# GE2. AGE-DEPENDENCY RATIOS

## Definition and measurement

Age-dependency ratios are a measure of the age structure of the population. They relate the number of individuals that are likely to be "dependent" on the support of others for their daily living – youths and the elderly – to the number of those individuals who are capable of providing such support. The key indicator of age-dependency used below relates the number of individuals aged less than 20 and of those aged 65 and over to the population aged 20 to 64. Two other indicators are presented in this section: the youth-dependency ratio (for individuals aged less than 20) and the old-age-dependency ratio (for persons aged 65 and more), both calculated relative to the number of individuals aged 20 to 64. Taken together, these ratios provide information about the demographic shifts that have characterized OECD countries in the past and that are expected in the future.

The projections for age-dependency ratios used in this section are based on the most recent "medium variant" population projections established by each OECD country, as available in the OECD Demographic and Labour Force database. These estimates differ from those presented in previous issues of *Society at a Glance*, and which were based on UN population projections.

Age-dependency ratios affect the global environment where social policy operates and the types of needs that it will be called to meet. Their evolution is a function of mortality, fertility rates and of net migration. In all OECD countries, higher life expectancy and lower fertility rates have led to a rise in the old-age-dependency ratio and in a decline in the youth-dependency ratio over time, although to very different levels and with various degree of intensity in this decline.

The age-dependency ratio varied in 2005 between around 55% in Korea, the Czech and Slovak Republics and above 80% in Mexico and Turkey, with an average value across the OECD area of 65% (Figure GE2.1). The age-dependency ratio is projected to decline in Mexico and Turkey (to around 70%) and to rise sharply in all other OECD countries, with an increase of 23 points (around ¼) for the OECD as a whole. By 2050, this ratio is projected to exceed 100% (*i.e.* the number of "dependents" exceeding that of those capable to provide support to them) in Italy, Japan and Spain.

This change in the age-dependency ratio is the result of diverging trend at the two ends of the age distribution. With respect to the elderly, in 2005 there were, on average, 24 persons aged 65 and over for every 100 persons aged 20 to 64, a level around 1/5 higher than that recorded in 1980. Cross-country differences are large (GE2.2, left-hand panel) – between 30 and 35% in Germany, Greece, Italy and Japan and only around 10% in Mexico and Turkey. By 2050, this ratio is projected to more than double in the OECD area (to 52%) and to triple in Mexico and the Slovak Republic. By 2050, the old-age-dependency ratio will exceed 70% in Italy, Spain and Japan, while remaining below 40% in Denmark, Iceland, Luxembourg, Mexico, Turkey and the United States. This OECD projects that this increase in old-age-dependency ratios is will contribute to higher public spending in health, long-term care and pensions; for health and long-term care alone, the increases may range between 3.5 and 6 percentage points of GDP, depending on the scenarios (OECD, 2006b).

Conversely, the youth-dependency ratio had reached a level of 41% across OECD countries in 2005 – with a decline of around 20 percentage points from its 1980 level – ranging between 31% in Italy and Japan, and 70% or more in Turkey and Mexico (GE2.2, right-hand panel). In most OECD countries, the youth-dependency ratio will decline further in the future (reaching a level of 37% in the OECD average by 2050) while stabilising in a large number of OECD countries. The small fall in the youth-dependency ratio may contribute to lower public expenditures in education, but these declines are not large enough to offset higher spending towards the elderly.