

Key results

Public spending on pensions has been on this rise in most OECD countries for the past two decades, as shown by the previous two indicators. Long-term projections show that pension spending is expected to go on growing in 25 out of 29 OECD countries where data are available. On average pension expenditure is forecast to grow from 8.4% of gross domestic product (GDP) in 2010 to 11.4% of GDP in 2050.

The main driver of growing pension expenditures is demographic change. The projections shown opposite are derived either from the European Union's ageing report – which covers its 27 members plus Norway – or from national projections. In the main, data are presented forwards to 2060, although the horizon is 2050 for three countries. Long-term projections are a vital tool in planning pension policy: there is often a long lag time between a pension reform and the time it begins to affect public pension expenditure.

There are some differences in the range of different programmes covered in the forecasts, reflecting the complexity and diversity of national retirement-income provision. For example, data for a number of countries do not include special schemes for public-sector workers while in others they are included. Similarly, projections can either include or exclude spending on resource-tested benefits for retirees. The coverage of the data also differs from the *OECD Social Expenditures (SOCX) Database*, from which the data on past spending trends in the previous two indicators were drawn. The numbers for 2007 may differ between the *SOCX Database* and the sources used here because of the different range of benefits covered.

Nevertheless, the figures do reveal broad trends. Pension spending is projected to grow 40% faster than GDP over the period 2010 to 2060 on average in both the OECD29 and EU27 groupings. Although this is a significant additional piece of national income, this rate of growth is much slower than demographic change would have delivered. The indicator of the "Old-age support ratio" in Part II.5 below shows a halving of the number of people of working age to the number of people of pension age between 2010 and 2050. This would imply a doubling in the proportion of national income devoted to public pensions.

Pension reforms explain why such an increase is not projected to take place. Cuts in benefits for future retirees and increases in the age at which people first

claim pensions will reduce growth in public pension expenditure. In a number of countries – Denmark, France, Italy, Sweden and the United States – pension expenditure is broadly stable over the forecast horizon. Only two countries – Estonia and Poland – expect a substantial reduction in spending over time. Both of these countries have introduced mandatory defined-contribution plans as a substitute for part of public, earnings-related benefits. However, similar reforms in Hungary and the Slovak Republic are not expected to reverse the trend growth in public pension spending.

In five countries, pension spending is expected to double or increase further between 2010 and 2060. In Greece and Luxembourg, public spending is already above the OECD average and is projected to exceed 20% of GDP by 2060. (However, these forecasts do not take account of the impact of the Greek pension reforms enacted in 2010.) Japan, which will be the demographically oldest OECD country in 2060, will also see a rapid increase, from just below the OECD average to well above. The rate of change is also very rapid in Ireland and Korea. However, the increases are in both cases from a low base, and pension spending will still be much below the OECD average in 2060. In Korea, this rapid increase reflects both the fact that it is the most rapidly ageing OECD country and that the pension scheme was only established in 1988 and so is not yet mature. In Slovenia, spending will increase nearly as rapidly, from 10.1% of GDP in 2010 to 18.6% in 2060.

The rate of growth in pension spending is expected to be close to the average in five countries. In Australia, Switzerland and the United Kingdom, this is from a low starting point, significantly below the OECD average. In Belgium and Norway, in contrast, the base is rather higher than the OECD average. (Again, however, Norway has introduced a pension reform since these projections were made.)

Projections of public expenditure on pensions, 2007-60

	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
OECD countries												
Australia	3.6	3.6	3.6	3.7		4.3		4.7		4.9		
Austria	12.8	12.7	12.8	13.0	13.4	13.8	13.9	13.9	14.0	14.0	13.9	13.6
Belgium	10.0	10.3	10.9	11.8	13.0	13.9	14.4	14.6	14.7	14.7	14.8	14.7
Canada	4.6	5.0	5.4	5.8	6.3	6.6	6.6	6.5	6.4	6.3	6.3	6.2
Chile												
Czech Republic	7.8	7.1	6.9	6.9	7.0	7.1	7.6	8.4	9.4	10.2	10.8	11.0
Denmark	9.1	9.4	10.2	10.6	10.5	10.6	10.5	10.4	10.0	9.6	9.3	9.2
Estonia	5.6	6.4	6.2	5.9	5.8	5.6	5.4	5.4	5.3	5.3	5.2	4.9
Finland	10.0	10.7	11.8	12.6	13.4	13.9	13.9	13.6	13.4	13.3	13.3	13.4
France	13.0	13.5	13.5	13.6	13.9	14.2	14.5	14.4	14.3	14.2	14.1	14.0
Germany	10.4	10.2	10.1	10.5	11.0	11.5	11.9	12.1	12.2	12.3	12.5	12.8
Greece	11.7	11.6	12.2	13.2	14.8	17.1	19.4	21.4	23.0	24.0	24.3	24.1
Hungary	10.9	11.3	10.9	11.0	10.9	11.0	11.4	12.2	12.7	13.2	13.7	13.8
Iceland		4.0								6.9		
Ireland	4.0	4.1	4.3	4.6	5.0	5.4	5.8	6.4	7.1	8.0	8.4	8.6
Israel												
Italy	14.0	14.0	14.0	14.1	14.3	14.8	15.2	15.6	15.4	14.7	14.2	13.6
Japan												
Korea	0.6	0.9	1.1	1.4	2.0	2.5	3.1	3.9	4.8	5.5	6.0	6.5
Luxembourg	8.7	8.6	8.9	9.9	12.1	14.2	16.6	18.4	20.7	22.1	23.7	23.9
Mexico		2.4								3.5		
Netherlands	6.6	6.5	7.2	7.8	8.4	9.3	10.0	10.3	10.3	10.3	10.4	10.5
New Zealand	4.0	4.7	4.8	5.3	5.9	6.7	7.3	7.7	7.8	8.0		
Norway	8.9	9.6	10.8	11.5	12.0	12.7	13.2	13.4	13.4	13.3	13.5	13.6
Poland	11.6	10.8	9.6	9.7	9.7	9.4	9.3	9.2	9.1	9.1	9.0	8.8
Portugal	11.4	11.9	12.1	12.4	12.6	12.6	12.3	12.5	12.8	13.3	13.1	13.4
Slovak Republic	6.8	6.6	6.3	6.3	6.9	7.3	7.8	8.3	8.8	9.4	9.9	10.2
Slovenia	9.9	10.1	10.6	11.1	12.0	13.3	14.7	16.1	17.3	18.2	18.6	18.6
Spain	8.4	8.9	9.2	9.5	10.1	10.8	11.9	13.2	14.6	15.5	15.6	15.1
Sweden	9.5	9.6	9.5	9.4	9.4	9.5	9.5	9.4	9.1	9.0	9.2	9.4
Switzerland	6.4	6.3	6.6	6.8	7.5	8.1	8.6	8.6	8.8	8.6		
Turkey		7.3								11.4		
United Kingdom	6.6	6.7	6.8	6.9	7.2	7.6	7.8	8.0	7.9	8.1	8.6	9.3
United States	4.3	4.6	4.8	4.9	4.9	4.9	4.9	4.8	4.8	4.8	4.7	4.7
OECD28		8.4	8.6	8.9		10.0		10.8		11.4		
Other major economies												
Argentina		5.9								8.6		
Brazil		8.5								15.8		
China		2.2								2.6		
India		1.7								0.9		
Indonesia		0.9								2.1		
Russian Federation	5.2	7.9		7.3		6.4		6.1		6.0		
Saudi Arabia		2.2								7.1		
South Africa	1.1	1.3	1.7	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.4
EU27	8.9	9.1	9.2	9.6	10.0	10.6	11.1	11.6	12.1	12.5	12.8	12.9

Note: OECD28 figure shows only countries for which complete data between 2010 and 2050 are available. EU27 figure is a simple average of member states (not the weighted average published by the European Commission). Pension schemes for civil servants and other public-sector workers are generally included in the calculations for EU member states: see European Commission, *op. cit.* Expenditures on these schemes are not included for Canada, Japan, South Africa and the United States. Projections are not available, in some cases, for separate resource-tested programmes for retirees. This is the case for the United States and some EU member states as set out in European Commission, *op. cit.* Similarly, data for Korea cover the earnings-related scheme but not the basic (resource-tested) pension.

Source: European Commission (2009), "The 2009 Ageing Report: Economic and Budgetary Projections for the EU-27 Member States (2008-2060)", in *European Economy*, No. 2/2009, Brussels; Commonwealth of Australia (2010), *Australia to 2050: Future Challenges*; calculations provided by the Office of the Chief Actuary, Office of the Superintendent of Financial Institutions, Canada; National Pensions Research Institute, Korea; the Russian Federation: Pension Fund of the Russian Federation (2009), "Actuarial Forecast of Developments of the Pension Fund of the Russian Federation", Department of Actuarial Valuation and Strategic Planning; South Africa, OECD Secretariat estimates assuming a universalised basic pension; Social Security Administration (2010), *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, Document 111-137, House of Representatives, United States; Standard and Poor's (2010), *Global Aging 2010: An Irreversible Truth for Argentina, Brazil, China, Iceland, India, Indonesia, Mexico, Saudi Arabia, Turkey*.

StatLink  <http://dx.doi.org/10.1787/888932372431>

PART II

Chapter 5

Demographic and Economic Context

Population ageing has been one of the main driving forces behind pension policies and reforms in the past two decades. Ageing is the result of two demographic changes.

The first is a decline in the number of births. Fertility rates and how they have changed over time are explored in the first indicator in this section, along with a brief discussion of explanations for the trends. The second factor pushing population ageing is increasing life expectancy. Changes in life expectancy – at birth and at age 65 – over time are shown. There is also a brief discussion of how life expectancy might change in the future.

Population ageing itself is addressed by the third indicator. The degree of ageing is measured with the support ratio: the number of people of working age relative to the number of pension age. The old-age support ratio is shown for a century: historical data back to 1950 and projections forward to 2050.

The final indicator shows the economic context. It gives data on average (mean) earnings, calculating using the OECD's "average-worker" measure, for 2008. These data are used widely in the report: many values for parameters and results for pension entitlements are reported as percentages of national average earnings. There is also information on the distribution of earnings. The indicators of pension entitlements are often given at median earnings, that is, the level below and above which half the population lie. The earnings-distribution data are also included in the calculation of indicators of the structure of the pension package, pension progressivity and weighted averages of pension levels and pension wealth.



From:
Pensions at a Glance 2011
Retirement-income Systems in OECD and G20 Countries

Access the complete publication at:
https://doi.org/10.1787/pension_glance-2011-en

Please cite this chapter as:

OECD (2011), "Long-Term Projections of Public Pension Expenditure", in *Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/pension_glance-2011-32-en

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