Key results

The second tier of the OECD's taxonomy of retirement-income provision comprises earnings-related pensions. Key parameters and rules of these schemes determine the value of entitlements, including the long-term effect of pension reforms that have already been legislated.

Earnings-related schemes can be of three different types: defined benefit (DB), points or notional accounts (NDC). The ***accrual rate*** shows the rate at which benefit entitlements build up for each year of coverage. The accrual rate is expressed as a percentage of the earnings that are "covered" by the pension scheme.

For points systems, the effective accrual rate is calculated as the ratio of the cost of a pension point to the pension-point value. In notional-accounts schemes, the effective accrual rate is calculated in a similar way; it depends on the contribution rate, notional interest rate and annuity factors.

In a little under half of the countries with earnings-related plans (of all three types), accrual rates are "linear". Elsewhere, the benefit earned for each year of coverage varies, either with individual earnings, age or years of contributions.

Among the eight cases where accrual rates vary with earnings, the public schemes of the Czech Republic, Portugal, Switzerland and the United States are "progressive". They pay higher replacement rates to lower earners. In the United Kingdom, accrual rates are U-shaped: highest for low earners, then smaller, then higher again. The occupational plans of France and Sweden are designed to offset the public scheme's redistribution, paying a higher replacement rate to high earners on their pay above the ceiling of the public plan. In Swiss occupational plans and Finland, accrual increases with age.

Accrual rates vary with service in two countries; in Luxembourg, increasing with a longer contribution history. Spain does the reverse: the highest accruals for the first few years of coverage and lower later on.

Earnings measures used to calculate benefits also differ. Some 21 OECD countries use lifetime earnings to calculate benefits and in Canada and the United States, the great majority of careers (34-35 years) are used. Final salaries are not used to calculate benefits in any OECD country, though Spain does use the final 25 years. Public benefits in France and all benefits in Slovenia are based on the best 25 years' earnings and best 24 years, respectively.

Closely linked with the earnings measure is ***valorisation***, whereby past earnings are adjusted to take account of changes in living standards between the time pension rights accrued and the time they are claimed (sometimes called pre-retirement indexation). If benefits are based on the final year's salary, there is no need for valorisation. But it is necessary to protect the value of pension entitlements when benefits are based on earnings over a longer period. The uprating of the pension-point value and the notional interest rate in points and notional-accounts systems, respectively are the exact corollaries of valorisation in DB plans.

The most common practice is to revalue earlier years' pay with the growth of average earnings. Belgium, France, Greece and Spain, revalue earnings only with price inflation and 25 years enters the benefit formula in the French public scheme compared with lifetime average in Belgium and the French occupational plans. Estonia, Finland and Portugal revalue earlier years' earnings to a mix of price and wage inflation and for Turkey it is a mix of prices and GDP.

The key parameter for defined-contribution (DC) plans is the proportion of earnings that must be paid into the individual account. The average ***contribution rate*** for the ten countries shown, including quasi-mandatory DC occupational schemes in Denmark and Sweden, is 7.9%.

Most countries set a limit on the earnings used to calculate both contribution liabilities and pension benefits. The average ***ceiling*** on public pensions for 20 countries is 191% of average worker earnings, excluding four countries with no ceiling on public pensions. Ceilings are typically higher for mandatory private pensions.

Indexation refers to the uprating of pensions in payment. Price indexation is most common, but five countries uprate benefits with a mix of inflation and wage growth. A further two have a combination of prices and GDP, with another two increasing by wages with a set deduction. Some countries have progressive indexation, giving larger increases to low pensions.

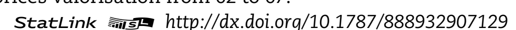
3.6. Parameters and rules of income-replacement pensions

	Earnings-related schemes					DC schemes	Ceilings on pensionable earnings (% of AW earnings)	
	Type	Accrual rate (%)	Earnings measure	Valorisation	Indexation	Contribution rate (%)	Public	Private
Australia	None					12.0		249
Austria	DB	1.78	40	w[1]	d		145	
Belgium	DB	1.33	L	p	p		111	
Canada	DB	0.63	b34	w	p [c]		107	
Chile	None					10.0		298
Czech Republic	DB	0.53-2.04	L	w	33w/67p		None	
Denmark	None					10.8[2]		
Estonia	Points	1.00	L	50w/50p	80w/20p	6.0	None	None
Finland	DB	1.5-4.5	L	80w/20p	20w/80p		None	
France	DB/points	1.06	b25/L	p/p	p/p		99/297[3]	
Germany	Points	1.00	L	w [c]	w [c]		150	
Greece	DB	0.8-1.5	L	p	50p/50GDP		327[4]	
Hungary	DB	1.22	L	w	p			
Iceland	DB	1.40	L	fr	p			None
Ireland	None							
Israel	None					15.0		100
Italy	NDC	1.75	L	GDP	p[5]		332	
Japan	DB	0.55	L	w	p		155[6]	
Korea	DB	0.89	L	w	p		121	
Luxembourg	DB	1.84 [y]	L	w	p/w		180	
Mexico	None					6.5		604
Netherlands	DB	1.75	L	w [c]	w [c]			None
New Zealand	None							
Norway	NDC	0.98	L	w	w-0.75	2.0	191	
Poland	NDC	0.52	L	w	p	3.8	250	
Portugal	DB	2.25 [w]	L	25w/75p	p/GDP[7]		None	
Slovak Republic	Points	1.25	L	w	50w/50p	6.0	500	
Slovenia	DB	1.25	b24	w (d)	w		154	
Spain	DB	2.7 [y]	f25	p	p		153	
Sweden	NDC	0.75 [w]	L	w [c]	w-1.6 [c]	2.5 + 4.5[8]	114	110/none[8]
Switzerland	DB	[w/a]	L	fr	50w/50p		96	96
Turkey	DB	1.5-3.5	L	p + 30% GDP	p		259	
United Kingdom	DB	0.21-0.83	L	w	p		113	
United States	DB	0.91-2.57	b35	w[9]	p		264	

Note: Parameters are for 2012 but include all legislated changes that take effect in the future: for example, some countries are extending the period of earnings covered for calculating benefits. Empty cells indicate that the parameter is not relevant.

[a] = Varies with age; b = Number of best years; [c] = Valorisation/indexation conditional on financial sustainability; d = Discretionary indexation; DB = Defined benefit; DC = Defined contribution; f = Number of final years; fr = Fixed rate valorisation; GDP = Growth of gross domestic product; L = Lifetime average; NDC = Notional accounts; p = Valorisation/indexation with prices; w = Valorisation/indexation with average earnings; [w] = Varies with earnings; [y] = Varies with years of service.

1. Austria: valorisation assumed to move to earnings as the averaging period for the earnings measure is extended.
2. Denmark: typical contribution rate for quasi-mandatory occupational plans.
3. France: the first ceiling relates to the national pension scheme, the second to the mandatory occupational plan modelled here (ARRCO).
4. Greece: effective ceiling calculated from maximum pension.
5. Italy: indexation is fully to prices for low pensions, 90% of prices or 75% of prices for higher pensions.
6. Japan: the ceiling is calculated as 200% of the average monthly remuneration of all insured workers in Employees' Pension Insurance, disregarding bonuses.
7. Portugal: indexation will be higher relative to prices for low pensions and vice versa. Indexation will be more generous the higher is GDP growth.
8. Sweden: the contribution rate is 2.5% for personal plans up to the ceiling for the public scheme. For quasi-mandatory occupational plans the contribution rates are 4.5% on a lower slice of earnings and 30% on an upper slice with no ceiling (in the largest scheme for private-sector workers).
9. United States: earnings valorisation to age 60; no adjustment from 60 to 62; prices valorisation from 62 to 67.


StatLink http://dx.doi.org/10.1787/888932907129

From:

Pensions at a Glance 2013

OECD and G20 Indicators

Access the complete publication at:

https://doi.org/10.1787/pension_glance-2013-en

Please cite this chapter as:

OECD (2013), "Earnings-related pensions", in *Pensions at a Glance 2013: OECD and G20 Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/pension_glance-2013-8-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

OECD