

## OLD-AGE DEPENDENCY RATIO

### Key results

The so-called demographic old-age dependency ratio – computed by keeping age thresholds constant – will more than double by 2075. Population ageing has been one of the main driving forces behind the wave of pension reforms in recent years. In 2015, there were 28 individuals aged 65 and over for every 100 persons of working age (ages 20 to 64) on average across all OECD countries. The old-age dependency ratio was equal to 14 in 2050, and it is expected to double again in less than 50 years, reaching 58 in 2075.

In 2015, the demographically oldest OECD country was Japan, with a dependency ratio equal to 47 (meaning 47 individuals aged 65 and over for 100 persons of working age). Finland, Greece and Italy also had high dependency ratios, between 35 and 38. By 2075 the dependency ratio is expected to reach 79 in Korea, 76 in Japan, 75 in Portugal and 73 in Greece.

By contrast, Mexico and Turkey are the youngest countries, with dependency ratios of 11 and 13 respectively, followed by Chile, at 18. By 2075, the dependency ratio would be much larger than the OECD average in Chile (69 compared to 58) and close to the average in Mexico and Turkey (55 and 54, respectively).

Four of the five main English-speaking OECD countries – Australia, Canada, Ireland and the United States – have relatively low dependency ratios, between 22 and 26. This is partly due to inward migration of workers. Ireland and the United States, both with large immigrant populations, have fertility rates currently just below replacement level. Other countries that currently have a younger population are Iceland and the Slovak Republic, with dependency ratios of 23 and 21, respectively. As both countries will age quickly, their dependency ratio will be very close to the OECD average by 2075. Poland will age even more rapidly, going from 24 to 70 over the same time period.

The evolution of dependency ratios depends on mortality rates, fertility rates and migration. OECD countries have seen prolonged increases in life expectancy, which most analysts project to continue, implying an increasing number of older people and most likely of pensioners too.

There have also been substantial declines in fertility, which, of course, will eventually diminish the number of workers entering the labour market. For example, fertility rates fell below the replacement level on average in OECD countries around 1980, implying shrinking generations. In

the future, however, there is a great deal of uncertainty over how fertility rates will evolve.

For the OECD as a whole, the increase in the dependency ratio is projected to continue. There is, however, an assumed convergence among OECD countries, with demographically younger countries ageing more rapidly.

By far Korea is expected to record the most rapid population ageing among OECD countries. The dependency ratio would increase from 6 in 1950 to 79 by 2075 and Korea will move from being the fourth youngest country in the OECD in 2015 to the oldest in 2075.

The pattern for the EU28 broadly follows the OECD average. European countries are already slightly older than the OECD average: a dependency ratio of 30 for the EU28 in 2015 compares with an OECD figure of 28. By 2075, the dependency ratio for the European Union is also projected to reach 58.

All of the other non-OECD major economies have dependency ratios below the OECD average. However, many will face rapid population ageing in the coming decades. In Brazil and China, for example, the dependency ratio will increase from around 13 and 14 currently to 62 and 66 in 2075, respectively. By the end of the projection horizon, South Africa will be youngest country, demographically very close to the OECD average today, with a dependency ratio of 29, followed by Indonesia at 31.

### Definition and measurement

The demographic old-age dependency ratio is defined as the number of individuals aged 65 and over per 100 people of working age defined as those aged between 20 and 64.


The projections for old-age dependency ratios used here are based on the most recent “medium-variant” population projections. They are drawn from the United Nations, *World Population Prospects – 2017 Revision*.

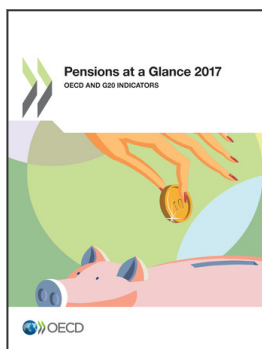
### 5.5. Demographic old-age dependency ratios: Historical and projected values, 1950-2075

	1950	1975	2000	2015	2025	2050	2075
<b>OECD members</b>							
Australia	14.0	16.0	20.6	25.0	31.2	41.2	48.4
Austria	17.3	27.1	24.9	30.5	37.1	59.4	63.1
Belgium	18.1	25.2	28.3	30.6	37.1	51.0	54.0
Canada	14.0	15.4	20.5	26.1	36.2	48.1	54.5
Chile	8.6	11.3	13.1	17.0	23.6	43.0	61.2
Czech Republic	13.9	22.7	21.9	28.8	37.1	58.9	55.6
Denmark	15.6	23.7	24.2	33.0	37.7	45.3	53.4
Estonia	19.3	21.2	25.0	31.0	39.2	56.3	59.0
Finland	11.9	18.1	24.8	35.0	44.0	48.8	54.7
France	19.5	24.5	27.3	33.3	40.9	52.3	55.8
Germany	16.2	26.5	26.5	34.8	41.4	59.2	63.1
Greece	12.4	20.9	26.7	33.0	39.2	73.4	75.2
Hungary	13.2	21.3	24.5	27.9	36.6	52.4	57.6
Iceland	14.1	18.1	20.2	23.1	31.5	45.7	58.4
Ireland	20.9	21.4	18.0	22.3	29.0	49.9	50.9
Israel	7.1	15.2	18.8	21.1	25.2	32.1	39.4
Italy	14.3	21.6	29.2	37.8	45.6	72.4	67.0
Japan	9.9	12.7	27.3	46.2	54.4	77.8	75.3
Korea	6.3	8.2	11.2	19.4	31.7	72.4	78.8
Latvia	18.1	21.9	25.1	31.5	39.0	52.3	52.0
Luxembourg	15.8	22.6	22.9	22.0	26.4	42.0	47.1
Mexico	7.9	9.6	10.0	11.4	14.8	32.2	53.7
Netherlands	13.9	19.3	21.9	30.2	39.0	53.0	59.7
New Zealand	16.3	16.9	20.3	25.1	32.5	43.6	54.5
Norway	16.0	24.9	25.9	27.4	32.5	43.1	51.2
Poland	9.4	17.1	20.1	24.3	36.4	60.8	73.3
Portugal	13.0	19.6	26.8	34.6	42.4	73.2	77.6
Slovak Republic	11.9	18.3	18.6	21.5	31.4	53.9	58.0
Slovenia	12.5	19.0	22.4	28.8	41.1	66.8	60.2
Spain	12.8	19.0	26.9	30.6	38.6	77.5	70.4
Sweden	16.8	26.3	29.5	33.8	38.2	45.5	51.6
Switzerland	15.8	21.5	24.9	29.0	35.4	54.6	58.1
Turkey	6.5	10.0	11.4	13.4	17.3	36.2	54.8
United Kingdom	17.9	25.5	27.0	31.0	35.9	48.0	53.0
United States	14.2	19.7	20.9	24.6	32.9	40.3	49.3
<b>OECD</b>	<b>13.9</b>	<b>19.5</b>	<b>22.5</b>	<b>27.9</b>	<b>35.2</b>	<b>53.2</b>	<b>58.6</b>
Argentina	7.5	14.1	18.6	19.5	21.8	31.8	44.6
Brazil	6.5	8.0	9.3	13.0	18.3	40.1	62.3
China	8.5	8.8	11.4	14.5	22.3	47.9	58.8
India	6.4	7.6	8.7	10.0	12.7	22.0	37.0
Indonesia	8.6	7.9	8.7	8.7	11.6	23.1	32.5
Russian Federation	8.7	15.5	20.4	20.7	30.1	40.0	37.6
Saudi Arabia	7.5	7.6	6.1	4.8	7.5	27.4	40.6
South Africa	8.5	8.1	7.8	9.0	11.1	17.8	29.0
EU28	14.7	21.2	24.3	29.9	37.5	55.9	59.7

Note: The demographic old-age dependency ratio is defined as the number of individuals aged 65 and over per 100 people of working age defined as those aged between 20 and 64.

Source: United Nations, *World Population Prospects – 2017 Revision*.

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