MANDATORY EARNINGS-RELATED PENSIONS

Key results

The second-tier of the OECD's taxonomy of retirement-income provision comprises mandatory 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 four different types: defined benefit (DB), points, notional defined contribution (NDC), or defined contribution (DC). 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 one-third of countries the accrual rate is constant within their DB or points systems. In the other countries with similar schemes, the benefit earned for each year of coverage varies, either with the level of earnings, age or years of contributions.

Among the seven 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. The occupational plans of France and Sweden, in contrast to the public scheme's redistribution, pay a higher replacement rate to high earners on their pay above the ceiling of the public plan. In the occupational plan in Switzerland accrual rates increase with age.

Accrual rates vary with service in three countries. In Luxembourg, they increase with a longer contribution history. Hungary and Spain do 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 (3435 years) are used. Spain uses the final 25 years, while public benefits in France and all benefits in Slovenia are based on respectively, the best 25 years and 24 years of earnings.

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). 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 enter the benefit formula in the French and Spanish defined-benefit 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 price inflation and GDP growth.

One key parameter for defined contribution (DC) plans is the proportion of earnings that must be paid into the individual account, as this is directly linked to size of the pension pot at retirement. The average ***contribution rate*** for the 11 countries shown, including quasi-mandatory DC occupational schemes in Denmark and Sweden, is 6.9%. A number of countries have large voluntary DC schemes, as shown in indicator 4.4, but they are not included here.

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 224% of average economy-wide 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 six 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. Future parameters and rules of mandatory earnings-related pensions

	DB, Points or NDC schemes					DC schemes	Ceilings on pensionable earnings (% of average earnings)	
	Type	Accrual rate (%)	Earnings measure	Valorisation	Indexation	Contribution rate (%)	Public	Private
Australia	None					9.5-12		248
Austria	DB	1.78	28-40	w [1]	d		153	
Belgium	DB	1.33	L	p	p		117	
Canada	DB	0.64	L(83%b)	w	p [c]		108	
Chile	None					10.0		294
Czech Republic	DB	1.5-1.02	L	w	50w/50p		None	
Denmark	None					12 [2]		
Estonia	Points	1.0	L	50w/50p	80w/20p	6.0	None	None
Finland	DB	1.5	L	80w/20p	20w/80p		None	
France	DB/points	1.12	b25/L	p/p	p/p		101/304 [3]	
Germany	Points	1.00	L	w [c]	w [c]		156	
Greece	DB	0.8-1.5	L	p	50p/50GDP		350 [4]	
Hungary	DB	1.0-2.87	L	w	p			
Iceland	DB	1.40	L	fr	p			None
Ireland	None							
Israel	None					15.0		457
Italy	NDC	1.46	L	GDP	p [5]		327	
Japan	DB	0.55	L	w	w/p [6]		234	
Korea	DB	1.00	L	w	p		119	
Latvia	NDC		L	w	p+50%GDP	6.0	478	
Luxembourg	DB	1.825 [y]	L	w	p/w		205	
Mexico	None					6.5		591
Netherlands	DB	1.85	L	w [c]	w [c]			None
New Zealand	None							
Norway	NDC	0.94	L	w	w-0.75	2.0	115	
Poland	NDC	0.91	L	w [7]	p [7]	2.92	250	
Portugal	DB	2.3-2 [w]	L	25w/75p	p/GDP [8]		None	
Slovak Republic	Points	1.25	L	w	50w/50p	6.0	700	
Slovenia	DB	0.96	B24	w (d)	w		205	
Spain	DB	1.82 [y]	f25	p	0.25% to p+0.5%		164	
Sweden	NDC	0.95 [w]	L	w	w-1.6 [c]	2.5 +4.5 [9]	105	113/None
Switzerland	DB	[w/a]	L	fr	50w/50p		99	99
Turkey	DB	1.68[w]	L	p+30%GDP	p		349	
United Kingdom	None							
United States	DB	0.75[w]	b35	w [10]	p		226	

Note: Parameters are for 2016 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 = Nonfinancial 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 and 75% of prices for higher pensions.
6. Japan: indexation is to wages until age 67 and to prices after age 68.
7. Poland: valorisation to wage bill growth. Indexation is to price inflation +at least 20% of real growth of average earnings in the previous year.
8. Portugal: indexation will be higher relative to prices for low pensions and vice versa. Indexation will be more generous the higher is GDP growth.
9. 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).
10. United States: earnings valorisation to age 60; no adjustment from 60 to 62; prices valorisation from 62 to 67.

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