

GROSS REPLACEMENT RATES: PUBLIC VS PRIVATE, MANDATORY VS VOLUNTARY SCHEMES

Key results

Private pensions play large role in about half of OECD countries. For mandatory schemes, the OECD average for gross replacement rates of an average earner from public schemes alone is 41%, compared with 53% with private pensions included. When voluntary private pensions are taken into account, the OECD average increases to 59%. For the eight OECD countries where voluntary private pensions are widespread the average replacement rate is 63% for an average earner choosing to contribute compared with 37% when only mandatory schemes are considered.

Table 4.5 shows the interplay between mandatory public, mandatory private and voluntary pension schemes. As shown in the previous indicator, the average replacement rate from mandatory schemes for a full-career average earner is equal to 53%: for the 15 OECD countries where the calculations of entitlements only cover mandatory public pensions, the average replacement rate for an average worker earner is 59%; for the 12 OECD countries with both public and mandatory private provision, the average replacement rate is 56%; and for the last eight countries, where the only mandatory part is public but with significant voluntary pensions, the replacement rate from the mandatory component alone is 37%. For all 35 OECD countries, including voluntary (private) pensions raises the average total replacement rate for the average earner from 53% with mandatory schemes to 59%.

Australia, Denmark, Iceland and Norway have highly targeted public programmes, where public replacement rates for low earners are often topped up with mandatory private pension provisions. In Chile, Mexico, the Slovak Republic and Sweden, part of the public provision has been replaced as a result of reforms within mandatory private pensions. Canada, Ireland, the United Kingdom and the United States have long had relatively low public pensions and widespread voluntary provision.

Of the other major economies, public pensions are mandatory in Argentina, Brazil, China, India, Indonesia, the Russian Federation and Saudi Arabia. South Africa is the exception having only voluntary private schemes, with the public pension being withdrawn for even those at 50% of average earnings, because of its means-tested component.

Mandatory private pensions

Mandatory private pensions exist in 12 countries. Denmark, the Netherlands and Sweden include private pensions that have near-universal coverage and which are described as “quasi-mandatory”.

In Iceland, the Netherlands and Switzerland, private pensions are mainly defined benefit, whilst in the other

countries they are defined contribution. Replacement rates from mandatory private schemes range from 6% in Norway to over 60% in Denmark, Iceland and the Netherlands. All of the other countries are between 18% and 34%, with the exception of Israel at 49%. In Sweden the contribution rate for the private pension increases from 4.5% below to 30% above the ceiling for the public scheme, hence why the total replacement rate is higher for high earners than average earners.

Voluntary private pensions

Voluntary private pensions are shown for seven countries where voluntary private pensions are widespread (see the indicator of “Coverage of private pension plans” in Chapter 8). It is assumed that workers with voluntary private pensions spend a full career in the scheme. Voluntary private pensions include both voluntary occupational and voluntary personal. In all seven countries, a defined-contribution plan is modelled.

When voluntary private pension are taken into account for Belgium, Canada, Germany, Ireland, New Zealand, the United Kingdom and the United States the average replacement, for these seven countries, is 60% for an average earner compared with 36% when only mandatory schemes are considered. The voluntary component has the largest impact on the replacement rate (more than 30 percentage points) in the United Kingdom, the United States and Ireland.

In general, the defined-contribution schemes pay a constant 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, (see the individual “Country Profiles” available at <http://oe.cd/pag>). It is also assumed that individuals participate fully, irrespective of their earnings level. Belgium and Germany are the exceptions due to a ceiling on pensionable earnings that qualify for tax incentives and a ceiling equal to 156% of average worker earnings, respectively.


4.5. Gross pension replacement rates from mandatory public, mandatory private and voluntary private pension schemes

Percentage of individual earnings

	Mandatory Public			Mandatory private (DB and DC)			Total mandatory			Voluntary (DB and DC)			Total with voluntary		
	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5
Australia	50.7	0.1	0.0	32.1	32.1	32.1	82.8	32.2	32.1				82.8	32.2	32.1
Austria	78.4	78.4	78.4				78.4	78.4	78.4				78.4	78.4	78.4
Belgium	47.7	46.7	36.4				47.7	46.7	36.4	14.2	14.2	11.1	61.8	60.8	47.5
Canada	54.1	41.0	28.5				54.1	41.0	28.5	34.2	34.2	44.2	82.9	75.2	72.6
Chile	5.8	0.0	0.0	33.4	33.5	33.6	39.1	33.5	33.6				39.1	33.5	33.6
Czech Republic	74.1	45.8	36.4				74.1	45.8	36.4				74.1	45.8	36.4
Denmark	45.9	14.8	9.9	77.6	71.6	69.6	123.4	86.4	79.5				123.4	86.4	79.5
Estonia	41.4	29.1	25.0	20.6	20.6	20.6	62.0	49.7	45.6				62.0	49.7	45.6
Finland	56.6	56.6	56.6				56.6	56.6	56.6				56.6	56.6	56.6
France	60.5	60.5	54.8				60.5	60.5	54.8				60.5	60.5	54.8
Germany	38.2	38.2	38.2				38.2	38.2	38.2	12.7	12.7	12.7	50.9	50.9	50.9
Greece	67.4	53.7	49.2				67.4	53.7	49.2				67.4	53.7	49.2
Hungary	58.7	58.7	58.7				58.7	58.7	58.7				58.7	58.7	58.7
Iceland	11.8	3.2	2.1	65.8	65.8	65.8	77.6	69.0	67.9				77.6	69.0	67.9
Ireland	68.2	34.1	22.7				68.2	34.1	22.7	38.0	38.0	38.0	106.2	72.1	60.7
Israel	38.7	19.4	12.9	60.7	48.5	32.3	99.4	67.8	45.2				99.4	67.8	45.2
Italy	83.1	83.1	83.1				83.1	83.1	83.1				83.1	83.1	83.1
Japan	47.8	34.6	30.2				47.8	34.6	30.2	23.1	23.1	23.1	71.0	57.7	53.3
Korea	58.5	39.3	28.7				58.5	39.3	28.7				58.5	39.3	28.7
Latvia	47.5	47.5	47.5				47.5	47.5	47.5				47.5	47.5	47.5
Luxembourg	89.5	76.7	72.5				89.5	76.7	72.5				89.5	76.7	72.5
Mexico	12.2	4.0	2.7	22.4	22.4	22.4	34.7	26.4	25.1				34.7	26.4	25.1
Netherlands	57.4	28.7	19.1	40.7	68.2	77.3	98.1	96.9	96.5				98.1	96.9	96.5
New Zealand	80.0	40.0	26.7				80.0	40.0	26.7	18.8	18.8	18.8	98.8	58.8	45.4
Norway	58.8	39.2	30.2	4.8	5.9	6.3	63.6	45.1	36.5				63.6	45.1	36.5
Poland	31.6	31.6	31.6				31.6	31.6	31.6				31.6	31.6	31.6
Portugal	75.5	74.0	72.6				75.5	74.0	72.6				75.5	74.0	72.6
Slovak Republic	47.5	39.6	37.4	24.8	24.8	24.8	72.3	64.3	62.2				72.3	64.3	62.2
Slovenia	44.0	38.1	36.3				44.0	38.1	36.3				44.0	38.1	36.3
Spain	72.3	72.3	72.3				72.3	72.3	72.3				72.3	72.3	72.3
Sweden	36.6	36.6	27.6	19.2	19.2	36.9	55.8	55.8	64.5				55.8	55.8	64.5
Switzerland	36.7	24.2	16.5	19.2	17.9	12.0	56.0	42.1	28.5				56.0	42.1	28.5
Turkey	69.9	69.9	69.9				69.9	69.9	69.9				69.9	69.9	69.9
United Kingdom	44.3	22.1	14.8				44.3	22.1	14.8	30.0	30.0	30.0	74.3	52.2	44.8
United States	48.3	38.3	31.7				48.3	38.3	31.7	33.0	33.0	33.0	81.3	71.3	64.7
OECD	52.6	40.6	36.0				64.6	52.9	48.4				70.3	58.7	54.4
Argentina	81.7	71.6	68.2				81.7	71.6	68.2				81.7	71.6	68.2
Brazil	85.0	69.5	69.5				85.0	69.5	69.5				85.0	69.5	69.5
China	96.0	76.0	69.4				96.0	76.0	69.4				96.0	76.0	69.4
India	87.4	87.4	87.4				87.4	87.4	87.4				87.4	87.4	87.4
Indonesia	34.3	34.3	34.3	27.9	27.9	27.9	62.1	62.1	62.1				62.1	62.1	62.1
Russian Federation	28.2	15.8	11.2	18.0	18.0	18.0	46.1	33.7	29.1				46.1	33.7	29.1
Saudi Arabia	59.6	59.6	59.6				59.6	59.6	59.6				59.6	59.6	59.6
South Africa	0.0	0.0	0.0				0.0	0.0	0.0	48.8	48.8	48.8	48.8	48.8	48.8
EU28	54.9	45.9	42.2				69.6	58.3	54.5				73.0	61.7	57.8

DB = defined benefit; DC = defined contribution.

Source: OECD pension models.

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