

Net pension replacement rates

Key results

Whilst the gross replacement rate gives a clear indication of the design of the pension system, the net replacement matters more to individuals, as it reflects their disposable income in retirement in comparison to when working. For average earners with a full career, the net replacement rate from mandatory pension schemes at the normal retirement age averages 61.4% across the OECD, which is 10.7 percentage points higher than the average gross replacement rate. This reflects the higher effective tax and social contribution rates that people pay on their earnings than on their pensions in retirement, mostly due to the progressivity of tax systems, some tax advantages to pensions and lower social contributions on pension benefits. Net replacement rates vary from under 35% in Australia, Estonia and Lithuania to 90% or more in Greece, the Netherlands, Portugal and Türkiye for average-wage workers. For low earners (with half of average worker earnings), the average net replacement rate across OECD countries is 73.2% while it is 52.8% for high earners (200% of average worker earnings).

The previous indicator of the “Tax treatment of pensions and pensioners” showed the important role that the personal tax and social security contribution systems play in old-age income support. Pensioners often only pay health contributions and receive preferential treatment under the income tax. Tax expenditures and the progressivity of income taxes coupled with gross replacement rates of less than 100% also mean that pensioners have a lower income tax rate than workers. As a result, net replacement rates are generally higher than gross replacement rates.

For average earners, the net replacement rate across the OECD averages 61% for mandatory schemes, from a low of under 35% in Australia, Estonia and Lithuania to a high of 99% in Portugal and over 90% in Greece, the Netherlands and Türkiye (Table 4.4). Moreover, the pattern of replacement rates across countries is different on a net rather than a gross basis.

On average, for average earners, the net replacement rate is 11 percentage points higher than the gross replacement rate (Figure 4.4). The difference is 25 percentage points in Hungary, Portugal and Türkiye with Belgium, the Netherlands, the Slovak Republic and Slovenia around 15-20 percentage points higher. In Hungary, the Slovak Republic and Türkiye, pension income is neither liable for taxes or social security contributions, whilst in Belgium and Portugal they are much lower because of either higher tax allowances or much lower contribution levels.

For low earners, the effect of taxes and contributions on net replacement rates is slightly more muted than for workers higher up the earnings scale. This is because low-income workers typically pay less in taxes and contributions relative to average earners. In many cases, their retirement incomes are below the level of the standard reliefs in the personal

income tax (allowances, credits, etc.). Thus, they are often unable to benefit fully from any additional concessions granted to pensions or pensioners under their personal income tax. The difference between gross and net replacement rates for low earners is nine percentage points on average. Belgium, Portugal, the Slovak Republic, Slovenia and particularly Hungary have much higher replacement rates for low earners on a net basis than in gross terms.

The net replacement rate for workers earning 200% of the average is highest in Türkiye at 104%. The lowest replacement rates for high earners are found in Canada, Estonia, Ireland, Israel, Korea, Lithuania, New Zealand and Switzerland where workers earning 200% of the average will receive net pensions that amount to less than 30% of their net earnings when working. In addition to the higher contribution levels in the occupational system for higher earners in Sweden, the net replacement rates are furthermore affected by the fact that pension income and work income are taxed differently and at different rates.

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 4.4. Net pension replacement rates by earnings, in percentage

Individual earnings, multiple of mean for men (women where different)											
	Pension age	0.5			1			2			
Australia	67	72.2	(69.7)	33.7	(30.9)	37.9	(34.7)				
Austria	65	85.5		87.4		65.9					
Belgium	67	84.3		60.9		45.1					
Canada	65	54.5		44.2		24.7					
Chile	65	60.1	(57.5)	45.7	(43.0)	36.1	(34.7)				
Colombia	62	(57)	103.5	73.1		71.5	(70.6)				
Costa Rica	65	(63)	69.1	(66.3)	67.8	(65.0)	65.7	(63.0)			
Czechia	65	89.7		58.9		41.5					
Denmark	74	117.5		77.3		62.5					
Estonia	71	53.6		34.4		21.9					
Finland	69	64.9		65.1		66.1					
France	65	67.7		71.9		61.8					
Germany	67	59.2		55.3		43.2					
Greece	66	102.6		90.0		82.7					
Hungary	65	(62)	82.5	(77.4)	78.8	(73.7)	77.0	(71.8)			
Iceland	67	74.7		52.1		51.3					
Ireland	66	60.5		36.1		21.6					
Israel	67	(65)	56.9	(53.3)	47.3	(43.9)	27.3	(25.4)			
Italy	71	77.8		82.6		87.5					
Japan	65	49.5		38.8		31.8					
Korea	65	50.9		35.8		23.0					
Latvia	65	65.7		52.8		50.3					
Lithuania	65	40.1		28.9		21.3					
Luxembourg	62	95.7		86.9		78.7					
Mexico	65		75.4		62.4		54.4	(49.9)			
Netherlands	70		94.6		93.2		87.5				
New Zealand	65		65.0		43.5		23.7				
Norway	67		75.4		54.8		36.8				
Poland	65	(60)	37.9	(37.4)	40.3	(31.5)	39.1	(32.5)			
Portugal	68		97.0		98.8		96.1				
Slovak Republic	69		81.0		72.5		67.2				
Slovenia	62		87.8		63.4		59.6				
Spain	65		86.4		86.5		57.6				
Sweden	70		66.5		65.3		82.9				
Switzerland	65		56.5		45.3	(45.2)	24.1				
Türkiye	65	(63)	82.8	(79.5)	95.4	(91.6)	104.2	(100.1)			
United Kingdom	67		74.9		54.4		39.0				
United States	67		60.6		50.5		38.9				
OECD	66.3	(65.8)	73.2	(72.7)	61.4	(60.6)	52.8	(52.0)			
Argentina	65	(60)	126.1	(119.6)	90.1	(86.9)	72.2	(70.5)			
Brazil	65	(62)	95.7	(101.1)	96.9	(102.0)	94.1	(99.6)			
China	60	(55)	112.6	(90.7)	88.3	(70.1)	77.1	(60.9)			
India	58		44.2	(42.9)	44.2	(42.9)	26.0	(24.1)			
Indonesia	65		55.8	(51.7)	55.8	(51.7)	55.5	(51.4)			
Saudi Arabia	47		66.2		66.2		66.2				
South Africa	60		17.2		9.2		5.0				
EU27	66.7	(66.4)	76.2	(75.9)	68.1	(67.5)	60.9	(60.3)			

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.

Source: OECD pension models.


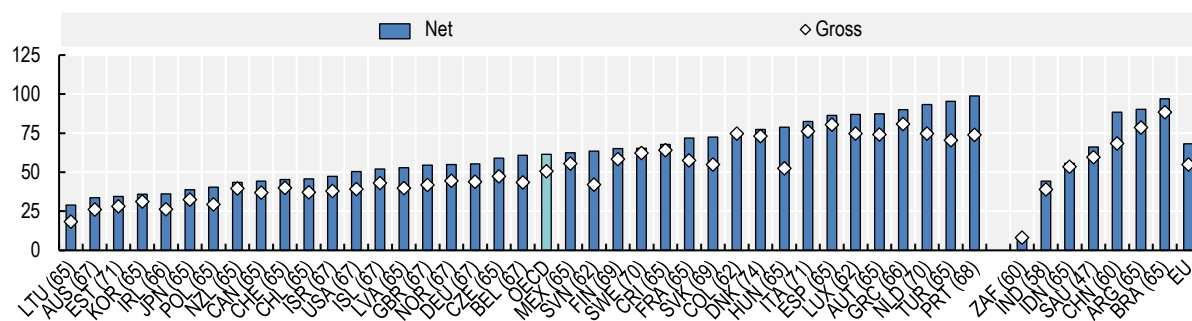
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Figure 4.4. Net and gross pension replacement rates: Average earners, in percentage



Source: OECD pension models.


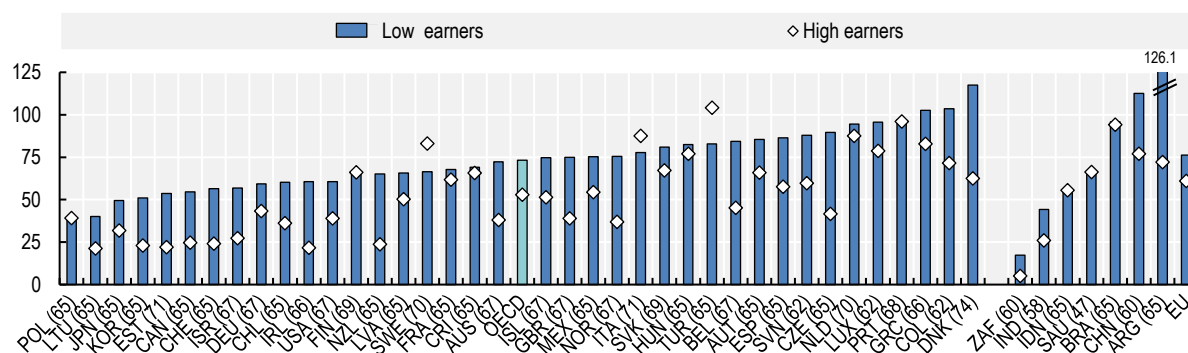

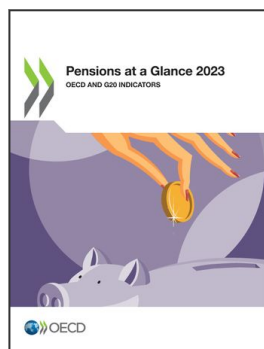
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Figure 4.5. Net pension replacement rates: Low and high earners, in percentage



Source: OECD pension models.

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