

Key results

Pension wealth relative to individual earnings before retirement measures the total discounted value of the lifetime flow of all retirement incomes in mandatory pension schemes at retirement age. For average earners, pension wealth for men is 9.4 times and for women 10.3 times annual individual earnings on average in OECD countries. Gross pension wealth relative to annual individual earnings is higher for women because of their longer life expectancy. The main determinants of differences across countries are differences in the gross replacement rate, in the length of the retirement period measured by remaining life expectancy at the normal retirement age, and in indexation rules.

Replacement rates give an indication of the pension promise relative to individual earnings, but they are not comprehensive measures of cumulated pension payments; they look only at the benefit level relative to individual earnings at the point of retirement, or more generally at a given, later age. For a full picture, life expectancy, normal retirement age and indexation of pension benefits must also be taken into account. Together, these determine for how long the pension benefit is paid, and how its value evolves over time. Pension wealth – a measure of the stock of future discounted flows of pension benefits – takes account of these factors. It can be thought of as the lump sum needed at the retirement age to buy an annuity giving the same flow of pension payments as that promised by mandatory retirement-income schemes.

In defined benefit systems there is often no or a weak link between the replacement rate and the expected duration of benefit withdrawal. However, in the long run, ensuring financial sustainability imposes a trade-off between the replacement rate and the duration of retirement. When retirement ages and pension benefits are held constant, pension wealth increases with longevity gains. In defined contribution systems there is a more direct link between the size of the benefit and the expected duration of benefit withdrawals. In these systems the pension wealth measure is equal to the accumulated assets and therefore independent of longevity increases as these automatically reduce the monthly benefits.

Gross pension wealth at individual earnings equal to the average wage is highest in Luxembourg at 16.2 times annual individual earnings for men and 17.7 times for women. It is also larger than 14 times for men and 16 times for women in Colombia and Spain. The lowest pension wealth for both men and women is found in Lithuania at 3.2 and 3.7, respectively, due to low replacement rates, while Australia, Chile, Estonia, Korea and Poland also have fewer than 6 times for men, with these countries along with Ireland having fewer than 7 times for women.

This indicator is built based on the gender-specific average mortality rates within countries. It thus assumes away differences in life expectancy across income levels. Given that individuals with low (high) income generally have a lower (higher) life expectancy, this implies that the computed numbers overestimate pension wealth for low earners and underestimate it for high earners. With this caveat in mind,

higher individual replacement rates for low earners than for average earners mean that the computed pension wealth relative to individual earnings is also higher for low earners. For men with individual earnings equal to half average-earnings, pension wealth is 11.8 times their annual earnings on average and it is 13.0 times for women. In the countries where pension wealth for low earners is highest (Colombia and Luxembourg), its value is 19 times individual earnings for men and between 21 and 23 times individual earnings for women, with Colombia having a larger increase because of the lower retirement age for women.

Impact of life expectancy

In countries where the duration in retirement is shorter, such as Estonia and Hungary, pension wealth is smaller. The effect is the opposite in Switzerland and some of the Nordic countries, where life expectancy is high. Similarly, since women's life expectancy is longer than men's, pension wealth for women is higher in all countries that use unisex mortality tables to compute annuities or that have defined benefit systems. In addition, some countries still have lower retirement ages for women; this extends the payment period even further.

Impact of indexation

Pension wealth is affected by indexation rules at a given initial replacement rate level. Although most OECD countries now index pensions in payment to prices, there are exceptions: Ireland and New Zealand, for example, link their basic systems to average earnings. Since earnings tend to grow faster than prices pension wealth is higher with wage than price indexation, for a given level of replacement rate. If Ireland, for example, indexed to prices, the pension wealth for an average male earner would decrease from 6.3 to 5.4 with unchanged initial benefit based on the OECD pension model.

Definition and measurement

The calculation of pension wealth uses a uniform real discount rate of 2%. Since the comparisons refer to prospective pension entitlements, the calculations use country-specific mortality rates by age and sex at the year of retirement. Pension wealth is expressed as a multiple of gross annual individual earnings.

Table 4.6. Gross pension wealth by earnings, multiple of annual earnings

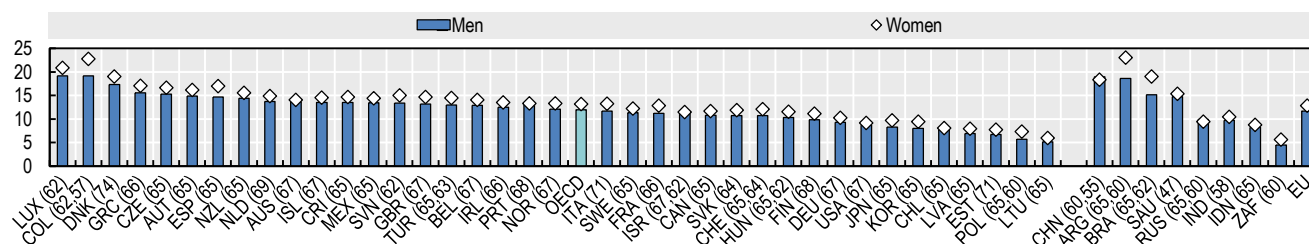
	Individual earnings, multiple of mean						Individual earnings, multiple of mean						
	0.5		1.0		2		0.5		1.0		2		
	Men			Women			Men			Women			
Australia	11.3	5.7	5.7	11.9	5.7	5.7	Netherlands	13.7	13.1	12.7	14.9	14.2	13.9
Austria	13.7	13.7	10.6	15.0	15.0	11.6	New Zealand*	14.4	8.7	4.3	15.5	9.4	4.7
Belgium	11.9	7.6	5.1	13.0	8.4	5.6	Norway	12.1	9.2	5.7	13.3	10.1	6.3
Canada	10.0	7.3	4.2	10.3	7.5	4.3	Poland	5.7	5.5	5.4	7.3	5.4	5.2
Chile	7.7	5.7	5.8	8.1	5.7	5.8	Portugal	12.3	12.0	11.6	13.9	13.6	13.2
Colombia*	19.1	14.3	14.3	22.8	16.7	16.5	Slovak Republic*	10.7	9.1	8.0	11.9	10.1	8.9
Costa Rica	13.5	13.3	12.6	14.7	14.5	13.7	Slovenia*	13.4	9.0	8.9	15.0	10.1	10.0
Czech Republic	15.3	9.2	6.2	16.7	10.0	6.7	Spain	14.7	14.7	13.3	17.0	17.0	15.4
Denmark	17.3	10.9	8.2	19.0	12.0	9.0	Sweden	11.4	9.8	12.6	12.2	10.6	13.5
Estonia	6.8	4.0	2.6	7.7	4.5	2.9	Switzerland	10.7	8.8	4.6	12.1	10.0	5.2
Finland	9.8	9.8	9.8	11.1	11.1	11.1	Turkey	13.0	13.0	13.0	14.4	14.4	14.4
France	11.2	11.2	9.9	12.8	12.8	11.3	United Kingdom	13.2	8.9	6.8	14.7	9.9	7.6
Germany	9.3	8.3	6.6	10.3	9.2	7.3	United States	8.7	6.8	4.9	9.2	7.2	5.1
Greece	15.6	13.4	12.2	17.1	14.6	13.4	OECD	11.8	9.4	8.0	13.0	10.3	8.8
Hungary	10.4	10.4	10.4	11.5	11.5	11.5	Argentina	18.6	14.3	12.2	23.1	18.1	15.7
Iceland	13.5	9.2	9.2	14.6	9.9	9.9	Brazil	15.1	15.1	14.5	19.1	19.1	18.5
Ireland	12.5	6.3	3.1	13.5	6.8	3.4	China	19.0	15.0	13.0	18.4	14.2	12.1
Israel	11.1	7.5	3.7	11.5	7.5	3.7	India	9.7	9.7	6.5	10.5	10.5	6.9
Italy	11.7	11.7	11.7	13.2	13.2	13.2	Indonesia	8.2	8.2	8.2	8.8	8.8	8.8
Japan	8.3	6.2	5.2	9.7	7.3	6.1	Russian Federation	9.9	8.2	7.4	9.4	7.6	6.7
Korea	8.0	5.8	3.5	9.4	6.8	4.1	Saudi Arabia	14.7	14.7	14.7	15.3	15.3	15.3
Latvia	7.0	7.0	7.0	7.9	7.9	7.9	South Africa	4.5	2.3	1.1	5.6	2.8	1.4
Lithuania	5.1	3.2	2.3	6.0	3.7	2.6	EU27	11.6	9.7	8.8	12.8	10.7	9.6
Luxembourg	19.1	16.2	14.8	20.9	17.7	16.1							
Mexico	13.5	10.2	8.9	14.4	10.4	9.0							

Note: *Low earners in Colombia, New Zealand, the Slovak Republic and Slovenia are at 66%, 60%, 53% and 55% of average earnings, respectively, to account for the minimum wage level.

Source: OECD pension models.

StatLink  <https://stat.link/6rkifo>

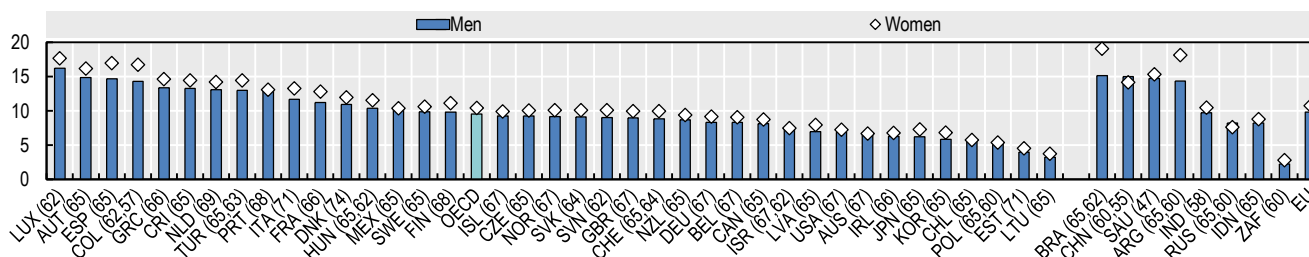
Figure 4.6. Gross pension wealth for lower earners by gender, multiple of annual earnings



Source: OECD pension models.

StatLink  <https://stat.link/xpf4bi>

Figure 4.7. Gross pension wealth for average earners by gender, multiple of annual earnings



Source: OECD pension models.

StatLink  <https://stat.link/4ow6bi>



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