



Normal Retirement Ages and Benefit Accrual Factors

	Retirement age (male/female)	Accrual factors ^b
U.S.	65/65 ^c	— ^d
Japan	60/55	0.75
Germany	65/65	1.50
France	60/60	1.75
Italy	62/57	2.00
U.K.	65/60	0.40
Canada	65/65	0.50
Sweden	65/65	— ^e

Benefit Indexation Rules and Generosity

	Benefit indexation	Maximum replacement rate (percent)
U.S.	Prices	41
Japan	Net wages ^f	30
Germany	Net wages ^f	60
France	Prices/gross wages	50
Italy	Prices	80
U.K.	Prices	20
Canada	Prices	25
Sweden	Prices	60

a. Population aged 65 years or over/population aged 15 to 64.

b. Percent of assessed wages per year.

c. Scheduled to increase gradually to 67 beginning in 2003 (for both sexes).

d. Increases as assessed income declines.

e. Declines as number of contribution years increases.

f. Net of income and payroll taxes.

SOURCE: International Monetary Fund, "Aging Populations and Public Pension Schemes," Occasional Paper No. 147, December 1996.

In a pay-as-you-go (PAYGO) public pension program like the U.S. Social Security system, the elderly dependency ratio provides a crucial link between payroll tax rates and benefit levels: An increase implies that lower benefit levels or higher tax rates will be needed to maintain system solvency.

During the next two decades, elderly dependency ratios are projected to increase rapidly in developed countries, almost all of which have PAYGO or partially funded public pension programs. Japan's

ratio is already rising sharply, while Germany's will begin to spike in the year 2000. The U.S. is not projected to see a major increase until after 2010.

For most of the countries included in the charts, the ratio ends up at about 40% by 2040, an increase of more than 100% from current levels. For Germany and Japan, however, the ratio will exceed 50%, and for Italy, it is projected to reach 60%.

Pressure to reform PAYGO public pension systems will depend on the generosity of the existing programs:

Those offering more generous replacement rates—the fraction of income replaced by benefits—and those having fewer reserves will become bankrupt earlier if no reforms are implemented. Moreover, those whose benefits are wage- rather than price-indexed and those with higher benefit accrual factors will experience more rapid growth in outlays as the population ages. Germany, France, and Italy have the largest replacement rates and the highest benefit accrual factors. These nations are all fully PAYGO.