Key results

As with gross pension wealth, net pension wealth relative to individual net earnings measures the total discounted value of the lifetime flow of all retirement incomes in mandatory pension schemes at retirement age. For average earners, net pension wealth for men is 11.3 times and for women 12.5 times annual individual net earnings on average in OECD countries. Net 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 net 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. Net pension wealth – a measure of the stock of future discounted flows of pension benefits after taxes and social contributions – takes account of these factors. It can be thought of as the total net benefits that will be received on average from the 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. Of course, 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 benefits.

Net pension wealth at individual earnings equal to average worker earnings is highest in Luxembourg at 18.8 times annual individual net earnings for men and 20.5 times for women. The lowest pension wealth is found in Lithuania at 5.0 and 5.8 times for men and women respectively, due to low replacement rates.

Higher individual replacement rates and the increased tax allowance for many pensioners mean that net pension wealth relative to individual net earnings tends to be higher for low earners than for average earners as well, at least as the estimations here abstract from differences in life expectancy across income levels. For men with individual earnings equal to half-average earnings, net pension wealth is 13.6 times their net earnings on average, compared with 11.3 times for average wage workers. Similarly, for women with low earnings, net pension wealth of 15.0 compares with 12.5 times individual earnings for average earners.

For higher earners net pension wealth is on average 9.9 for men and 10.9 for women, only slightly lower than that for average earners, with Turkey highest and Lithuania again lowest.

Impact of life expectancy

In countries where the duration in retirement is shorter and where pension benefits are defined benefit, such as Estonia and Hungary, the individual pension wealth is smaller. The effect is the opposite in Switzerland and some of the Nordic countries (in DB systems), where life expectancies are 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 or that have defined benefit systems. This is simply because in that case the same level of pension benefits can be expected to be paid over a longer retirement period. In addition, some countries still have lower retirement ages for women; this extends the payment period even further. Pension wealth is also affected by pension ages. A low retirement age in a defined benefit system such as in Luxembourg increases the pension wealth at a given level of benefit.

For the non-OECD countries there is great variation with South Africa at only 2.4 times individual earnings for average earners for men and 3.1 for women compared to 19.4 for men in China and 21.2 times individual earnings for women in Argentina.

Definition and measurement

Net pension wealth is the present value of the flow of pension benefits, taking account of the taxes and social security contributions that retirees have to pay on their pensions. It is measured and expressed as a multiple of net annual individual earnings in the respective country.

Taxes and contributions paid by pensioners are calculated conditional on the mandatory pension benefit to which individuals are entitled to at different levels of earnings. The calculations take account of all standard tax allowances and tax reliefs as well as concessions granted either to pension income or to people of pension age.

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*.
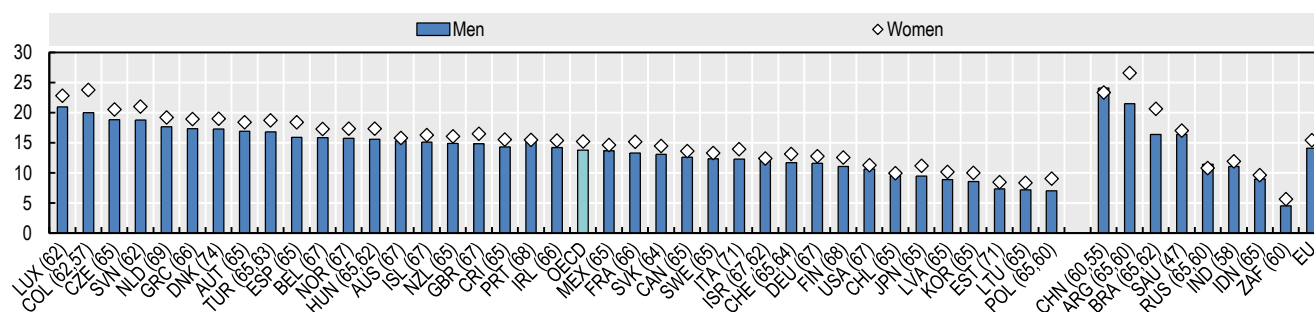
Table 4.7. **Net pension wealth by earnings**

	Individual earnings, multiple of mean							Individual earnings, multiple of mean					
	0.5	1.0	2	0.5	1.0	2		0.5	1.0	2	0.5	1.0	2
	Men			Women				Men			Women		
Australia	12.7	7.3	7.1	13.3	7.3	7.2	Netherlands	17.7	16.7	16.3	19.2	18.2	17.7
Austria	15.6	16.1	12.5	17.0	17.6	13.7	New Zealand*	14.9	9.5	5.2	16.0	10.2	5.6
Belgium	14.6	10.9	7.7	16.0	11.9	8.5	Norway	15.7	11.4	7.4	17.3	12.6	8.1
Canada	11.6	8.7	5.3	12.0	9.0	5.5	Poland	7.0	6.5	6.6	9.0	6.5	6.4
Chile	9.5	7.1	6.7	10.0	7.1	6.7	Portugal	14.2	14.5	14.4	16.1	16.4	16.3
Colombia*	20.0	14.0	13.7	23.8	16.3	15.8	Slovak Republic*	13.1	11.9	11.0	14.5	13.2	12.2
Costa Rica	14.3	14.0	13.5	15.5	15.3	14.7	Slovenia*	18.7	13.6	12.7	21.0	15.2	14.3
Czech Republic	18.8	12.3	8.6	20.5	13.4	9.4	Spain	15.9	16.0	14.8	18.4	18.5	17.2
Denmark	17.3	11.4	9.6	19.0	12.5	10.5	Sweden	12.3	10.6	14.3	13.3	11.5	15.4
Estonia	7.4	4.8	3.3	8.5	5.5	3.8	Switzerland	11.7	10.1	5.6	13.1	11.4	6.3
Finland	11.1	11.0	11.2	12.5	12.4	12.6	Turkey	16.8	18.3	19.6	18.7	20.4	21.8
France	13.3	13.9	12.3	15.2	15.8	14.0	United Kingdom	14.8	10.6	8.5	16.5	11.8	9.4
Germany	11.6	10.6	8.4	12.8	11.7	9.2	United States	10.7	8.8	6.8	11.3	9.3	7.2
Greece	17.3	15.4	14.3	18.9	16.8	15.6	**OECD**	**13.6**	**11.3**	**9.9**	**15.0**	**12.5**	**10.9**
Hungary	15.6	15.6	15.6	17.3	17.3	17.3							
Iceland	15.1	10.6	10.7	16.2	11.4	11.4							
Ireland	14.2	8.4	5.0	15.3	9.1	5.4	Argentina	21.5	16.7	16.3	26.6	21.2	21.0
Israel	12.1	9.2	5.3	12.4	9.2	5.3	Brazil	16.4	16.7	17.5	20.6	21.0	22.3
Italy	12.3	12.8	13.3	13.9	14.5	15.0	China	24.1	19.4	17.0	23.3	18.4	16.0
Japan	9.5	7.4	6.0	11.1	8.7	7.1	India	11.0	11.0	7.4	11.9	11.9	7.9
Korea	8.6	6.6	4.2	10.0	7.7	4.9	Indonesia	9.0	9.0	9.0	9.6	9.6	9.6
Latvia	8.9	8.9	8.5	10.1	10.1	9.7	Russian Federation	11.4	9.5	8.5	10.8	8.7	7.7
Lithuania	7.2	5.0	3.7	8.3	5.8	4.3	Saudi Arabia	16.4	16.4	16.4	17.0	17.0	17.0
Luxembourg	21.0	18.8	17.0	22.8	20.5	18.5	South Africa	4.5	2.4	1.3	5.6	3.1	1.7
Mexico	13.6	11.4	10.7	14.6	11.6	10.8	EU27	13.9	12.2	11.2	15.4	13.5	12.3

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.
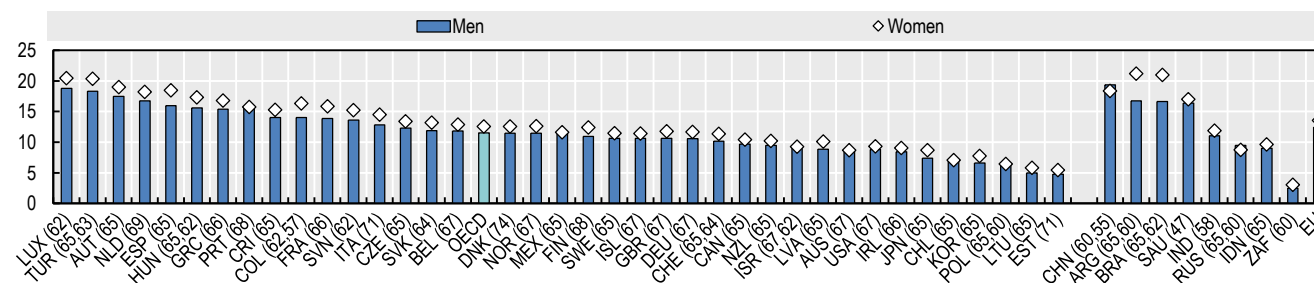Source: OECD pension models.

StatLink 🖉 *https://stat.link/wrlhic*

Figure 4.8. **Net pension wealth for lower earners by gender, multiple of annual earnings**

Source: OECD pension models.

StatLink 🖉 *https://stat.link/rd2z83*

Figure 4.9. **Net pension wealth for average earners by gender, multiple of annual earnings**

Source: OECD pension models.

StatLink 🖉 *https://stat.link/r49icq*

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