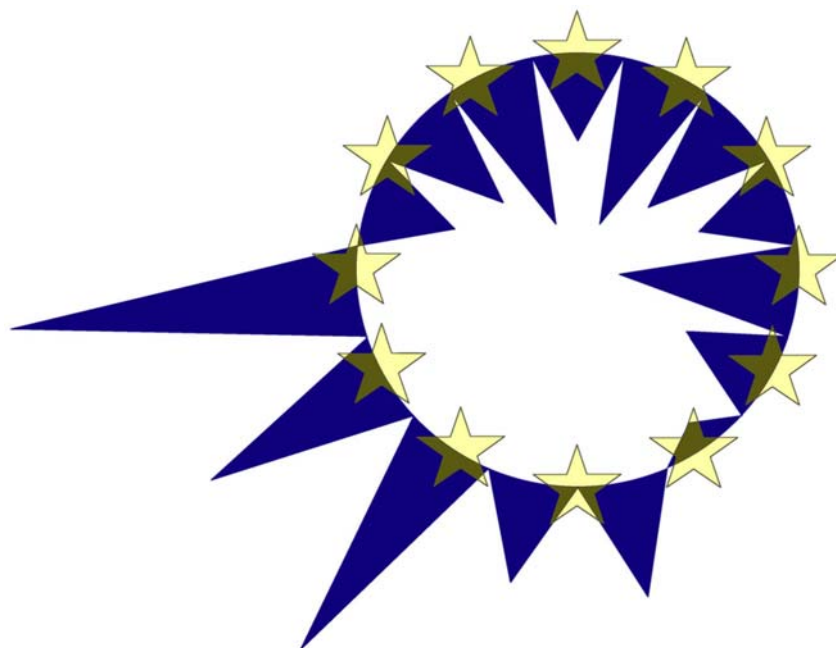


EUROMOD

COUNTRY REPORT



EUROMOD Country Report

DENMARK
(2001 TAX-BENEFIT SYSTEM)

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December 2004

EUROMOD COUNTRY REPORT FOR DENMARK 2001

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1.1 Preface

According to the role of country correspondents in the EUROMOD project, please find below a description of the rules for Danish housing benefit, unemployment benefit, early retirement, family allowance and child benefit, old-age pension, disability pension, parents' payment for day care for children, social assistance and personal taxation for 2001. The schemes described are those simulated in the Danish 'part' model in EUROMOD. The descriptions are not very detailed, but have been adjusted to what is possible to obtain by using ECHP (or similar) data, which are the present basis for the Danish 'part' model. This basis is much less detailed than the register data used for the Danish Law Model, which also gives much more precise results. In the following 1998 parameter values and 'differences' of substance are presented in ().

1.2 Danish housing benefit

Introduction

There are four components of the Danish housing benefit scheme: 1 H.B. for families in their working ages, 2 H.B. for pensioner families, i.e. is a family with at least one member receiving a Danish social pension. 3 loans for families entering a rented accommodation in building associations and 4 special rules for families in dwellings under renovation. Only 1 and 2 will be dealt with here.

1.2.1 H.B. for families in their working ages

Eligibility

All families in their working ages, i.e. no member of the family is a recipient of a social pension, living in a rented accommodation with a kitchen installation of its own. There are exceptions but they have been disregarded here. The family has to live in Denmark.

Entitlements

The actual benefit for a family depends upon:

1. The rent and the size in m² of the dwelling.
2. The size of the family, in particular whether there are children or not.
3. The income of the family.

Rent: It is the 'pure' rent excluding costs for heating, electricity, water and some other items which is the basis. If the heating installation is of a specific type, i.e. electric, gas or distant heating there is an addition to the basis of 21.50 DKK (19.50) per m² (annual basis) if the costs for heating are paid separately. If the family is totally responsible for internal maintenance of the dwelling there is another addition of 42.50 DKK (38.50) per m², if the obligation is only partial the addition is 21.25 DKK (19.25) per m².

The pure rent plus the possible additions constitute the calculated rent. This is calculated in DKK per m² on an annual basis. If one person is living in the dwelling the rent for 65 m² is the maximum which can enter the H.B. calculation. For each additional family member 20 m² (in exceptional cases 30m²) are added to reach the maximum. If there is a disabled person in the family the basic maximum is rent for 75 m² for the first person.

The 'entitlement' rent is calculated on basis of the calculated rent according to the above specified rules on m2. The maximum 'entitlement' rents in 2001 are:

0 children	58,800 DKK (53,300)
1 child	61,740 DKK (55,965)
2 children	64,680 DKK (58,630)
3 children	67,620 DKK (61,295)
4 children or more	70,560 DKK (63,960)
Strongly handicapped family member ¹	88,200 DKK (80,000)

¹ (this part of the scheme was not implemented in the 1998 model version).

If the 'entitlement' rent is below or equal to the maximum it just enters the H.B. calculation, if it is above it is the maximum which enters the calculation.

Family size: As already mentioned, the family size has, through the m2 rule, influence on the 'entitlement' rent. It also has influence on the family income deciding the 'own payment'. Income above 14,800 DKK (13,400) (annual basis) of any child enters the family income, cf. the following section for the income concept used. Children living with their parents and who are less than 23 years of age are counted as children where H.B. is concerned, the usual upper age limit for being a child is 18 years. Finally, families with no children have a special max. limitation on the H.B. they can receive, i.e. 15 % of the 'entitlement' rent, cf. below.

Family income: Basis for calculation of the 'own payment' entering the H.B. calculation is family income. The personal income and any positive net capital income of each family member is added to reach family income, for an exact definition of these concepts cf. the section on personal Taxation The rules for children are applied to family income and the 'entitlement' income is calculated. The 'own payment' is 7 % of 'entitlement' income up to an 'entitlement' income of 113,500 DKK. This threshold is increased by 27,600 DKK for each child after the first until and including number 4. For 'entitlement' income above that threshold the 'own payment' is 26.1 %, the 'own payment' follows a progressive schedule. The minimum 'own payment' is 5,400 DKK (annual basis). 'Own payment' here is the amount entering the H.B. calculation based on 'entitlement' income, it is not the difference between rent and H.B., cf. later.

(In 1998 there was a deduction in the family income of 25,500 DKK per child, in 2001 the progression threshold is increased instead. In 1998 the own payment was 16% of 'entitlement' income up to 144,600 DKK, 26 2/3% for income above that threshold, minimum 'own payment' was 8,100 DKK).

A stylized yield from net wealth is added to income. It is 10% of net wealth between 551,100 DKK and 1,102,300 DKK. For net wealth above that threshold it is 20%. (There was no such addition in 1998).

H.B. calculation: The general rule is that H.B. equals 69 % (75) of the difference between the 'entitlement' rent and the 'own payment'. The calculated H.B. is rounded up or down so it is divisible by 12. The calculated H.B. has the following maximum limits:

No children	15 % (15)
1 to 3 children	30,996 DKK (28,116)
4 children and more	38,745 DKK (35,145)
Strongly handicapped family member ¹	46,494 DKK (42,174)

¹ (This part of the scheme was not implemented in the 1998 model version)

The 15 % is of the 'entitlement' rent. The threshold, i.e. smallest possible H.B., is 2,280 DKK (2,064) (annual basis).

Finally the difference between the 'entitlement' rent and the housing benefit will have to be at least 17.600 DKK, if not H.B. is reduced accordingly. (No such rule in 1998).

Taxation

H.B. is non taxable income, and is not included in the base for other benefits.

1.2.2 H.B. for pensioner families

Eligibility

All families where at least one member is a recipient of social pension, old-age pension or disability pension, living in a rented dwelling, a cooperative dwelling or an owned dwelling. H.B. for families in owned dwellings will not be dealt with here. There are not many recipients of this type, the benefits are loans, and there is not sufficient information in the ECHP (or similar) data to construct the 'entitlement' housing costs. Families in cooperative dwellings will be treated as families in rented dwellings. This is not strictly correct, 40% of the benefit is as grants and 60 % as loans, but for marginal analyses it is acceptable. The family has to live in Denmark.

Entitlements

The benefits again depend upon:

1. The rent and the size in m² of the dwelling.
2. The size of the family.
3. The income of the family.

Rent: The 'entitlement' rent is calculated in exactly the same way as for families in their working ages. There are the same maximum limits to the 'entitlement' rent as already mentioned in relation to '1 H.B. for families in their working ages'. There is no maximum for families living in special dwellings suited for elderly.

Family size: Family size has the same consequences as mentioned in relation to '1 H.B. for families in their working ages', except that there is no 15 % limitation for families without children. Children are not so important for pensioner families at least not recipients of old-age pension.

Family income: Family income is calculated in the same way as explained in section '1 H.B. for families in their working ages'. There is however a deduction in income of 17,300 DKK (26,200) for single pensioners i.e. pensioners living alone. (In 1998 there was also a deduction of 3,100 DKK for other pensioners) The 'own payment' is 7.9 % (10) of the 'entitlement' income for an income up to 121,300 DKK (144,600) and 25 % (20) of the income above that threshold. Children increases this threshold in the same way as in '1 H.B. for families in their working ages'. (In 1998 it was a deduction in family income as mentioned earlier). The minimum 'own payment' is 3,400 DKK.(in 1998 it was 5,100).

H.B. calculation: The general rule is that H.B. equals 84 % (100) of the difference between the 'entitlement' rent plus 1,700 DKK (0) and the 'own payment'. The calculated H.B. is rounded up or down so it is divisible by 12. There are the same maxima as mentioned earlier except that the 1 to 3 children maximum is also valid for families without children. Families living in special dwellings suited for elderly have no maximum. The threshold, i.e. smallest possible benefit, is 2,280 DKK (2,064).

Finally the difference between the 'entitlement' rent and the housing benefit will have to be at least 11% of gross household 'entitlement' income, for singles before the deduction of 17,300 DKK. Minimum for the 11% is 11,000 DKK. If these conditions are not met, H.B. will be reduced accordingly. (No such rule in 1998).

Taxation

H.B. is non taxable income, and is not included in the base for other benefits.

1.3 Danish unemployment benefit

Introduction

Danish unemployment insurance is voluntary and also open for self-employed people. It is possible to be insured on a full time basis, 30 or more hours of work per week, or part time basis, less than 30 hours per week. Self-employed people can only be full time insured. It is also possible to be combined if a person is both an employee and self-employed, and then receive benefits if he or she is unemployed in e.g. one of the categories. There is a fee for full time membership of 2,820 DKK (3,904) (annual basis) for employees, 2/3 of that for part time insured. This fee is also paid when unemployed. Only the rules for employees will be dealt with here.

Eligibility

Unemployment insurance being voluntary there are some criteria which have to be met before you can join, they concern education, work record and age. The minimum age for joining is 18 years, the maximum is 65 years. Work in a relevant industry or an education of a certain length and relevant for the specific insurance fund will have to be documented before joining the insurance scheme. Eligibility for benefits (full time insured) usually requires 1 year of membership and work in 52 weeks (usual full time hours within the industry) within the last 3 years. Only work after joining the insurance scheme counts. For part time insured the requirement is 34 weeks of work within the last 3 years. For full time insured it requires 26 weeks of work within 3 years to regain the rights for benefits if they have expired.

New-comers (newly educated, apprentices) obtain rights to benefits after membership in 1 month if they joined before 2 weeks after finishing a qualifying education of at least 18 months duration. New-comers receive the minimum benefits, cf. the section on Entitlements

Entitlements

The benefits are income related, they are 90 % of the former income (3 months) minus the general social contribution of 8 %, cf. the section on taxation for an exact calculation of the base for unemployment benefits. In 2001 the maximum benefit was 588 DKK (538) per day for 5 days a week for a full time insured. There is no waiting period for the recipient. The maximum benefit is reached at a cap of 184,560 DKK (168,859) (annual gross wage income), a relatively low income by Danish standard, it is approx. 65 % of the income of OECD's APW for Denmark. Most full time insured will also be eligible for the minimum benefit, which is 82 % of the max. benefit, i.e. 482 DKK (441) per day. The requirement is 3 years membership of the insurance scheme and full time employment in that period. Only full time insured are eligible for the minimum benefit. The minimum income where the 90 % rule is applied is 151,274 DKK (138,400) (annual gross wage income), for income below that level the minimum benefit will be received if the eligibility criteria are met. The income span where the benefit is income related is quite narrow. The cap and floor as presented above is gross income including the 8 % general social contribution. New-comers will also receive the minimum benefit regardless of their former income.

Part time insured will also receive 90 % of their former income (same basis as for full time insured) but with a maximum of 392 DKK (359) per day. There is no minimum for part time insured. If a person is usually working full time, but is only offered part time work after a period of unemployment, it is possible to receive benefits to compensate for the missing time up to full time work. The compensation will in this case be based on full time insurance rates.

Young unemployed (not new-comers) in the age bracket 18- 25 years receive unemployment benefits on the usual conditions if they meet the educational conditions for being a member of the insurance scheme. If they do not, but are still members according to the work record criterion, they will after 6 months of unemployment have to take a qualifying education of at least 18 months duration. With a solid work record (but still without a qualifying education) job training in the public sector is offered. Young unemployed having to join education will receive benefits according to the levels of other students in that education, or, if that is not relevant, 50% of max. U.B., full time or part time according to their insurance status. Students' grants are usually much lower than ordinary U.B. Young unemployed in public job training receive benefits according to the U.B. rules.

The benefit period was 4 (5) years in 2001, one (two) year on benefits and then max. 3 years in activation. In activation it is possible you receive more than U.B. in private job training, for participation in the other active labour market measures the benefits are equivalent to U.B.

If you are unemployed and your rights for U.B. expire after you are 55 (50) years old it is possible to continue receiving benefits until the age of 60 years and then go on early retirement if the eligibility criteria for that scheme are met. After the age of 60 years there is only entitlement for maximum 2½ years of benefits. Before 1999 the enhanced benefit period was from the age of 50 years.

Taxation

U.B. is taxable income but the general 8 % social contribution is not paid. Social contributions for supplementary pension (ATP) and the special pension savings scheme are paid (temporary pension savings scheme in 1998), cf. the section on taxation for further details, as well as for unemployment insurance and usually also for early retirement ,separate contribution from 1999, 4,116 DKK for a full time insured in 2001. (In 1998 there was no separate contribution for early retirement, the unemployment insurance contribution of 3,904 DKK covered both). U.B. are included in the base for other benefits.

1.4 Danish early retirement (new and old scheme)

Introduction

The early retirement scheme 'Efterløn' was introduced in 1978. The aim was that worn out workers should have the possibility to retire from the age of 60 years. The official old-age pension age is 67 years in Denmark, it will be lowered to 65 years in 2004, it is, together with Norway, the highest in Europe.

Some 'very early retirement schemes' from unemployment were also introduced when unemployment rates were high in the first half of the 1990'es permitting early retirement from the age of 50 years. These schemes were closed for new entrants from 1996. Most of the participants in the 'very early retirement schemes' will probably continue in the 'ordinary' early retirement scheme. The rules for these 'very early retirement schemes' are not covered in the following.

There were also two part time early retirement schemes, one of them starting in 1995, but abolished again in 1999 when new rules for the early retirement scheme were implemented, cf. the following .

The other is still in operation but it has less than 5,000 participants. Both will be ignored in the following.

New and old scheme

The early retirement scheme was changed quite substantially from July 1st 1999. Persons who reach the age of 60 years after July 1st 1999 will follow the new rules, those who reached the age of 60 years before that date will follow the old rules. Rules for both the new and the old scheme are therefore presented in the following. It is possible to join the old scheme after July 1st 1999, if the early retirement is postponed to after the age of 60 years.

1.4.1 New rules (1998 is irrelevant)

Eligibility

The minimum age is 60 years (and the maximum age is 64 years) for joining the scheme. A membership period of 25 years within the last 30 years of the unemployment insurance scheme and a contribution record for the early retirement scheme of the same length is required for eligibility (there are transition arrangements related to these requirements). The person has to be eligible for U.B. when the early retirement starts (there are exceptions to this rule). A social pension cannot be received at the same time. It is possible to start early retirement from unemployment. If the start is from employment it is not necessary to have an agreement with the employer and there are no replacement conditions in relation to the job. Persons participating in the 'very early retirement scheme' can continue in the 'ordinary' early retirement scheme, when they reach the age of 60 years.

Entitlements

The benefit is 'uniform' for the whole period. If the early retirement is initiated in the age interval 60-61 (both included) or within 2 years after eligibility has been obtained, the benefit is 91 per cent of the individual U.B. , max. 91 per cent of max. unemployment benefits (for full time and part time insured respectively). To obtain full time benefits the requirement is 10 years of full time unemployment insurance (out of the last 15 years), of these 1 year immediately before the start on early retirement.

If the early retirement is postponed by at least 2 years (from the time of eligibility) the benefit is 100 per cent of the individual U.B., limited by the max. benefits for full time and part time insured respectively. In order to obtain the higher benefit by postponing the early retirement a certain work period is required (3,120 hours for full time insured, 2,496 hours for part time insured).

If the early retirement scheme is joined within 2 years after eligibility, the benefit is tapered against certain pension arrangements, whether there is actual payment from these or not (if not the tapering is against a stylized yield). If early retirement is postponed by at least 2 years the tapering is only against pension arrangements from which there are actual payments.

If the early retirement is postponed more than 2 years, a premium of 9,173 DKK for a full time insured (6,115 DKK for a part time insured) can be aggregated for each quarter with full time (part time) work after the first 2 years postponement. The maximum premium (2001 level) is approx. 110,000 DKK for full time insured (73,000 DKK for part time insured). The premium is a refundable tax credit, effective at the age of 65 years when old-age pension starts.

It is possible to work as an early retiree, but work is offset hour by hour in the early retirement benefit. For a full time insured the offset is by 1/37 of the weekly benefit for each hours work. If the work is 30 or more hours for a week no benefits are paid for that week. If work is more than 37 hours for a week the 'surplus' hours are offset against coming weeks early retirement benefits. There are special rules for self-employed.

1.4.2 Old rules

Eligibility

Eligibility for early retirement depends on age and membership of the unemployment insurance scheme. The minimum age for early retirement is 60 years and the U.B. insurance membership requirement was 20 years out of the last 25 years (changed to 25 years out of the last 30 years from July 1999 in the new scheme). Eligibility for unemployment insurance benefits at the time of early retirement is also a requirement. A social pension cannot be received at the same time. There are no requirements about replacements in the job and there are no requirements about agreement with the employer. Unemployed meeting the criteria are also eligible for early retirement. Participants in the now closed (for new entrants) scheme for very early retirement can continue in the ordinary early retirement scheme when they reach the age of 60 years.

Entitlements

For the first 2½ years the early retiree is entitled to his or her unemployment insurance benefits, cf. that section, with the usual maximum of 588 DKK (538) a day or 152,880 DKK (139,880) a year. For part time insured in relation to unemployment insurance (but still 'full time' early retirees) the maximum will be 2/3 of this amount.

After 2½ years in 'step 1' the benefit might be reduced (it will for most participants) to maximum 82 % of the mentioned maxima.

If you postpone the early retirement until the age of 63 you are entitled to 'step 1' benefit levels for the whole period in early retirement, which, according to the 1998 rules, is until you are 67 years old.

There is a right for 200 hours annual work without any reductions in the benefits, but it is also possible to work according to the new rules (flexible early retirement).

Taxation

Early retirement benefits are taxable, but the general 8 % social contribution is not paid, but contributions for the special pension savings scheme (temporary pension savings scheme in 1998) and unemployment insurance are paid (U.B. insurance contribution is 1,428 DKK (1,952 ?) in the old scheme step 1, 360 DKK (976) in step 2 and 2,820 DKK in the new scheme in 2001). ATP contributions are voluntary. Early retirement benefits are included in the base for other benefits.

1.5 Danish family allowance and child benefit

Introduction

The family allowance scheme is general, it covers practically all families with children.

The child benefit scheme is for special groups, e.g. single parents and pensioners with children. It is a supplement to the general scheme for these groups.

1.5.1 Family allowances

Eligibility

All families with children in the age bracket 0-17 years, both ages included, are eligible. The parent (s) having custody of the child has (have) to be fully taxable in Denmark and the child has to live in

Denmark and be non married. The allowance is usually paid to the mother unless she does not have the custody of the child, then it is the father or the family taking care of the child. It can also, in exceptional cases be the child.

Entitlements

The family allowance is a flat rate benefit. It is highest for the youngest child. The rates in 2001 were:

Age of child	Annual basis
0-2 years	12,100 DKK (11,000)
3-6 years	11,000 DKK (10,000)
7-17 years	8,600 DKK (7,800)

Taxation

Family allowance is non taxable income and is not included in the income base for other benefits.

1.5.2 Child benefits

Eligibility

The child or the parent having custody of the child will usually have to be a Danish citizen. The benefits are for special groups mentioned under Entitlements The payment is according to the same rules as mentioned under family allowances.

Entitlements

There are basically 4 types of benefits. One is the ‘ordinary benefit’, which is paid to single parents and families where both parents receive a social pension (primarily disability pension). It is a flat rate benefit paid for each child.

The second is the ‘extra benefit’, a flat rate benefit paid to the single parent family, one benefit per family.

The third is the ‘special benefit’, which is paid to all groups, i.e. single parents (only if child alimony is not paid by the other parent), families where one of the parents receive a social pension (only if the parent receiving a social pension is not being paid child alimony by the other parent), families where both parents receive a social pension ,primarily disability pension,(only if child alimony from the other parent is not being paid), orphans (higher rate), spouse of deceased (where the deceased had the custody of the child) who adopts the child or a single who adopts the child, mothers where the father of the child is unknown. The ‘special’ benefit is a flat rate paid per child. There is a supplement to the ‘special benefit’(higher rate for orphans) for all the above mentioned groups except families where only one of the parents receive a social pension. The ‘special benefit’ and the supplement is means-tested when the parents (or one of them, but then there is no supplement) receive a social pension. The taper is 3% of income above the level where the pension supplement is tapered to zero, cf. below for further details.

The fourth is the ‘multi child benefit’ which is paid to the first 4 groups mentioned above in case of twins etc. It is a flat rate benefit paid per child.

Finally there is a supplement which can be applied for by parents who are students. There is, as a maximum, one supplement for each of the parents and one supplement for each child. The supplement is means tested, cf. for details below.

All child benefits are paid for children in the age bracket 0 - 17 years (both included) except the 'multi child benefit' which is paid in the age bracket 0 - 6 years.

The rates for 2001 on annual basis for the 4 types of child benefits are as follows :

Ordinary benefit (per child)	3,812 DKK (4,644)
Extra benefit (per family)	3,876DKK (3,548)
Special benefit (per child)	9,720 DKK (8,904)
Orphan rate	19,440 DKK (17,820)
Supplement (per child)	1,260 DKK (0)
Orphan rate	2,520DKK (0)
Multi child benefit (per child)	6,272 DKK (5,740)
Supplement for parents who are students	5,000 DKK (0)

The 'special benefit' and the supplement is means-tested for parents where one (no supplement) or both receive a social pension. The 'special benefit' plus the supplement is tapered by 3% of extra income above the threshold where the pension supplement is tapered away. For 'real' singles this is for extra income above 219,500 DKK. For married or cohabiting pensioners it is for an extra income above 176,200 DKK and for a married pensioner couple it is for extra income above 256,300 DKK. For pensions allocated before Sept. 1999 the income of the partner of a cohabiting pensioner is disregarded. The tapering follows the rules for singles. Cf. The section on personal taxation for an exact definition of the income concept used for tapering.

(These rules for tapering were not implemented in 1998).

The supplement for parents who are students is tapered by 10 % of income above 100,000 DKK if the family is a single provider. The income threshold is 150,000 DKK for married couples or cohabitants.

(The students supplement were not implemented in 1998)

Taxation

Child benefits are non taxable income and they are not included in the base for other benefits. Child alimony above the level for the special benefit is taxable for the child.

1.6 Danish old-age pension

Introduction

The Danish old-age pension scheme is a tax financed pay as you go scheme which is residence based, i.e. how much you get in pension depends upon the length of the stay in the country, not your former income or contribution record. Almost all Danes will receive a full pension (unless means tested) because they have stayed in Denmark for 40 years since the age of 15 before they retire at the age of 67 years. This age limit will be lowered to 65 years from 2004. Early retirement from other schemes have no influence on the old-age pension. There is no flexibility in the scheme, you cannot take the pension out earlier and there is no premium for delaying the retirement. You can of course refuse to receive the pension , or not return the application which every 67 year old eligible person receives from the municipality.

Eligibility

The main requirements are Danish citizenship and for a full pension 40 years stay in Denmark since the age of 15 years (else the pension will be on a pro rata basis). There are exemptions and special rules

according to 1408 and other conventions, these will not be covered here. The official retirement age in 2001 is 67 years.

Entitlements

The residence based Danish old-age pension consists of 3 flat rate benefits in 2001. There is a 'basic amount' of 51,144 DKK (46,812) (annual basis) which is received by all pensioners (except when it is tapered to 0), a 'supplement' which is 51,480 DKK (39,576) for 'real' singles and 24,024 DKK (20,568) for married persons, both supplements can be means tested. (The 'special supplement' of 6,828 DKK in 1998 was 0 in 2001). Cohabitants are treated as married persons as far as pension rates are concerned. For tapering pensions for cohabitants the rules for married are applied, but only for pensions allocated after March 1999. For pensions before that date the tapering rules for singles are applied. (that was the 1998 rule). A single who is not living alone, but who is neither married nor cohabiting, is allocated the supplement of a married person. The tapering for this single follows the rules for real singles.

The full pension is then 102,624 DKK (93,216) for a real single in 2001 and 75,168 DKK (67,380) for a married person, a pensioner couple will receive 2 times 75,168 DKK (67,380).

The basic amount is means tested against own income and only income from personal work. If the income from work is more than 217,300 DKK (annual basis) for singles and married persons the basic amount will be tapered by 30 per cent of the income above the threshold. The base is personal income from work, cf. an exact definition in the section on personal Taxation The basic amount is tapered to 0 when the base income reaches 387,700 DKK.

(1998 rules: The basic amount is means tested against own income and only income from personal work. If the income is more than 176,100 DKK (annual basis) for singles (134,900 for married persons) the basic amount will be tapered by 60 % of the income above the threshold. The base is personal income from work, cf. an exact definition in the section on personal Taxation The basic amount is tapered to 0 when the base income reaches 254,100 DKK for a single and 212,900 DKK for a married person.)

The supplement is means tested on basis of own income, and if the person is married or cohabiting, also on basis of income of the spouse or partner, but not from children. If the pensioner is married to a non pensioner there will be a deduction of 10,000 DKK in the income of the spouse or partner before it enters the base for means testing. Income between 135,000 and 170,000 DKK is also disregarded.. New rules from April 2001 states that ½ of the income up to 150,000 DKK is disregarded, but then there is no 10,000 DKK deduction. Basis for the means testing is personal income plus positive net capital income ,disregarding the old-age pension itself, cf. the section on personal taxation for an exact definition. (In 1998 there were the same disregards , 10,000 and income between 135,000 and 170,000, but only for married persons)

The means testing of the supplement starts at 47,900 DKK (43,900) for a single and 96,200 DKK (88,000) for a married person. The taper is 30 per cent for income above the thresholds. For couples where both spouses are old-age pensioners the taper is 15 per cent for each.

For singles the supplement is tapered to 0 when the base income reaches 219,500 DKK (175,800), a little above (in 1998 below) the threshold for tapering of the basic amount, but here the base income is different.. For a married person the supplement is tapered to 0 at a base income of 176,200 DKK (156,500). For a couple, where both are old-age pensioners there are two supplements, which will be tapered to 0 when the base income reaches 256,300 DKK (225,100).

For married persons it is possible to have simultaneous tapering of the basic amount and the supplement, resulting in a very high combined marginal effect, which, however, is reduced by a fall in taxation of the reduced pension. The effective tapers are approx. 50 per cent of the nominal ones.

There is room left for tapering of personal supplements before the tapering of the supplement starts at 47,900 DKK (43,900) for singles and 96,200 DKK (88,000) for married persons. The personal supplements are given according to need. It could be to cover heating costs. The tapering of such supplements start at an base income of 13,800 DKK (11,500) for singles and 27,500 DKK (23,100) for married persons. The taper increases by 1 percentage point for each 341 DKK (300) the base income for a single is above the threshold of 13,800 DKK (11,500). For a married person it is for each 687 DKK (600) the base income is above the 27,500 DKK (23,100) threshold.

Taxation

The old-age pension is taxable income and there are no special deductions or allowances in the tax scheme for old age pensioners. There are no social contributions to be paid from old age pensions.

1.7 Danish disability pension

Introduction

Danish disability pension is related to the old-age pension scheme in the sense that it is residence based and share the basic rates with the old-age pension scheme. Receiving disability pension has no influence on the size of the old-age pension which replaces the disability pension when the recipient becomes 67 years, 65 years from 2004. Danes receiving disability pension will almost always receive a full pension, graduated according to the loss of working capability, because they have stayed long enough in the country. A new scheme will be implemented from 2003.

Eligibility

There are two criteria for Eligibility One is the length of the stay in the country, the other is the loss of working capability. The 'stay' criterion is: In order to receive a full pension the recipient is required to have stayed in the country 4/5 of the 'theoretical' stay, i.e. the time from the 15th year to the start of the pension payment. If the actual stay is shorter than that, the pension is calculated as the share of a full pension determined by the fraction resulting from dividing the length of the actual stay by 4/5 of the 'theoretical' stay as defined above.

The loss of working capability criteria are:

When the working capability, because of health problems, is completely or almost completely lost on a permanent basis, the person is eligible for disability pension at the *highest level* if the person is between 18 and 59 years old, both included. If persons between 60 and 66 years meet the criteria for the highest level disability pension they will receive the middle level pension as first time pensioners. Persons having received the highest level will continue at that level until old-age pension, i.e. 67 years of age in 2001.

When the working capability, because of health problems, is permanently reduced by 2/3 the person is eligible for disability pension at the *middle level* if the person is between 18 and 59 years old (both included). If persons between 60 and 66 years meet the criteria for the middle level pension they will receive the ordinary level pension, cf. below.

Eligibility for pension at the *augmented ordinary level* is obtained in 3 ways:

1. When the working capability, because of a health problem, is permanently reduced by 1/2 and the person is between 18 and 59 years old.
2. When the working capability, due to health and social problems, is permanently reduced by 1/2 and the person is between 18 and 59 years old. A pension according to these criteria can only be received if the gross income of the person is below 101,816 DKK (93,184) (annual basis) if he or

she is single or 152,724 DKK (139,776) for a married couple if the person is married. Both limits are increased by 9,720 DKK (8,904) per child under 18 years living at home.

3. For persons between 50 and 59 years with a permanent need for financial support (social reasons). The income limitations are the same as mentioned under 2.

If social criteria are also used an assessment will be made every 5th year if the person was below 50 years of age when first receiving the pension in order to see if the criteria are still met.

Eligibility for pension at the *ordinary level* is obtained in 3 ways:

1. When the working capability, because of health problems, is permanently reduced by $\frac{1}{2}$ or $\frac{2}{3}$ and the person is between 60 and 66 years of age (the ' $\frac{2}{3}$ ' criterion is for the middle level pension but not for 60-66 year old persons, cf. above).
2. When the working capability, because of health and social problems, is permanently reduced by $\frac{1}{2}$ and the person is between 60 and 66 years of age. The earlier income limitations are also valid in this case.
3. When permanent financial support (social reasons) is needed for persons between 60 and 66 years old. The income limitations are also valid here.

If a person is eligible for pension at the highest or at the middle level (health reasons) but is still capable of earning a substantial income, he or she will be eligible for a special benefit, cf. later.

There are two supplements (not unlike the British 'Disability Living Allowance) which can be received if special care (not able to be alone) or special help at unusual times is needed.

It should be emphasized that all attempts on rehabilitation and return to the labour market should be exhausted before a pension is granted.

Entitlements

The pensions consist of a series of flat rates which are listed below, 2001 level, annual basis:

	Single	Married	Taxable	Tapered
1. Basic amount	51,144 (46,812)	51,144 (46,812)	yes (-)	yes (-)
2. Supplement	51,480 (39,576)	24,024 (20,568)	yes (-)	yes (-)
3. Invalidity amount	24,876 (22,776)	24,876 (22,776)	no (-)	no (-)
4. Incapacity amount	34,344 (31,428)	34,344 (31,428)	yes (-)	no (-)
5. Augmentation	13,008 (11,892)	13,008 (11,892)	no (-)	no (-)

The special supplement of 6,828 DKK for singles in 1998 was 0 in 2001.

Cohabitants are treated as married persons as far as pension rates are concerned. For tapering the rules for singles are applied, as far as the basic amount is concerned.

Pension at the highest level: 1-4, in total 161,844 DKK (147,420) for a single and 134,388 DKK (121,584) for a married (cohabiting) person. If both spouses receive 3 it will be 21,192 DKK (19,392) for each, if both receive 4 it will be 24,840 DKK (22,740) for each.

Pension at the middle level: 1-3, in total 127,500 DKK (115,992) for a single and 100,044 DKK (90,156) for a married (cohabiting) person. If both spouses receive 3 it will be 21,192 DKK (19,392) for each.

Pension at the augmented ordinary level: 1-2 + 5, in total 115,632 DKK (105,108) for a single and 88,176 DKK (79,272) for a married (cohabiting) person.

Pension at the ordinary level: 1-2, in total 102,624 DKK (93,216) for a single and 75,168 DKK (67,380) for a married (cohabiting) person.

The person who is eligible for pension at the highest level or at the middle level but has a substantial earned income will receive a special benefit of 25,032 DKK (22,896) (annual basis) which is neither taxable nor tapered. If both spouses in a couple receive this benefit it will be 20,328 DKK (18,600) for each.

The two supplements mentioned in the section on eligibility are 25,992 DKK (23,784) (annual basis) for special help and 51,864 DKK (47,466) for special care. Neither are taxable nor tapered. Recipients of these benefits can usually keep them, also when they become old-age pensioners.

Tapering of the basic amount is different from the rules for old-age pension. The basic amount is tapered by 60 per cent against personal income (disregarding the social pension) above 217,300 DKK (176,100) for singles and 147,400 DKK (134,900) for married persons (cohabitants are treated as singles) , cf. the section on personal taxation for an exact definition. The basic amount is tapered to zero at an extra income of 302,500 DKK (254,100) for the single and 232,600 DKK (212,900) for the married person.

The supplement is tapered against own income and possible income from the spouse. The income concept is personal income plus positive net capital income, cf. the section on personal taxation for an exact definition. The tapers and the thresholds are the same as mentioned for old-age pension also for tapering of the personal supplements for e.g. heating.

Taxation

The taxation of components of the disability pension is marked in the table on the preceding page . Some items are taxable and some are not. There are no special allowances for disability pensioners in the tax scheme. There are no social contributions to be paid from disability pension.

1.8 Danish day care for children, parents' payments

Introduction

Public day care for children is wide spread in Denmark, one of the reasons being high labour market participation among women with children. The Danish municipalities are in charge of public day care. There are basically three types of day care: nurseries for infants (0 - 2 years), kindergarten for children from 2 years to school age and family day care (primarily for infants) , which is run by private persons in their homes under supervision from the municipality.

Eligibility

Public day care for children is open for all families with children, but in some cases a shorter or longer waiting period has to be accepted. The parents will have to pay for day care. The norm payment is 30 per cent of the costs of the institution (calculated in a specified way) or the average cost of institutions of the same kind in the municipality. The norm payment can be subsidized by the municipality to a lower percentage than 30. If there is a guaranty for quick access, the norm payment can be increased to max. 32 per cent (not an option in 1998). There is considerable variation across the municipalities as far as costs and subsidies for norm payments are concerned. The actual rates for the children reflects this variation. The average rate for nurseries was 2,505 DKK/month/child in 2001

(2,256), for kindergarten it was 1,417 DKK/month/child in 2001 (1,254) and for family day care it was 1,969 DKK/month/child in 2001 (1,728). There is a rebate for siblings attending day care in the municipality. The highest rate is always paid in full, but only 50 per cent of the other rates are paid. It is possible for the municipality to increase the rebate to above 50 per cent.

Entitlements

Handicapped children may pay half rate, and if they are in part time care there is no charge at all.

Families with income below a certain level do not pay for day care for their children, they receive a subsidy equal to the rate. This subsidy is gradually tapered to 0 with increasing income and from a certain income level the full rate is paid.

The income concept used is family income, it is personal income plus positive net capital income, cf. the section on personal taxation for an exact definition. The following percentages of the rate (s) are paid at different income levels in 2001.

Annual income Payment in pct. of full rate

Up to 113,500 DKK (103,000 DKK)	0
113,501 - 116,012 DKK (103,001 - 104,139 DKK)	5
116,013 - 352,100 DKK (104,140 - 211,200 DKK)	increase by 1 for every 2,512 DKK (1,139)
352,101 DKK (211,201 DKK) and above	100

The income thresholds are increased by 7,000 DKK for each child, after the first, living at home.

From 1999 the upper boundary is increased substantially, to 328,701, also implying a significant increase in the step augmenting the pay percentage by 1 point, in 1998 the step was 1,139 DKK.

Taxation

The subsidy is not taxable income and has no influence on other benefits.

1.9 Danish social assistance

Introduction

This is a very comprehensive and very complex set of rules, why the following only covers the more general aspects and primarily social assistance as a compensation for lost income. Social assistance is also the scheme for rehabilitation, an aspect not covered here, and day care for children, already covered. Social assistance is for Danish citizens and all with a legal residence permit in 2001. From 2002 a special scheme with lower rates was introduced for persons who have stayed in the country for less than 7 years, primarily refugees and immigrants.

Social assistance is, as in most other countries, a last resort benefit. It is not a guaranteed minimum income. If a person by work is earning an income which is lower than the social assistance level there is no 'topping-up'. There might, however, be in couples where one spouse has a low earned income while the other is unemployed, cf. later. A person receiving low unemployment or sickness insurance benefits might have access to the housing cost support component of the social assistance scheme, but there usually has to be a social event to be eligible for social assistance. A social event can be unemployment, illness or divorce.

Eligibility

It requires, as mentioned, usually a social event to become eligible for social assistance, three have already been mentioned. Further more, the event should be such that the person cannot support himself and his family financially and there should be no other public benefits available, e.g. a social pension. It should be remembered that unemployment insurance is voluntary in Denmark. This has the implication that non-insured unemployed will receive social assistance in the first place and not just as an exit benefit from unemployment insurance. It is also an eligibility criterion to be available for the labour market, there are some exemptions e.g. based on health reasons. The availability for the labour market implies that activation measures are mandatory and reasonable job offers have to be accepted.

The scheme also contains support for housing costs if the person have 'high' housing costs or has to provide for 'many' children, cf. the section on Entitlements

The eligibility criteria are relatively straight forward for individuals, also spouses where both meet the criteria, e.g. both are unemployed. In the case where one of the spouses, usually the wife, has never worked and has no intention to do so, and the other spouse is eligible for social assistance, he will get a supplement but the wife will not get social assistance herself, cf. the section on Entitlements There are also cases where a person can get S.A. without a social event for that person. Consider e.g. a married couple where one of the spouses has a high earned income and the other a low one. If the spouse with the high income becomes unemployed and is eligible for S.A., both spouses will receive 'individual' S.A., which then will be tapered against the low income of the working spouse. If that income is lower than the 'individual' S.A. both spouses will receive S.A., one will receive the full rate and the other a 'topping-up' of earned income to S.A. individual rate level.

If one of the spouses is receiving a social benefit, with no work related requirements attached, he or she will not be eligible for S.A. If the benefit is 'work related', e.g. unemployment insurance benefits, the spouse receiving this will be eligible for S.A. in the same sense as the working spouse in the couple where the other is unemployed and eligible for S.A. The unemployment insurance benefit is then tapering the S.A. of the couple.

Entitlements

A person eligible for social assistance who is 25 years or more and not a provider in relation to children will receive 7,711 DKK/month (6,998) as an 'individual' benefit. If he or she is a provider in relation to children, the rate is 10,245 DKK/month (9,317). These rates are 60 % and 80 % (except for some rounding) respectively of the max. unemployment benefit. For young people with their own home the rate is 4,969 DKK/month (4,489), they are in the age bracket 18-25 years, and if they live with their parents it is 2,398 DKK/month (2,195). There are several other rates for special groups of the population, they will not be covered here.

Spouses meeting the criteria will both receive the social assistance, so a couple will receive 2 times the the rates if they both meet the criteria. If one of the spouses has never worked and has no intention to do so, she (the 'usual' case) will not receive any social assistance, but the husband will receive a supplement of 2,398 DKK/month (2,195), the same rate as for young persons living with their parents.

The general rule is that social assistance is tapered DKK for DKK against own income and income of the spouse (but not income of the children). There are several modifications to this rule. If the spouse (not eligible for social assistance) receives a non work related social benefit it is only the amount of that benefit which is above the appropriate social assistance rate, 7,711 DKK/month (6,998) or 10,245 DKK/month (9,317), which is used to taper the social assistance of the other spouse. This has the same effect as in the case where the spouse has a wage or a work related benefit, he or she then receives S.A. but the wage or the benefit is basis for tapering the S.A. of both spouses, in effect only the amount above the 'individual' rate will taper the S.A. of the other spouse.

Income (from work) equivalent to 11.20 DKK/hour (10.24) for a maximum of 160 hours per month is disregarded in the base for tapering of social assistance. The invalidity amount from the disability pension is disregarded as well as the support and care supplement from that scheme. There are also a few other items which will be disregarded, the most important is the compensation for loss of working capability due to industrial injuries.

If the spouse has earned income the social assistance is calculated for both spouses and this sum is then tapered against the income of the working spouse with the mentioned disregards.

The social assistance scheme contains allowances for several purposes, the most important is for housing costs, it will be the only one covered here. If recipients of social assistance (and in a few cases unemployment benefits and sickness benefits if they are sufficiently low) have large housing costs and/or many children they are, as already mentioned, eligible for housing allowances according to the social assistance scheme. The allowance depends on net housing costs, own payment, other income and some further limitations.

For people living in rented accommodations the net housing cost consists of the rent minus housing benefits received according to the ordinary housing benefit scheme plus expenditures for heating, water, gas, electricity and other current expenditures related to the dwelling. Revenue from renting out is subtracted on an after tax basis.

For owners it is the local tax on the value of the home (in 1998 tax value of the imputed rent) plus installment payments, interest and other costs related to mortgages and other loans related to the home minus the tax value of such tax deductible costs which constitute the component of the net housing costs equivalent to the rent for people living in rented accommodations. The tax value of the deduction cannot be larger than making the 'personal' social assistance tax free. If the tax value of the deductions are very high only part of it is deducted from the cost and in this way the net housing costs are reduced by less than they would otherwise have been.

Cooperative housing is quite popular in Denmark. Here it is the 'fee' plus costs related to loans for the dwelling minus the tax value of deductions which constitute the equivalent to the rent for people living in rented accommodations.

The net housing costs is one of the main components of the scheme, own payment is another.

Own payment for non providers in relation to children is 2,050 DKK/month (1,900). If it is a couple the combined own payment is 4,100 DKK/month (3,800).

For providers in relation to children the own payment is 2,900 DKK/month (2,650) per person. This is reduced by 550 DKK/month (500) per person for each child after the first living at home.

The housing allowance is now calculated as the difference between the net housing costs and the own payment. If the actual net income (income after tax) is larger than the net income resulting from the relevant 'personal' social assistance, the housing allowance is reduced by the difference.

For families with one adult the procedure for calculating the housing allowance is straight forward. For couples with wage income or work related benefits (U.B. or sickness benefits) or social assistance (both are eligible for S.A. even if only one has experienced a social event) the housing allowance is calculated on basis of the total housing costs and the own payment rules for a couple. If one spouse has a non work related benefit (social pension or early retirement benefit) and only the other spouse is eligible for S.A. and for housing allowance, then the housing allowance is calculated on basis of 50% of the housing costs and the own payment is calculated on basis of the rules for the eligible spouse.

There are also further limitations. The total net income (including net income from 'personal' social assistance) plus the housing allowance cannot be larger than 90 per cent of the former net income

(income for the month before the event). If only one of the spouses in a couple is eligible it is his or her former income which decides the 90% limit.

Non providers in relation to children are exempted from the 90 per cent rule if their net income plus housing allowance is not larger than the 'personal' social assistance (after tax) received by providers in relation to children. This rule is also applicable for persons with no former income. They can get S.A. including housing allowance up to the provider rate after taxes.

If the social assistance, net 'personal' and housing allowance together with other net income is larger than the net income received from maximum unemployment benefits, the social assistance will, after 3 (6) months, be reduced so that net income plus housing allowance is equivalent to net income from maximum unemployment benefits. For two eligible spouses in a couple this limit is 2 times the max. U.B. after taxes, if only one spouse is eligible max. U.B. after taxes is the limit.

Taxation

'Personal' social assistance is taxable income, the housing allowance is non taxable income.

1.10 Danish personal taxation

Introduction

The Danish tax scheme for personal taxation is, as for most countries, a comprehensive and complicated set of rules. Here it is only possible to give the most important rules, the 'main street' rules so to speak. Earned income, whether it is from employment or self employment will be treated in the same way. This is not completely out of line with reality, because a personal income is calculated from business income and taxed accordingly. There is a special set of rules where self employed have the possibility to defer part of the taxation, this has been ignored in the first place.

There are 3 layers, one is for the state, one is for the county and one is for the municipality. It is, however, usual to look at the 3 layers together, they constitute 'one' tax scheme even if there is considerable variation in the tax rates at the local level. For the purposes here the rates considered will be average for the country. Only rules for Danish residents will be considered.

The rules presented here are for 2001, which is the third year of a quite substantial tax reform starting in 1999. The main purpose is to lower the tax value of negative capital income. This is done by taking deductions for negative capital income away from the bases for state taxation, it is now only included in the base for local Taxation The reform will be fully implemented in 2002.

Eligibility

This is not the usual term used when taxation is considered, but if taxes are interpreted as negative benefits or transfers from the population to the Government, it is not wrong to do so. It is, however, more usual to talk about taxable persons, which, as already mentioned, are Danish residents, the definition of which will not be considered here. All observations in the data are assumed to be Danish residents. The tax unit is the individual, but spouses can to some extent transfer unused allowances between each other, and capital income from both is in some cases taxed only with one of the spouses, the calculated tax is afterwards allocated back to each spouse cf. the section on Entitlements

Entitlements

It is neither usual to talk about entitlements in this connection, obligations is more appropriate, but that is not so important. Income subject to tax is the base for the Taxation The main components of the tax base are described below.

1.10.1 Tax base

Personal income. There are several income concepts used in the Danish tax scheme for personal Taxation One of them is personal income. It consists of wages, business income (from self employment), pensions and most benefits (cf. the section on taxation for each of these). Pension contributions are deductible, as is the general social contribution, cf. the section on social contributions. The pension contributions can be recorded in the income return or can be of the employer administered type, which never shows up on the income return (they are then also deducted from, or never included in, the personal income).

Capital income. Income from interest, yield from business (special defer arrangement for self employed), profits from sale of shares which have been owned for less than 3 years. Interest expenditures are deducted. For many individuals the capital income is negative, this is e.g. the case for most owners of their own home. Imputed rent from owned dwellings is no longer a component of capital income (it was in 1998). Owned homes are now taxed separately by a local tax.

General allowances. These include costs for transportation, membership fees for unions and unemployment insurance as well as the early retirement scheme (early retirement not in 1998), alimony for children or former spouse.

Taxable income. This concept is calculated as personal income plus capital income (which might be negative) minus general allowances.

Income from shares. Yield from shares and profits from sale of shares which have been owned for more than 3 years.

1.10.2 State tax

There are three levels of the state tax: bottom, middle and top tax.

Bottom tax. The base for this tax is personal income plus positive net capital income minus general allowances (in 1998 it was taxable income). The tax rate is 6.25 per cent (8.00) in 2001 of the base minus a deduction of 33,400 DKK (31,400), 24,800 DKK (22,500) for young people and children below 18 years of age. Unused deduction can be transferred between spouses.

Middle tax. The base for this tax is personal income plus positive net capital income (in 1998 it was just net capital income, which could be negative) . The tax rate is 6 per cent in 2001 of the mentioned base minus a deduction of 177,900 DKK (139,000). Unused deduction can be transferred between spouses.

Top tax. The base for this tax is personal income plus positive net capital income plus contributions for certain pension schemes (not in 1998), deducted in the personal income. The tax rate is 15 per cent of this base minus a deduction of 276,900 DKK (251,200). Unused deduction cannot be transferred between spouses. Spouses in married couples have their capital income added together into a combined amount. If the combined amount is positive, the top tax is calculated with the spouse who has the largest personal income (the deduction of 2 x 21,400 DKK from 1998 is 0 in 2001). The tax calculated in this way is then allocated in proportion to the net capital income of each spouse

It is important to note that negative capital income does not enter the base in any of the state tax brackets.

1.10.3 Local tax

County, municipality and church tax are all calculated according to the same base, i.e. taxable income. The tax rates vary across municipalities and counties. The average tax rate in 2001 was 33.2 per cent (32.4) including average church tax of 0.7 per cent (for those who are members of the Danish state church). This rate is used on the taxable income minus a deduction of 33,400 DKK (31,400). Unused deduction can be transferred between spouses. The deduction is the same as for the state bottom tax.

1.10.4 Tax on income from shares

The base is taxed with a rate of 28 per cent (25) for amounts up to 38,500 DKK (35,000) and with a rate of 43 per cent (40) above that. Unused progression-threshold can be transferred to the spouse.

1.10.5 Taxation ceiling

The percentages mentioned here (not including church tax and tax on income from shares) add up to 59.75 (60.7). No part of the income can however be taxed with a rate higher than 59 per cent (58) in 2001. The state top tax rate is reduced with the difference between the actual rate, here 59.75 (60.7) and 59 (58), i.e. 0.75 percentage points (2.70).

1.10.6 Special rules

Negative income. If the taxable income is negative the tax value based on local taxation, calculated without considering the standard deductions and based on local tax rates, of the negative taxable income is deducted from the bottom, middle and top tax and the tax on income from shares above the progression threshold. If there is still tax value left it is transformed back to income (negative) by reversing the procedure used to calculate the tax value. The 'remaining' income is deducted (nominal value) from the taxable income of the spouse, and if there is still some left, then (and now with the tax value as already mentioned) from the progressive taxes of the spouse. If there after this is still a deficit the described procedure can be repeated for the next 5 years.

Personal income. If the personal income (for a single) is negative, deductions are made in (if any) the positive capital income before calculation of bottom, middle and top tax. If the person is married the negative income is deducted in the personal income of the spouse before calculation of bottom, middle and top tax and then in the combined positive net capital income of the spouses. A deficit can be carried forward for 5 years.

Income from shares. If this income is negative (due to losses from sales of shares) the tax value of the negative income is calculated as if it was positive. The negative tax value is then reducing the other calculated taxes of the person, and if there is still negative tax value left it reduces the calculated taxes of the spouse. It is possible to carry forward the deficit for 5 years.

Net wealth. From 1997 there is no taxation of net wealth.

1.11 Social contributions

Two of the social contributions, i.e. the general 8 per cent contribution and the contribution for special pension savings are direct components of the tax scheme.

1.11.0 General 8 per cent social contribution

Basis for this contribution is gross wages and taxable fringe benefits. For self employed it is the part of the business income categorized as personal income which constitutes the basis. There are in principle no deductions. Employer administered pension contributions are also levied with this contribution. Employees own ATP contribution, which is recorded in the income return, is, however deductible, because it is taxed together with the share from the employer in the ATP foundation. For practical purposes this can be seen as part of the tax scheme and not as a social contribution. It is not levied on transfer payments, the rates for these have instead been reduced accordingly. The social contribution is deductible in personal income.

1.11.1 Contribution for special pension savings

This is 1 per cent of the same base as the general social contribution and is also levied on taxable transfer payments excluding pensions. The scheme is the successor for a temporary scheme from 1998, which with some changes became permanent in 1999. The social contribution is deductible in personal income.

1.11.2 Contribution for supplementary pension scheme (ATP)

This contribution is paid only by employees and only according to hours worked, not income earned. The own contribution in 2001 was 894 DKK on an annual basis (1/3 of the total contribution) for full time work (27 or more hours per week), for a working week between 18 and 27 hours the rate was 2/3 of 894 DKK and for a working week between 9 and 18 hours it was 1/3 of 894 DKK. For a shorter working week than 9 hours no contribution is paid. Recipients of unemployment benefits and sickness benefits paid 2 times the rate for the corresponding employed employee. Social assistance recipients paid the usual rate but only after 6 months as a recipient of social assistance. This contribution is deductible in personal income.

1.11.3 Contribution for unemployment insurance and early retirement

These schemes are voluntary in Denmark, but if you opt for membership of the early retirement scheme you also have to be a member of the unemployment insurance scheme. The contribution for a full time unemployment insurance was 2,820 DKK (3,904) and for early retirement 4,116 DKK (0) in 2001, 2/3 of these for part time insurance. This contribution is deductible in taxable income.

1.12 Bases for tapering of benefits, up-dated to 2001 rules

Housing benefits

Basis for tapering of this benefit is family income. For each family member it is:

Personal income plus positive net capital income plus income from shares (in 1998 income from shares above 35,000 DKK ?).

If there is a married couple the calculation is made in the same way as for the state top tax except for the addition of certain pension contributions, but the deductions for personal income (and in 1998 for positive net capital income) are not applied. Negative income is transferred to the spouse and carried forward in the same way as for the state top tax. For children only income above 14,800 DKK (13,400) (annual basis) counts. The progression threshold is increased by 27,600 DKK for each child after the first until and including number 4. (From the family income calculated in this way there was a

deduction of 25,500 DKK for each child in the household according to the 1998 rules). For single pensioners (living alone) there is a deduction of 17,300 DKK (26,200 and for other pensioners (cohabiting or married) there was a deduction of 3,100 DKK for each pensioner in the household in 1998).

Unemployment benefits

Here it is not tapering but base for calculation of the benefit which is concerned. This base is income from work in the last 3 months minus the general 8 per cent social contribution. The compensation is 90 per cent of this base with a maximum of 588 DKK (538) per day for 5 days a week.

Child benefits

Basis for tapering of the 'special benefit' and its supplement for recipients of social pensions is exactly the same as for tapering the pension supplement, cf. the following section 4. It is only extra income after the pension supplement is tapered to 0 which has an effect on the 'special benefit' and its supplement. (These rules were not implemented in 1998). Base for tapering of students' supplement is assumed to be personal income plus positive net capital income plus income from shares. For couples the positive net capital income is calculated as for the top tax.(no such rules in 1998).

Old-age pension

Basic amount: This component is tapered on basis of own income only. The basis is income from work minus the general 8+1 per cent social contributions. For practical purposes this is in most cases equivalent to the personal income as it is calculated for taxation, but without the deductions for paid pension contributions.

Pension supplement: This component is tapered on basis of own income and for married pensioners also on basis of income from the spouse. For single pensioners the basis is:

Personal income plus positive net capital income plus income from shares (in 1998 income from shares above 35,000 DKK ?).

The concepts are identical to those from the top state tax, except for the addition of certain pension contributions, in the personal taxation scheme, cf. this section, with an important exception: Taxable social pensions should be subtracted from personal income, but not income from ATP. The deductions in the tax scheme are not applied in the base for tapering of the pension supplement.

The basis for married pensioners is calculated as the sum of the bases for each of the spouses (as described above). Deficits (negative income) is transferred between the spouses and carried forward as described in the section on personal taxation. If one of the spouses not is a pensioner there is a deduction of ½ of income up to 150,000 DKK (10,000 DKK in the base for that spouse, and if the remaining base exceeds 135,000 DKK, income between 135,000 DKK and 170,000 DKK was disregarded according to the 1998 rules).

Disability pension

Basic amount: This component is tapered on basis of own income only. Basis is:

Personal income plus positive net capital income plus income from shares (in 1998 income from shares above 35,000 DKK ?).

This is again identical to the basis for the state top tax (except for deductions and addition of certain pension contributions) with the important exception that taxable social pensions and income from ATP should be subtracted. In the state top tax positive net capital income is calculated for the spouses together and the tax is allocated in proportion to the share of each spouse. Here it is a little different. If the net capital income is positive for each of the spouses, each spouse keeps his or her positive net

capital income. If it is negative for one and positive for the other, the sum is allocated to the spouse with the positive net capital income, and this component is 0 for the spouse with negative capital income. These deviations from the state top tax procedure, because the basis for tapering the basic amount is own income only.

Pension supplement. This component is identical to the supplement for old-age pension (and the only one of the supplements in the disability pension scheme which is tapered). The base for tapering the pension supplement is exactly the same as for the pension supplement in the old-age pension scheme.

Parents' payment for daycare for children

Tapering of the subsidy is based on this income concept:

Personal income plus positive net capital income plus income from shares (in 1998 income from shares above 35,000 DKK.?).

It is the sum of the parents' income which is used. If the parents are married the net capital income is calculated and allocated just as for the state top tax. The deductions for personal income (and in 1998 positive net capital income) are not applied. The rules for transfer of negative income between spouses are valid and negative income can be carried forward according to the rules for the state top tax.

Social assistance

Base for tapering of social assistance (the 'personal' component) is personal income as it is calculated in the tax scheme. Only token net wealth is allowed, also by a spouse, when social assistance is received, so capital income is disregarded. There is a deduction of 11.20 DKK (10.24) per worked hour for a max. of 160 hours per month in this tapering base. As far as tapering of the housing allowance is concerned it is the actual after tax income above the after tax income from the 'personal' component of social assistance which is the base.

2 Data

2.1 General description of the Danish data

The Danish data is based on the European Community Household Panel Survey (ECHP) data (UDB version) made available by Eurostat. The data is collected by The Danish National Institute of Social Research. ECHP collects information on the social and economic situation of the respondents, including income, assets, labour market status etc.

In the original data persons aged 15 or less were not interviewed. In the EUROMOD model these children are imported in the simulations of child related benefits. Therefore we had to include these children in the EUROMOD data. As a result the EUROMOD data contains 7044 persons in 3215 households, compared to 5503 persons in 3223 households in the original data – we had to delete eight households because of too many missing variables.

To weight the EUROMOD data the weights that Eurostat have provided have been used. The weights applied to the personal data have been scaled to deal with the fact that the EUROMOD data includes more individuals than the original data.

2.2 Variable adjustment

To produce the data for the EUROMOD model a lot of imputations have been made. In the following we will go through the overall idea behind the main part of the imputations.

Variables at a personal level

Labour-market: All labour-market information has been imputed so they reflect the year of 1994 and not the time of the interview (early 1995). Missing values have been imputed randomly so the overall distribution remained constant.

Education status: For children aged 15 or less the education status has been imputed using their age.

Activity status during the year of 1994: For all persons six activity status variables have been created. Number of months in 1994 being: 1)employed 2)self-employed 3)in education 4)unemployed 5)pensioner 6)other economically inactive. For each person the sum of these six variables is per definition 12. The information from these variables is used when simulating unemployment benefits for people being partially unemployed during 1994 and to determine the dominant activity status during the year 1994.

Unemployment insurance membership and membership payment: have been computed using information from the original questionnaire data. This variable is important because the payment is tax-deductible.

Union membership and membership payment: Was imputed using the assumption that a person who is member of an unemployment insurance scheme is also a member of a union. The payment was imputed using the average payment in the industry where the person is occupied. This variable is important because the payment is tax-deductible.

Disability degree: To simulate the disability pension the person's degree of disability is needed. A person can be 50, 67 or 100 percent disabled. The imputation into these three categories was done using the received amount, the person's sex and age and national statistics.

ATP-pension income: The ATP-pension income was imputed using information from the original questionnaire data.

Maternity income: Maternity income was imputed using information from the original questionnaire data.

Early retirement income: The early retirement income was imputed using the criteria that the person received pension income, but was aged below 67 years and higher than 49 years.

The Financial capital wealth: Has been imputed using the financial income in 1994 and an interest rate of 7 percent (Financial capital wealth = Financial income in 1994/0,07). This imputation is quite crude and the variable should be used carefully.

Variables a the household level

Interest payment on mortgage loans: The variable was imputed using the assumption that 2/3 of the total gross mortgage payment is interests. This variable is important because the interest payments are tax-deductible. This imputation is again very crude.

The size of the accommodation: The size of the accommodation was imputed using the number of rooms in the dwelling using the following table:

Number of rooms	Size in square meters
1	35
2	50
3	75
4	100
5	125
6	150
7	175
8	200
9	225
10+	250
Missing	100

This variable is important when simulating housing benefits.

2.3 Net to gross conversion

The income and benefit variables available in the ECHP (UDB version) are after tax, social contributions and other deductions (mortgage interest rates, union fees etc). In the original Danish questionnaires people are asked to provide both gross and net income amounts. The gross amounts needed to run the model have been imputed using the information in the original questionnaire data. The benefit amounts have not been imputed to gross amounts because this information is not available in the original questionnaire data. In running the model this is not a serious problem, since we simulate all major benefit schemes.

2.4 Updating factors

To update the data from 1994 to the year 2001, the following factors have been used:

default uprating factor	1.1525
employment income, male manual	1.2165
employment income, female manual	1.2165
employment income, non-manual public sector	1.2123
employment income, non-manual private sector	1.2942
lump sum income	1.2942
self-employment income	1.2942
unemployment insurance payments	1.9527
investment income	1
supplementary pension	1.1525
property income	1.1689
rent	1.1689
housing benefit	1.1689
mortgage interest	1.0108
maintenance payments received	1.3438
family allowance plus child benefit	1.3438
unemployment benefits	1.1525
maternity payments	1.1525
sickness benefit	1.1525
student payments	1.1525
social assistance	1.1525
state pension	1.1525
survivor pension	1.1525
disability pension	1.1525

3 Validation

	Euromod 2001	Law Model Database 2000	Difference
% of population with HDI < 60% of the median	10	10	0
% of population with HDI < 40% of the median	2	2	0
% of population with HDI < 50% of the median	4	4	0
% of population with HDI < 70% of the median	18	19	-1
% of women with HDI < 60% of the median	10	12	-2
% of men with HDI < 60% of the median	9	9	0
% of persons aged 0-15 with HDI < 60% of the median	6	7	-1
% of persons aged 16-24 with HDI < 60% of the median	19	21	-2
% of persons aged 25-49 with HDI < 60% of the median	6	7	-1
% of persons aged 50-64 with HDI < 60% of the median	6	5	1
% of persons aged 65+ with HDI < 60% of the median	24	24	0
Relative median at-risk-of-poverty gap	11	13	-2
Gini coefficient	23	22	1
Quintile share ratio	2.3	3	-0.7

HDI: household disposable income