpw, 15-64) who are:						
Male	65.8	63.9	69.7	69.3	67.9	68.2
Female	34.2	36.1	30.3	30.7	32.1	31.8

Compared to 1998, w1 slightly underestimates the share of persons aged 15 to 64 who are in employment, whilst the share of inactive and unemployed is overestimated. However, labour force participation in SEP has increased quite fast, so that in 2001, w2 overestimates the share of employed persons. In both waves, the share of employed or unemployed persons who are female appears to be too high, but if we only look at employed persons this only holds for w2. Apparently, w1 mainly overestimates the number of unemployed females, but w2 also overestimates the number of employed females. It should be noted that the definition of being unemployed (and looking for at least 12 hours of work) used for the w1 and w2 results may differ slightly from the one used by Statistics Netherlands.

- **age, household size, household type**

Table 3.3 presents some demographic statistics derived from w1 and w2 and compares them to national statistics. As mentioned earlier, the weights are calibrated so that the number of households in w1 and w2 is equal to the number of households in the Netherlands in 1998 and 2001, respectively. However, the number of persons ends up below the actual population living in private households, mainly as a result of dropping households with persons aged 16 or over for whom no income information was available. Dropping these households with 'unit missings' will also be the main reason why the age distribution differs from the distribution suggested by national statistics. Compared to the 1998 distribution w1 underestimates the share of persons aged 45 to 64 whilst the share of children is too high. In w2, the age group 45-64 is also too small, as is the age group 18-44.

Table 3.3 Comparison of Euromod population according to age, household size and household type with actual population

	w1	w2	NL 1998	NL 2001
total number of persons (weighted)	15122525	15532530	15473587	15782839
age: -17	23.6	23.9	22.2	22.3
18-44	41.4	39.0	41.2	39.9
45-64	22.0	22.8	23.9	24.8
65+	13.1	14.3	12.7	12.9
household size: 1	15.5	15.1	14.2	14.6
2	29.0	30.7	28.1	28.6
3	15.1	14.1	17.3	17.1
4	26.1	27.1	24.4	24.1
5+	14.3	13.0	16.0	15.5
households:				
single –64	23.0	21.5	22.7	23.1
single 65+	12.1	12.5	10.4	10.5
single parent	3.8	4.2	5.6	5.8
couple	30.3	32.2	29.3	29.5
couple, 1 ch	9.8	9.1	11.5	11.2
couple, 2 ch	14.4	14.7	13.7	13.3
couple, 3+ ch	5.9	5.3	6.1	5.9
other	0.8	0.5	0.6	0.7

The household size distribution of w1 and w2 also deviates from the population figures: the share of 1, 2 and 4-person households are too high whilst 3- and 5 or more-person households are underrepresented. In terms of households, the shares of single elderly, couples and couples with two children are too high, whilst single parents, couples with one child and, mainly in w2, single persons younger than 65 and couples with 3 or more children, are underrepresented.



### 3.6 Updating

To update the data to the common base years 1998 and 2001, the following updating factors have been used (w1-1998, w1-2001, w2-1998, w2-2001):

- P\_ind 1.059/1.162/0.975/1.07 *Consumer price index (1.059: june 1998; 1995 =1.00; source Statistisch Bulletin 41 (Statistics Netherlands) 14/10/99) may deviate from earlier figures. June figure chosen because rent is increased on july 1 in NL. 1999: 1.086, June 2001 1.162 (Stat Bull 36, 13/09/01)*
- E\_ind 1.062/1.173/0.971/1.072 *Index of wages (1.062: june 1998; 1995 = 1.00), derived from Statistisch Bulletin 30 (29/7/99) and 04 (29/1/1998): 'cao-lonen per maand inclusief bijzondere beloningen' June 2001: 1.341, 1990=100 (SB 29, 26/07/01), 1998: 1.215 (SB 4, 27/01/00); 1995: 1.143 (29/1/1998) → June 2001: 1.173 (1995=1.00), 1999: 1.251.*
- I\_ind 1.188/1.444/0.92/1.118 *Index of property income (1.188: 1998; 1995 = 1.00), National Accounts of the Netherlands 1998 (Statistics Netherlands): property income of households (excluding income imputed to 'policy holders': profits of pension funds etc) Preliminary 2001: 2000/1995= 1.3842 (National Accounts 2000) \* cpijun2001/2000 (1.043) = 1.444*
- R\_ind 1.078/1.178/0.938/1.0255 *Index of rent (1.078: april 1996 - june 1998); derived from Statistisch Bulletin 41 (Statistics Netherlands) 14/10/99) (RENT information in SEP96: april 1996) June 2001: 1.205 (SB 40, 11/10/01, 1995=100), April 1999:1.141 (SB 41, 14/10/99), April 1996:102.3 (approx.) → June 2001: 1.178 (april 1996=1.00)*
- P\_indh 1.19/1.67/0.865/1.214 *Index of house prices (1.19: 1996 - 1998), median house prices have increased by about 19% between 1996 and 1998<sup>10</sup> (Source: nvm dutch association of real estate agents, www.nvm.nl).2001/1996: 1.67, 2001/1999: 1.214*
- S\_ind 1.057/1.099/0.979/1.0176 *Index of tax-free savings (the (maximum) allowable value of nlsploon increased by 5.7% between 1995 and 1998).1998: 1670, 2001: 1736 → 2001/1995=1.099; 1999: 1706.*
- P\_indc 1.02/1.03/1.01/1.02 *Index of car prices: average car-prices decreased by 2% between 1995 and 1998 (Source Statistics Netherlands, Maandstatistiek van de Prijzen); increased by 3% between 1995 and 2001*
- P\_indi 1.197/1.465/0.941/1.152 *index to be used for private health insurance 1995-1998: (Source Kluwer, sociaal Memo 2, 1998) 2001/1999: 1.152, 2001/1998: 1.224 → 2001/1995: 1.465*
- B\_ind 1.052/1.176/0.973/1.0875 *Index of benefits; the benefits involved (aaw, ubz) can be assumed to follow the (net) minimum wage. In gross terms the index is 1.052 (Source Kluwer, sociaal Memo 2, 1998). 2001/1998 = 1.118 → 2001/1995 = 1.176*

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<sup>10</sup> This increase is not likely to have impact on the value of the owned house taken into account to compute imputed rent (coimprnt) to be added to taxable income. In fact it is more likely that the 1996 price is taken as the basis.

## 4. Validation of Aggregates

In this chapter we compare some basic preliminary results from the Euromod baseline run with national statistics, in order to validate the aggregates produced by Euromod.

### 4.1 Benefits and benefit recipients

Table 4.1 compares total amounts of benefits and benefit recipients for the benefits simulated in Euromod.

Table 4.1 Benefits and benefit recipients  
- comparison of Euromod base line runs with National Statistics

		National statistics		Euromod		difference(%)	
		Source	w1	w2	w1	w2	
Total amounts (x 10 <sup>9</sup> €)							
Child benefits	1998	2.87 (1)	2.88	2.89	+0	+1	
	2001	3.01 (3)	2.94	2.96	-2	-2	
State pension	1998	17.58 (2)	16.36	17.85	-7	+2	
	2001	20.28 (3)	18.36	20.05	-9	-1	
Survivor benefits	1998	1.62 (2)	0.94	0.95	-42	-41	
	2001	1.51 (3)	1.02	1.02	-32	-32	
Social assistance							
General (ABW)	1998	4.53 (1)	2.81	1.79	-38	-60	
	2001	4.27 <sup>1</sup> (3)	3.66 <sup>1</sup>	2.74 <sup>1</sup>	-14	-36	
Elderly or partly disabled unemployed (IOAW)	1998	.26 (1)	0.43	0.59	+65	+126	
	2001	-					
Rent subsidy	1998	1.33 (2)	1.07	0.97	-20	-27	
	2001	1.55 (4)	1.03	0.94	-34	-39	
Numbers of benefit recipients (x 10 <sup>6</sup> )							
Child benefits ( <i>households</i> )	1998	1.82 (2)	1.85	1.90	+2	+4	
	2001	1.86 (3)	1.85	1.90	-1	+2	
State pension ( <i>persons</i> )	1998	2.15 (4)	1.98	2.22	-8	+3	
	2001	2.21 (3)	1.98	2.22	-10	+0	
Survivor benefits ( <i>persons</i> )	1998	0.18 (2)	0.11	0.11	-39	-39	
	2001	0.14 (3)	0.11	0.11	-21	-21	
Social assistance ( <i>households</i> )							
General (ABW)	1998	0.41 (2)	0.45	0.29	+10	-29	
	2001	0.33 (3)	0.45	0.30	+36	-9	
Elderly or partly disabled unemployed (IOAW)	1998	0.02 (2)	0.04	0.06	+100	+195	
	2001	0.02 (3)	0.04	0.06	+100	+195	
Rent subsidy	1998	1.05 (2)	1.16	0.93	+10	-11	
	2001	0.99 (4)	1.03	0.85	+4	-14	

(1) Sociale nota 2000, Tweede Kamer der Staten Generaal 1999-2000, 26802.

(2) Statistical yearbook 2000, Statistics Netherlands, Voorburg

(3) Sociale nota 2003,

(4) Sociale nota 2002, Tweede Kamer 2001-2002, 28001.

<sup>1</sup>Includes IOAW

With respect to *child benefits*, the Euromod results are quite close to the national statistics, both with respect to the total amounts and the numbers of beneficiaries. Obviously, assuming 100% take-up, any differences result from differences between the actual size and age composition of the group of children younger than 18 and those suggested by the data in use.

Using the w1-data, the total amounts and numbers of beneficiaries of the *state pension* are underestimated by about 8%. Part of this underestimation is due to the fact that the SEP data do not include persons living in institutions. About 8% of the population aged above 65 is living in institutions. These persons would still be eligible to the state pension. Using the w2-data, we no longer find an underestimation; given that institutionalized elderly are still not present in the data, we actually overestimate the number of beneficiaries as well as the amounts involved. Again, this is purely a consequence of the fact that size and composition of the (reweighted) data differ from the actual population.

Euromod does clearly less well in the simulation of the total amounts and numbers of *survivor benefits*: both end up about 40% below the actual figures in 1998, while the amounts are 30% below the actual figures in 2001, and the number of beneficiaries is 21% below the actual figures. One cause of this discrepancy may be that the survivor benefit as simulated in Euromod was introduced in 1996. Euromod does not take into account the fact that for survivors whose spouses died before 1 July 1996, more generous entitlement rules apply. Obviously, the number of beneficiaries of the pre-1996 benefit has decreased between 1998 and 2001. Another factor underlying the underestimation of the survivor benefit amounts is that, in the data, the total number of survivors aged below 65 is underestimated, as can be implied from the fact that it is below the actual number of persons receiving survivor benefits (in the data).

With respect to *social assistance benefits*, we find that, using w1, Euromod somewhat overestimates the total number of recipients, whilst it clearly underestimates the amounts of benefits involved. Moreover, as expected (see section 2.1.4), in particular IOAW benefits, as well as number of recipients, are overestimated. Using w2, both the amounts and the numbers of beneficiaries are underestimated.

The fact that, in w1 the total simulated number of recipients of social assistance is too high while total amounts are too low, and in w2 the underestimation of the number of beneficiaries is lower than the underestimation of the amounts, implies that, in particular, the number of recipients of a partial social assistance benefit, next to other sources of income, is overrepresented. In Euromod, we find that about 60% of social assistance recipients has other sources of income, whilst in actual fact this holds for less than 20%<sup>11</sup>. Upon closer inspection, it turns out that the Euromod population of social assistance recipients includes a number of recipients of education grants (who have not been classified as students because they also have income from employment). Still, about half of the other recipients of social assistance also have other sources of income in Euromod. To some extent, this may be due to the fact that the data measure income over a whole year, whilst social assistance is awarded on the basis of income during a month (or, in some cases, even a shorter period). Another possible explanation is that some recipients of social assistance may not report all

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<sup>11</sup> Ministerie van Sociale Zaken en Werkgelegenheid (2000), *Lijnen naar de toekomst. Evaluatie Algemene Bijstandswet 1996-1999*.

their income to the relevant authorities. However, it seems likely that households with no income except social assistance (and possibly, child benefits and rent subsidy) are underrepresented in the data.

The results with respect to rent subsidy are more or less consistent with the previous findings. Using w1, Euromod overestimates the number of beneficiaries, but underestimates the total amount of rent subsidy, whilst using w2 the underestimation of the amounts of rent subsidy exceeds the underestimation of the number of beneficiaries. Again, these results support the conclusion that households with very low incomes are underrepresented in the SEP data: they would be entitled to relatively high amounts of rent subsidy, thus increasing the total amount. The fact that Euromod finds a large number of households entitled to relatively small amounts of rent subsidy may also be consistent with a relatively high level of non-takeup of rent subsidy (estimated to be between about 15 and 25% of all households entitled to rent subsidy)<sup>12</sup>. It should also be noted that Euromod applies the rules for the subsidy year ending on 30 June of the year in question, but in the means test uses income for the whole calendar year. In reality, the taxable income received in the calendar year preceding the subsidy year was used to determine the amounts of rent subsidy<sup>13</sup>.

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<sup>12</sup> Tweede Kamer der Staten Generaal (1999-2000), *Niet-gebruik van de individuele huursubsidie*, vergaderjaar 1999-2000, 25831.

<sup>13</sup> In 2001, Euromod takes into account that the calculation of taxable income changed between 1999 (the calendar year before the subsidy year running from 1 July 2000 to 30 June 2001) and 2001, but not that income before taxes may have changed, e.g., as a result of indexation.

## 4.2 Social insurance contributions and taxes

Table 4.2 compares total amounts of social insurance contributions and income taxation with the amounts produced by the Euromod baseline run.

Table 4.2 Social insurance contributions and income taxation  
- comparison of Euromod base line runs with National Statistics

Total amounts (x 10 <sup>9</sup> €)	National statistics	Source	Euromod		difference	
			w1	w2	w1	% w2
Social insurance contributions						
Unemployment insurance						
employee + employer contributions	1998	6.13 (6)	8.09	8.79	+32	+43
	2001	6.35 (8)	7.54	8.17	+19	+29
Disability insurance						
employer contributions	1998	10.8 (6)	11.26	12.02	+4	+11
	2001	12.3 (8)	12.34	13.18	+0	+7
self-employed contr.	1998	0.51 (2)	0.21	0.25	-59	-51
		0.36 (3)			-42	-42
	2001	0.83 (10)	0.26	0.30	-69	-64
Health insurance						
employee contributions	1998	2.8 (7)	2.62	2.66	-7	-5
employer contributions	1998	4.6 (7)	4.93	5.13	+7	+12
total	2001	11.0 (9)	9.45	9.67	-14	-12
Peoples insurances						
employee contributions	1998	31.06 (2)	31.68	33.80	+2	+9
		31.35 (3)			+1	+8
	2001	32.05 (10)	31.48	33.93	-2	+6
Income taxation						
	1998	21.81 (3)	24.99	26.22	+15	+20
		19.88 (3) <sup>1</sup>			+26	+32
	2001	27.65 (10)	22.12	23.99	-20	-13
		23.34 (10) <sup>1</sup>			-5	+3

(2) Statistical yearbook 2000, Statistics Netherlands, Voorburg

(3) Belastingdienst, Jaarverslag 1999 (Tax service, yearly report)

(6) LISV, Kerncijfers werknemersverzekeringen t/m oktober 2000, <http://www.lisv.nl>

(7) EIM, 'Inventarisatie beslissingen...', <http://www.eim.nl>, estimate based on household survey

(8) IWI, 'De sociale verzekeringen in 2001', [www.iwiweb.nl](http://www.iwiweb.nl)

(9) CVZ, 'Lasten en financiering ziekenfondswet 2001-2003', [www.cvz.nl](http://www.cvz.nl)

(10) Belastingdienst, Jaarverslag 2002, [www.belastingdienst.nl](http://www.belastingdienst.nl) (Tax service, yearly report)

<sup>1</sup>Excluding dividend tax

As can be seen, Euromod overestimates the total amount of *employee and employer contributions to unemployment insurance* (by about 32% using w1 in 1998, by about 29% using w2 in 2001). This is partly due to the fact that in Euromod public sector employees are also assumed to pay these contributions. In fact, the unemployment insurance contributions paid by public sector employees and employers are not included in the statistics referred to in table 4.2. The public sector consists of about 20% of the total number of employees, and if it is assumed that 20% of the total amount of contributions in Euromod can be ascribed to public sector employees, we

are left with an overestimation of about 6% of the total unemployment insurance contribution. The results with respect to *employer contributions to disability insurance* (that do include the public sector) suggest a similar degree of overestimation. One possible source of this overestimation may be that these contributions are levied on daily wage up to a limit, and in Euromod it is implicitly assumed that persons work full-time during the whole year. For persons working part-time or only part of the year, the contributions are overestimated if their daily wage exceeds the contribution limit.

The *self-employed contribution to disability insurance* is clearly underestimated, which is consistent with an underestimation of self-employment income. Notably, the underestimation may largely be due to an underestimation of the number of self-employed persons in the Euromod-data, partly caused by the fact that income information is missing for relatively many self-employed persons in the underlying SEP-data.

The accuracy of the total amounts of *health insurance contributions* is also limited by the fact that most public sector employees are covered by other arrangements. In view of this, the total amounts of employee contributions for 1998, as simulated by Euromod, appear to be underestimations, which may partly be consistent with an overestimation of the number of employees with earnings above the public health insurance limit. For 2001, available figures suggest an underestimation of the total amount of health insurance contributions which is also caused by an underestimation of the contributions paid by the employees or the insured persons. It appears that, in particular, the number of persons aged 65 or older insured via the public health insurance is underestimated. This may be caused by the fact that the number of elderly households with low incomes is underestimated but also by the fact that elderly with incomes above the public health insurance threshold may be insured while Euromod assumes that they are not insured via the public health insurance.

The total amounts of *peoples' insurance contributions* appear to be only slightly overestimated by Euromod. Given that, for 1998, Euromod considerably overestimates the amount of *income taxation* this also points to an overrepresentation of persons with high incomes in the Euromod data, in particular since the amount of income taxation from the national statistics includes € 1.94 billion of dividend tax, which is only partially borne by private households<sup>14</sup>.

However, there are some other reasons why the total amounts of income taxation from the Euromod simulations are too high.

1. Income tax deductions not taken into account in Euromod: private life insurance contributions (within bounds), gifts to charity, exceptional expenses (e.g. health care), child care (see section 2.3.2.). Although the basis for income taxation and peoples' insurance contributions is the same, it can be expected that these deductions mainly affect the higher income brackets, which implies that peoples' insurance contributions can be simulated relatively accurately. Both as a result of the lower marginal tax rates

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<sup>14</sup> Dividend tax is a tax of 25% levied at source on most dividends. In the final assessment of income tax the dividend tax paid on shares owned by households is subtracted. In fact, the total amount of dividend income reported in Euromod is less than €0.7 billion (not all of which may have been subject to dividend tax).

and the fact that deduction possibilities for life insurances have been reduced considerably, the overestimation is less in 2001.

2. Reductions of tax and contribution payments by the employer. A large part of income tax and peoples' insurance contributions is paid through withholding by the employer. There are several arrangements which give employers a discount on the amounts to be paid to the tax authorities. In particular, discounts are awarded for employees with low wages, hiring long term unemployed, and for certain categories of employees in specific sectors (education, child care, shipping, research and development). In 1998, the total amount of reductions is estimated as about € 1.3 billion in 'wage taxation' (= withheld income taxation) and € 0.3 billion in peoples' insurance contributions (2001: € 1.6 billion + € 0.3 billion)<sup>15</sup>. Notably, these reductions do *not* affect the net incomes of the employees.

All in all, it is not quite clear why in 2001 the simulated amounts are so much lower compared to the actual amounts than in 1998. Notably, the actual amounts for 2001 include a negative amount of € 2.6 billion 'inkomstenbelasting' (income tax) which may largely refer to the assessment of tax on income received in the previous year, while the negative amount of income tax published for 2002 is just € 0.1 billion (there are no comparable figures for 1998). So in actual fact, the amount of income taxation levied on incomes received in 2001 may be some €2.4 billion lower than the amount in table 4.2, which brings the level of overestimation by Euromod more in line with the figures for 1998.

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<sup>15</sup> Tweede Kamer der Staten Generaal, 1998-1999, *Miljoenennota 1999*, vergaderjaar 1998-1999, 26200; Tweede Kamer der Staten Generaal, 2001-2002, *Miljoenennota 2002*, vergaderjaar 2001-2002, 28000.

### 4.3 Poverty incidence

Table 4.3 compares the poverty incidence of the Euromod baseline run with the most comparable independent source (poverty threshold: 60% of median equivalent disposable income, using the modified OECD equivalence scale<sup>16</sup>).

Table 4.3 Poverty incidence in Euromod compared with national results

Poverty incidence households	Euromod		IPO'97 <sup>17</sup>
	w1, 1998	w2, 1998	
< 75% of poverty line	3.0	2.6	2.8
< 90% of poverty line	5.3	6.2	4.9
< poverty line	10.9	12.5	8
< 110% of poverty line	18.2	19.3	12.7
< 125% of poverty line	29.0	28.6	21.6
< 200% of poverty line	64.2	63.7	
< 300% of poverty line	89.6	90.8	
persons			
< 75% of poverty line	2.5	2.6	3.1
< 90% of poverty line	5.2	6.5	5.9
< poverty line	10.0	11.7	9.1
< 110% of poverty line	16.1	17.5	13.7
< 125% of poverty line	26.1	26.4	22.2
< 200% of poverty line	66.1	66.0	
< 300% of poverty line	91.0	92.0	
households	w1, 1998	w2, 1998	Eurostat 1998 <sup>18</sup>
< 40% of median	2.4	2.0	4
< 50% of median	4.3	3.8	
< 60% of median	10.9	12.5	12
< 70% of median	22.9	23.9	
households	w1, 2001	w2, 2001	
< 40% of median	2.7	2.1	
< 50% of median	4.7	4.2	
< 60% of median	12.3	13.2	
< 70% of median	24.0	24.0	
persons	Euromod w1, 2001	w2, 2001	Eurostat 2000 <sup>19</sup>

<sup>16</sup> The modified OECD equivalence scale assigns 1 to the first person in the household, 0.3 to children aged below 14 and 0.5 to every other person.

<sup>17</sup> CBS/SCP (1999), *Het meten van armoede (the measurement of poverty)*, Statistics Netherlands / Sociaal en Cultureel Planbureau, Voorburg / Den Haag. Statistics on the basis of the IPO (income panel survey) which uses register data of about 75,000 households.

<sup>18</sup> CBS/SCP (2002), *Armoedebericht 2002*, Statistics Netherlands / Sociaal en Cultureel Planbureau, Voorburg: Source 'Eurostat'.

<sup>19</sup> C. Vrooman et al (2003), *Armoedemonitor 2003*, Sociaal en Cultureel Planbureau / Statistics Netherlands, SCP publicatie 2003/17, Den Haag: Source: 'Eurostat (New Cronos)'.



< 40% of median	2.0	1.9	3
< 50% of median	4.1	4.7	5
< 60% of median	11.0	11.9	10
< 70% of median	21.2	21.7	18

A notable result from this comparison is that in the Euromod baseline runs for 1998, the numbers of households with incomes between 100 and 125% of the poverty line are considerably higher than according to IPO(1997). It should however be noted that the comparability of the results is adversely affected by differences in the definition of disposable income, in particular with respect to the treatment of the owned accommodation. Moreover, households mainly dependent on education grants were not included in the IPO results.

The differences with available statistics derived from Eurostat are smaller. Notably, the Eurostat figures for 1998 suggest a higher percentage of households with very low incomes (below 40% of the median); the lower percentage in Euromod may be a result of deleting households with missing income information for persons aged 16 or over. Unfortunately no comparison for 2001 is available as yet.

#### **4.4 Income distribution**

Table 4.4 presents additional information on the distribution of equivalent disposable income in the Euromod baseline runs: the decile points for 1998 and 2001 using w1 and w2. Both using w1 and w2, the higher decile thresholds show a faster growth than the lower thresholds, suggesting that as a result of system changes between 1998 and 2001, income inequality has increased somewhat. Interestingly, both for 1998 and 2001, the difference between using w1 and w2 is highest in the decile points 3 thru 7: the median shows a bigger difference than the lowest and highest deciles. Using w1 for 1998 and w2 for 2001, the lowest decile has increased with 16.2% whilst the median increased with 21.1%. This is consistent with the increase in the poverty rate (using 60% of the median) found in the previous section.

Table 4.4 Deciles of equivalent income in Euromod

	1998 w1 (a)	2001 w1 (b)	b/a*100
1 <sup>st</sup> decile	683.4	766.8	112.2
2 <sup>nd</sup> decile	792.4	892.2	112.6
3 <sup>rd</sup> decile	893.8	1024.3	114.6
4 <sup>th</sup> decile	1018.4	1155.2	113.4
5 <sup>th</sup> decile	1139.4	1295.8	113.7
6 <sup>th</sup> decile	1272.4	1452.0	114.1
7 <sup>th</sup> decile	1440.3	1643.8	114.1
8 <sup>th</sup> decile	1652.5	1893.2	114.6
9 <sup>th</sup> decile	1989.3	2294.7	115.4
	1998 w2 (c)	2001 w2 (d)	d/c*100
1 <sup>st</sup> decile	707.5	794.0	112.2
2 <sup>nd</sup> decile	831.5	939.2	113.0
3 <sup>rd</sup> decile	956.3	1084.6	113.4
4 <sup>th</sup> decile	1080.7	1222.0	113.1
5 <sup>th</sup> decile	1214.1	1379.6	113.6
6 <sup>th</sup> decile	1360.2	1545.7	113.6
7 <sup>th</sup> decile	1520.7	1736.1	114.2
8 <sup>th</sup> decile	1732.8	1982.0	114.4
9 <sup>th</sup> decile	2063.4	2357.7	114.3
	c/a *100	d/b *100	d/a *100
1 <sup>st</sup> decile	103.5	103.5	116.2
2 <sup>nd</sup> decile	104.9	105.3	118.5
3 <sup>rd</sup> decile	107.0	105.9	121.3
4 <sup>th</sup> decile	106.1	105.8	120.0
5 <sup>th</sup> decile	106.6	106.5	121.1
6 <sup>th</sup> decile	106.9	106.5	121.5
7 <sup>th</sup> decile	105.6	105.6	120.5
8 <sup>th</sup> decile	104.9	104.7	119.9
9 <sup>th</sup> decile	103.7	102.7	118.5

#### 4.5 Conclusion

The validation exercise on the Euromod baseline run for the Netherlands has shown that Euromod is not (yet) perfect for the simulation of the consequences of tax and/or benefit policy measures in the Netherlands. In particular, with respect to some earnings related contributions and benefits, the degree of accuracy of the baseline appears to be fairly poor. On the other hand, for child benefits and state pension benefits the simulations are reasonably accurate.

To some extent, the lack of precision can be ascribed to simplifying assumptions made in Euromod. Obviously, the quality of the underlying data also plays a role here. A better understanding of Euromod's pluses and minuses could possibly be gained by a more detailed comparison of distributional statistics of simulated instruments from the baseline run with external sources. Unfortunately, detailed distributional statistics from external sources are rather hard to obtain.