

## Net pension replacement rates: Mandatory and voluntary schemes

### Key results

The OECD average for net replacement rates of an average earner from mandatory (public and private) schemes is 61.4%, increasing to 66.9% when the voluntary schemes are included for the full career. The average across the 28 countries where voluntary pensions play a limited role, and which are therefore not taken into account in the projections, is 66.7%. Among the 8 OECD countries where voluntary private pensions are widespread plus Israel and Mexico, when voluntary private pensions are taken into account, the average net replacement rate is 67.2% assuming contributions for the whole career compared with 46.5% based on mandatory schemes only.

For the 18 OECD countries where the calculations cover only public pensions, the net replacement rate for a full-career average earner is 71% on average (Table 4.5). For the 10 OECD countries with public and mandatory private provision, but no voluntary schemes the average net replacement rate is 59%. In the 10 remaining countries where voluntary pensions are modelled the average net replacement rate is 47% from mandatory schemes and reaches 67% for a worker contributing for the whole career.

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 both earnings and pensions are not normally liable for any taxation with only social security contributions being deducted.

### Mandatory private pensions

Twelve countries have mandatory private pensions, including a subset of four countries – Denmark, the Netherlands, Sweden and the United Kingdom – having private pensions that ensure near-universal coverage and so are described as “quasi-mandatory”. In Switzerland, private pensions are defined benefit while in the other countries they are defined contribution.

### Voluntary private pensions

Replacement rates are shown for ten countries where voluntary private pensions have broad coverage. For the other

large economies, South Africa also has a significant voluntary scheme. The rules that have been modelled are in the “Country Profiles” available at <http://oe.cd/pag>. In all countries a defined contribution plan is modelled.

In general, the defined contribution schemes pay a constant gross replacement rate with earnings. Data on actual contribution rates by earnings are not available for some countries, and so in these cases an average or typical rate is assumed across the earnings range. Progressive tax rules mean that the net replacement rate differs across the earnings range even if gross replacement rates are similar. The difference between the gross and net replacement rates often increases as earnings levels rise 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>.

**Table 4.5. Gross and net pension replacement rates from mandatory (public and private) and voluntary pension schemes, in percentage**

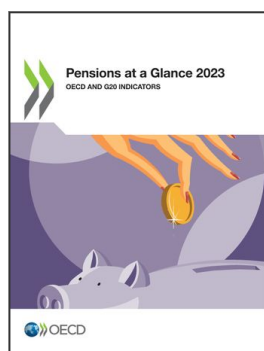
Percentage of individual earnings

	Gross mandatory public and private			Net mandatory public and private			Total gross with voluntary			Total net with voluntary		
	0.5	1	2	0.5	1	2	0.5	1	2	0.5	1	2
Australia	64.5	26.0	26.0	72.2	33.7	37.9						
Austria	74.1	74.1	55.9	85.5	87.4	65.9						
Belgium	67.7	43.5	31.4	84.3	60.9	45.1	71.2	52.4	54.7	88.5	73.8	83.8
Canada	46.0	36.8	18.4	54.5	44.2	24.7	66.2	57.0	38.6	74.2	66.0	47.8
Chile	48.8	37.1	28.7	60.1	45.7	36.1						
Colombia*	99.2	74.8	74.8	103.5	73.1	71.5						
Costa Rica	65.3	64.1	60.4	69.1	67.8	65.7						
Czechia	78.1	47.4	32.1	89.7	58.9	41.5						
Denmark	116.6	73.1	53.1	117.5	77.3	62.5						
Estonia	48.6	28.1	17.8	53.6	34.4	21.9	66.6	47.4	37.9	72.9	54.7	43.0
Finland	58.4	58.4	58.4	64.9	65.1	66.1						
France	57.7	57.6	49.4	67.7	71.9	61.8						
Germany	47.8	43.9	33.7	59.2	55.3	43.2	58.6	54.7	44.6	73.4	69.5	56.6
Greece	94.2	80.8	74.1	102.6	90.0	82.7						
Hungary	54.9	52.4	51.2	82.5	78.8	77.0						
Iceland	65.6	43.1	43.1	74.7	52.1	51.3						
Ireland	52.4	26.2	13.1	60.5	36.1	21.6	81.9	55.7	42.6	97.1	74.4	62.0
Israel	52.6	38.0	19.0	56.9	47.3	27.3	68.7	51.7	25.9	75.4	63.2	36.5
Italy	76.1	76.1	76.1	77.8	82.6	87.5						
Japan	43.3	32.4	26.9	49.5	38.8	31.8						
Korea	47.6	31.2	18.8	50.9	35.8	23.0						
Latvia	55.0	39.8	39.8	65.7	52.8	50.3						
Lithuania	28.9	18.2	12.9	40.1	28.9	21.3	44.6	30.1	22.9	61.9	47.9	37.9
Mexico	86.7	74.8	68.8	95.7	86.9	78.7						
Luxembourg	73.5	55.5	45.2	75.4	62.4	54.4	73.5	64.7	59.7	75.4	72.7	71.9
Netherlands	87.3	74.7	68.4	94.6	93.2	87.5						
New Zealand*	62.9	39.7	19.8	65.0	43.5	23.7	78.8	54.9	34.5	83.7	61.9	42.2
Norway	60.3	44.5	28.2	75.4	54.8	36.8						
Poland	30.3	29.3	28.7	37.9	40.3	39.1						
Portugal	75.7	73.9	71.3	97.0	98.8	96.1						
Slovak Republic	65.9	54.9	48.3	81.0	72.5	67.2						
Slovenia*	62.1	42.1	41.3	87.8	63.4	59.6						
Spain	80.4	80.4	49.6	86.4	86.5	57.6						
Sweden	62.3	62.3	76.4	66.5	65.3	82.9						
Switzerland	52.2	39.9	20.3	56.5	45.3	24.1						
Türkiye	70.3	70.3	70.3	82.8	95.4	104.2						
United Kingdom	61.8	41.9	28.3	74.9	54.4	39.0						
United States	49.4	39.1	27.8	60.6	50.5	38.9	83.5	73.2	61.9	101.5	87.7	75.7
<b>OECD38</b>	<b>63.8</b>	<b>50.7</b>	<b>42.3</b>	<b>73.2</b>	<b>61.4</b>	<b>52.8</b>	<b>68.1</b>	<b>55.3</b>	<b>47.2</b>	<b>78.3</b>	<b>66.9</b>	<b>59.0</b>
Argentina	109.5	78.7	63.3	126.1	90.1	72.2						
Brazil	88.4	88.4	82.7	95.7	96.9	94.1						
China	87.3	68.3	58.8	112.6	88.3	77.1						
India	38.9	38.9	22.4	44.2	44.2	26.0						
Indonesia	53.5	53.5	52.8	55.8	55.8	55.5						
Saudi Arabia	59.6	59.6	59.6	66.2	66.2	66.2						
South Africa	16.0	8.0	4.0	17.2	9.2	5.0	29.0	29.0	29.0	34.3	36.6	39.1
EU27	64.6	54.8	48.3	76.2	68.1	60.9				79.8	72.0	65.7

Note: \*Low earners in Colombia, New Zealand and Slovenia are at 64%, 63% and 56% of average earnings, respectively, to account for the minimum wage level. The OECD average refers to the average of all 38 OECD countries.

Source: OECD pension models.

StatLink  <https://stat.link/t27sw1>



From:

## Pensions at a Glance 2023

OECD and G20 Indicators

Access the complete publication at:

<https://doi.org/10.1787/678055dd-en>

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**Please cite this chapter as:**

OECD (2023), "Net pension replacement rates: Mandatory and voluntary schemes", in *Pensions at a Glance 2023: OECD and G20 Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9ff319da-en>

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