Key Results

There are 31 individuals aged 65 and over for every 100 persons of working age (ages 20 to 64) on average across all OECD countries while they were only about 21 thirty years ago. Population ageing has been accelerating as this average old-age to working-age demographic ratio – computed by keeping age thresholds constant – is projected to reach 53 over the next thirty years.

Currently, the demographically oldest OECD country is Japan, with an old-age to working-age ratio equal to 52.0 (meaning 52 individuals aged 65 and over for 100 persons of working age defined as 20 to 64). Finland and Italy also have high old-age ratios, of about 40. By 2050, the old-age to working-age ratio is expected to reach more than 70 in Greece (75.0), Italy (74.4), Japan (80.7), Korea (78.8), Portugal (71.4) and Spain (78.4).

By contrast, Mexico and Turkey are the youngest countries based on this indicator, with old-age to working-age ratios of 13.2 and 15.2 respectively, followed by Chile, at 19.7. In the second half of this century, however, these countries are expected to age considerably. By 2080, the old-age ratio would rise above the OECD average in Chile (67.5 compared to 60.8) and closer to the average in Mexico and Turkey (50.9 and 58.2, respectively).

Four Anglo-Saxon OECD countries – Australia, Canada, Ireland and the United States – have relatively low old-age ratios, between 25 and 30. This is partly due to inward migration of workers and – except for Canada – to comparatively high fertility rates just below replacement level in recent decades.

The evolution of old-age to working-age ratios depends on mortality rates, fertility rates and migration. OECD countries have seen prolonged increases in life expectancy that 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 the mid-1980s, implying shrinking populations in the long term. In the future, however, there is a great deal of uncertainty over how fertility rates will evolve (Figure 6.1).

For the OECD as a whole, the increase in the old-age to working-age ratio is projected to continue according to the medium forecast of United Nations Populations Prospects, from 31.2 in 2020 to 53.4 in 2050 and 60.8 in 2080. By far, Korea is facing the most rapid population ageing among OECD countries. The old-age ratio would increase from 6.3 in 1950 to 94.6 in 2080 and Korea would move from being the fifth youngest country in the OECD in 2020 to the oldest in 2080.

European countries are already slightly older than OECD countries and the forecast pattern for the EU28 broadly follows the OECD average. All of the non-OECD major economies have old-age to working-age ratios below the OECD average. However, many will face rapid population ageing in the coming decades. In Brazil and China, for example, the old-age ratio will increase from below 20 currently to above 60 in 2080. By the end of the projection horizon, South Africa is forecasted to be the youngest country, even below the OECD average today, with an old-age ratio of 26.8.

Projections of the old-age to working-age ratio underlie marked uncertainty on developments in fertility, mortality and migration. Therefore, the OECD average of the old-age to working-age ratio in 2050 lies within the range 50.8-56.0 in only 60% of simulated forecasts by the UN (Figure 6.5).

Definition and measurement

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

Table 6.2. **Demographic old-age to working-age ratio: Historical and projected values, 1950-2080**

	1950	1960	1990	2020	2050	2080		1950	1960	1990	2020	2050	2080
Australia	14.0	16.0	18.8	27.7	41.6	49.4	New Zealand	16.3	17.0	19.5	28.3	43.8	57.5
Austria	17.3	21.0	24.3	31.3	56.0	60.2	Norway	16.0	19.8	28.5	29.6	43.4	53.4
Belgium	18.1	20.3	24.8	33.1	51.3	56.8	Poland	9.4	10.5	17.3	30.5	60.3	68.6
Canada	14.0	15.1	18.4	29.8	44.9	54.0	Portugal	13.0	14.8	23.9	38.6	71.4	72.3
Chile	7.2	7.9	10.9	19.7	44.6	67.5	Slovak Republic	11.9	12.6	18.2	26.5	54.6	58.1
Czech Republic	13.9	16.3	22.0	33.8	55.9	52.8	Slovenia	12.5	13.7	17.3	34.7	65.0	60.7
Denmark	15.6	19.0	25.9	34.9	44.6	52.4	Spain	12.8	14.6	23.1	32.8	78.4	74.4
Estonia	19.3	17.7	19.7	34.9	54.9	63.2	Sweden	16.8	20.2	30.9	35.9	45.5	53.4
Finland	11.9	13.5	22.0	40.1	51.4	65.0	Switzerland	15.8	17.6	23.6	31.3	54.4	56.7
France	19.5	20.8	24.0	37.3	54.5	62.2	Turkey	6.5	7.0	9.4	15.2	37.0	58.2
Germany	16.2	19.1	23.5	36.5	58.1	59.5	United Kingdom	17.9	20.2	26.9	32.0	47.1	55.1
Greece	12.4	12.2	22.9	37.8	75.0	79.7	United States	14.2	17.3	21.6	28.4	40.4	51.1
Hungary	13.2	15.5	22.9	33.4	52.6	55.4	**OECD**	**13.9**	**15.5**	**20.6**	**31.2**	**53.4**	**60.8**
Iceland	14.1	16.4	19.0	26.6	46.2	64.5							
Ireland	20.9	22.8	21.6	25.0	50.6	60.0							
Israel	7.1	9.1	17.8	23.9	31.3	39.9	Argentina	7.5	10.1	17.3	20.2	30.3	45.5
Italy	14.3	16.4	24.3	39.5	74.4	79.6	Brazil	6.5	7.1	8.4	15.5	39.5	63.7
Japan	9.9	10.4	19.3	52.0	80.7	82.9	China	8.5	7.6	10.2	18.5	47.5	60.6
Korea	6.3	7.6	8.9	23.6	78.8	94.6	India	6.4	6.4	7.9	11.3	22.5	40.8
Latvia	18.1	17.7	19.9	35.5	53.0	49.9	Indonesia	8.6	7.6	7.7	10.6	27.3	41.0
Lithuania	17.5	14.0	18.4	34.7	55.7	55.7	Russian Federation	8.7	10.5	17.2	25.3	41.7	41.9
Luxembourg	15.8	17.6	21.1	22.3	43.8	50.1	Saudi Arabia	7.5	8.4	6.1	5.3	28.2	44.8
Mexico	8.0	8.3	9.6	13.2	28.9	50.9	South Africa	8.5	8.4	8.7	9.6	17.4	26.8
Netherlands	13.9	16.8	20.6	34.3	53.3	62.2	EU28	14.7	16.2	21.8	33.5	56.3	61.7

Note: The demographic old-age to working-age ratio is defined as the number of individuals aged 65 and over per 100 people aged between 20 and 64.
Source: United Nations, Department of Economic and Social Affairs (2019), World Population Prospects 2019, Online Edition (for future periods: medium-variant forecast).
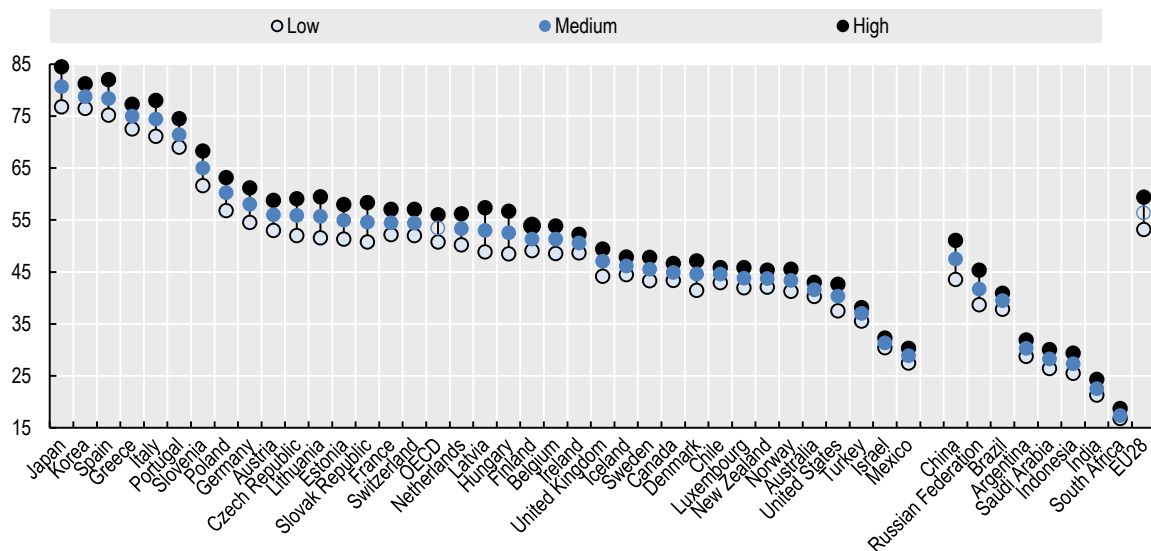
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Figure 6.5. **Uncertainty about demographic old age to working age ratio projections**

Low, medium and high variant projections for 2050-2055

Note: Low, medium and high variant projections correspond to the 20%, 50% and 80% percentiles of probabilistic projections respectively.
Source: United Nations, Department of Economic and Social Affairs (2019). Probabilistic Population Projections based on the World Population Prospects 2019: http://population.un.org/wpp/.

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