

NET PENSION REPLACEMENT RATES: MANDATORY AND VOLUNTARY SCHEMES

Key results

The OECD average for net replacement rates of an average earner from public and mandatory private schemes is 63%. When voluntary private pensions are added, the average net replacement rate is 69%. When voluntary private pensions are taken into account, for the eight OECD countries where voluntary private pensions are widespread the average net replacement rate for these eight countries is 74% compared with 62% in gross terms.

The personal tax system plays an important role in old-age support. Pensioners often do not pay social security contributions and, as personal income taxes are progressive and pension entitlements are usually lower than earnings before retirement, the average tax rate on pension income is typically less than the tax rate on earned income. In addition, most income tax systems give preferential treatment either to pension incomes or to pensioners, by giving additional allowances or credits to older people. Therefore, net replacement rates are usually higher than gross replacement rates.

For the 15 OECD countries where the calculations cover only public pensions, the net replacement rate for an average earner is 73% on average. For the 12 OECD countries with public and mandatory private provision, the average net replacement rate is 61%. In the eight countries where voluntary pensions are modelled the average net replacement rate reaches 74%.

For all 35 OECD countries, the average total – including public, mandatory private and voluntary private pensions – net replacement rate is 69%, against 59% in gross terms. Net replacement rates are thus on average over ten percentage points higher than the corresponding gross replacement rate figures.

For the other major economies, although there is a wide variation between country and across earnings level, there is a smaller difference between gross and net replacement rates as pensions are not normally liable for any taxation.

Mandatory private pensions

Twelve countries have mandatory private pensions, including a subset of three countries – Denmark, the Netherlands and Sweden – having private pensions that ensure near-universal coverage and so are described as “quasi-mandatory”.

In Iceland, the Netherlands and Switzerland, private pensions are defined benefit while in the other countries they are defined contribution.

Voluntary private pensions

Replacement rates are shown for eight countries where voluntary private pensions are widespread (see the indicator of “Coverage of private pensions” in Chapter 8). For the other economies South Africa also has a significant voluntary scheme. It is assumed that workers with voluntary private pensions spend a full career in the scheme.

The rules that have been modelled are in the “Country Profiles” available at <http://oe.cd/pag>. In six of the eight countries, a defined contribution plan is modelled, with defined benefit schemes applying in Canada and Japan.

In general, both the defined contribution and defined benefit schemes pay a constant gross replacement rate with earnings. (Data on actual contribution rates by earnings are not available for most countries, and so an average or typical rate is assumed across the earnings range.) However, progressive tax rules mean that the net replacement rate differs across the earnings range. Whilst the increase in gross replacement rate is generally constant across earnings the net replacement rate tends to increase as the previous work earnings are taxed at much higher rates as individuals move up the earnings distribution.

Definition and measurement

The net replacement rate is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking account of personal income taxes and social security contributions paid by workers and pensioners. Otherwise, the definition and measurement of the net replacement rates are the same as for the gross replacement rate. Details of the rules that national tax systems apply to pensioners can be found in the online Country Profiles available at <http://oe.cd/pag>.

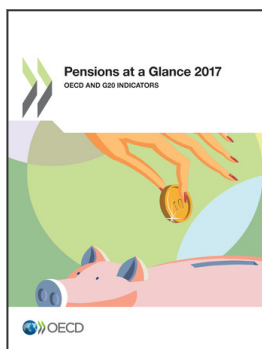
4.11. Gross and net pension replacement rates from mandatory (public and private) and voluntary pension schemes

Percentage of individual earnings

	Gross mandatory public and private			Net mandatory public and private			Total gross with voluntary			Total net with voluntary		
	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5
Australia	82.8	32.2	32.1	95.0	42.6	45.4	82.8	32.2	32.1	95.0	42.6	45.4
Austria	78.4	78.4	78.4	92.2	91.8	90.9	78.4	78.4	78.4	92.2	91.8	90.9
Belgium	47.7	46.7	36.4	62.6	66.1	50.1	61.8	60.8	47.5	81.3	72.7	60.5
Canada	54.1	41.0	28.5	62.2	53.4	38.5	82.9	75.2	72.6	95.3	98.0	98.5
Chile	39.1	33.5	33.6	48.3	40.1	40.6	39.1	33.5	33.6	48.3	40.1	40.6
Czech Republic	74.1	45.8	36.4	88.3	60.0	48.7	74.1	45.8	36.4	88.3	60.0	48.7
Denmark	123.4	86.4	79.5	110.3	80.2	76.2	123.4	86.4	79.5	110.3	80.2	76.2
Estonia	62.0	49.7	45.6	73.7	57.4	51.1	62.0	49.7	45.6	73.7	57.4	51.1
Finland	56.6	56.6	56.6	66.9	65.0	65.1	56.6	56.6	56.6	66.9	65.0	65.1
France	60.5	60.5	54.8	70.4	74.5	70.3	60.5	60.5	54.8	70.4	74.5	70.3
Germany	38.2	38.2	38.2	54.7	50.5	49.8	50.9	50.9	50.9	66.5	65.4	64.6
Greece	67.4	53.7	49.2	60.7	53.7	54.1	67.4	53.7	49.2	60.7	53.7	54.1
Hungary	58.7	58.7	58.7	89.6	89.6	89.6	58.7	58.7	58.7	89.6	89.6	89.6
Iceland	77.6	69.0	67.9	85.5	75.7	77.8	77.6	69.0	67.9	85.5	75.7	77.8
Ireland	68.2	34.1	22.7	70.0	42.3	32.4	106.2	72.1	60.7	106.2	77.2	72.2
Israel	99.4	67.8	45.2	100.4	75.1	54.9	99.4	67.8	45.2	100.4	75.1	54.9
Italy	83.1	83.1	83.1	93.0	93.2	93.8	83.1	83.1	83.1	93.0	93.2	93.8
Japan	47.8	34.6	30.2	52.6	40.0	35.3	71.0	57.7	53.3	79.4	63.7	60.7
Korea	58.5	39.3	28.7	63.8	45.1	33.7	58.5	39.3	28.7	63.8	45.1	33.7
Latvia	47.5	47.5	47.5	55.7	59.5	59.0	47.5	47.5	47.5	55.7	59.5	59.0
Luxembourg	89.5	76.7	72.5	98.3	88.4	83.6	89.5	76.7	72.5	98.3	88.4	83.6
Mexico	34.7	26.4	25.1	35.1	29.6	29.3	34.7	26.4	25.1	35.1	29.6	29.3
Netherlands	98.1	96.9	96.5	105.1	100.6	100.2	98.1	96.9	96.5	105.1	100.6	100.2
New Zealand	80.0	40.0	26.7	80.7	43.2	30.5	98.8	58.8	45.4	100.8	63.5	51.8
Norway	63.6	45.1	36.5	64.8	48.8	41.3	63.6	45.1	36.5	64.8	48.8	41.3
Poland	31.6	31.6	31.6	37.2	38.6	37.9	31.6	31.6	31.6	37.2	38.6	37.9
Portugal	75.5	74.0	72.6	92.9	94.9	93.1	75.5	74.0	72.6	92.9	94.9	93.1
Slovak Republic	72.3	64.3	62.2	85.0	83.8	83.5	72.3	64.3	62.2	85.0	83.8	83.5
Slovenia	44.0	38.1	36.3	57.3	56.7	54.1	44.0	38.1	36.3	57.3	56.7	54.1
Spain	72.3	72.3	72.3	79.3	81.8	81.7	72.3	72.3	72.3	79.3	81.8	81.7
Sweden	55.8	55.8	64.5	62.4	54.9	67.6	55.8	55.8	64.5	62.4	54.9	67.6
Switzerland	56.0	42.1	28.5	57.4	44.9	31.5	56.0	42.1	28.5	57.4	44.9	31.5
Turkey	69.9	69.9	69.9	99.1	102.1	105.8	69.9	69.9	69.9	99.1	102.1	105.8
United Kingdom	44.3	22.1	14.8	52.1	29.0	20.7	74.3	52.2	44.8	83.7	62.2	55.6
United States	48.3	38.3	31.7	59.9	49.1	42.4	81.3	71.3	64.7	97.1	87.1	82.2
OECD	64.6	52.9	48.4	73.2	62.9	58.9	70.3	58.7	54.4	79.4	69.1	65.9
Argentina	81.7	71.6	68.2	98.9	91.0	89.3	81.7	71.6	68.2	98.9	91.0	89.3
Brazil	85.0	69.5	69.5	92.4	76.4	76.4	85.0	69.5	69.5	92.4	76.4	76.4
China	96.0	76.0	69.4	104.4	83.0	77.0	96.0	76.0	69.4	104.4	83.0	77.0
India	87.4	87.4	87.4	99.3	99.3	99.3	87.4	87.4	87.4	99.3	99.3	99.3
Indonesia	62.1	62.1	62.1	65.4	65.5	66.1	62.1	62.1	62.1	65.4	65.5	66.1
Russian Federation	46.1	33.7	29.1	53.0	38.8	33.5	46.1	33.7	29.1	53.0	38.8	33.5
Saudi Arabia	59.6	59.6	59.6	65.4	65.4	65.4	59.6	59.6	59.6	65.4	65.4	65.4
South Africa	32.1	16.0	10.7	32.1	17.1	11.9	48.8	48.8	48.8	48.8	52.0	54.3
EU28	69.6	58.3	54.5	79.7	70.6	66.8	73.0	61.7	57.8	83.2	73.8	70.4

Source: OECD pension models.

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