

# Denmark

## Denmark: Pension system in 2016

There is a public basic scheme. A means-tested supplementary pension benefit is paid to the financially most disadvantaged pensioners. There is also a mandatory occupation pension scheme based on lump-sum contributions (ATP). In addition, compulsory occupational pension schemes negotiated as part of collective agreements or similar cover about 90% of the employed work force.

### Key indicators: Denmark

		Denmark	OECD
Average worker earnings (AW)	DKK	412 555	258 783
	USD	58 383	36 622
Public pension spending	% of GDP	8.0	8.2
Life expectancy	at birth	80.9	80.9
	at age 65	19.4	19.7
Population over age 65	% of working- age population	33.0	27.9

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## Qualifying conditions

The normal pension age is currently 65 years but will be increased gradually to 67 years in the period 2019-22 and to 68 in 2030. After this increases are directly linked to increases in life expectancy. A full public old-age pension requires 40 years of residence. Shorter periods qualify for a pro-rated benefit.

Pension rights with ATP and with occupational pension schemes are accrued on a what-you-pay-is-what-you-get basis. The longer the working career, the higher the employment rate, the longer contribution record and the higher the contribution level, the greater the pension benefits.

## Benefit calculation

### Basic

The full basic pension amount is DKK 6 160 per month or DKK 73 920 per year, equivalent to around 19% of average earnings. There is an individual earnings test which means that the basic pension will be reduced if earned income exceeds DKK 316 200 (approximately 3/4 of average earnings). The benefit is reduced at a rate of 30% against earned income above this level.

### Targeted

The full pension supplement is DKK 6 551 per month or DKK 78 612 per year for single pensioners and DKK 38 676 per year for married or cohabiting pensioners. The actual amounts are tested against all sources of personal income (including ATP and occupational pensions) apart from social pensions. The pension supplement is reduced by 30.9% of personal income exceeding DKK 69 800 for single pensioners. For pensioners cohabiting with a spouse/partner, who also receives a social pension, the pension supplement is reduced by 16% of their total personal income exceeding DKK 140 000. If the spouse/partner does not receive a social pension the pension supplement is reduced by 32% of the couples total personal income exceeding DKK 140 000.

Public old-age pensioners may also receive a supplementary pension benefit of DKK 16 900. The supplementary pension benefit is taxable and paid once a year. The benefit is means-tested and targeted to the poorest pensioners without significant liquid assets (the liquid assets may not exceed DKK 84 300).

The public old-age pension (the basic and pension supplement amounts plus the supplementary pension amount) is adjusted annually in line with average earnings. The adjustment is based on an index of wage increases during the two preceding years. If nominal earnings growth exceeds 2%, a maximum of 0.3% of the excess increase is allocated to a social spending reserve. Thus, indexation of pensions and other social benefits is based upon wage increases less any allocation to the reserve.

Income from work up to DKK 60 000 annually is not taken into consideration when calculating (income-testing) the pension supplement and the supplementary pension benefit.

### ***ATP - statutory savings based supplementary pension***

ATP (the Danish Labour Market Supplementary Pension) is a statutory, fully funded, collective insurance based, defined-contribution scheme. ATP provides a lifelong pension from the normal pension age and a survivors' lump sum benefit for dependents in the case of the early death of an individual member. ATP covers all wage earners and almost all recipients of social security benefits. ATP membership is voluntary for the self-employed. ATP covers almost the entire population and comes close to absolute universality.

Technically, the old age pension of ATP is a guaranteed deferred annuity. The contribution is a fixed amount – as opposed to a percentage of income – varied only against the number of hours worked. A full-time employee will pay DKK 3 408 per year in 2017. Contributions are split, with two-thirds paid by the employer and one-third by the worker. The contribution schedule (the sum of employer and employee contribution) against hours worked is shown in the table below (for monthly paid workers). In order to compensate recipients of unemployment insurance benefits, sickness insurance benefits and maternity/paternity/parental benefits, for the loss of occupational pension contributions suffered during their absence from the labour market, double contributions are paid into the ATP pension scheme:

Monthly hours	<39	39-77	78-116	>116
Contribution, DKK/month as from 2009	0	94.65	189.34	284

The contribution is adjusted if and when the social partners decide to do so as part of collective agreements. Over the past 20 years the contribution has been increased in steps more or less in line with average earnings.

Pension rights with ATP are accrued on a what-you-pay-is-what-you-get basis. In principle each generation finance their own rights and ATP is devoid of intergenerational transfers. Pension rights are guaranteed nominal life-long rights paid from the statutory age of retirement. 80% of the contribution paid is used to purchase new individual pension rights with ATP based on a discount rate matching the long term interest hedgeable in the market place at the time of inception. Hence, the discount rate applied to new accruals will vary from year to year. The remaining 20% of the contribution is transferred to ATP's free reserves serving as an investment buffer and financing source for indexations and unexpected longevity increases.

The ATP scheme increases pensions in payment and pension rights alike if its' financial condition allows. This is done in the form of bonus allowances. Increases are guaranteed in line with earned rights.

The modelling assumes full indexation to price inflation.

### ***Occupational pensions***

The occupational pension schemes are fully funded defined-contribution schemes agreed between the social partners through collective agreements. Some 90% of the employed work force is covered by such schemes and over time some 85-90% of the population will accrue rights – greater or smaller – with such schemes. The coverage ratio has increased from some 35% in the mid-1980s to the current level of around 90% due to the formation of new schemes covering blue collar workers. All public sector workers are enrolled in a collectively agreed fully funded defined contribution scheme, whereas around 75% of private sector workers are enrolled. Self-employed workers are not covered by such schemes. Contribution rates are set by the collective agreement and will be similar for all workers under the agreement. Contribution rates range between 12% and 18% – generally low rates apply to low income and low education groups, while higher rates apply to higher income and higher education groups. Due to the flat rate nature of the

basic pension and due to the fact that high education workers tend to enter the labour market later than low education workers do, a higher contribution rate is needed in order to obtain a reasonable replacement rate.

Since 2009, the percentage for the majority of Danish low income workers was raised to 12%. The contribution rate used for the modelling is 12%.

Typically, occupational pension schemes will cover a variety of social risks and provide a range of benefits – disability, survivors’ benefits, old-age benefits and critical illness benefits. While old-age benefits are fully funded insurance benefits, other benefits are insurance benefits financed from the current contribution. Typically schemes will spend 20-25% of the current contribution on other social risk coverage.

Occupational pension schemes are DC based insurance schemes. Pension rights are accrued on a what-you-pay-is-what-you-get basis. In principle each generation finance its’ own rights and schemes are devoid of any intra- or intergenerational transfers other than those attributed to the insurance coverage.

Benefits are usually withdrawn as a life-long annuity. Schemes may allow some choice for members to design their pay-out phase e.g. in order to front load the benefit payments. Some schemes offer the option of allocating some of the contribution into a lump sum savings policy.

The maximum allowed assumed interest rate when issuing guarantees is 1.5% for recent contributions or new schemes. However, the schemes operate on a ‘with-profit’ basis, with pension increases depending on the return on assets and mortality experience of the fund. Since 2000, the annuity calculation must use unisex mortality tables and since 2010 insurers must comply with a mortality table benchmark issued by the FSA taking account of future longevity increases.

There are no vesting or portability issues related to Danish occupational pensions.

### **Variant careers**

Spells of unemployment, maternities, periods with part time employment and other elements of variant careers will affect the accrual of private pensions and therefore the aggregate pension. However, the composition of the overall pension system moderates such effects quite significantly. Firstly, the public pension fraction is substantial for most workers meaning that variant career effects will only affect part of the overall pension. Secondly, the partial income test of the basic pension will further moderate adverse effects.

Other steps have been taken in order to address adverse pension effects stemming from variant labour careers.

### ***Late retirement***

It is possible to defer the public old age pension for up to ten years. The increment for deferring the pension for a year is the ratio of the period of deferral to average life expectancy at the time the pension is drawn. For example, if population projections show life expectancy for a 68 year old to be 17.1 years, the increment for deferring for a year from age 67 would be  $1 / 17.1 = 5.8\%$ .

### ***Childcare***

For periods on maternity/paternity/parental benefits, double the amount of contributions is paid for ATP. The beneficiary will pay one-third of the contribution, with two-thirds being paid by the government/municipality. The government expense is covered by contributions paid by private employers. Maternity/paternity/parental benefits can be paid for up to 52 weeks in total. The four weeks prior to the birth and the first 14 weeks after the birth are reserved for the mother. The father is entitled to two weeks of leave during the first 14 weeks after the birth (paternity leave). The last 32 weeks can be divided or shared between the father and the mother (parental leave). Those out of the labour market caring for

children beyond the maternity period typically switch to another scheme which also carries an ATP contribution. It is common for young parents to resume work when the leave period ends unless the child is, for example, ill or disabled in which cases there will normally be possibilities for drawing on some sort of public benefit with contribution to ATP. There are no credits or contributions for occupational pension schemes for periods out of paid work caring for children.

### ***Unemployment***

During unemployment, the unemployment insurance (or municipality if not insured) take over the payment obligation of the employer, and ATP contributions are paid at the double rate when receiving benefit from the unemployment insurance. The government or private employers and unemployment insurance funds pays two-thirds of the ATP contribution.

When unemployment insurance is exhausted and the individual is on unemployment/social assistance the ATP contribution decreases to the normal rate. The government pays two-thirds of the ATP contribution. There are no credits or contributions for occupational pension schemes for periods of unemployment.

There is also a voluntary early retirement programme linked with unemployment insurance, which pays benefits between ages 62 (gradually increasing to age 64 in 2023 and further to age 65 in 2028) and until the normal pension age. To qualify, individuals must have been members of the unemployment insurance fund for at least 30 years and have paid voluntary early-retirement contributions during this period. They must also satisfy the conditions for entitlement to unemployment benefits in the event of unemployment at the time of transition to the voluntary early-retirement scheme. The benefit amount corresponds to the rate of unemployment benefits, subject to a limit of 91% of the maximum rate of unemployment benefit, equivalent to DKK 16 747 per month for full-time workers and DKK 11 165 for part-time workers in 2017. It is not possible to combine receipt of voluntary early-retirement benefits with the social pension.

People who defer the take up of voluntary early-retirement benefits until three years before normal pension age, and are still working, receive a higher rate of voluntary early-retirement benefit equivalent to the maximum rate of unemployment benefit (or DKK 18 403 per month for full-time workers and DKK 12 269 for part time workers in 2017). For three years' full-time work when an individual qualifies for voluntary early-retirement, a one-off tax-free lump-sum is paid up to a maximum of 72% of the yearly amount of maximum unemployment benefit.

## **Personal income taxes and social security contributions**

### ***Tax treatment of pension contributions and pension savings***

Denmark operates a so-called ETT tax regime as regards private pensions. Generally contributions are exempt from income tax, returns to investment are subject to a return tax and benefits are subject to income tax. The return tax is 15.3%.

Recent reforms have changed the tax regime for lump sum savings policies by applying a TTE regime for such policies. The annual contribution payable to such schemes is capped at DKK 28 100. Also recent reforms have capped the annual contribution payable into fixed term annuity contracts schemes at DKK 50 900.

### ***Taxation of pensioners***

There are no special tax allowances or credits for pensioners. Pensioners can receive a means tested tax credit for the property value tax.

***Taxation of pension income***

Periodic pension payments are subject to personal income tax. There are no special reliefs for pension income.

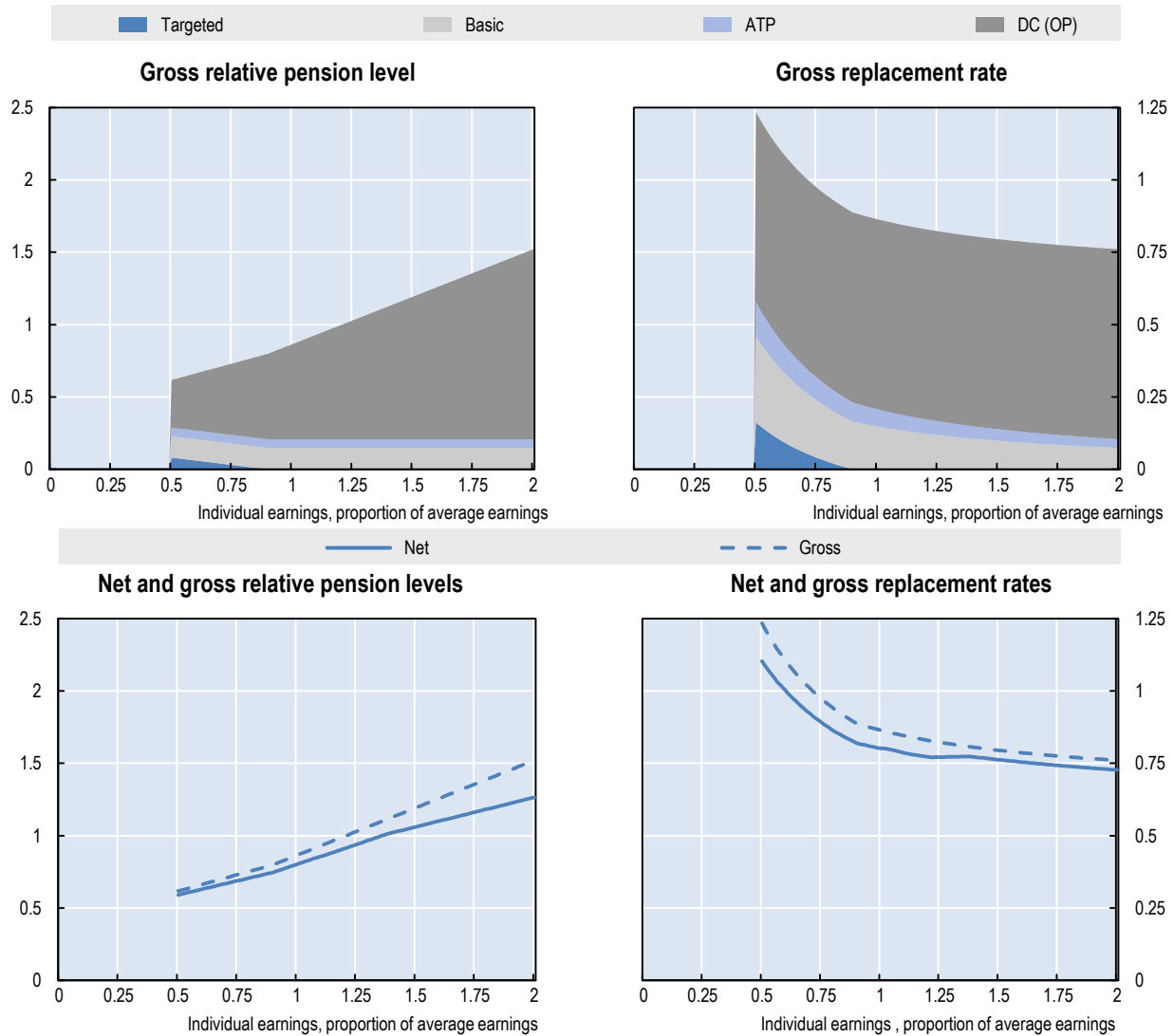
The ATP, occupational pensions and other private pension savings are subject to an ETT tax regime.

The payment under a funded pension scheme is subject to a flat tax at 40% on lump-sum withdrawals. Since 1984, the return on assets in pension schemes has been subject to a special tax. From 1984 to mid-1998, returns on bonds were taxed at a variable rate. The rate depended on the interest rate and inflation (i.e., real-interest tax). The rate ranged between 40% and 50% for most of the period. From mid-1998, the return on equities was taxed at 5%. In 2000, the tax was changed to a fixed rate of 26% on bond returns and 5% on equities. Since 2001, all returns from the pension savings are taxed, currently at a rate of 15.3%.

***Social security contributions paid by pensioners***

Pensioners do not pay social security contributions.

## Pension modelling results: Denmark in 2070 retirement at age 74



Men Women (where different)	Individual earnings, multiple of average					
	0.5	0.75	1	1.5	2	3
Gross relative pension level (% average gross earnings)	61.7	73.1	86.4	119.2	152.1	217.7
Net relative pension level (% net average earnings)	59.1	68.8	80.2	106.1	126.5	167.3
Gross replacement rate (% individual gross earnings)	123.4	97.4	86.4	79.5	76.0	72.6
Net replacement rate (% individual net earnings)	110.3	89.2	80.2	76.2	72.7	68.7
Gross pension wealth (multiple of individual gross earnings)	17.3	13.5	11.9	10.9	10.4	9.9
Net pension wealth (multiple of individual net earnings)	15.5	12.4	11.1	10.5	10.0	9.4
	16.7	13.4	11.9	11.3	10.8	10.1

Assumptions: Real rate of return 3%, real earnings growth 1.25%, inflation 2%, and real discount rate 2%. All systems are modelled and indexed according to what is legislated. Transitional rules apply where relevant. DC conversion rate equal 90%. Labour market entry occurs at age 20 in 2016. Tax system latest available: 2015.

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